

# Exploring English language progress in English-medium instruction (EMI)

---

Čakarun, Kornelija

Doctoral thesis / Doktorski rad

2024

Degree Grantor / Ustanova koja je dodijelila akademski / stručni stupanj: **University of Zadar / Sveučilište u Zadru**

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:162:670738>

Rights / Prava: [In copyright](#) / [Zaštićeno autorskim pravom.](#)

Download date / Datum preuzimanja: **2025-02-23**



**Sveučilište u Zadru**  
Universitas Studiorum  
Jadertina | 1396 | 2002 |

Repository / Repozitorij:

[University of Zadar Institutional Repository](#)

SVEUČILIŠTE U ZADRU

POSLIJEDIPLOMSKI SVEUČILIŠNI STUDIJ  
HUMANISTIČKE ZNANOSTI

**Kornelija Čakarun**

**EXPLORING ENGLISH LANGUAGE PROGRESS  
IN ENGLISH-MEDIUM-INSTRUCTION (EMI): A  
CASE STUDY OF UNDERGRADUATE EMI  
STUDENTS OF ECONOMICS**

**Doktorski rad**

Zadar, 2024.

SVEUČILIŠTE U ZADRU

POS LIJEDIPLOMSKI SVEUČILIŠNI STUDIJ

HUMANISTIČKE ZNANOSTI

**Kornelija Čakarun**

**EXPLORING ENGLISH LANGUAGE PROGRESS  
IN ENGLISH-MEDIUM-INSTRUCTION (EMI): A  
CASE STUDY OF UNDERGRADUATE EMI  
STUDENTS OF ECONOMICS**

Doktorski rad

Mentorica

Prof. dr. sc. Branka Drljača Margić

Komentorica

Prof. dr. sc. Sanja Škifić

Zadar, 2024.

**UNIVERSITY OF ZADAR**  
**BASIC DOCUMENTATION CARD**

**I. Author and study**

Name and surname: Kornelija Čakarun

Name of the study programme: Postgraduate doctoral study in Humanities

Mentor: Professor Branka Drljača Margić, PhD

Co-mentor: Professor Sanja Škifić, PhD

Date of the defence: 22 November 2024

Scientific area and field in which the PhD is obtained: Humanities, Philology

**II. Doctoral dissertation**

Title: Exploring English language progress in English-medium instruction (EMI): A case study of undergraduate EMI students of economics

UDC mark: 811.111:37.015.3

Number of pages: 175

Number of pictures/graphical representations/tables: 1/18/9

Number of notes: 1

Number of used bibliographic units and sources: 150

Number of appendices: 12

Language of the doctoral dissertation: English

**III. Expert committees**

Expert committee for the evaluation of the doctoral dissertation:

1. Associate professor Sandra Tominac Coslovich, PhD, chair
2. Professor Irena Vodopija-Krstanović, PhD, member
3. Professor Marijana Kresić Vukosav, PhD, member

Expert committee for the defence of the doctoral dissertation:

1. Associate professor Sandra Tominac Coslovich, PhD, chair
2. Professor Irena Vodopija-Krstanović, PhD, member
3. Professor Marijana Kresić Vukosav, PhD, member



# SVEUČILIŠTE U ZADRU

## TEMELJNA DOKUMENTACIJSKA KARTICA

### I. Autor i studij

Ime i prezime: Kornelija Čakarun

Naziv studijskog programa: Poslijediplomski sveučilišni studij Humanističke znanosti

Mentorica: Prof. dr. sc. Branka Drljača Margić

Komentorica: Prof. dr. sc. Sanja Škifić

Datum obrane: 22. studenoga 2024.

Znanstveno područje i polje u kojem je postignut doktorat znanosti: Humanističke znanosti, filologija

### II. Doktorski rad

Naslov: Istraživanje jezičnog napretka u engleskome kao jeziku visokoškolske nastave (EJVIN-u): analiza slučaja EJVIN-studenata prijediplomskoga studija ekonomije

UDK oznaka: 811.111:37.015.3

Broj stranica: 175

Broj slika/grafičkih prikaza/tablica: 1/18/9

Broj bilježaka: 1

Broj korištenih bibliografskih jedinica i izvora: 150

Broj priloga: 12

Jezik rada: engleski

### III. Stručna povjerenstva

Stručno povjerenstvo za ocjenu doktorskog rada:

1. Izv. prof. dr. sc. Sandra Tominac Coslovich, predsjednica
2. Prof. dr. sc. Irena Vodopija-Krstanović, članica
3. Prof. dr. sc. Marijana Kresić Vukosav, članica

Stručno povjerenstvo za obranu doktorskog rada:

1. Izv. prof. dr. sc. Sandra Tominac Coslovich, predsjednica
2. Prof. dr. sc. Irena Vodopija-Krstanović, članica
3. Prof. dr. sc. Marijana Kresić Vukosav, članica



## Izjava o akademskoj čestitosti

Ja, **Kornelija Čakarun**, ovime izjavljujem da je moj **doktorski** rad pod naslovom **Exploring English language progress in English-medium instruction (EMI): A case study of undergraduate EMI students of economics** rezultat mojega vlastitog rada, da se temelji na mojim istraživanjima te da se oslanja na izvore i radove navedene u bilješkama i popisu literature. Ni jedan dio mojega rada nije napisan na nedopušten način, odnosno nije prepisan iz necitiranih radova i ne krši bilo čija autorska prava.

Izjavljujem da ni jedan dio ovoga rada nije iskorišten u kojem drugom radu pri bilo kojoj drugoj visokoškolskoj, znanstvenoj, obrazovnoj ili inoj ustanovi.

Sadržaj mojega rada u potpunosti odgovara sadržaju obranjenoga i nakon obrane uređenoga rada.

Zadar, 12. prosinac 2024.

## Table of contents

Acknowledgments	IV
List of figures and tables	V
List of abbreviations	VII
1. Introduction	1
1.1. The aim of the thesis	1
1.2. Thesis outline	2
2. EMI as a global phenomenon	5
2.1. Driving forces	11
2.2. Benefits and challenges of EMI	14
3. Literature review	16
3.1. EMI students' English language proficiency	16
3.2. EMI students' motivation, expectations, views and perceptions	18
3.2.1. Motivation and reasons for enrolment in EMI	18
3.2.2. Expectations of EMI	20
3.2.3. Perspectives on language challenges in EMI	21
3.2.4. Coping strategies	22
3.2.5. The importance of language support	22
4. Second language acquisition	25
4.1. Behaviourist views	25
4.2. Monitor Theory	26
4.3. Interaction and Output Hypotheses	27
4.4. Sociocultural Theory	28
4.5. Language socialisation	29
4.6. Content-based instruction	30
5. The study	32
5.1. The context	32
5.2. Pilot study	35
5.3. Preliminary study	36
5.4. Participants	38
6. Research protocol	41
6.1. Aim and research questions	41
6.2. Research design	42
6.3. Research methods	43
6.3.1. Questionnaire	43

6.3.1.1. Questionnaire for first-year students	44
6.3.1.2. Questionnaire for third-year students	44
6.3.2. Oxford Quick Placement Test	45
6.3.3. C-test	45
6.3.4. Business English test	46
6.3.5. Interviews	46
6.4. Ethical considerations	48
6.5. Data analysis	49
6.5.1. Quantitative data	49
6.5.2. Qualitative data	52
7. Results	53
7.1. Self-assessment and language tests results	53
7.1.1. First-year students	53
7.1.2. Third-year students	54
7.1.3. Comparison	55
7.2. Students' academic skills, motivation, expectations, views and perceptions	58
7.2.1. Students' self-assessment of their academic English language skills	58
7.2.2. Students' reasons and motivation for enrolment in EMI	61
7.2.3. Students' self-perceived English language learning process	64
7.2.4. Students' self-perceived language strengths and weaknesses	67
7.2.5. Students' expectations and expectation fulfilment as regards English language progress	79
7.2.6. Students' views on language support	83
7.2.7. Students' perspectives on the most beneficial classroom activities	86
8. Discussion	89
9. Conclusion	96
References	101
Abstract	115
Sažetak	117
Appendices	128
Appendix 1. Questionnaire for FYS	128
Appendix 2. Questionnaire for TYS	133
Appendix 3. Oxford Quick Placement Test	138
Appendix 4. C-test	148
Appendix 5. Business English test	150
Appendix 6. Interview questions for non-EMI FYS	152
Appendix 7. Interview questions for EMI FYS	154
Appendix 8. Interview questions for non-EMI TYS	156

Appendix 9. Interview questions for EMI TYS	158
Appendix 10. Interviews: A written consent signed by the students	161
Appendix 11. Kernel density estimates and the results of the Skewness/Kurtosis test for normality for all groups and tests	162
Appendix 12. The re-examination of the OPT and the BET results for EMI and non-EMI TYS with the two-sample Wilcoxon rank-sum (Mann-Whitney) test	173
Curriculum Vitae	174
Životopis	175

## **Acknowledgments**

I am grateful to everyone who supported me on this journey and made this research possible. I would like to thank the management of the Faculty of Economics and Business, University of Rijeka, for giving their consent for conducting my research at this institution. I am most grateful to all the students who took part in this research. Without their participation, the research would not be possible. Many thanks also to my co-workers and colleagues who assisted in organizing and conducting the research.

My mentor, Professor Branka Drljača Margić, is an exceptional person to whom I owe my deepest gratitude. Thank you for your will, support and patience. I would also like to give special thanks to my co-mentor, Professor Sanja Škifić, for her assistance and availability. In addition, I sincerely appreciate the help of my colleague, Associate Professor Vinko Zaninović, who provided considerable assistance with the statistical analysis of data.

I would also like to thank Professor Nikola Vuletić, the lead professor of my doctoral studies, and his assistant, Associate Professor Lucija Šimičić, for their guidance and advice.

Finally, I would like to express my gratitude to my family for their love and support.

## List of figures and tables

### Figures

Figure 1. The number of books and articles on EMI published until 2016 and between 2017 and 2024, as registered by Google Scholar in March 2024

Figure 2. Long-term growth of tertiary-level international students worldwide, 1975-2013 (The United Nations Educational, Scientific and Cultural Organization, 2015: 34)

Figure 3. An example of the kernel density estimate for the OPT results of non-EMI FYS

Figure 4. EMI FYS: Self-perceived language strengths when using the English language in general

Figure 5. EMI FYS: Self-perceived language weaknesses when using the English language in general

Figure 6. EMI FYS: Self-perceived language strengths when using the English language for study purposes

Figure 7. EMI FYS: Self-perceived language weaknesses when using the English language for study purposes

Figure 8. EMI TYS: Self-perceived language strengths when using the English language in general

Figure 9. EMI TYS: Self-perceived language weaknesses when using the English language in general

Figure 10. EMI TYS: Self-perceived language strengths when using the English language for study purposes

Figure 11. EMI TYS: Self-perceived language weaknesses when using the English language for study purposes

Figure 12. Non-EMI FYS: Self-perceived language strengths when using the English language in general

Figure 13. Non-EMI FYS: Self-perceived language weaknesses when using the English language in general

Figure 14. Non-EMI FYS: Self-perceived language strengths when using the English language for study purposes

Figure 15. Non-EMI FYS: Self-perceived language weaknesses when using the English language for study purposes

Figure 16. Non-EMI TYS: Self-perceived language strengths when using the English language in general

Figure 17. Non-EMI TYS: Self-perceived language weaknesses when using the English language in general

Figure 18. Non-EMI TYS: Self-perceived language strengths when using the English language for study purposes

Figure 19. Non-EMI TYS: Self-perceived language weaknesses when using the English language for study purposes

## **Tables**

Table 1. EMI situation in Asian polities (Rahman et al., 2008: 1158)

Table 2. English-taught study programmes at the University of Rijeka (Ministarstvo znanosti i obrazovanja, 2024)

Table 3. The comparison of EMI and non-EMI FYSs and TYSs' test results (Čakarun & Drljača Margić, 2021: 5)

Table 4. Participants of the study

Table 5. EMI and non-EMI students' test results at the beginning of their studies

Table 6. EMI and non-EMI students' test results at the end of their studies

Table 7. EMI and non-EMI students' test results at the beginning and the end of their studies: comparison

Table 8. EMI and non-EMI FYS' self-assessment of their academic English language skills

Table 9. EMI and non-EMI TYS' self-assessment of their academic English language skills



## **List of abbreviations**

BET	Business English test
CEFR	Common European Framework of Reference for Languages
CLIL	Content and language integrated learning
EFRI	Faculty of Economics and Business in Rijeka
ELF	English as a lingua franca
ELTDPs	English-language-taught degree programmes
EMI	English-medium instruction
ESP	English for specific purposes
ETPs	English-taught programmes
FYS	First-year students
OPT	Oxford Quick Placement Test
SCT	Sociocultural Theory
SLA	Second language acquisition
TYS	Third-year students

## **1. Introduction**

Given the abundance of terms and acronyms used to refer to English-medium instruction (EMI) (cf. Cicillini, 2021; Pecorari, 2020; Wilkinson, 2017), I would like to specify which terms will be used throughout this thesis at the very beginning. In their systematic review, Macaro et al. (2018: 46) found that “the labels given to the phenomenon of EMI and their definition are inconsistent and problematic”. They note that different labels are used by different authors. However, it is hardly ever explained why a specific label is used. Lasagabaster (2022: 4) points out that “when it comes to terminology, and especially when surrounded by these many different options, researchers should define from the very beginning what they mean”.

In this thesis, the label *English-medium instruction* and the acronym *EMI* will be used, as they have been most widely used in literature (Rose et al., 2023). Macaro et al. (2018: 37) define EMI as “the use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language of the majority of the population is not English”. Although this definition has sparked debate due to the fact that it excludes Anglophone countries and restricts EMI to contexts where English is not the first language of the population, Rose et al. (2023: 545) state that the term English-medium instruction has historically been used and see it as “the established central term that captures marked educational practices of teaching through English”. They also explain that “for researchers looking for a central term, *English medium instruction* offers the most definitional freedom” (Rose et al., 2023: 545), adding that not all contexts are the same and that comparative research is necessary.

### **1.1. The aim of the thesis**

As will be shown in this thesis, English-taught study programmes were introduced in Europe in the 1980s (Wilkinson, 2013) and were encouraged by internationalisation and the wish of higher education institutions to attract foreign students (Dearden, 2014; Macaro et al., 2018; Maiworm & Wächter, 2002; Wächter & Maiworm, 2008, 2014). EMI expanded worldwide rapidly due to the belief that study programmes taught in a foreign language provided many benefits. One of the most prominent benefits of EMI programmes is the advancement of students’ English language proficiency, which is a result of a parallel

acquisition of content and language (Dearden, 2018; Drljača Margić & Vodopija Krstanović, 2017; Galloway et al., 2017; Richards & Pun, 2023; Wilkinson, 2013). Along these lines, Krashen's Input Hypothesis describes the importance of comprehensible input and the focus on understanding the meaning of the message, which supports the acquisition of language (Krashen, 1982). However, in spite of growing research in the field of EMI and the fact that EMI is considered to contribute to the increase in students' English language skills, there is a deficiency in the number of studies investigating the development of EMI students' English language proficiency as a result of studying in English. Additionally, as will be shown in chapter 3 of this thesis, the findings of the studies that have been published are inconsistent: while certain authors claim that there has been an increase in EMI students' English language skills (Cicillini, 2021; Cosgun & Hasırcı, 2017; Li, 2017; Rogier, 2012; Vidal & Jarvis, 2020; Yuksel et al., 2023), others imply that the impact of EMI on students' knowledge of the English language is not as significant as suggested in previous literature (Ament & Pérez Vidal, 2015; Lei & Hu, 2014). In addition, very few studies include a comparison (non-EMI) group of students.

Therefore, the aim of this thesis is to conduct an empirical longitudinal study of the English language progress of students enrolled in an EMI study programme. To be more specific, students' English language knowledge was examined at the beginning and the end of their undergraduate studies with the help of a questionnaire and three language tests. Interviews with students were also conducted in order to gain additional insights into their perceptions, beliefs and attitudes regarding English language learning. In order to provide more objective and reliable results, a comparison (non-EMI) group of students was also included. Hence, the findings of this study will contribute to the scarcely investigated aspect of EMI, extending our knowledge of the impact of EMI, as well as English for specific purposes (ESP), on language learning.

## **1.2. Thesis outline**

The thesis consists of nine chapters. The present chapter clarifies the usage of terminology and the meaning of the term EMI. It also explains the aim of the thesis and describes its outline.

Chapter 2 provides an overview of the spread of English-taught study programmes worldwide and looks into the driving forces behind the introduction of EMI programmes. The benefits and challenges of EMI are also presented here.

Chapter 3 provides a review of extant literature. It is divided into two subchapters. The first subchapter presents the research related to EMI students' English language proficiency. The second subchapter describes EMI students' motivation and reasons for enrolment in English-taught study programmes, their language-related expectations, the language challenges they experience due to studying in English, and their coping strategies for such challenges, as well as views on the importance of language support obtained from the research.

Chapter 4 gives an overview of second language acquisition (SLA) theories which are in line with and support the findings of this thesis. The first subchapter presents behaviourist views. The second subchapter deals with Krashen's Monitor Theory, while the third subchapter looks at Long's Interaction and Swain's Output Hypotheses. The fourth subchapter describes Sociocultural Theory (SCT). The fifth subchapter explains language socialisation and the last subchapter considers the postulates of content-based instruction.

Chapter 5 begins with a description of how the idea for the study emerged and continues with a description of the context in which the study was conducted. It also depicts the pilot study and the preliminary study, which were conducted prior to the present study. The chapter closes with a description of the study participants.

Chapter 6 elaborates on the research protocol. At the beginning of the chapter, the research aim and research questions are presented. Next, the chapter outlines the research design and depicts the research methods, namely the questionnaires and three language tests: the Oxford Quick Placement Test (OPT), the C-test and the Business English test (BET). Finally, the chapter lays out ethical considerations and describes how the quantitative and qualitative data obtained via this research were analysed.

The results of the research are presented in chapter 7. More specifically, the chapter presents the results of the students' self-assessment and language tests taken by students at the beginning and the end of their studies, after which these results are compared. The chapter also describes the self-assessment of students' academic English language skills, students' reasons and motivation for enrolment in the English-taught study programme, their self-perceived English language learning process, their self-perceived language strengths and

weaknesses, their language-related expectations and the fulfilment thereof as regards English language progress, their views on language support and their perspectives on the most beneficial classroom activities.

Chapter 8 discusses the main findings of the thesis and brings them into relation with other relevant findings which have so far been presented in literature.

Chapter 9, the concluding chapter, answers the research questions, offers concluding remarks and suggests future actions regarding research on EMI students' English language proficiency.

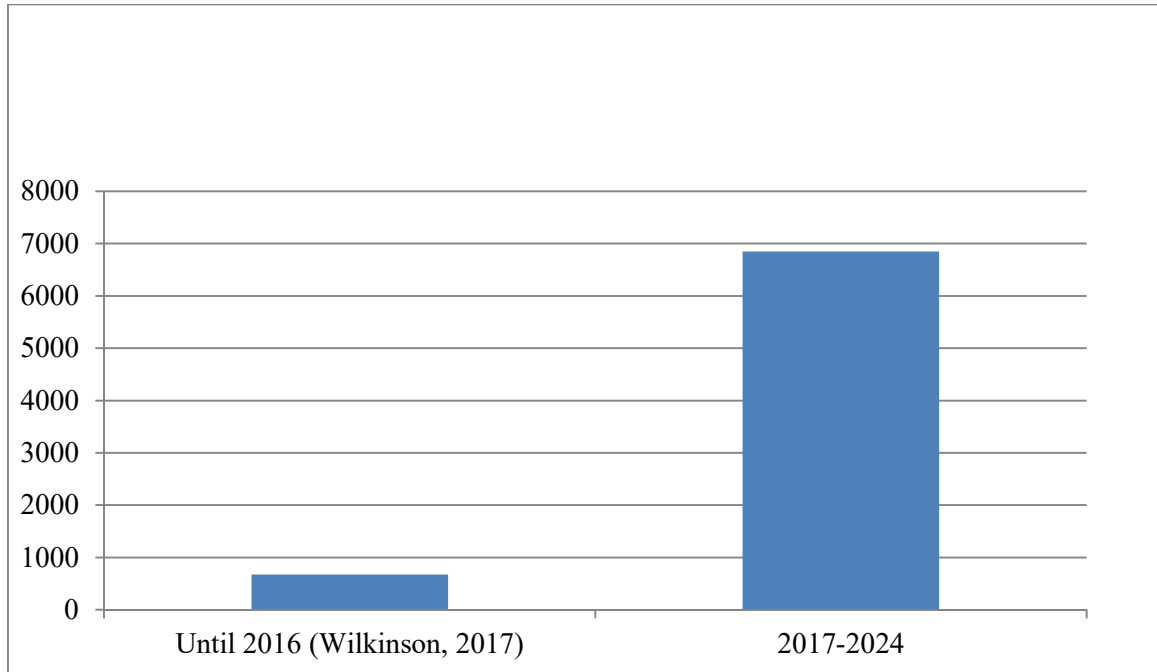
## **2. EMI as a global phenomenon**

The purpose of this chapter is to describe the spread of English-taught study programmes worldwide and investigate the driving forces behind the introduction of EMI. The chapter also looks into the benefits and challenges of EMI.

An often-cited quote best explains the nature of EMI, stating that EMI is a “rapidly growing global phenomenon” (Dearden, 2014: 2). Macaro et al. (2018: 45) also explain that “EMI is a relatively new but rapidly growing field of academic endeavour”. They found that the first study in the field of EMI was a doctoral thesis written by Vinke (1995). They also found that only five studies were published between 1995 and 2005, followed by 14 studies published between 2006 and 2010. A larger number of studies (63) were published in the period between 2011 and 2015. Among them, 19 were published solely in 2014. Bolton et al. (2024: 2) found 59 “book-length” studies, all published from 2013 onwards, and concluded that “75% of the books on this topic have appeared only in the last five years, reflecting the recent, growing interest in this field“. Similar research was conducted by Wilkinson (2017). He carried out a search on Google Scholar and found that 550 articles and books on EMI were published between 2010 and 2016. He further notes that, when the search is extended to a ten-year period (that is, from 2006 to 2016), only 50 more appear, and a further 72 can be found if there are no limitations in terms of publication dates. Building upon Wilkinson’s search, I investigated how many papers on EMI were published between 2017 and 2024. Following his method, I conducted a search on Google Scholar in March 2024 and found that 6850 books and articles on EMI were published in this seven-year period, which is an increase of approximately 1145%. This demonstrates a rapid rise in interest in the field of EMI, as shown in Figure 1.

**Figure 1**

*The number of books and articles on EMI published until 2016 and between 2017 and 2024, as registered by Google Scholar in March 2024*



As for the expansion of EMI programmes, two studies have tried to depict it on a global scale. The first was conducted by Dearden (2014). The study included 55 countries from Europe, Asia, Africa and South America and covered EMI at all educational levels: primary, secondary and tertiary. The results show that “there is more EMI reported at tertiary level than at secondary level“, and that “there is more EMI at secondary level than at primary level” (Dearden, 2014: 9). Additionally, EMI programmes are reportedly more common in the private sector.

The second study was conducted by the British Council (2021). The findings point to 27,874 EMI programmes worldwide, with the exception of the USA, the UK, Canada and Australia, which is a rise of 77% in relation to findings from 2017 (British Council, 2021).

Maastricht University is one of the first institutions to have introduced an English-taught study programme (Hultgren & Wilkinson, 2022; Macaro, 2018; Wilkinson, 2013). Wilkinson (2013) describes the introduction of a first-degree programme in International Management in English in the mid-1980s. In the following years, the number of students enrolled in this English-taught programme grew, and other programmes at the University also

started to be taught in English. Over time, other universities in the Netherlands followed their example and introduced EMI programmes.

This practice was followed elsewhere in Europe, especially in the Nordic countries. Three studies conducted by Wächter and Maiworm (Maiworm & Wächter, 2002; Wächter & Maiworm, 2008, 2014) show the development and the growth of EMI programmes in Europe. The first study was conducted in 2001/2002, and showed that, at the time, there were 725 English-language-taught degree programmes (ELTDPs) offered by higher education institutions throughout Europe (Maiworm & Wächter, 2002). The highest number of ELTDPs was conducted in Germany (180), followed by the Netherlands (115) and Finland (85). Additionally, a higher number of ELTDPs in Belgium, Sweden, Denmark and Norway was noted. The second study was conducted five years later (Wächter & Maiworm, 2008), the findings of which revealed that there were 2389 study programmes taught in English. This time, the highest number of ELTPDs was carried out in the Netherlands (774), followed by Germany (415), Finland (235) and Sweden (123). The third study was conducted in 2014 (Wächter & Maiworm, 2014), when 8089 study programmes taught in English were reported. Again, the highest number of English-taught programmes (ETPs) was reported by the Netherlands (1078), followed by Germany (1030), Sweden (822), France (499) and Denmark (494). However, in this study, some countries which had fewer ETPs in the earlier studies, such as Poland and Estonia, reported above-average growth rates, which points to the “traditional ETP leaders in Central West Europe and Nordic countries”. Nevertheless, “players from Central East Europe and, in particular, the Baltic states are catching up fast” (Wächter & Maiworm, 2014: 16). The authors also report a rise of 239% in the number of ETPs between 2007 and 2014. According to the British Council (2021), there were 17,562 EMI programmes in Europe (that is, within the European higher education area) in 2021, with 2007 programmes in the Netherlands, 1892 in Germany, 1080 in France and 1077 in Spain.

As for Croatia, Drljača Margić and Vodopija-Krstanović (2020) report 56 EMI study programmes in 2018, seven of which were at the University of Rijeka, where the present study was conducted. According to the Ministry of Science and Education (2024), there are currently 130 EMI study programmes in Croatia, 18 of which belong to the University of Rijeka. At the University of Rijeka, EMI was first mentioned in the University of Rijeka Strategy 2007-2013 (Sveučilište u Rijeci, 2007), where one of the main goals was to increase the number of study programmes in a foreign language to ten. In the University of Rijeka



2014-2020 Strategy (Sveučilište u Rijeci, 2014), this number was increased to 20, while the University of Rijeka Strategy 2021-2025 (Sveučilište u Rijeci, 2021) envisions a 150% increase in study programmes in a foreign language.

Other continents have also witnessed an expansion of EMI programmes. However, there is a lack of large-scale studies, such as the above-mentioned studies conducted in Europe. As for Asia, the British Council (2021) reports 3389 EMI programmes in the Chinese region, 1851 EMI programmes in East Asia and 1011 EMI programmes in South Asia. Walkinshaw et al. (2017) attribute the rise in usage of English in Asia to the establishment of the Association of South-East Asian Nations and the Asia-Pacific Economic Cooperation, as well as to the membership of Asian Pacific countries in the World Trade Organisation. According to the authors, these circumstances provided a basis for the growing demand for increased English language competence within the workforce, which also boosted the expansion of EMI programmes at tertiary institutions in the Asia-Pacific. The authors also note the influence of internationalisation and give the examples of Indonesia, China and Japan, where governments and/or specific ministries implement measures to promote EMI programmes. Similar findings were reported by Macaro et al. (2018) and Galloway et al. (2017). Macaro et al. (2018) describe the growth in EMI programmes in China and Japan, encouraged by the measures undertaken by the respective ministries of education, whereas Galloway et al. (2017: 11) note that the introduction of EMI programmes in these two countries is “closely related to the government objectives to improve English proficiency”. Macaro et al. (2018) also depict the increase in EMI programmes in Taiwan (from 2000 onwards) and Korea (from 2006 onwards). In addition to this, Barnard (2014) describes the introduction of EMI programmes in Vietnam and Malaysia in the early 21<sup>st</sup> century. Rahman et al. (2018: 1158) provide an overview of EMI in Asia, explaining that the described contexts “represent much of Asia’s HE”.

**Table 1***EMI situation in Asian polities (Rahman et al., 2008: 1158)*

<b>Country</b>	<b>EMI situation</b>
Bangladesh	All private universities have adopted EMI as their <i>de facto</i> medium of instruction. In contrast, public universities have maintained the university act of 1974, in line with the nation's political desire to promote Bengali to consolidate a newly born nation in 1971 (Banu & Sussex, 2001), where Bengali was recognized in HE as the medium of instruction with few exceptions (Hamid, Jahan, & Islam, 2013; Hamid & Kirkpatrick, 2016; Islam, 2013).
China	The leading Chinese universities have adopted EMI for many of their disciplines in order to attract international students in China. Chinese EMI programs are not designed for language education but for majors like computer science, engineering, business, medicine, etc. (Botha, 2015; Hu, 2009)
Malaysia	English is not officially recognized but it is the <i>de facto</i> choice of MOI in HE in Malaysia (Gill, 2014). All the private universities have adopted EMI. Although Malay remains the MOI in public universities, among 20 public universities, due to heavy pressure to internationalize the HE, most of them have adopted or are in the process of adopting EMI (Ali & Hamid, 2018).
Pakistan	English in Pakistan has been and arguably will remain the primary MOI in institutions of HE for the foreseeable future (Mahboob, 2017). However, it does not guarantee the undisputable nature of the policy, since the language proficiency of the learners in Pakistan still remains under the standard level. Besides, as English remains the doorkeeper of success in HE, the desire of educating children in English-medium schools remains high across social levels (Mansoor, 2005).
Thailand	Being an outer circle English speaking country, Thailand has been implanting English in every domain of education, including HE. Most of their public funded universities are currently focusing to enhance their international outlook and generate an English skilled workforce for the

	nation (Thitthongkam & Walsh, 2011).
Saudi Arabia	Although Saudi Arabia primarily focused on EMI for the health care sector, Suliman and Tadros (2011) noticed that recent innovation by the Saudi Ministry of Education (MoE, 2013) emphasized English language proficiency as one of its major eleven goals. On that note, most of the universities have adopted EMI (McMullen, 2014).
South Korea	Now with the goal of internationalization of HE (Ministry of Education, 2016), more and more universities have been incorporating EMI (Kim & Tarar, 2018). As of 2013, EMI programs are available in the majority of the 420 South Korean universities which compete with one another to enhance their yearly international rankings (Piller & Cho, 2013).
Vietnam	After the commencement of the “National Foreign Language 2020 Project” in 2008, at least 70 universities have introduced EMI programs to adapt the global pace of internationalization in HE and to give tertiary students in Vietnam better opportunities to work and study abroad (Hamid et al., 2013).

Regarding Africa, the data are rather limited (cf. Lasagabaster, 2022; Macaro et al., 2018). Africa has been more exposed to English due to historical British colonization. In some states, English is the official language and several English dialects are present on the continent (Tamtam et al., 2012). Macaro et al. (2018) did not find any studies related to EMI at the tertiary level in Africa; they found only 14 studies related to EMI at the secondary level and two studies related to the primary level of education. Dearden (2014) notes that there are EMI programmes implemented at both public and private universities in Ethiopia, Ghana, Mauritius and Zambia, and the British Council (2021) mapped 2253 EMI programmes in Sub-Saharan Africa.

Research in Latin America has also been scarce (Lasagabaster, 2022; Macaro et al., 2018; Tejada-Sánchez & Molina-Naar, 2020). The British Council (2021) identified 494 EMI programmes in the Americas, indicating that the number of EMI programmes in this area is smaller than on other continents. In Latin America, EMI seems to be a relatively new endeavour (British Council, 2021; Martinez, 2016). Martinez and Fernandes (2020) state that the first EMI programmes in Brazil were prompted by the Brazilian Ministry of education and that “there is little evidence that courses taught in English existed prior to 2010” (Martinez &

Fernandes, 2020: 126). Sah (2022) adds that nowadays universities in Brazil receive money from the government for the implementation of EMI.

## **2.1. Driving forces**

Internationalisation is believed to be one of the key reasons for the introduction of EMI programmes. Knight (2003: 2) defines internationalisation as “the process of integrating an international, intercultural, or global dimension in the purpose, functions, or delivery of postsecondary education”. In the context of EMI in higher education, internationalisation is closely related to the need to attract foreign students (Macaro et al., 2018). As Dearden (2014: 16) explains:

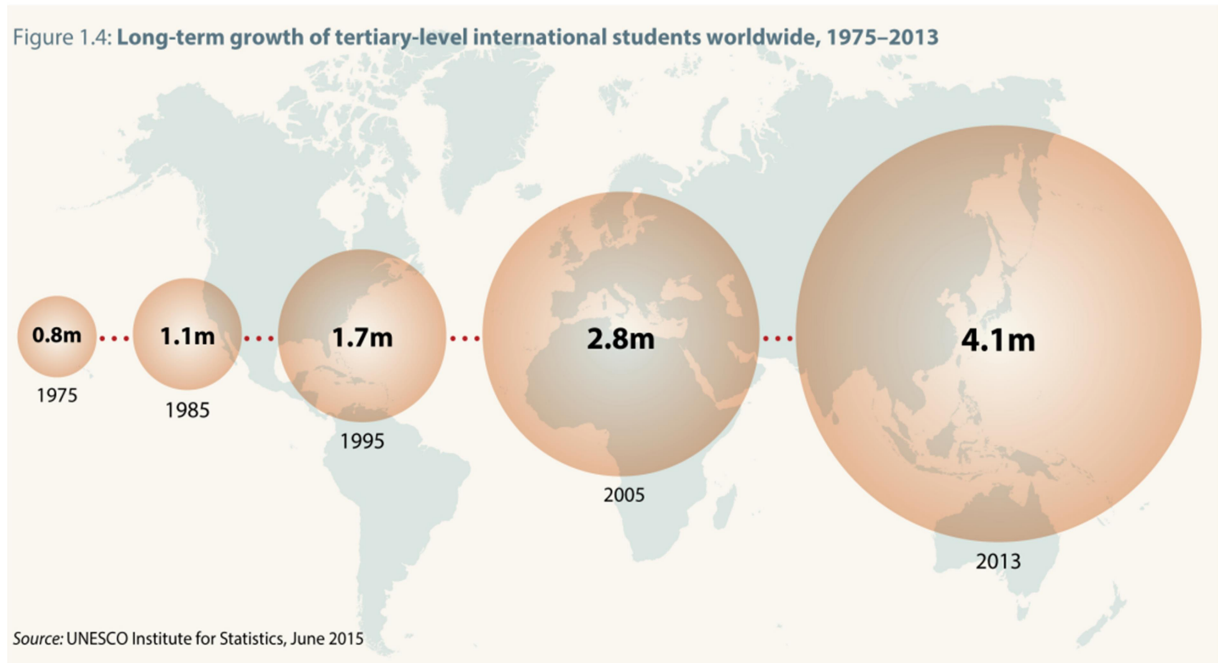
Policy makers consider EMI as a mechanism for internationalising their education offer, creating opportunities for students to join a global academic and business community. They see EMI as a way of rapidly increasing international mobility. Some see EMI as a way to build the English language capacity of their home country and ensure that their home students can compete in a world market.

Similar reasons for offering EMI programmes are stated in Wächter and Maiworm’s studies (Maiworm & Wächter, 2002; Wächter & Maiworm, 2008, 2014). In all three studies, the primary motive for the introduction of EMI programmes is the attraction of foreign students, and the second reason is preparing domestic students for the global/international labour market. The third reason often mentioned in their studies is the enhancement of the international profile of the institution.

According to The United Nations Educational, Scientific and Cultural Organization (2015), the number of international students on a global level increased from 2.8 million students in 2005 to 4.1 million in 2013. It is stated that this increasing mobility, especially at the doctoral level, “is perhaps one of the most important trends of recent times” (The United Nations Educational, Scientific and Cultural Organization, 2015: 34).

## Figure 2

*Long-term growth of tertiary-level international students worldwide, 1975-2013 (The United Nations Educational, Scientific and Cultural Organization, 2015: 34)*



According to the UNESCO Institute for Statistics, which provides data on international student mobility in tertiary education, the number of internationally mobile tertiary students studying abroad at the global level was 6,859,426 in 2022 (UNESCO Institute for Statistics, 2024).

Knight (2005: 9) underlines the rise in student mobility, which “increases the need to develop greater intercultural understanding and communication skills”. In Europe, the Bologna Declaration, brought by the European Ministers of Education in 1999 and built on the Sorbonne Declaration from 1998, emphasises the creation of the European higher education area, stressing that “higher education and research systems (need to) continuously adapt to changing needs, society’s demands and advances in scientific knowledge” (The European Higher Education Area, 1999: 2). The Declaration promotes the mobility of students, teachers, researchers and administrative staff, as well as “the necessary European dimensions in higher education, particularly with regards to curricular development, interinstitutional co-operation, mobility schemes and integrated programmes of study, training and research” (The European Higher Education Area, 1999: 4). Although the Declaration

does not specifically mention any language which should be used as *universal*, Bamond Lozano and Strotmann (2015) explain that, when choosing the country of study, the language of instruction is one of the most important factors for students. Consequently, higher education institutions from non-English speaking countries have responded to this demand by offering study programmes in English. Block (2021: 4) believes that “internationalisation inevitably means Englishisation”. Wilkinson and Gabriëls (2021: 14) define Englishisation as “the process in which the English language is increasingly gaining ground in domains where another language was previously used”, which is in line with Altbach (2007: 3608), who describes the domination of the English language and its presence in different contexts, stating that it is “the main international academic language”, which became “a key means of internationalising, competing and becoming ‘word class’”. A crucial aspect of the Englishisation of higher education institutions, according to Block (2021), is English-medium instruction. Likewise, Macaro and Akincioglu (2018: 256) note that “EMI is inextricably linked to the establishment of English as an international language of communication resulting in greater student mobility across countries (a phenomenon referred to as ‘internationalisation’) leading to the need for the Medium of Instruction (MOI) to be English”. Bolton et al. (2024) also note that EMI became more prominent in Europe after the publication of the Bologna declaration and the formation of international rankings for universities in the early 2000s.

Hultgren and Wilkinson (2022), however, argue that higher education governance reforms are the actual drivers of the emergence of EMI. They describe the case of a university in the Netherlands (see the introduction of this chapter) and explain that governance reforms in the Netherlands led to a greater autonomy of higher education institutions and that the introduction of an English-taught programme at this university was triggered by political reasons. It was concluded that the number of Dutch students enrolled in the programme was insufficient and that the programme would be offered in English in order to attract students from neighbouring countries. In his interview with the authors, Jo Ritzen, the former Dutch Minister of Education, says that “the Netherlands has one of the most autonomous university systems that contributed to the Dutch taking a lead in the use of English in universities” (Hultgren & Wilkinson, 2022: 54).

## 2.2. Benefits and challenges of EMI

EMI is regarded to offer many benefits. As for universities, it is believed that EMI enhances internationalisation (Dearden, 2014; Galloway et al., 2017; Drljača Margić & Vodopija Krstanović, 2017), attracts international students (Galloway et al., 2017; Richards & Pun, 2023), increases university rankings and prestige (Bolton et. al, 2024; Richards & Pun, 2023; Wilkinson, 2013), and promotes the competitiveness of universities (Galloway et al., 2017; Richards & Pun, 2023; Wilkinson, 2013). The greatest perceived benefit for students attending EMI programmes is the improvement of their English language skills, that is, the development of their English language proficiency due to the parallel acquisition of content and language (Dearden, 2018; Drljača Margić & Vodopija Krstanović, 2017; Galloway et al., 2017; Richards & Pun, 2023; Tatzl, 2011; Wilkinson, 2013). It is believed that students acquire the language incidentally due to studying in English (Dearden, 2018), that is, that the language is acquired due to everyday exposure (Rogier, 2012). Students are also believed to develop greater intercultural awareness due to studying in English (Galloway et al., 2017; Richards & Pun, 2023). Another perceived benefit refers to students' enhanced career opportunities, which is linked to the improvement of their English language skills (Drljača Margić & Vodopija Krstanović, 2017; Galloway et al., 2017; Kym & Kym, 2014; Tatzl, 2011). As for teachers, EMI "creates jobs" (Galloway et al., 2017: 6) and provides more employment opportunities. It is also believed that EMI can lead to teachers' professional improvement and improved teaching competences, as well as their "international visibility and recognition" (Drljača Margić & Vodopija Krstanović, 2017: 14).

However, despite the many benefits of EMI, there are also numerous challenges. Some of the greatest challenges are issues related to language, such as limited English language knowledge for both students and teachers, domain loss and specific challenges related to communication in English in students' respective fields of study (cf. Cicillini, 2021; Drljača Margić & Vodopija Krstanović, 2017; Galloway et al., 2017; Wilkinson, 2013). Students may not be well prepared for EMI (Drljača Margić & Vodopija Krstanović, 2017; Hu et al., 2014; Huang, 2015), and studying in a foreign language can have a negative effect on content learning (Galloway et al., 2017; Hu et al., 2014; Wilkinson, 2013). Additionally, studying in English is considered to have a negative impact on the use and status of the native language (Galloway et al., 2017; Phillipson, 2015; Wilkinson, 2013). The findings of several studies also point to increased student workload (Aizawa et al. 2023; Atlı & Özal, 2017; Byun et al.,

2011; Drljača Margić & Vodopija Krstanović, 2017; Kim & Yoon, 2018; Kirkgöz, 2014; Moratinos-Johnston et al., 2019; Tatzl, 2011). Similar concerns are expressed when it comes to teachers. It is considered that an insufficient development of their English language skills can have a negative impact on teaching (Drljača Margić & Vodopija Krstanović, 2017) and that there should be adequate support for both teachers and students (Galloway et al., 2017). What is also found somewhat challenging is what kind of English should be used in EMI. Jenkins (2019) emphasises that the English used in EMI is not native or native-like, but English as a lingua franca (ELF). She criticises the assumption that in university settings English should be a native variety, and states that EMI settings are essentially ELF settings, and that the E in EMI should be defined as English as a lingua franca in academic settings. In a similar vein, Kirkpatrick (2014) notes that EMI programmes based on a native speaker model ignore the fact that nowadays “English is no longer the exclusive possession of native speakers” (Kirkpatrick, 2014: 9) and that there is a great number of multilinguals, who have learned English, but it is not their mother tongue. Dearden (2014) and Macaro et al. (2018) point out that a consensus is needed regarding the kind of English that should be used in EMI settings.

This chapter has depicted the expansion of EMI worldwide, presented the driving forces that lie behind the introduction of English-taught programmes, and described the benefits and challenges of EMI in general. The next chapter presents a review of relevant literature. Research on EMI students’ English language proficiency will be described, as well as research on EMI students’ motivation and reasons to enrol in English-taught study programmes, their expectations of EMI, the language challenges they experience due to studying in English, their coping strategies as well as views on the importance of language support obtained from the research.



### **3. Literature review**

The aim of this chapter is to provide an overview of the most relevant findings from literature, which will serve as theoretical support to the findings presented in this thesis. The chapter is divided into two subchapters. Subchapter 3.1. is an overview of literature on EMI students' English language proficiency, while subchapter 3.2. presents research related to EMI students' motivation and reasons for enrolment in EMI, their language-related expectations of EMI, their views on language challenges experienced due to studying in English and the coping strategies they employ during their studies. Finally, the subchapter conveys views on the importance of language support obtained from the research.

#### **3.1. EMI students' English language proficiency**

As explained in subchapter 1.1., not many studies look into the progress of EMI students' English language skills, and existing studies have inconsistent findings. Cicillini (2021) conducted a longitudinal study investigating the improvement in EMI students' English language proficiency during two academic years, with a focus on students' receptive skills. For the purposes of data collection, the author of the study designed three questionnaires and two language tests. The results of the language tests point to a statistically significant improvement in students' reading skills. Although their general final mean scores were increased, there was a decrease in the development of their listening skills. This is thus partially in line with the qualitative data collected via questionnaires, where students self-assessed the development of their receptive skills and believed that both their reading and listening skills had improved throughout their course of study. The author concludes that the development of students' reading skills was incidental and explains that students "did not put much effort in it, except for their personal habits which included watching movies, listening to podcasts and reading books in English" (Cicillini, 2021: 238). It is also worth mentioning that the students had language support, that is, an ESP course in their first year, although they found it too short. Cosgun and Hasirci (2017) also carried out a longitudinal study in which they examined EMI students' English language skills at the beginning of their studies and their level of English after four to eight semesters at university. Data were collected by means of the institution's proficiency exam, the aim of which is to test students' general proficiency, that is, their reading, writing and listening skills for academic purposes. The findings reveal

that students' general proficiency improved, as well as their reading and listening skills. All improvements were proven to be statistically significant. Writing scores, on the other hand, decreased. In addition, most of the students (62%) who participated in the study perceived that their general English language proficiency had improved throughout their course of study, with more than 70% of participants believing in the improvement of their reading and listening skills, and 53.8% feeling that their writing skills had improved. Li (2017) looked into whether the students who attended an EMI course in a social science major were able to improve their content knowledge and their English language proficiency. The author measured students' English vocabulary range, morphological awareness and reading comprehension by using a standardised test for vocabulary and reading comprehension and a test previously introduced in the literature to measure students' morphological awareness. Students were tested at the beginning and the end of the semester, and the differences between the test results were significant in all three categories. Students also perceived that their English language skills had improved due to studying in English. Conversely, they were not as satisfied with the acquisition of the content, which they explained was due to language challenges. The author, however, emphasises that there was no comparison (non-EMI) group and that therefore "a strong conclusion that the EMI program improved the students' English proficiency cannot be made" (Li, 2017: 158). Rogier (2012) conducted a longitudinal study with the aim of examining EMI students' English language skills after four years of studying in English. She used the IELTS exam and found that all four English language skills (speaking, listening, reading and writing) were improved and that all the improvements were statistically significant, with the greatest progress in the area of speaking. Vidal and Jarvis (2020) investigated the impact of EMI on students' English language proficiency, essay quality and lexical diversity. The Oxford Placement Test was used to measure students' language proficiency, and participants were asked to write an essay, which was used for assessing essay quality and lexical diversity. The findings point to an increase in students' English language proficiency (students advanced from B2 to C1 level from their first to their third year of study). However, the lexical diversity of third-year students' essays was not greater than that of first-year students. The authors explain that this might be due to exposure to "the academic and technical vocabulary of their field of study rather than to the more general type of vocabulary appropriate for responding to the essay prompt used in the present study" (Vidal & Jarvis, 2020: 13). As for essay quality, there was a significant, albeit slight,

difference. Yuksel et al. (2023) inquired into whether there was an increase in EMI students' English language skills after four years of EMI. A general English language proficiency test, which was an adjusted version of the Cambridge Preliminary English Test, was used in order to assess students' language skills (reading, writing, listening and speaking). The data indicate a statistically significant increase in students' general English language proficiency after four years of EMI.

Regarding the studies including a comparison group, Ament and Pérez Vidal (2015) analysed the English language proficiency of two groups of students: an immersion group, where the students were taught entirely through EMI, and a semi-immersion group, where the students had 18 to 41% of EMI courses. The students were tested at the beginning and the end of one academic year. In addition to an online questionnaire, the students were asked to complete three tests: listening comprehension, a cloze test and a sentence manipulation task. The findings point to similar mean gains for both groups of students. Although both groups showed improvements in all tests except for the listening comprehension, the results were statistically significant only for the semi-immersion group. Lei and Hu (2014) compared the English language proficiency of students attending English-medium (EM) and Chinese-medium (CM) programmes. At the end of their freshman year, students took the College English Test Band 4, and at the end of their sophomore year, they took the College English Test Band 6. The authors conclude that “the EM students did not outperform their CM peers on CET 6 after receiving EMI for one year” and that the “EM program was not effective in improving students' English proficiency” (Lei & Hu, 2014: 118).

## **3.2. EMI students' motivation, expectations, views and perceptions**

This subchapter gives an overview of literature concerning EMI students' reasons and motivation for enrolment in an EMI study programme, their language-related expectations, the language challenges they experience due to studying in English and their coping strategies, as well as views on the importance of language support obtained from the research.

### ***3.2.1. Motivation and reasons for enrolment in EMI***

When it comes to EMI students' motivation for enrolment in EMI, several authors describe their high(er) motivation. For instance, Chen and Kraklow (2015: 59) explain that

“students with relatively high English proficiency may be more highly motivated to join programs that offer opportunity to interact using English. In turn, the EMI environment further enhances students’ motivation to become more proficient with English to achieve academic success”. The authors believe that the fact that EMI students choose an EMI programme is already a sign of higher motivation in comparison to non-EMI students. Rose et al. (2020: 13) explain that “more motivated students may self-select to take part in content study in English, and this motivation may play a role in their success”. Similarly, Turhan and Kirkgöz (2018) conducted a study among students from four different generations and found that first-year students had the highest motivation for EMI, although the differences among groups were not statistically significant.

Regarding students’ reasons for enrolment in EMI, as reported in extant literature, two main reasons are to continue their education abroad and to boost their career prospects (Chen & Kraklow, 2015; Cicillini, 2021; Collins, 2010; Drljača Margić, 2021; Drljača Margić & Vodopija Krstanović, 2017; Drljača Margić & Žeželić, 2015; Ekoç, 2020; Fernández-Costales, 2017; Fidan Uçar & Soruç, 2018; Hu et al., 2014; Iwaniec & Wang, 2022; Jiang & Zhang, 2019; Kim & Yoon, 2018; Kirkgöz, 2005; Kirkgöz, 2014; Kuchah, 2016; Sahan & Şahan, 2024). Another important reason for being involved in EMI is the enhancement of students’ English language skills (Cicillini, 2021; Drljača Margić, 2021; Drljača Margić & Vodopija Krstanović, 2017; Drljača Margić & Žeželić, 2015; Fernández-Costales, 2017; Fidan Uçar & Soruç, 2018; Huang, 2015; Iwaniec & Wang, 2022; Kim & Yoon, 2018; Kirkgöz, 2014; Macaro & Akincioglu, 2018; Pun et al., 2022; Sahan & Şahan, 2024; Turhan & Kirkgöz, 2018), which is a crucial prerequisite for the first reason. Advanced English language skills are believed to contribute to easier access to the scientific field of students’ interests (Fidan Uçar & Soruç, 2018; Huang, 2015; Kirkgöz, 2005; Sahan & Şahan, 2024). In addition, studying in English enables communication with international students and people from different cultures (Cicillini, 2021; Iwaniec & Wang, 2022). Some authors report that their participants believe it is more prestigious to study in English (Lueg & Lueg, 2015; Sahan & Şahan, 2024; Wilkinson, 2013; Wilkinson & Gabriëls, 2022.). Lueg and Lueg (2015) and Wilkinson and Gabriëls (2022) note that students from high (*elite*) society are more likely to enrol in an English-taught study programme and perceive the benefits of EMI in terms of their future career development. Similarly, Sahan and Şahan (2024) and Wilkinson (2013) describe

the beliefs of students who perceive studying in English as a passport to the elite due to the fact that they will be able to develop international careers and act globally.

### ***3.2.2. Expectations of EMI***

Students who decide to study in English often have certain language-related expectations. Thus, the participants in Muttaqin and Chuang's study (2022) expect the improvement in their English language skills due to attending an EMI programme. They anticipate increased interactivity during classes and an increased usage of the English language both inside and outside class. Additionally, they expect the EMI programme to prepare them to continue their studies or start their careers abroad. In Rose et al.'s study (2020), the participants expect to improve their English language skills, as well as increase their content knowledge, which would eventually enable them to start their careers abroad. In a study conducted by Yang (2017), 75.5% of students expect to improve their business English language, 42.9% their academic English competences and 46.9% their general English language. In addition to that, regarding the development of their language skills, the greatest number of students (75.5%) expects to develop their listening skills the most. Cicillini (2021) examined the expectations of students at the beginning and the end of their first year of study. At the beginning, around 60% of students expected their English to improve due to studying in English. They also expected their content teachers to have a high command of English. The findings of the study suggest that their expectations, especially considering their teachers' English language proficiency, were not fully met. Similarly, Barrios et al. (2016) note that participants in their study decided to attend English-taught courses due to their expectations of improving their level of English and enhancing their career opportunities. However, at the end of that academic year, they explained that their expectations had not been fulfilled. In particular, they criticised a certain teacher's English language knowledge as unsatisfactory, and expressed the opinion that not enough English was used during classes (the teacher often used their mother tongue). Li (2017) also reports on high expectations of students concerning the teacher's English language knowledge. Lei and Hu (2014) explain that the general expectations regarding EMI are the development of students' English, and increased interest in the English language. However, the students participating in their study state that, in their case, those expectations were not fulfilled. They find the discipline-specific content challenging, and believe that both students and teachers have limited English

language knowledge, which hampers further development of students' language skills. These findings might be in line with Delicado-Puerto et al. (2022), who warn that students' expectations are often unrealistic.

### ***3.2.3. Perspectives on language challenges in EMI***

Although EMI is considered to provide many benefits, there are numerous studies reporting on challenges experienced by students due to studying in a foreign language. The findings of some studies reveal that students feel that greater English language proficiency is necessary for tackling their studies successfully (Aizawa et al., 2023; Byun et al., 2011; Collins, 2010; Kim et al., 2016). In a similar vein, students participating in a study conducted by Ekoç (2020) explain that language-related challenges stem from the low English language proficiency of both teachers and students. Hence, they hold that learning in a foreign language is more demanding than learning in their native language. Similar students' perceptions were also noted by Kim and Yoon (2018). Likewise, the students in Collins' study (2010) believe they would be more successful if they studied in their mother tongue. Kim et al. (2016) compared the students attending English-taught and Korean-taught classes and explained that those respondents who opted for Korean-medium instruction did so primarily due to language concerns, that is, they felt more comfortable using Korean.

Several studies report on challenges regarding the understanding and acquisition of discipline-specific vocabulary (Kirkgöz, 2014; Kym & Kym, 2014; Pun et al., 2022; Rose et al., 2020). Hu et al. (2014: 34) mention "reduced content learning" due to language challenges. Students from Fidan Uçar and Soruç's study (2018) note challenges with understanding lectures, leading to surface memorisation. Additionally, they explain that studying in a foreign language is more time-consuming and that they have problems with expressing themselves well in class. Similar observations were made by Drljača Margić and Vodopija-Krstanović (2017), who additionally quote students' comments regarding a lack of familiarity with discipline-specific vocabulary in students' native language. Alhassan et al. (2021) describe several challenges reported by students enrolled in an EMI programme. Students had difficulties adapting to EMI and expressed their belief that a lack of business background led to weaker academic performance. In addition, students reported communication and comprehension issues, emphasising problems with spoken production,

writing and listening. Hu and Lei (2014) note that the students involved in their study tended to avoid discussions during classes due to lower English language proficiency levels.

#### ***3.2.4. Coping strategies***

Several studies report on the fact that EMI students employ different strategies which help them cope with the language challenges and difficulties they experience due to studying in English. One of the most prominent coping strategies seems to be the use of the mother tongue and translanguaging (Alhassan et al., 2021; Ali, 2020; Cicillini, 2021; Fang & Hu, 2022; Hu & Lei, 2014; Hu et al., 2014; Jiang et al., 2016; Muttaqin & Chuang, 2022; Pun et al., 2022; Yang et al., 2019), which leads to a better understanding of the content (Ali, 2020; Hu & Lei, 2014; Hu et al., 2014). Mother tongue is often used in teacher-student interactions, but also among students (Ali, 2020; Cicillini, 2021). In addition to this, websites, online applications and dictionaries are also used for translating unknown discipline-specific terminology (Ali, 2020; Jiang & Zhang, 2019; Muttaqin & Chuang, 2022; Wilang, 2022). Hu et al. (2014) and Yang et al. (2019) maintain that students resort to textbooks written in their mother tongue in order to “make sense of the EMI lectures” (Hu et al., 2014: 35), particularly at the beginning of their studies. Several authors argue that these coping strategies are employed due to limited language support provided to students studying in English (Fang & Hu, 2022; Muttaqin & Chuang, 2022). Ali (2020: 371) also mentions “peer, group and family support” and describes the experiences of students whose friends and family members helped them with study-related assignments. Similar observations were made by Moratinos-Johnston et al. (2019) and Wilang (2022), who describe students helping each other. Additional (private) English language classes are also mentioned as a coping strategy (Ali, 2020; Muttaqin & Chuang, 2022), as well as reading the materials in preparation for classes (Ali, 2020; Hu & Lei, 2014; Hu et al., 2014; Jiang & Zhang, 2019; Moratinos-Johnston et al., 2019; Wilang, 2022; Yang et al., 2019).

#### ***3.2.5. The importance of language support***

As explained in the second chapter of this thesis, although EMI students’ language progress is expected as a result of studying in English, language support is not (always) integrated in EMI. Language challenges seem to be “major barriers to successful

implementation of EMI” (Galloway & Rose, 2021: 35). Therefore, researchers in the field of EMI increasingly warn of the need for and benefits of language support for EMI students. Aizawa (2024), Alhassan et al. (2021), Arnó-Macià et al. (2020), Barrios et al. (2016), Cosgun and Hasırcı (2017), Costa and Mastellotto (2022), Galloway and Rueg (2020), Kym and Kym (2014), Rose et al. (2023), Sahan and Şahan (2024) and Wilang (2022) believe that language support in EMI is necessary in order to enhance EMI students’ English language knowledge, enabling greater development of their academic English language skills and easier acquisition of content in English. Moreover, Alhassan et al. (2021), Rose et al. (2023) and Sahan and Şahan (2024) advocate the provision of English classes prior to enrolling in an English-taught study programme, in order to prepare students for EMI. In a study conducted by Barrios et al. (2016), students were asked about the type of language support that should be provided to EMI students. They revealed a need for both language assistants and English language courses, which would be offered as part of the study programme. One student from a study conducted by Huang (2015: 76) suggested the introduction of “bilingual English for Specific Purposes (ESP) vocabulary”, which would enhance the understanding of content. Costa and Mastellotto (2022) describe experiences of students who took an ESP course as part of an EMI programme. They found that all students participating in their study were of the opinion that the ESP course contributed to the development of their English language knowledge, which was consequently helpful in their EMI courses.

Additionally, Alhassan et al. (2021), Costa (2012), Galloway and Rose (2021), Lasagabaster (2018), Wilang (2022) and Zappa-Hollman and Duff (2019) call for the cooperation of language and content teachers to assist each other in terms of improving the students’ study experience and encouraging their acquisition of both language and content. Moreover, Galloway and Rose (2021: 40) explain that language teachers should be positioned “more centrally within the university where they can offer support to both students and staff”. Collins (2010: 107) recounts a talk with a European Council consultant who “recommended that special text be prepared for English medium educational programs, or for any other language programs being used in a non-native environment. It should integrate subject matter, English text, and native language supplemental explanations”. In other words, the texts used in class and originally written in American/British English should be adjusted to students’ needs and support the development of their language skills. Similar observations were made by Arnó-Macià et al. (2020) and Galloway and Rueg (2020), who believe that language



support classes, as well as the materials used within those classes, should be adapted to the needs of students.

This chapter has outlined the most pertinent findings from literature related to EMI students' English language proficiency, their motivation and reasons for enrolment in EMI, their language-related expectations of EMI, their views on language challenges experienced due to studying in English and the coping strategies they employ during their studies. The chapter has also described views on the importance of language support obtained from the research. The following chapter presents SLA theories which are in accordance with and which support the findings of this thesis: behaviourist views, Krashen's Monitor Theory, Long's Interaction and Swain's Output Hypotheses, SCT, language socialisation and content-based instruction.

## **4. Second language acquisition**

Given that the results analysed in this thesis are primarily concerned with students' English language proficiency development due to studying in English, SLA theories have been taken into account in order to better understand and explain the findings. Research in this field has unfolded from the 1960s onwards (Ellis, 1994; VanPatten & Williams, 2015). As SLA is considered to be "a complex, multifaceted phenomenon" (Ellis, 1994:15) understood differently by different researchers, many SLA theories have emerged throughout the years. In this chapter, I describe those which are in line with and underpin the results of the research presented in this thesis. The chapter will thus give an overview of the following SLA theories: behaviourist views, Monitor Theory, Interaction and Output Hypotheses, SCT, language socialisation and content-based instruction.

### **4.1. Behaviourist views**

According to VanPatten and Williams (2015), one of the first SLA theories evolved from behaviourism, where "all learning – including language learning – is seen as the acquisition of new behaviour" (VanPatten & Williams, 2015: 19). Language is learned by replicating what is heard and observed from the environment. The acquisition of language depends on positive and negative feedback. If positive feedback is provided, that is, if there is a positive response, a child will repeat an expression. If there is negative feedback, repetition is less likely. The acquisition of a language thus depends on imitation, where "positive reinforcement of accurate imitations and correction of inaccurate imitation facilitates the learning process" (VanPatten & Williams, 2015: 19). As can be seen, the emphasis in behaviourism is on two aspects: exposure to the language and language support or feedback, which is necessary for a learner to acquire the language correctly. However, few empirical studies were conducted in order to confirm behaviourist claims, and the findings of first SLA major empirical studies conducted in the 1970s did not support the above-described explanation of language acquisition (VanPatten & Williams, 2015). Therefore, behaviourist views were consequently abandoned.

## 4.2. Monitor Theory

Monitor Theory, developed by Steven Krashen, emerged in the late 1970s and early 1980s. As explained in Krashen (1982), the theory consists of five hypotheses. The first is the acquisition-learning distinction, which states that a language can be either *acquired* or *learned*, and that the two processes are quite distinct. *Acquisition* is subconscious; there is no teaching of rules. According to Krashen (1982: 10), acquisition can include “implicit learning, informal learning and natural learning”. On the other hand, *learning* is conscious; rules are taught. Learning includes “formal knowledge of a language, or explicit learning” (Krashen, 1982: 10). Error correction is important in the learning process, but is not considered to be very beneficial in the acquisition process. The second hypothesis is the Natural Order Hypothesis, suggesting that “the acquisition of grammatical structures proceeds in a predictable order” (Krashen, 1982: 12), that is, some grammatical structures are acquired earlier and some later. The Monitor Hypothesis, which draws on the acquisition-learning distinction, states that the only function of learning is monitoring utterances in the second language and editing them if necessary. The Input Hypothesis claims that, in order to develop one’s language competence and progress to the next level,  $i + 1$  input is necessary, that is, comprehensible input which is “‘a little beyond’ where we are now” (Krashen, 1982: 21). The focus is on understanding the meaning of the input, or the message, rather than focusing on form. In other words, “we acquire by understanding language that contains structure beyond our current level of competence ( $i + 1$ ). This is done with the help of context or extra-linguistic information” (Krashen, 1982: 21). The last hypothesis – the Affective Filter Hypothesis – notes that learners with negative attitudes towards the language will have a strong affective filter, hindering input and the process of language acquisition. Conversely, those with positive attitudes towards the language will have a weaker affective filter, contributing to a greater amount of input and easier language acquisition. Similar to the behaviourists’ views of language acquisition, exposure to language, that is, its comprehensible input, is also a central point in Krashen’s theory. In fact, “input is not only necessary for SLA; it is sufficient” (VanPatten & Williams, 2015: 29).

### 4.3. Interaction and Output Hypotheses

Following Krashen's Monitor Theory, the Interaction Hypothesis and the Output Hypothesis were developed in the 1980s. The central feature of the Interaction Hypothesis, which was developed by Michael Long, is the so-called *negotiation for meaning*, explained in the following way:

Negotiation for meaning is the process in which, in an effort to communicate, learners and competent speakers provide and interpret signals of their own and their interlocutor's perceived comprehension, thus provoking adjustments to linguistic form, conversational structure, message content, or all three, until an acceptable level of understanding is achieved. The devices employed in the negotiation process – repetitions, confirmations, reformulations, comprehension checks, confirmation checks, clarification requests, etc. – are used both strategically, to avoid conversational trouble, and tactically, to repair communication breakdowns when they occur. (Long, 1996: 418)

In a similar vein, Swain (1985) proposed the Output Hypothesis. Based on her observations of French immersion contexts in Canada, she argues that comprehensible input, as suggested by Krashen, is necessary, but not sufficient for “nativelike performance” (Swain, 1985: 236). What is missing is output. Building on Krashen's Monitor Theory and Long's Interaction Hypothesis, Swain (1985: 248-249) states the following:

In order for native-speaker competence to be achieved, however, the meaning of ‘negotiating meaning’ needs to be extended beyond the usual sense of simply ‘getting one's message across’. Simply getting one's message across can and does occur with grammatically deviant forms and sociolinguistically inappropriate language. Negotiating meaning needs to incorporate the notion of being pushed toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently and appropriately. Being ‘pushed’ in output, it seems to me, is a concept parallel to that of the  $i + 1$  of comprehensible input. Indeed, one might call this the ‘comprehensible output’ hypothesis.

What can be concluded is that both hypotheses emphasise the importance of spoken production, unlike the Monitor Theory and the Input Hypothesis, which focus solely on input and understanding meaning. Additionally, both hypotheses accentuate the importance of feedback. As Swain (1985: 248) states: “Even better, though, are those interactions where there has been a communicative breakdown – where the learner has received some negative input – and the learner is pushed to use alternate means to get across his or her message”. Overall, both Long (1996) and Swain (1985) conclude that there is more to language acquisition than just comprehensible input.

#### **4.4. Sociocultural Theory**

SCT was originally developed by Lev S. Vygotsky at the beginning of the 20<sup>th</sup> century. However, his work started to be republished only in the 1960s and many researchers re-presented his ideas and built on his research (Mitchell et al., 2019). According to SCT, humans mediate, that is, they use the existing and create new cultural artefacts, which allow them to regulate their behaviour. As Lantolf et al. (2015: 207) explain: “Developmental processes take place through participation in cultural, linguistic and historically formed settings such as family life, peer group interaction, and institutional contexts like schooling, organized social activities and workplaces”. Language, which is first acquired through social interaction, becomes internalised, meaning that “humans gain the capacity to perform complex cognitive and physical-motor functions” (Lantolf et al., 2015: 212). In addition, Vygotsky developed the concept of the Zone of Proximal Development, defined as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1935/1978: 86). In other words, at a certain point, a child – in the context of SLA, a student – needs the help of an adult – or a teacher – in order to internalise knowledge (Cook, 2016; Mitchell et al., 2019). This is where the concept of scaffolding also comes in. In the context of SCT, scaffolding refers precisely to the situation where an expert, namely a teacher, assists a student, that is, someone at a lower knowledge level, through mediation (Cook, 2016; Mitchell et al., 2019). In a broader sense, scaffolding can be anything that a student utilises in the process of learning or acquiring the language, such as grammar books or dictionaries (Cook, 2016).

Similar to the two hypotheses described in subchapter 4.3., SCT emphasises the importance of interaction and collaboration. When transferred to the SLA field and the acquisition of language in an educational setting, one can conclude that language support (that is, assistance provided by the teacher) is important for the development of students' language skills.

#### **4.5. Language socialisation**

Research on language socialisation evolved in the 1980s (Ochs & Schieffelin, 2011). As Schieffelin and Ochs (1986: 167) explain, "language in socializing contexts can be examined from two perspectives. We can investigate how language is a medium or tool in the socialization process. In addition, we can investigate acquisition of the appropriate uses of language as part of acquiring social competence". Elinor Ochs and Bambi B. Schieffelin are considered to be the pioneers in this research area (Duff, 2010), focusing on the development of children's language, which plays a socialising role and is necessary for children to become part of society (Ochs & Schieffelin, 2009). The adults surrounding children (the "caregivers") are those who interact with them and socialise with them in this way (Schieffelin & Ochs, 1986). In other words, "ordinary conversational discourse is a powerful socializing medium" (Schieffelin & Ochs, 1986: 172). By way of language, children not only learn how to interact, but also how to participate in the society and culture around them (Schieffelin & Ochs, 1986). Schieffelin and Ochs (1986: 172) hereby describe routines, which "involve repeated performances of an action or sequence of actions". By participating in routines, young children learn how to use language appropriately (Schieffelin & Ochs, 1986).

When this concept is transferred to the context of the classroom and language learning within a formal context, the main actors are the learners and teachers (Duff, 2010; Mitchell et al., 2019). Mitchell et al. (2019) refer to several studies that point to teachers as central figures in the classroom, who establish classroom routines and socialise learners into the correct usage of the language. By means of classroom routines, learners learn how to "engage in sanctioned oral and written discourse practices, how they negotiate the routine oral questions, responses and feedback behaviors of their teachers and peers (or others, such as employers or interviewers), as well as other forms of accepted interaction and literacy practices" (Duff, 2010: 439). Student participation, as well as corrective feedback, are of considerable importance for the appropriate acquisition of language.

#### 4.6. Content-based instruction

In addition to the above-described SLA theories, there is also research concerned with content-based instruction, more specifically, content and language integrated learning (CLIL) and immersion programmes, where learners receive an education in a foreign language and are taught through the medium of a language which is not their mother tongue (Hummel, 2014; Lightbown & Spada, 2013). According to Lasagabaster and Sierra (2010), the terms *CLIL* and *immersion* are often used interchangeably due to the similarities between them. However, the authors warn that a distinction should be made. The first major difference between the two is the language of instruction. While CLIL refers to “the use of an L2 in the teaching of non-language subjects” (Dalton-Puffer, 2008: 139) and the content is taught through a foreign language, teaching in immersion takes place through a language already present in the country (in Canada, for example, French is the second official language) (Dalton-Puffer, 2008; Lasagabaster & Sierra, 2010). To put it differently, in immersion, students are surrounded by the language both in- and outside school, and their teachers are native speakers of the language, which is not the case in CLIL (Dalton-Puffer, 2008; Lasagabaster & Sierra, 2010). There are also differences in the starting ages of children enrolled in these programmes and types of teaching materials used (Lasagabaster & Sierra, 2010). While immersion programmes are implemented from an early age, CLIL is aimed at students who were exposed to and learned English as a foreign language in their earlier levels of education. Furthermore, the materials used in immersion are appropriate for native speakers of the language, whereas materials used in CLIL have to be adapted for learners of the language. Finally, Lasagabaster and Sierra (2010: 372) conclude that “the goal of immersion programmes is to reach an L2 proficiency similar to that of native speakers, whereas CLIL programmes cannot have such a far-reaching objective”. However, it has been confirmed that the language outcomes of CLIL are generally positive (Dalton-Puffer, 2008; Merino & Lasagabaster, 2018).

Concerning immersion, a great deal of the immersion programme research was conducted in Canada, where English-speaking children embarked on French-taught study programmes. The research shows that, in spite of French immersion students being successful in terms of content acquisition, certain language issues remain present (Hummel, 2014; Lightbown & Spada, 2013). While Lightbown and Spada (2013) explain that French immersion students do not fully acquire French grammar, Hummel (2014) argues that such

students can understand the language and express themselves well, but have underdeveloped skills in terms of reading, writing and even speaking. According to Hummel (2014: 47), this happens “until they begin to receive English language arts instruction, at which point they achieve results similar to those in regular programs”.

However, given the differences between EMI, on the one hand, and CLIL and immersion, on the other, the conclusions drawn from studies in the latter fields can only be used to an extent to explain SLA in EMI. While immersion programmes and CLIL have mostly been implemented in primary and secondary education (Lightbown & Spada, 2013), EMI is adopted on the tertiary level. Furthermore, EMI, as shown in previous chapters, differs from other forms of foreign language-medium education in that there is no focus on language, but only on the acquisition of content (Aguilar, 2017). EMI teachers are not language teachers and do not provide language instruction or language feedback (Costa, 2012; Lasagabaster, 2018). Also, in many EMI contexts, there is an absence of language support, as mentioned in section 3.2.5.

This chapter has elaborated on SLA theories that support the findings presented in this thesis, and which will be used to clarify the results presented in chapter 7. The following chapter describes how the idea for the study evolved, followed by a description of the context in which the study was conducted. The chapter also contains descriptions of the pilot study and the preliminary study, and closes with a description of the study participants.



## **5. The study**

This chapter aims to describe the idea for the study and the study itself. It contains four subchapters. After the introduction, subchapter 5.1. portrays the context in which the research was conducted. Subchapters 5.2 and 5.3. describe the pilot and the preliminary studies, whereas subchapter 5.4. gives information about the study participants.

The idea for this study emerged in the academic year 2018/2019, when I first started working as a lecturer at the Faculty of Economics and Business in Rijeka (EFRI). After contacting my supervisor and reading extant literature on EMI, I realised that the research conducted rarely addressed students and the effect of EMI on their English language knowledge. Hence, I decided to carry out research which would focus on students and their English language progress. The decision was facilitated by my employment at a faculty offering an English-taught programme. I discussed my research idea with the Faculty management and obtained their consent to conduct research among students at EFRI.

During the following months, I developed a research plan with my supervisor and decided to conduct a preliminary study in the academic year 2019/2020, employing the methods that I also used for the present research. The goal of the preliminary study was to assess the feasibility of the research plan and the reliability of the methods. The findings turned out to be a valuable basis for the research presented in this thesis, and will be presented in subchapter 5.3.

### **5.1. The context**

As described in chapter 2, EMI in Croatia is a relatively new endeavour. Drljača Margić (2021) and Drljača Margić and Vodopija Krstanović (2017) explain that the Bologna Process, along with the Erasmus Charter for Higher Education, triggered the introduction of EMI in Croatia. However, there is no policy on the national level regarding the implementation of EMI, since the constituents of Croatian universities are independent legal entities, and make decisions related to the introduction of English-taught study programmes on an independent basis.

Regarding the University of Rijeka, it is the second oldest university in Croatia, founded in 1973. It is also the third largest university in Croatia, consisting of 16 constituent institutions and 15,764 enrolled students (Sveučilište u Rijeci, 2024). One of the aims of the

University of Rijeka Strategy 2007-2013 (Sveučilište u Rijeci, 2007) was to launch 10 study programmes in a world language on the University level.

The University of Rijeka currently has 18 English-taught study programmes, as already mentioned in chapter 2. A more detailed overview of EMI study programmes at the University is given in Table 2.

**Table 2**

*English-taught study programmes at the University of Rijeka (Ministarstvo znanosti i obrazovanja, 2024)*

<b>Constituent</b>	<b>Programme</b>	<b>Study level</b>
Breda University of Applied Science; Faculty of Tourism and Hospitality Management, University of Rijeka; University of Girona	Master of Sustainable Outdoor Hospitality Management	Graduate
Department of Biotechnology	Biotechnology for the Life Sciences	Graduate
Faculty of Dental Medicine	Dental medicine	Integrated undergraduate and graduate
Faculty of Economics and Business	Business Economics	Undergraduate
Faculty of Economics and Business	The joint PhD programme Governance and Economics in the Public Sector	Postgraduate
Faculty of Engineering	Computing	Undergraduate
Faculty of Engineering	Computing	Graduate
Faculty of Engineering	Electrical Engineering	Undergraduate
Faculty of Engineering	Electrical Engineering	Graduate
Faculty of Engineering	Mechanical Engineering	Undergraduate

Faculty of Engineering	Mechanical Engineering	Graduate
Faculty of Engineering	Naval Architecture	Undergraduate
Faculty of Engineering	Naval Architecture	Graduate
Faculty of Humanities and Social Sciences	Cognitive Sciences – Cognition and the Mind	Graduate
Faculty of Mathematics	Discrete Mathematics and Its Applications	Graduate
Faculty of Medicine	Medicine	Integrated undergraduate and graduate
Faculty of Tourism and Hospitality Management	Business Economics in Tourism and Hospitality	Undergraduate
University of Rijeka	Urban Studies	Specialist

EFRI, where this research was conducted, was founded in 1961 as a constituent of the University of Zagreb. Upon the foundation of the University of Rijeka in 1973, EFRI became a part of the newly established University. In 2019, it obtained EFMD Programme Accreditation, due to which it is positioned among the top 10% of the world's economics faculties. EFRI currently offers two bachelor's and master's study programmes: Economics and Business Economics, which enrol around 2000 students. The Business Economics study programme includes five tracks: Entrepreneurship, Finance, International Business, Management and Marketing. These tracks are held in Croatian.

EFRI was the first constituent institution at the University of Rijeka to launch an English-taught study track, as part of the Business Economics study programme. The International Business track was accredited by the Ministry of Science and Education and implemented in 2011 at the undergraduate level as an English counterpart of the existing track in Croatian. The introduction of EMI at EFRI was prompted by the Strategy of the Faculty of Economics Rijeka for the period 2010-2015 (Ekonomski fakultet Sveučilišta u Rijeci, 2010), which was based on the above-mentioned University of Rijeka Strategy 2007-2013 (Sveučilište u Rijeci, 2007). One of the strategic goals was to “introduce a study programme where the teaching will be carried out entirely in English” (Ekonomski Fakultet Sveučilišta u Rijeci, 2010: 6), which was considered to be an important adjustment to “respond to the

requirements triggered by globalisation and integration” (Ekonomski Fakultet Sveučilišta u Rijeci, 2010: 2).

After the introduction of EMI at the undergraduate level, the Faculty introduced the English-taught International Business track at the graduate level in 2014 and the joint PhD programme Governance and Economics in the Public Sector at the postgraduate level in 2017. The International Business track of the Business Economics graduate study programme, which is not included in Table 2, was introduced in 2014, when the University decided, with no separate accreditation, that the existing track in Croatian would also be offered in English.

According to the Development strategy of the Faculty of Economics and Business in Rijeka 2017-2025 (Ekonomski Fakultet Sveučilišta u Rijeci, 2017), study programmes in English are considered to be one of the Faculty’s greatest strengths. Also, one of the strategic objectives related to education is to increase the number of foreign students enrolled in the English-taught programme by 25%, since those currently enrolled in the programme are mostly Croatian.

Concerning the undergraduate EMI study programme on which this research is focused, it lasts for six semesters, carries 180 ECTS points and enrolls 50 students per year. Admission procedures are determined on a national level and are equal for all students, regardless of their choice of study programme. There are no entry requirements in terms of language proficiency. It should be noted that the English-taught track, as already mentioned, is offered parallel with the Croatian-taught track. Since all offered tracks are part of two study programmes at one institution, the teaching staff and the courses are equal for all students. In other words, there are no differences in the delivery mode of lectures, apart from the language of instruction.

## **5.2. Pilot study**

Pilot studies “assess feasibility so as to avoid potentially disastrous consequences of embarking on a large study – which could potentially ‘drown’ the whole research effort” (Thabane et al., 2010: 1). They are normally small-scale studies conducted prior to the actual study (Thabane et al., 2010). It is recommended that the sample comprises 10% of the number of participants in the actual study (Connelly, 2008) or at least 10 participants (Isaac & Michael, 1995).

I conducted a pilot study primarily in order to test the questionnaire which I designed myself. The aim was to investigate whether the questions were clearly formulated and followed a logical order. The pilot study was conducted in September 2019, prior to the beginning of the academic year, with 10 students who had completed their undergraduate studies and were willing to participate. The results of the study suggested no major alternations. The questions were clear and students were able to understand and answer them with no difficulties. Following their comments, the question regarding the self-assessment of students' general English language skills was clarified, and the order of two open-ended questions in the second part of the questionnaire was reversed.

### **5.3. Preliminary study**

As already mentioned, the preliminary study was conducted in the academic year 2019/2020. The findings of that study are presented in Čakarun and Drljača Margić (2021), Čakarun and Drljača Margić (2022) and Čakarun and Drljača Margić (2024). The study involved two different generations of students whose English language knowledge was investigated within one academic year. Specifically, the English language knowledge of first-year students (FYS) was examined at the beginning of that academic year, whereas the English language knowledge of third-year students (TYS) was examined at the end of that same academic year. The findings of Čakarun and Drljača Margić (2021) showed higher language self-assessment scores and better English language knowledge of EMI students at both the beginning and the end of their undergraduate studies. Although both groups self-assessed their language skills higher at the end of their studies, the difference in self-assessment results was statistically significant only for non-EMI students. As for the language tests results, EMI students progressed better in business English, whereas non-EMI students showed greater progress in general English (see Table 3).

**Table 3**

*The comparison of EMI and non-EMI FYSSs and TYSSs' test results (Čakarun & Drljača Margić, 2021: 5)*

<b>Group</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Difference</b>	<b>Significance/ p-value</b>
<u>OPT</u>				
non-EMI FYSSs	36.17	9.96	3.95**	0.0017
TYSSs	40.12	9.71		
EMI FYSSs	45.05	7.85	2.29	0.2847
TYSSs	47.34	7.96		
<u>C-test</u>				
non-EMI FYSSs	49.32	18.72	8.64***	0.0002
TYSSs	57.96	17.24		
EMI FYSSs	70.51	11.97	3.79	0.2547
TYSSs	74.30	12.71		
<u>Business English test</u>				
non-EMI FYSSs	8.31	4.08	7.63***	0.00
TYSSs				
EMI FYSSs	11.88	4.44	10.24***	0.00
TYSSs				
	22.13	3.13		

*Note.* \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\* $p < 0.001$

Qualitative findings from the interviews and questionnaires were presented in Čakarun and Drljača Margić (2022) and Čakarun and Drljača Margić (2024), showing that EMI students enrol in an English-taught programme in order to enhance their English language proficiency and continue their studies or build their careers abroad. The findings also point to greater satisfaction of EMI students in terms of their expectation fulfilment. It should be

noted, however, that the FYS' response excerpts provided in chapter 7 are not the same as those incorporated in Čakarun and Drljača Margić (2022) and Čakarun and Drljača Margić (2024).

The English language knowledge, as well as the motivation for enrolment in EMI, expectation fulfilment, views and perceptions related to EMI and English language learning of FYS participating in the above-mentioned study were examined again in the academic year 2021/2022, at the end of their undergraduate studies. The findings of that longitudinal study are presented as a focal point of this PhD thesis. In other words, the current research draws on the findings of the preliminary study, using the above-presented data related to FYS, and tracks those students throughout their undergraduate studies in order to investigate the English language progress of one generation of students, as well as their motivation, expectations (fulfilment), views and perceptions at the beginning and the end of their undergraduate studies. No other study investigating EMI students' English language proficiency has been conducted at the University of Rijeka or any other university in Croatia so far. The findings presented in this thesis therefore provide a unique insight into an insufficiently investigated aspect of EMI in the glocal context.

#### **5.4. Participants**

The sample comprised 256 FYS (40 EMI and 216 non-EMI) who completed the questionnaire, and 197 FYS (35 EMI and 162 non-EMI) who completed the language tests. Twenty-four FYS (9 EMI and 15 non-EMI) volunteered to participate in an interview. Furthermore, a total of 141 TYS (23 EMI and 118 non-EMI) completed both the questionnaire and the tests, and 26 TYS (8 EMI and 18 non-EMI) were interviewed.

The participants of the study are presented in Table 4. All participants are Croatian. Foreign students were not included in the study, as they were mostly exchange students who spent one or two semesters at EFRI. As for EMI FYS, 14 (35%) are male, and 26 (65%) are female. Among non-EMI FYS, there are 53 (25%) male participants and 163 (75%) female. Regarding TYS, 6 (26%) EMI students are male, and 17 (74%) female, while 29 (25%) non-EMI students are male, and 89 (75%) female. Concerning their previous education, 28 (70%) EMI FYS finished grammar school, and 12 (30%) vocational school, whereas 87 (40%) non-EMI FYS graduated from grammar school, and 129 (60%) from vocational school. Out of the TYS sample, 17 (74%) EMI TYS finished grammar school, and 6 (26%) vocational school,

while 54 (46%) non-EMI TYS finished grammar school, and 64 (54%) vocational school. Both EMI and non-EMI FYS and TYS predominantly learned English as the first foreign language during their previous education. When it comes to the level of English on the national school-leaving examination, 37 (92.5%) EMI FYS achieved the higher level, and only 3 (7.5%) EMI FYS the basic level. Conversely, 102 (47.2%) non-EMI FYS reached the higher level of English, and 103 (47.7%) the basic level, whereas 11 (5.1%) students provided no answer to that question. With respect to TYS, all (100%) EMI TYS reached the higher level of English on the national school-leaving examination, whereas 74 (63%) non-EMI TYS attained the higher level, 42 (36%) the basic level, and 2 (1%) students provided no answer to that question. Additionally, 2 (8.6%) EMI and 5 (4.2%) non-EMI TYS participated in a student mobility programme during the course of their undergraduate studies.

**Table 4**

*Participants of the study*

<b>Variable</b>	<b>EMI FYS</b>	<b>Non-EMI FYS</b>	<b>EMI TYS</b>	<b>Non-EMI TYS</b>
<u>Sex</u>				
Male	14 (35%)	53 (25%)	6 (26%)	29 (25%)
Female	26 (65%)	163 (75%)	17 (74%)	89 (75%)
<u>Previous education</u>				
Grammar school	28 (70%)	87 (40%)	17 (74%)	54 (46%)
Vocational school	12 (30%)	129 (60%)	6 (26%)	64 (54%)
<u>National school-leaving examination</u>				
Higher level	37 (92.5%)	102 (47.2%)	23 (100%)	74 (63%)
Basic level	3 (7.5%)	103 (47.7%)	0	42 (36%)
No response	/	11 (5.1%)	/	2 (1%)
<u>Participation in a student mobility programme during undergraduate studies</u>	/	/	2 (8.6%)	5 (4.2%)



Concerning other ways of foreign language learning, as reported by Čakarun and Drljača Margić (2022), almost half of EMI FYS say that they develop their English language skills in their free time, out of which 42% by listening and reading in English, 47% by learning English at a foreign language school or taking private classes, and 11% by spending time abroad. As for non-EMI FYS, 36% of them state that they develop their English language skills in their free time, out of which 71% by listening and reading in English, 20% by learning English at a foreign language school or taking private classes, while 9% of students indicate other ways of learning English in their free time, such as playing video games, spending time abroad or having summer jobs that involve communication with tourists in English.

With regard to the same question in their third year of study, 74% of EMI TYS also relate the development of their English language skills to their free time, out of which 70% to listening and reading in English, 24% to learning English at a foreign language school or taking private classes and 6% to staying abroad. On the other hand, 58% of non-EMI TYS describe the development of their English language skills in their free time, out of which 67% by listening and reading in English, 23% by learning English at a foreign language school or during private classes, and 10% by spending time abroad.

It should be pointed out that, when this research was conducted, all students were required to attend two ESP courses during their first year of study: *Business English 1* and *Business English 2*, comprising two classes per week. Unlike EMI students, non-EMI students were additionally given the opportunity to attend elective ESP courses during their second and third years. Since student numbers for these courses are limited, an average of 17% usually enrol in elective ESP courses. It is worth mentioning that in 2021 it was decided that ESP courses would be obligatory in the first and second years of study and that the number of ESP classes would be enhanced.

The current chapter has depicted the evolution of ideas for the study and outlined its context, as well as details of the pilot and preliminary studies. The chapter has also offered the description of the study participants. The subsequent chapter provides details regarding the research protocol. In addition to the research aim and research questions, the chapter elaborates on the research design and research methods, as well as ethical considerations. The chapter closes with the description of the analysis method of the quantitative and the qualitative data obtained by this research.

## **6. Research protocol**

The present chapter begins with the presentation of the research aim and the research questions and continues with the description of the research design and the research methods, namely the questionnaires distributed to FYS and TYS, the OPT, the C-test and the BET. Interviews conducted with the students are also described, and ethical considerations outlined. Finally, the chapter offers an insight into the qualitative and quantitative analysis of the obtained data.

### **6.1. Aim and research questions**

As noted in previous chapters, EMI is a specific form of education where students are taught in a foreign language by teachers whose primary focus is the acquisition of content. Language acquisition, on the other hand, is expected to happen incidentally (Dearden, 2018; Rogier, 2012). However, students' English language proficiency and progress due to studying in English have been scarcely explored. Hence this research, which was conducted with the purpose of filling the gap and addressing this insufficiently explored aspect of EMI.

The overarching aim of this thesis is to investigate the impact of EMI on students' English language progress. To achieve this goal, EMI students' English language proficiency in general and business English was examined at both the beginning and the end of their undergraduate studies. Their proficiency and language progress were then compared with the proficiency and progress of their non-EMI counterparts. In addition, students' motivation for enrolling in EMI, language-related expectations (fulfilment), views and perceptions regarding their English language development due to EMI were explored.

The thesis seeks to answer the following research questions:

1. Do EMI students have better English language knowledge than non-EMI students at the beginning and the end of their studies?
2. Does the English language proficiency of EMI and non-EMI students advance throughout the course of their studies?
3. Do EMI students progress better than non-EMI students in general English?
4. Do EMI students progress better than non-EMI students in business English (the field of economics)?
5. What affects a student's decision to enrol or not in an English-taught study programme?

6. How do EMI and non-EMI students view their English language learning process at the beginning and the end of their studies?
7. What do EMI and non-EMI students perceive as their language strengths and weaknesses at the beginning and the end of their studies?
8. What are EMI and non-EMI students' expectations regarding their English language progress during their studies, and are these expectations fulfilled?
9. What are EMI and non-EMI students' opinions of ESP courses offered during their studies?
10. What do EMI and non-EMI students emphasise as the most beneficial classroom activities?

## **6.2. Research design**

A mixed quantitative-qualitative methods design, specifically triangulation, was adopted in this study in order to provide a deeper insight into and more profound understanding of the research subject. According to Mills and Gay (2016: 444), “mixed methods research designs involve the collection, analysis, and ‘mixing’ of quantitative and qualitative research designs to understand a research problem [...] The main purpose of mixed methods research is to use the advantages of both quantitative and qualitative research designs and data collection strategies to understand a phenomenon more fully than is possible using either quantitative or qualitative design alone”. Creswell (2003: 208) explains that this design was developed “in response to a need to clarify the intent of mixing quantitative and qualitative data in a single study”. He further notes that there are several mixed methods models, among which the most widespread is the concurrent triangulation strategy, where the collection of quantitative and qualitative data occurs concurrently, and the results of the two methods are integrated during interpretation. The concept of triangulation was introduced in the 1970s (Dörnyei, 2007; Flick, 2018), with the aim of advancing the validity of research data (Dörnyei, 2007; Flick, 2018; Mills & Gay, 2016). According to Flick (2018), triangulation is a combination of different methods and perspectives in order to collect data and link them to the theoretical background. In addition, triangulation should be used in order to improve the research approach and help discover more than would be possible using only one approach (Flick, 2018).

### **6.3. Research methods**

In order to attain the research aim and answer the research questions posed in subchapter 6.1., in accordance with the mixed methods research design, several research methods were used. First, students completed a questionnaire, after which they took three language tests: the OPT, the C-test and the BET. Following the analysis of the data gleaned by the questionnaires and of the test results, interviews with the students were conducted to obtain a more detailed insight into their motivation for enrolment in EMI, their expectations (fulfilment), and their views and perceptions regarding their English language development.

#### **6.3.1. Questionnaire**

According to Krosnick and Presser (2010: 263), “the heart of a survey is its questionnaire”. Brown (2001: 6) defines questionnaires as “any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers”. One of the most prominent advantages of using questionnaires in research is their efficiency: by means of a questionnaire, a large amount of data can be collected in a short time span (Dörnyei & Taguchi, 2010; Patten, 2014). They are also convenient, as they can be distributed via e-mail or online (Dörnyei & Taguchi, 2010; Patten, 2014). Patten (2014) also emphasises that data are usually collected anonymously, which increases the respondents’ inclination to answer and expound on their responses. Questionnaires can be used in both quantitative and qualitative research, depending on the type of questions employed (Dörnyei & Taguchi, 2010). Concerning the design of a questionnaire, simple vocabulary items and syntax should be used, while ambiguity should be avoided, along with questions which indirectly suggest an answer (Krosnick & Presser, 2010).

The questionnaires used for the purposes of this study are adapted and expanded versions of the questionnaire utilised in Rogier’s doctoral dissertation (2012). Since the questionnaires distributed to FYS and TYS were slightly different, they will be described separately.

#### 6.3.1.1. *Questionnaire for first-year students*

The questionnaire which was distributed to EMI and non-EMI students at the beginning of their undergraduate studies consists of four parts (see Appendix 1). The first part enquires into the participants' background: gender, prior education (completed secondary education), place of education, foreign languages learned during prior education, other ways of foreign language learning (private tuition, foreign language school, staying abroad, watching/listening to/reading contents in a foreign language), and foreign language(s) taken at the national school-leaving exam and the level thereof (higher or basic). Next, the participants self-assessed their English language skills according to the *Common European Framework of Reference for Languages* (CEFR) (Council of Europe, 2001) on a scale from A1 to C2. More specifically, they were asked to self-assess their skills regarding understanding listening, understanding reading, spoken interaction, spoken production and writing. On a Likert scale ranging from 1 (poor/insufficient) to 5 (excellent), students also self-assessed their academic English language skills to understand expert literature, take notes during classes, take exams, write essays and other written assignments, understand lectures, understand instructions, ask questions, give oral presentations, communicate with other students when working in a pair or a group and discuss a specific topic. Finally, six open-ended questions looked into the students' attitudes, perceptions and expectations, namely their attitudes and beliefs regarding their prior English language learning, their perceived strengths and challenges when using English for both general and study purposes and their expectations concerning their English language advancement.

#### 6.3.1.2. *Questionnaire for third-year students*

The questionnaire distributed to students at the end of their undergraduate studies was an adapted version of the questionnaire administered to FYS (see Appendix 2). Regarding the first part of the questionnaire, all questions were equal to those asked in the FYS' questionnaire, with an additional question regarding students' participation in a student exchange programme during their undergraduate studies. The other parts of the questionnaire (the self-assessment of students' language skills according to the CEFR (Council of Europe, 2001), the self-assessment of students' academic English language skills and the open-ended questions looking into students' attitudes and perceptions) also remained the same. The open-ended question regarding the extent of students' expectations was reformulated to investigate

students' expectation fulfilment related to their English language advancement during their studies, and a question was added inquiring into whether the students believed that their studies had contributed to the fulfilment of the expectations regarding their English language progress.

At the end of both questionnaires, students were asked whether they would be willing to participate in an interview. Interested students were asked to provide their email addresses.

Both questionnaires were designed and answered in the Croatian language. Since all participants were Croatian, and the purpose of the questionnaires was not to assess their language proficiency, but to collect relevant data, it was believed that using their mother tongue would enhance their willingness to participate and to provide clearer, more detailed answers to open-ended questions in the last part of the questionnaire.

### **6.3.2. Oxford Quick Placement Test**

The OPT is a standardised test used as an “effective initial placement instrument and a reliable means of grading students at all levels” (Allan, 2004: 4). It is divided into two parts, comprising 60 multiple choice questions (see Appendix 3). The allotted time for the test is 30 minutes. The final score of the test shows students' level of English according to the CEFR (Council of Europe, 2001): 0-17 points denote the A1 level, 18-29 points the A2 level, 30-39 points the B1 level, 40-47 points the B2 level, 48-54 points the C1 level and 55-60 points the C2 level. The test was given to both FY and TY EMI and non-EMI students.

### **6.3.3. C-test**

C-test is used for estimating general language proficiency. It was developed in the early 1980s as a response to the criticism directed at cloze tests (Klein-Braley & Raatz, 1984). Specifically, it was “an attempt to retain the positive aspects of cloze tests, but to remedy their technical defects” (Klein-Braley, 1997: 63). Klein-Braley & Raatz (1984: 136) provide the following description, explaining what a C-test is:

A C-Test consists of a number of short texts (usually five or six) to which what came to be called *the rule of 2* has been applied. Beginning in the second sentence the

second half of every second word is deleted until the required number of mutilations is reached. The text then continues to a ‘natural break’.

They further explain that all parts of speech should be encompassed in a C-test. It is also noted that the test should contain several texts on different topics and should have at least 100 deletions (Klein-Braley & Raatz, 1984).

Further explanations on the construction of C-tests, as well as examples of what a C-test should look like, are provided in Klein-Braley (1985; 1997), and Klein-Braley and Raatz (1984). Based on those samples and following the above-described procedure, I developed a C-test consisting of five short texts (see Appendix 4), each carrying 20 points, 100 points in total. The texts were chosen based on my estimation of students’ English language levels, given my teaching experience. The time allotted for the C-test is 25 minutes (Raatz & Klein-Braley, 2002). The test was given to both FY and TY EMI and non-EMI students.

#### ***6.3.4. Business English test***

Initially, I tried to find a standardised test which could be used to assess students’ business English knowledge. However, after searching on the Internet and contacting the British Council, I realised that all business English tests examined general business English language skills and that there was no test gauging specifically students’ language knowledge in the field of economics. I thus decided to design the BET myself. I based the test on students’ final exams from ESP courses and downloaded the syllabi of their content courses and extracted key discipline-specific terminology. The test contains five different exercises testing students’ knowledge of discipline-related vocabulary in the field of economics (see Appendix 5). It carries 30 points and was administered to both FY and TY EMI and non-EMI students.

#### ***6.3.5. Interviews***

As explained in Dörnyei and Taguchi (2010), at the end of a questionnaire, researchers sometimes include an invitation to an interview, which was also done in this research (see section 6.3.1.2.). Interviews are often used in qualitative research (Dörnyei, 2007) and follow-up interviews are most often used to gain additional insights into the data gathered by the

questionnaire (Dörnyei & Taguchi, 2010). According to Dörnyei (2007), interviews can be structured, unstructured and semi-structured. They can also occur once (single interviews) or several times (multiple interviews). Regarding the structured interview, researchers have a list of questions that they ask the interviewees. This type of interview is “tightly controlled” and “there is generally little room for variation or spontaneity” (Dörnyei, 2007: 135). An unstructured interview is a modifiable discussion in a relaxed atmosphere. There is no list of questions, although researchers may prepare themselves for the conversation. Finally, a semi-structured interview is the method most often used in applied linguistics. It is a combination of the structured and unstructured types: researchers have a list of questions, but are at the same time flexible and allow digressions and expansion on the topics discussed.

In this research, single follow-up semi-structured interviews (see Appendices 6, 7, 8 and 9) were conducted with both EMI and non-EMI students who voluntarily signed up to participate. The duration of each interview was around 30 minutes with FYS and between 30 and 40 minutes with TYS. The purpose of the interviews was to discuss and obtain a more thorough understanding of both the answers obtained from the questionnaire and of the results of the language tests.

The list of questions was devised after the analysis of the data from the questionnaire and the results of the language tests. The topics discussed with non-EMI FYS were: their lack of motivation for enrolling in an English-taught study programme, prior English language learning, exposure to the English language, students’ self-perceived strengths and challenges when using the English language, and students’ expectations regarding their English language progress during their undergraduate studies (for a detailed list of questions, see Appendix 6). Regarding EMI FYS, the following topics were discussed: motivation for enrolling in an English-taught study programme, prior English language learning, exposure to English language, students’ self-perceived strengths and challenges when using the English language, students’ expectations regarding their English language progress due to studying in English, and students’ views on the usefulness of the obligatory ESP courses provided during their course of study (for a detailed list of questions, see Appendix 7). With regard to non-EMI TYS, the discussion centred on their lack of motivation for enrolling in an English-taught study programme, English language learning during their undergraduate studies, students’ self-perceived strengths and challenges when using the English language, and the fulfilment of their expectations (in comparison to their expectations when they were FYS) regarding



their English language progress during their undergraduate studies (for a detailed list of questions, see Appendix 8). Similar topics were also discussed with EMI TYS: their motivation for enrolling in an English-taught study programme, English language learning during their undergraduate studies, exposure to the English language, students' self-perceived strengths and challenges when using the English language, language feedback provided by the teaching staff during their undergraduate studies and the fulfilment of students' expectations (in comparison to their expectations when they were FYS) regarding their English language progress due to studying in English during their undergraduate studies (for a detailed list of questions, see Appendix 9). The interviews were also conducted in the Croatian language, due to the presumption that it would be easier and more natural for students to discuss the above-listed topics in their mother tongue.

#### **6.4. Ethical considerations**

According to Creswell (2003: 201), "the researcher has an obligation to respect the rights, needs, values, and desires of the informant(s)". In order to ensure that this research does not violate the rights of the students who would be included in the research, as already explained at the beginning of chapter 5, I first obtained an approval from the Faculty management – more specifically, the Dean, the Vice Dean for undergraduate and graduate study programmes and the Vice Dean for quality assurance and student affairs – to carry out research among students at EFRI. Since the first part of the research (the questionnaire and the language tests) was carried out in class, I informed the students personally about the research plan, research objectives and data collection prior to the beginning of the research. A short written explanation was also provided at the beginning of the questionnaires (see Appendices 1 and 2). Students were additionally notified that there was a question at the end of the questionnaire regarding their participation in a follow-up interview and asked to sign up if they were willing to participate. Students were also informed that participation in the research was for the purposes of a PhD study, that it was voluntary, that it would not affect their grades in any of the courses they were taking and that all data collected would be kept anonymous and used exclusively for the purposes of this research. Due to the fact that the interviews were audio-recorded, students who decided to participate in the interview additionally gave their signed, written consent (see Appendix 10).

## 6.5. Data analysis

The following sections describe how the quantitative and qualitative data that were collected by means of the research methods described in subchapter 6.3. were analysed. Quantitative data were statistically analysed with the help of the software Stata, whereas qualitative data were analysed thematically.

### 6.5.1. Quantitative data

The research provided two sets of quantitative data: quantitative data from the questionnaire and from the language tests. Before statistical analysis, two Excel tables were compiled, one containing the quantitative data from the questionnaire, and the other comprising the results of the language tests.

As participation in the research was anonymous, participants were asked to create a password consisting of six symbols: the first two letters of their mother's name, the day of their birth (in case of a single-digit number, they were asked to put a zero in front of the number) and the last two letters of their father's name. Thus, for example, if their mother's name was *Mary*, their date of birth 15 July and father's name *John*, the password would be MA15HN. This was to ensure a unique password for each participant and the usage of the same password in their first and third years of study (that is, at the beginning and the end of this research), in order to be able to compare the findings.

Regarding the Excel table containing the quantitative data from the questionnaire, as explained in sections 6.3.1.1 and 6.3.1.2., FYS' and TYS' questionnaires were only slightly different. While most of the original questions remained the same, the TYS' questionnaire had several reformulated and additional questions. In this way, the data collected could be compared. The data had to be coded as numeric and string variables. For the purposes of descriptive statistics, all *either-or* questions, where participants were to choose one out of two options, were coded as 0 and 1. For example, in the section *General information*, students had to mark whether they were male or female. Female students were coded as 0, and male as 1. As for the self-assessment of language skills according to the CEFR (Council of Europe, 2001), the levels (A1 to C2) were coded as numbers in the following way: A1 – 1, A2 – 2, B1 – 3, B2 – 4, C1 – 5 and C2 – 6. The self-assessment of the academic English language skills was done on a Likert-type scale from 1 (poor/insufficient) to 5 (excellent), as well as the

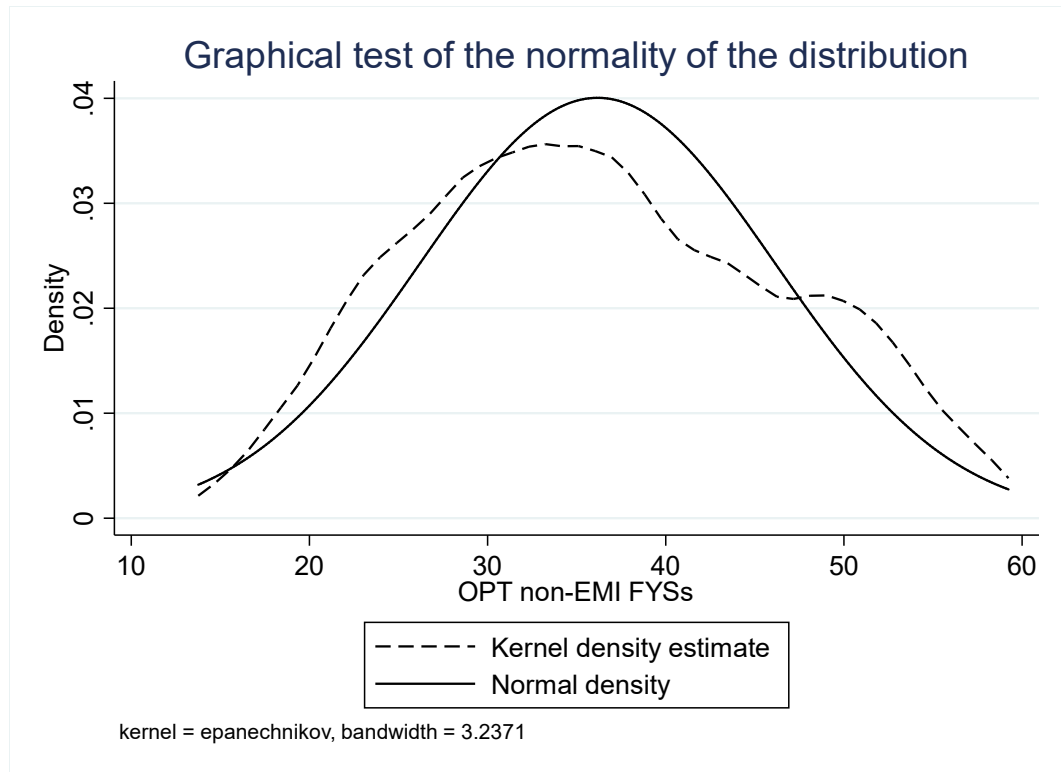
question regarding students' expectations (or the fulfilment thereof), where FYS had to mark to what extent they expected their English to improve, and TYS to what extent they perceived their English to have improved, on a scale ranging from 1 (not at all) to 5 (to a very great extent). Concerning the additional open-ended question in the TYS' questionnaire, where students had to express whether they believed their studies had contributed to the fulfilment of their expectations regarding their English language progress, their answers (*yes* and *no*) were coded as 1 (*yes*) and 0 (*no*).

Concerning the results of the language tests, a new Excel table was created, containing five columns: 1) password, 2) the results of the OPT, 3) the level of English achieved on the OPT according to CEFR (Council of Europe, 2001), 4) the results of the C-test and 5) the results of the BET.

Statistical analysis was performed with the help of the software Stata. Descriptive statistics was used in order to analyse the above-described quantitative data from the questionnaire. While general information, students' self-assessment of their language skills, students' self-assessment of their academic English language skills and students' expectations (fulfilment) were summarised, the chi-test was used to compare EMI and non-EMI answers to the additional question posed to TYS, where students expressed whether or not they believed that their studies had contributed to the fulfilment of their expectations regarding their English language progress. As for the results of the language tests, independent two-sample t-tests were used to compare EMI and non-EMI FYS and TYS' results and to determine the statistical significance of the differences between the results. Independent two-sample t-tests are a standard procedure in this type of research. Since they compare two samples, this type of statistical analysis was appropriate for the comparison of the two groups of students (FY EMI and non-EMI, TY EMI and non-EMI, FY and TY EMI and FY and TY non-EMI). Prior to conducting the t-tests, the normality of data distribution was investigated. As can be seen in Figure 3, which presents an example of the OPT results of non-EMI FYS, the kernel density estimate showed a large amount of extreme values, pointing to the non-normal distribution of data.

**Figure 3**

*An example of the kernel density estimate for the OPT results of non-EMI FYS*



Additionally, the size of chi-square statistics of 14.87 (p-value of 0.0006) of the Skewness/Kurtosis test for normality shows that the null hypothesis<sup>1</sup> is rejected, that is, the variable OPT is not distributed normally, thus confirming the results of the kernel density estimate. Kernel density estimates and the results of the Skewness/Kurtosis test for normality showing the normality of data distribution for all other groups and tests can be found in Appendix 11. However, as can be seen from the data, p-value is smaller than 0.05 only when it comes to the OPT results of non-EMI FYS, EMI FYS and non-EMI TYS, and the BET results of non-EMI TYS, showing that the null hypothesis is rejected, that is, that data are not distributed normally.

For that reason, t-test results of those tests were re-examined with the help of the two-sample Wilcoxon rank-sum (Mann-Whitney) test, which confirmed the results of the t-tests. For example, when looking at the OPT results of EMI and non-EMI FYS, the z-score size of -4.746 (p-value of 0.00) of the two-sample Wilcoxon rank-sum (Mann-Whitney) test for

<sup>1</sup> The null hypothesis claims that two samples are from a population with the same distribution, that is, that there are no differences between the two samples.

equality of distributions between the two groups shows that the null hypothesis is rejected, that is, the distribution of the OPT variable is different between the two groups.

### **6.5.2. Qualitative data**

In addition to quantitative data, this research also provided two sets of qualitative data: qualitative data from the questionnaires and qualitative data from the follow-up interviews. Qualitative content analysis (Dörnyei, 2007) was used for the analysis of the qualitative data from the questionnaires, that is, students' answers to open-ended questions. This type of analysis includes coding the data, grouping them into different themes or categories, interpreting them and drawing conclusions from what was observed (Dörnyei, 2007). Following Creswell's (2003) recommendations, the data were organised and prepared: students' answers to the questions were copied into a Word document and grouped accordingly. After that, the data were read analytically and coded in order to identify major themes and divide them into different categories. Finally, after reading through the categories multiple times, the meaning of the data was interpreted.

The interviews were audio-recorded and subsequently transcribed. After the transcription, the data were managed in the same way as the qualitative data from the questionnaires. For the purposes of data presentation in this thesis, students' responses from the questionnaires and interviews were translated verbatim from Croatian to English.

The present chapter has outlined the research aim, research questions, research design and research methods, as well as ethical considerations. The qualitative and quantitative analysis methods have also been explained. The results of the research on which this thesis is focused are analysed in the following chapter. In addition to the quantitative results, namely the self-assessment results and the results of the language tests taken by students at the beginning and the end of their studies, along with a comparison thereof, the chapter also contains qualitative results related to students' motivation, expectations, views and perceptions.

## 7. Results

This chapter presents the data collected by means of the research methods described in the previous chapter. Subchapter 7.1. analyses the results of the language tests – the OPT, the C-test and the BET – and also includes the results of the students' self-assessment of their language skills. Subchapter 7.2. looks into students' self-assessment of their academic English language skills, reasons and motivation for enrolment in EMI, their self-perceived English language learning process, and their self-perceived language strengths and weaknesses. It also examines students' expectations and the fulfilment thereof with regard to English language progress, their views on language support, and perceptions of the most beneficial classroom activities.

### 7.1. Self-assessment and language tests results

In order to provide a more comprehensive overview of EMI and non-EMI FYS' and TYS' test results, this subchapter is divided into three sections. The first section is a presentation of EMI and non-EMI FYS' results, obtained at the beginning of students' undergraduate studies (in 2019). The second section presents EMI and non-EMI TYS' results, obtained at the end of their undergraduate studies (in 2022). Finally, the third section comprises the comparison of EMI and non-EMI FYS' and TYS' self-assessment and test results.

#### 7.1.1. *First-year students*

As reported by Čakarun and Drljača Margić (2021), the mean regarding EMI FYS' self-assessment on the CEFR scale from A1 to C2 is 4.30, corresponding to the B2 level, and the mean regarding non-EMI FYS' self-assessment is 3.56, also corresponding to the B2 level. The difference of 0.74 points is statistically significant ( $t(250) = -3.84, p = 0.002$ ).

Concerning the results achieved in the OPT, out of 60 points, the mean for EMI students is 45.05, and the mean for non-EMI students is 36.17. These results are statistically significant by 8.88 points. As for the levels achieved in the OPT, EMI students obtained 4.25 points on average, corresponding to the B2 level, while non-EMI students obtained 3.24 points in average, corresponding to the B1 level. The difference of 1.01 points is statistically significant.

Regarding the C-test, out of 100 points, the mean for EMI students is 70.51 points, whereas the mean for non-EMI students is 49.45 points. The difference of 21.06 points is statistically significant.

Finally, the results of the BET, carrying 30 points, also indicate a slightly better performance by EMI students: while EMI students gained 11.88 points on average, non-EMI students obtained 8.34 points on average, and the difference of 3.54 points is also statistically significant. The summary of FYS' results can be seen in Table 5.

**Table 5**

*EMI and non-EMI students' test results at the beginning of their studies*

Test	Group	Mean	Standard deviation	Difference	Significance/ p-value
OPT (points)	EMI	45.05	7.85	8.88***	0.00
	Non-EMI	36.17	9.96		
OPT (level)	EMI	4.25	0.98	1.01***	0.00
	Non-EMI	3.24	1.11		
C-test	EMI	70.51	11.97	21.06***	0.00
	Non-EMI	49.45	18.71		
BET	EMI	11.88	4.44	3.54***	0.00
	Non-EMI	8.34	4.07		

*Note.* \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\* $p < 0.001$

### **7.1.2. Third-year students**

With respect to TYS' self-assessment, the mean for EMI students is 5.17, corresponding to the C1 level, while the mean for non-EMI students is 4.08, corresponding to the B2 level. These results are statistically significant by 1.09 points ( $t(140) = -4.84$ ,  $p = 0.00$ ).

When it comes to the average number of points obtained in the OPT, EMI students gained 49.21 points out of 60, whereas non-EMI students gained 40.05 points. The difference of 9.16 points is statistically significant. Regarding the average levels achieved in the OPT,

the mean for EMI students is 4.82, corresponding to the C1 level, and for non-EMI students 3.74 points, corresponding to the B2 level. The difference of 1.08 is statistically significant.

Concerning the results of the C-test, EMI students gained 77.30 points on average out of 100, and non-EMI students 57.95 points. These results are statistically significant by 19.35 points.

With regard to the BET, the mean for EMI students is 21.91 points out of 30, while the mean for non-EMI students is 16.70. The difference of 5.21 points is also statistically significant. The summary of TYS' results is shown in Table 6.

**Table 6**

*EMI and non-EMI students' test results at the end of their studies*

Test	Group	Mean	Standard deviation	Difference	Significance/ p-value
OPT (points)	EMI	49.21	5.69	9.16***	0.0001
	Non-EMI	40.05	10.40		
OPT (level)	EMI	4.82	0.88	1.08***	0.0001
	Non-EMI	3.74	1.19		
C-test	EMI	77.30	13.20	19.35***	0.00
	Non-EMI	57.95	21.18		
BET	EMI	21.91	2.93	5.21***	0.0001
	Non-EMI	16.70	5.91		

*Note.* \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\* $p < 0.001$

The results of the re-examination of the OPT and the BET results with the two-sample Wilcoxon rank-sum (Mann-Whitney) test, which was performed due to the non-normal distribution of data, can be found in Appendix 12.

### **7.1.3. Comparison**

Regarding the students' self-assessment results, the mean for EMI FYS is 4.30 (B2), and for EMI TYS 5.17 (C1). This indicates a 0.87-point rise, which is statistically significant



( $t(61) = -4.63, p = 0.00$ ). As for non-EMI students, the mean for FYS is 3.56 (B2), and for TYS 4.08 (B2). The 0.52-point rise is also statistically significant ( $t(333) = -4.19, p = 0.00$ ).

Table 7 shows the comparison of all test results obtained by EMI and non-EMI FYS and TYS. Concerning the results of the OPT, the mean for EMI FYS is 45.05 points out of 60, and for EMI TYS 49.21, implying a rise of 4.16 points, which is statistically significant. As for non-EMI FYS, the mean is 36.17, and the mean for non-EMI TYS is 40.05. This indicates a 3.88-point rise, which is also statistically significant. With regard to the levels achieved in the OPT, the mean for EMI FYS is 4.25, corresponding to the B2 level, and the mean for EMI TYS is 4.82, corresponding to the C1 level. The rise of 0.57 points is statistically significant. When looking at non-EMI students' means, the mean for non-EMI FYS is 3.24, corresponding to the B1 level, and the mean for non-EMI TYS is 3.74, corresponding to the B2 level, indicating a statistically significant rise of 0.50 points.

With respect to the results of the C-test, EMI FYS achieved 70.51 points on average out of 100, while EMI TYS achieved 77.30 points. The rise of 6.79 points is statistically significant. Non-EMI FYS earned 49.45 points in average, and non-EMI TYS 57.95. There is a rise of 8.50 points, which is also statistically significant.

When it comes to the results of the BET, the mean for EMI FYS is 11.88, and for EMI TYS 21.91 points, pointing to a rise of 10.03 points, which is statistically significant. Concerning non-EMI students, the mean for non-EMI FYS is 8.34, while the mean for non-EMI TYS is 16.70. The rise of 8.36 points is also statistically significant.

**Table 7**

*EMI and non-EMI students' test results at the beginning and the end of their studies: comparison*

<b>Test</b>	<b>Group</b>	<b>Year</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Difference</b>	<b>Significance/ p-value</b>
OPT (points)	EMI	1	45.05	7.85	4.16*	0.0330
		3	49.21	5.69		
	Non-EMI	1	36.17	9.96	3.88*	0.017
		3	40.05	10.40		
OPT (level)	EMI	1	4.25	0.98	0.57*	0.0288
		3	4.82	0.88		
	Non-EMI	1	3.24	1.11	0.50***	0.0003
		3	3.74	1.19		
C-test	EMI	1	70.51	11.97	6.79*	0.0473
		3	77.30	13.20		
	Non-EMI	1	49.45	18.71	8.50***	0.0004
		3	57.95	21.18		
BET	EMI	1	11.88	4.44	10.03***	0.00
		3	21.91	2.93		
	Non-EMI	1	8.34	4.07	8.36***	0.00
		3	16.70	5.91		

*Note.* \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\* $p < 0.001$

## 7.2. Students' academic skills, motivation, expectations, views and perceptions

This subchapter provides an overview of students' responses gained via the questionnaires and interviews that concern the self-assessment of their academic English language skills, their motivation, language-related expectations, views and perceptions. Section 7.2.1. is related to students' self-assessment of their academic English language skills. Section 7.2.2. covers students' reasons and motivation for enrolment in EMI or a lack thereof, section 7.2.3. looks into students' self-perceived English language learning process, section 7.2.4. examines students' self-perceived language strengths and weaknesses, section 7.2.5. describes students' expectations and expectation fulfilment as regards English language progress, section 7.2.6. outlines students' views on language support, and section 7.2.7. investigates students' perspectives on the most beneficial classroom activities.

### 7.2.1. Students' self-assessment of their academic English language skills

With regard to students' academic English language skills, which they had to gauge on a Likert-type scale from 1 (poor/insufficient) to 5 (excellent), both EMI and non-EMI FYS find their ability to understand instructions in classes to be their best developed academic skill, with the mean of 4.47 for EMI and 3.91 for non-EMI students. Conversely, EMI students feel that understanding expert literature in English is their most insufficiently developed skill (3.57), while non-EMI students believe the same for giving oral presentations in English (3.03). An overview of EMI and non-EMI FYS' self-assessment of all the academic English language skills is provided in Table 8.

**Table 8**

*EMI and non-EMI FYS' self-assessment of their academic English language skills*

<b>Academic English language skill</b>	<b>Group</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Minimum</b>	<b>Maximum</b>
The ability to understand expert literature in English	EMI	3.57	0.67	3	5
	Non-EMI	3.17	0.90	1	5
The ability to write/take notes in classes conducted	EMI	4.02	0.61	3	5
	Non-EMI	3.37	0.97	1	5

in English					
The ability to take exams in English	EMI	4.15	0.62	3	5
	Non-EMI	3.42	0.95	1	5
The ability to write essays and other written assignments in English	EMI	3.70	0.68	2	5
	Non-EMI	3.30	1.02	1	5
The ability to understand lectures in English	EMI	4.37	0.62	3	5
	Non-EMI	3.86	0.90	2	5
The ability to understand instructions in classes conducted in English	EMI	4.47	0.55	3	5
	Non-EMI	3.91	0.94	1	5
The ability to ask questions in classes conducted in English	EMI	3.92	0.76	2	5
	Non-EMI	3.25	1.06	1	5
The ability to answer questions in classes conducted in English	EMI	4	0.64	3	5
	Non-EMI	3.26	1.03	1	5
The ability to give an oral presentation related to a specific topic in classes conducted in English	EMI	3.70	0.68	2	5
	Non-EMI	3.03	1.01	1	5
The ability to communicate with other students when working in a pair or a group in classes conducted in English	EMI	4.32	0.65	3	5
	Non-EMI	3.53	1.03	1	5
The ability to discuss a specific topic in classes conducted in English	EMI	4	0.67	3	5
	Non-EMI	3.13	1.07	1	5

As for TYS, understanding instructions in classes conducted in English is again perceived as their best developed academic skill by both EMI and non-EMI students, with a mean of 4.86 for EMI and 4.10 for non-EMI TYS. On the contrary, EMI TYS perceive the ability to discuss a specific topic in class as their most insufficiently developed academic English language skill (4.17), whereas non-EMI students are of the opinion that their most insufficiently developed academic English language skill is the ability to understand expert literature in English (3.39). An overview of EMI and non-EMI TYS' self-assessment of all the academic English language skills is provided in Table 9.

**Table 9**

*EMI and non-EMI TYS' self-assessment of their academic English language skills*

<b>Academic English language skill</b>	<b>Group</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Minimum</b>	<b>Maximum</b>
The ability to understand expert literature in English	EMI	4.30	0.55	3	5
	Non-EMI	3.39	0.87	1	5
The ability to write/take notes in classes conducted in English	EMI	4.65	0.57	3	5
	Non-EMI	3.52	0.95	1	5
The ability to take exams in English	EMI	4.69	0.55	3	5
	Non-EMI	3.52	0.83	2	5
The ability to write essays and other written assignments in English	EMI	4.34	0.64	3	5
	Non-EMI	3.51	0.93	1	5
The ability to understand lectures in English	EMI	4.82	0.38	4	5
	Non-EMI	3.94	0.96	1	5
The ability to understand instructions in classes conducted in English	EMI	4.86	0.45	3	5
	Non-EMI	4.10	0.89	1	5
The ability to ask questions in classes conducted in English	EMI	4.47	0.79	2	5
	Non-EMI	3.61	0.97	1	5

The ability to answer questions in classes conducted in English	EMI	4.47	0.66	3	5
	Non-EMI	3.52	0.91	1	5
The ability to give an oral presentation related to a specific topic in classes conducted in English	EMI	4.52	0.66	3	5
	Non-EMI	3.52	0.94	1	5
The ability to communicate with other students when working in a pair or a group in classes conducted in English	EMI	4.69	0.55	3	5
	Non-EMI	3.81	0.87	1	5
The ability to discuss a specific topic in classes conducted in English	EMI	4.17	0.77	2	5
	Non-EMI	3.52	0.93	1	5

By comparing these results, one can observe that EMI students consider their ability to understand instructions in classes as their best developed academic English language skill, both in their first and in their third year of study. On the other hand, they perceive understanding expert literature in English to be their greatest challenge in their first year of study, while in their third year of study it is their ability to discuss specific topics in class. With respect to non-EMI students, they also perceive the ability to understand instructions in classes conducted in English to be their best developed academic English language skill in both their first and third years. For their most insufficiently developed academic English language skill, they mention giving oral presentations in English in their first year, and understanding expert literature in English in their third year of study.

### ***7.2.2. Students' reasons and motivation for enrolment in EMI***

As reported in Čakarun and Drljača Margić (2022), EMI FYS are rather self-confident when it comes to their language proficiency. They believe that they have good English language knowledge, but would like to improve it further, motivated by a wish to continue

their education and/or build their careers abroad. They also feel that studying in English is more interesting and challenging.

I finished grammar school and wanted to enrol in an English-taught study programme. I think it will be easier for me later, I will maybe continue my studies abroad. I hesitated between an English-taught study programme in political sciences in Dubrovnik and this programme at EFRI, but as I live in Rijeka, this was more convenient. (24, EMI FY)

I chose the English-taught study programme primarily because of the language. I find English more attractive. It is an important foreign language and it opens all the doors. If I studied economics in Croatian, I'd have to stay in Croatia; studying in English opens up more possibilities in the future. (5, EMI FY)

The study programme itself seemed interesting, and I'm not planning to stay in Croatia, so I decided to study in English. I don't want to learn in Croatian anymore, I prefer learning in English. (19, EMI FY)

At the end of their undergraduate studies, EMI TYS have the same plans, and most of them would like to continue their graduate studies abroad.

I chose the English-taught study programme because I thought – and I still do – that good English would help one day in a job interview or if I continued my graduate studies somewhere abroad. I did apply for a master's degree programme abroad, but I still don't know the results. (12, EMI TY)

At the end of my secondary education, I found studying in English more attractive than studying in Croatian. I was always good at English and I didn't feel that studying in a foreign language would be a barrier. I want to live and work abroad, so I think that knowing English can only be an advantage. I plan on continuing my graduate studies abroad; there are several options, but I'll probably choose a study programme in Italy. It is also an English-taught study programme. (5, EMI TY)

I finished grammar school. My grandpa was an English teacher. I wanted to study in English, and my grandpa found out that there was an English-taught study programme in Rijeka. At the time I thought that only the University of Zagreb and the University

of Dubrovnik offered English-taught study programmes. I didn't want to study English language and literature and become a teacher; I wanted to study economics or politics, and international business is great because it's something in between. I plan to continue my graduate studies abroad, in the Netherlands. (23, EMI TY)

Regarding non-EMI FYS, 50% opted for a study programme that is not offered in English. Out of those 50%, 20% of the students state that they were not aware of the existence of an English-taught study programme at EFRI.

I chose a study programme in economics because I want to own a horse club. I think that economics will be useful, and the study programme itself is not too difficult. (192, non-EMI FY)

I knew about the English-taught International Business study programme, but I chose another study programme. I had the possibility of enrolling in some other faculties as well and couldn't decide what would be more interesting. I finally decided to study economics. (24, non-EMI FY)

I was interested in Marketing and didn't even know about the English-taught International Business study programme at the time. (41, non-EMI FY)

The remaining 50% of non-EMI FYS explain that they chose a Croatian-taught study programme due to potential language challenges. An additional reason mentioned for choosing a Croatian-taught programme is a tuition fee in EMI.

I knew there was an English-taught study programme, but Croatian is my mother tongue. I will understand more in Croatian than in English. There are a lot of discipline-specific terms I am not familiar with, and I think it would be more difficult for me if I heard them for the first time in a foreign language. (96, non-EMI FY)

I have always wanted to enrol in EFRI. I didn't choose the English-taught programme because of the tuition fee. (106, non-EMI FY)

At the end of their undergraduate studies, 67% of non-EMI TYS explain that they felt it would be more demanding to study in a foreign language. Twenty-eight per cent say that



they were more interested in another study programme, whereas only one non-EMI TYS (5%) mentioned the tuition fee.

I will continue with my graduate studies and I would like to enrol in the International Business study programme, but in Croatian. To be honest, I feel that studying in English would be too demanding. I know I could do it, but I think it would be very time-consuming. There is a lot of discipline-specific vocabulary which is difficult to remember even in Croatian, let alone in English. (19, non-EMI TY)

I didn't have the courage to choose an English-taught study programme. I don't have the necessary confidence in my English language knowledge. I don't think I know English so well that I could take all my exams in English. It would be more difficult for me because I would have to memorise all the lexis in English, and I would also have to memorise additional vocabulary in order to be able to explain discipline-specific terms in English. (69, non-EMI TY)

I thought that studying in Croatian would be easier. I had previously studied in Vienna for two years, and I didn't feel like studying in a foreign language again. You get used to it, but it would be more demanding during the first year. I already had the experience of going through all that in German and I didn't want to repeat everything in English again. (29, non-EMI TY)

I wanted to study finance. The International Business study programme was in general not that interesting to me. At the end of high school, I wasn't even sure what *international business* referred to. (25, non-EMI TY)

The English-taught International Business study programme was on my "top three" list at the end of my secondary education, but I wasn't among the three students with the best score, who didn't have to pay for their studies. So I decided to enrol in the Croatian-taught programme because I didn't want to burden my parents financially. (106, non-EMI TY)

### **7.2.3. Students' self-perceived English language learning process**

Regarding the question where students had to explain whether they believed that their English language acquisition was based only on their prior education, or whether they thought that their own engagement helped them more (foreign language schools, staying abroad,

reading and listening in English), 60% per cent of EMI FYS say that they learned English due to their own engagement, whereas 40% believe that the combination of their own engagement and their prior education led to their English language knowledge at the time. No students involved in the study believe that their English language knowledge at the time was based solely on their prior education.

My own engagement has helped me the most when it comes to English language learning, especially watching films and shows in English and listening to music in English. (9, EMI FY)

I think that watching content in English, listening to music in English and attending acting school in English helped more than education. (18, EMI FY)

I believe that my own engagement helped more, but I also had a solid basis from elementary school to build on. (7, EMI FY)

As for EMI TYS, 61% explain that the combination of their own engagement and their prior education led to their English language level at the time, and 35% believe that their own engagement played the most important role in their English language acquisition. Only one student (4%) finds education to be the most important factor in their language acquisition.

I think that education and our own engagement are equally important. I believe that education helps with the basics, and our own engagement is important because there are no limitations. In my case, every time I was interested in something, I would find more information in English than in Croatian, so in a way, I was forced to use English and learn it in this way. (20, EMI TY)

Education helped with acquiring grammar, and various content in English with learning vocabulary. (2, EMI TY)

I would say I learned 90% of my English due to movies, books, comic books and video games in English. When I was a child, I was motivated to learn English so that I could understand everything in English without translating anything. (4, EMI TY)

I can thank solely my education for my current English language knowledge. (18, EMI TY)

Concerning non-EMI students, 54% per cent of non-EMI FYS state that their own engagement played a key role in their English language acquisition, 35% explain that the combination of their own engagement and their education enabled the development of their English language, whereas 11% of students believe that their prior education contributed more than their own engagement.

I have learned almost nothing at school. I learned more by watching movies and listening to music in English. (145, non-EMI FY)

I watched movies in English with English subtitles. In this way I could listen to different accents at different speeds and practise my understanding. (120, non-EMI FY)

School helped with grammar and writing, but I improved my speaking skills, communication and understanding thanks to my own engagement. (35, non-EMI FY)

Everything I know comes from school, I just picked up a few things via my mobile phone. (146, non-EMI FY)

When it comes to non-EMI TYS, 57% per cent believe that the combination of their own engagement and their prior education built their English language knowledge, 36% per cent say that their English language knowledge at the time was due to their own engagement, whereas 7% consider their prior education to be the most important factor.

I would say that my current English language knowledge is primarily due to watching movies in English, reading, listening to English-speaking people and being surrounded by content in English. However, I cannot exclude education as one of the most important sources of knowledge, which provided me with the basics I could later build on. I think that the combination of both is necessary in order to achieve a good result and learn the language more efficiently. (113, non-EMI TY)

Education certainly helped, especially when it comes to grammar, but my own engagement (watching movies and series, reading and listening in English) helped a lot in improving my understanding and expanding my vocabulary. (101, non-EMI TY)

My own engagement definitely contributed more than education. When I was a child, I used to read books in English, and my English language knowledge was often on a

higher level than the knowledge of my peers. I also spent some time abroad and had to communicate in English, and media also helped a lot. (19, non-EMI TY)

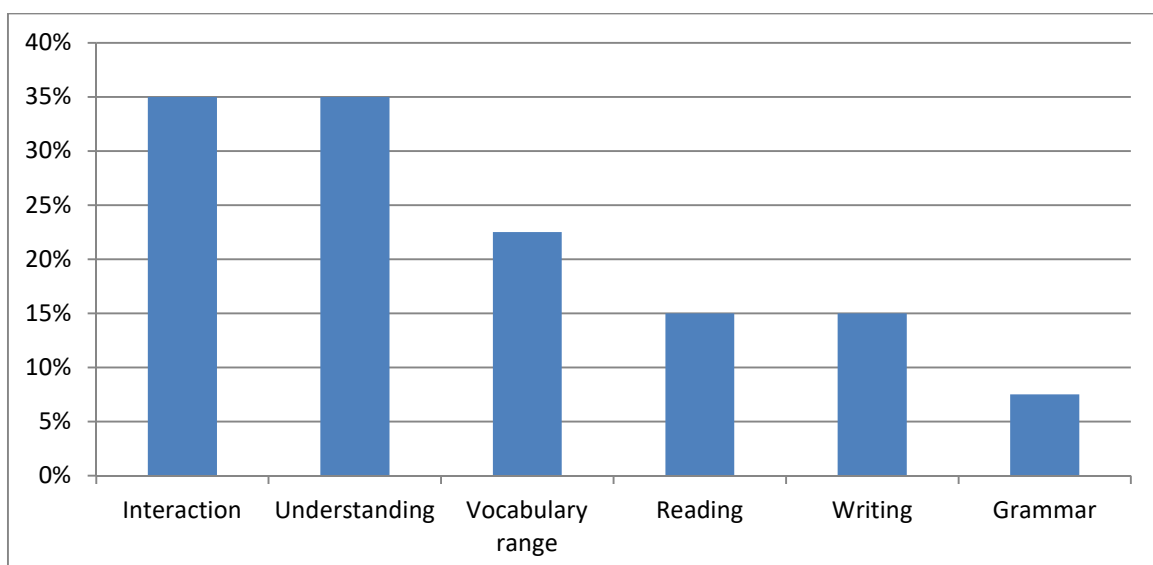
I learned a lot during my secondary education and my undergraduate studies. I don't really use English in my free time. (90, non-EMI TY)

#### 7.2.4. Students' self-perceived language strengths and weaknesses

An overview of students' answers related to their perceptions of their own strengths and weaknesses regarding the usage of English in general and for study purposes is shown in Figures 4 – 19. Figures 4 and 5 present EMI FYS' self-perceived language strengths and weaknesses when it comes to the usage of the English language in general. As can be seen in Figure 4, at the beginning of their studies, 35% of EMI FYS believe that interaction, that is, communication on an everyday basis, and understanding the English language are their greatest language strengths. Figure 5, on the other hand, presents their self-perceived language weaknesses and, as can be seen, the largest number of EMI FYS (37.5%) feels that their greatest weakness is their insufficient knowledge of grammar.

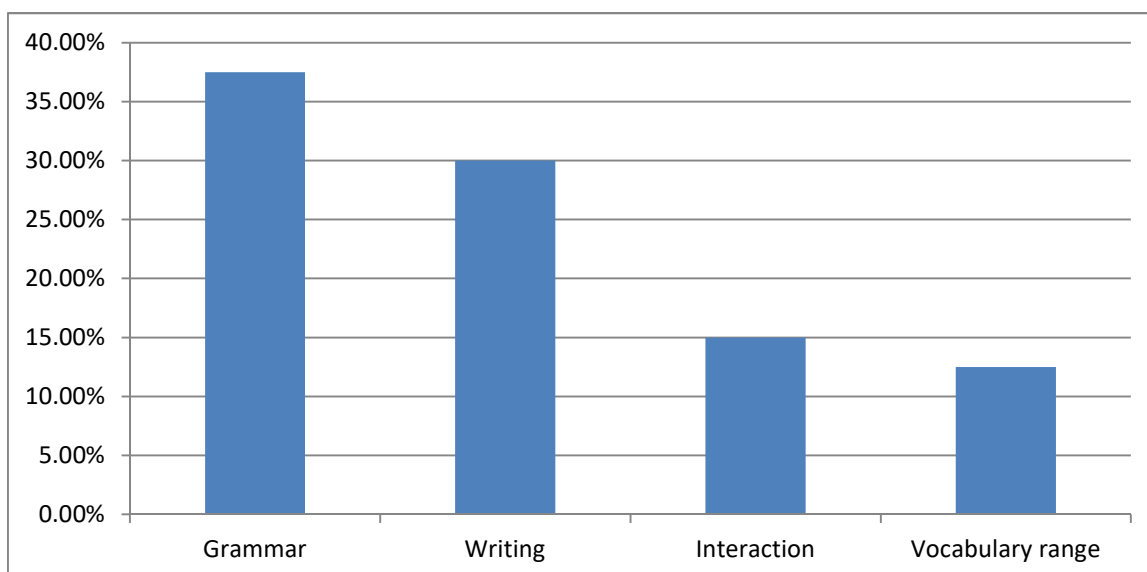
**Figure 4**

*EMI FYS: Self-perceived language strengths when using the English language in general*



**Figure 5**

*EMI FYS: Self-perceived language weaknesses when using the English language in general*



In the Croatian school system, grammar is explicitly taught at all levels of education (starting from primary school), and since most participants in this study had learned English for 12 years prior to their enrolment in university, in the interviews they were asked to clarify why they perceive grammar as their greatest weakness. Most of them perceive grammar as an abstract concept, which one either knows or does not know.

The knowledge of grammar depends on the students themselves. If one doesn't know English grammar, s/he probably also has problems with Croatian grammar, that is, with grammar in general. Effort is needed, I guess grammar is not that difficult if you work on it. (21, EMI FY)

When it comes to grammar, I do it by ear because there are too many tenses and I get confused. I never know exactly which tense to use. (6, EMI FY)

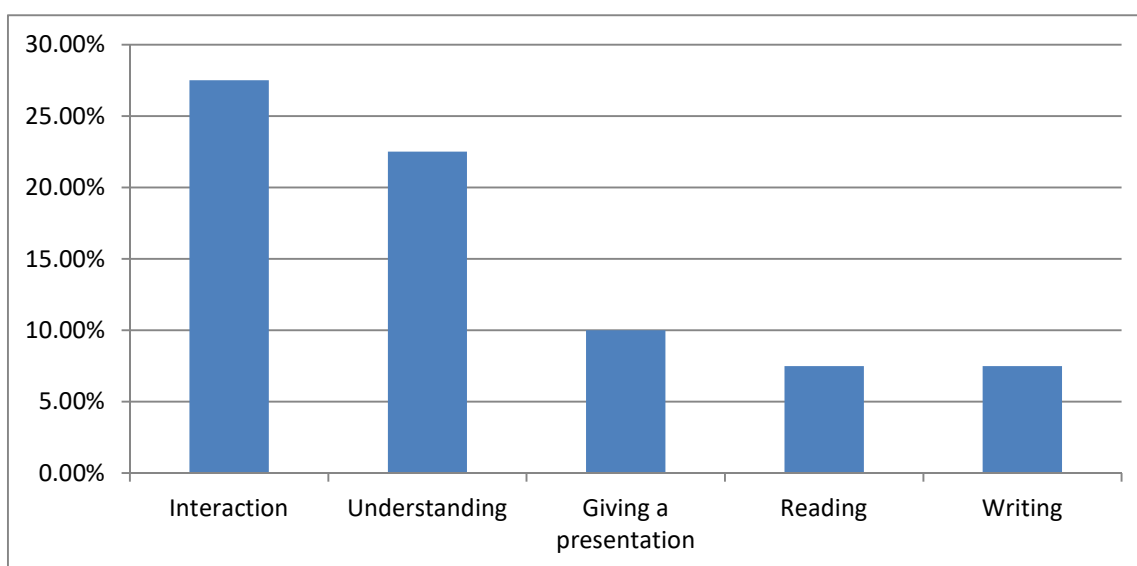
It's because we acquire a lot of English via multimedia. When it comes to grammar, we all have problems. I do it by ear, but if you ask me which grammatical structure I have just used, I won't be able to tell you because I don't know. (5, EMI FY)

Regarding the usage of English for study purposes, the results are presented in Figures 6 and 7. The largest number of EMI FYS finds their ability to interact in English (27.5%) and

their understanding of the English language (22.5%) to be their greatest strengths. However, when it comes to their self-perceived weaknesses, 35% of students believe that (a lack of) knowledge of discipline-specific vocabulary is their greatest weakness.

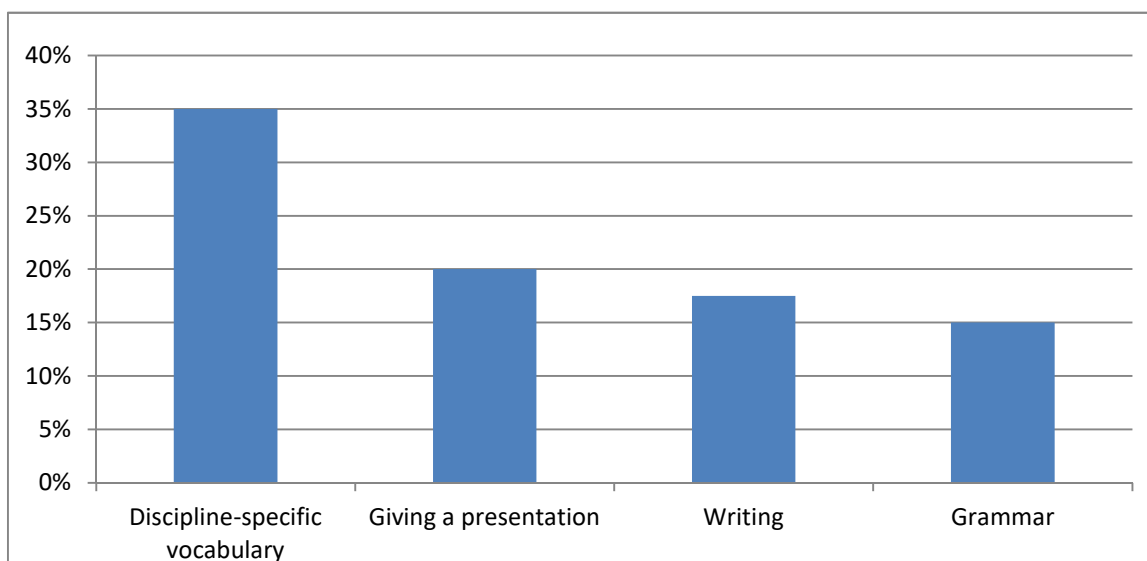
**Figure 6**

*EMI FYS: Self-perceived language strengths when using the English language for study purposes*



**Figure 7**

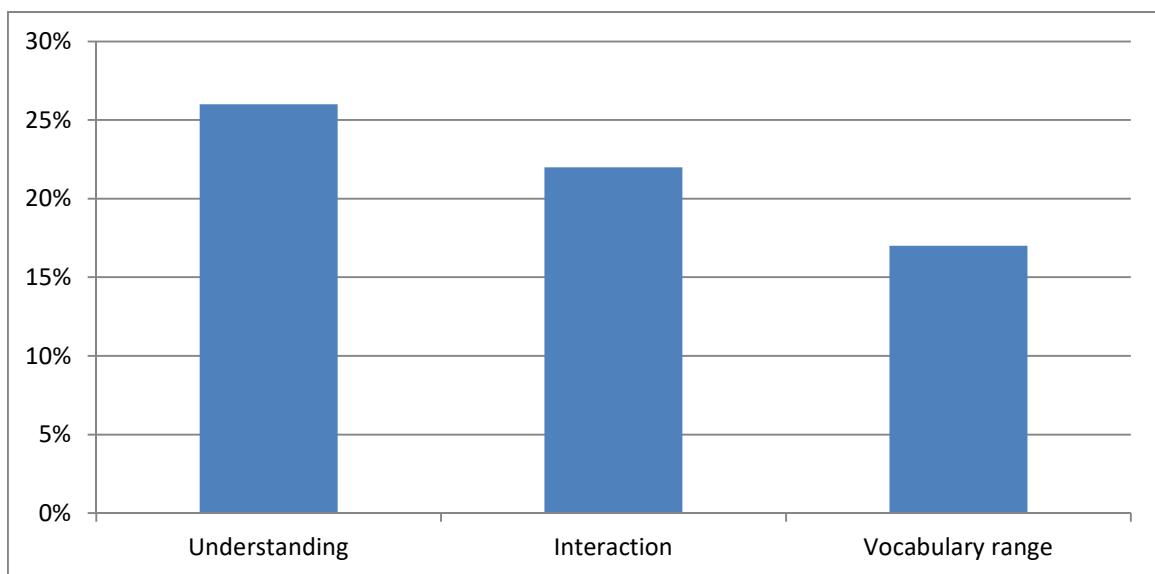
*EMI FYS: Self-perceived language weaknesses when using the English language for study purposes*



As for students' perceptions at the end of their studies, Figures 8 and 9 present EMI TYS' self-perceived language strengths and weaknesses regarding the usage of English language in general. As presented in Figure 8, similar to EMI FYS, the largest number of EMI TYS perceives their ability to understand the English language (26%) and to interact in English (22%) to be their greatest strengths. On the other hand, as shown in Figure 9, their greatest weakness seems to be writing (17%). It is worth mentioning that 17% of EMI TYS state that they have no weaknesses when it comes to the usage of English language in general.

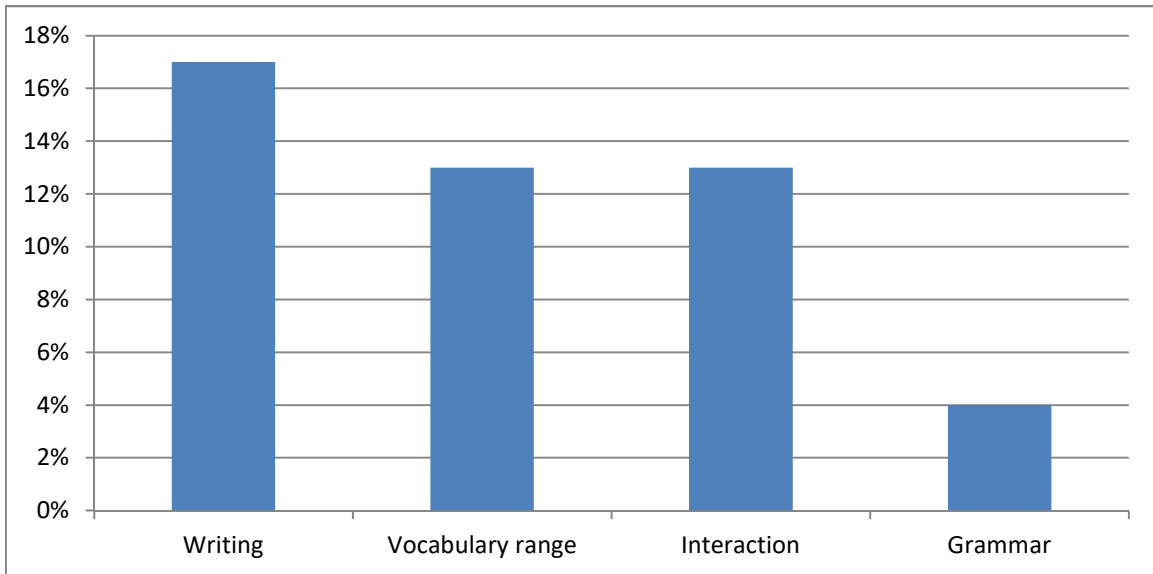
**Figure 8**

*EMI TYS: Self-perceived language strengths when using the English language in general*



**Figure 9**

*EMI TYS: Self-perceived language weaknesses when using the English language in general*

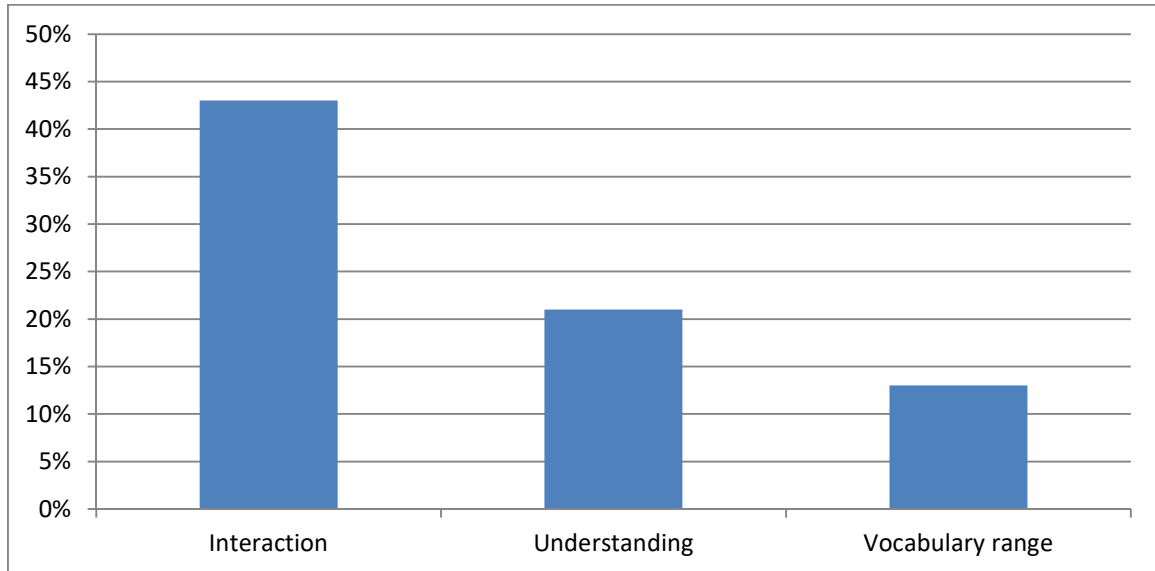


Concerning EMI TYS' perceptions of their language strengths and weaknesses when using English for study purposes, the overview of their answers is given in Figures 10 and 11. As can be seen, 43% of EMI TYS find the ability to interact in English to be their greatest strength, whereas writing (26%) again seems to be their greatest weakness. Thirty per cent of EMI TYS believe that they have no problems when using the English language for study purposes.



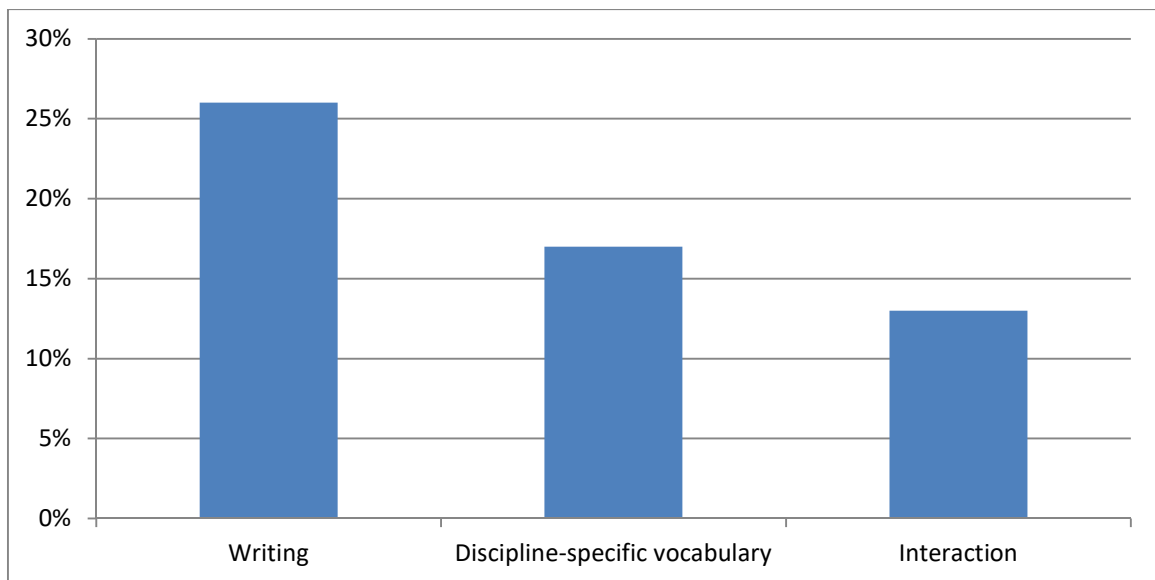
**Figure 10**

*EMI TYS: Self-perceived language strengths when using the English language for study purposes*



**Figure 11**

*EMI TYS: Self-perceived language weaknesses when using the English language for study purposes*



During the interviews, students were asked to comment on their self-perceived issues with writing.

When attending lectures, we don't write that much. We listen and read. I don't really take notes, and when it comes to exams, teachers do not correct our mistakes in terms of writing, nor do they take off points in case there is a spelling mistake. (19, EMI TY)

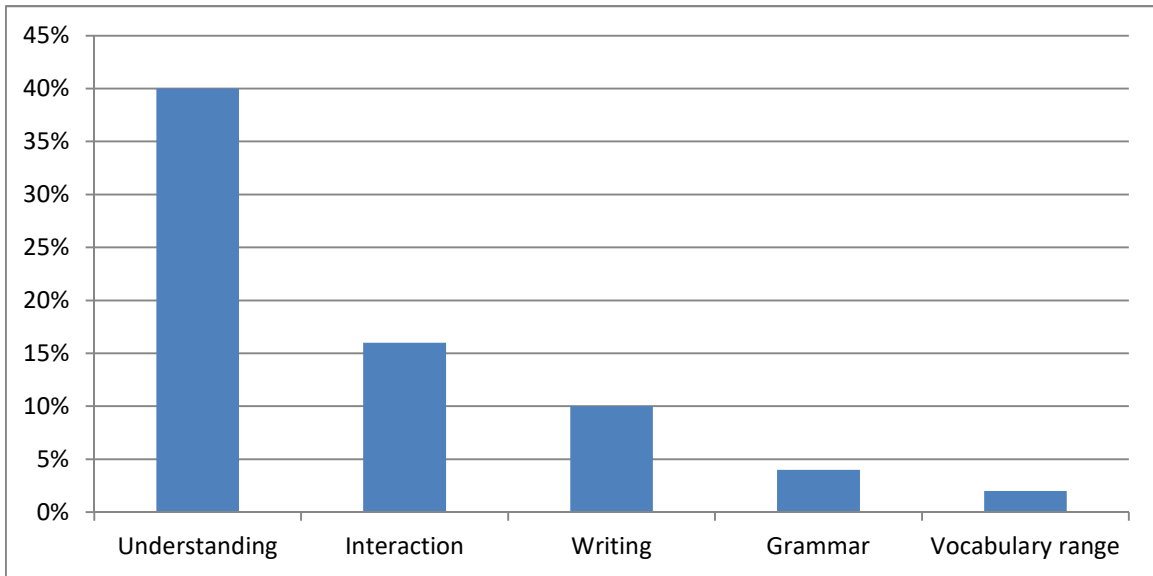
There are seminar papers that are supposed to be written during our studies, but they carry a small number of points, and, consequently, students don't even try to write them. Maybe students would put more effort into writing if we had writing assignments that carried a greater number of points. (12, EMI TY)

Writing is the greatest language issue, maybe because we watch content in English and this is how we acquire the language, we don't really write. We do write in English in our classes, but not as much as I would like. When I have to do a writing assignment, I use the *spellcheck* option and spelling mistakes are corrected automatically. (24, EMI TY)

With regard to non-EMI students, figures 12 and 13 give an overview of non-EMI FYS' self-perceived language strengths and weaknesses concerning the usage of the English language in general. As shown in Figure 12, 40% of non-EMI FYS believe understanding the English language to be their greatest language strength. Conversely, as presented in Figure 13, their greatest self-perceived language weakness is their knowledge of grammar (21%). It should be pointed out that 5% of non-EMI FYS believe they have no strengths when it comes to the usage of English in general.

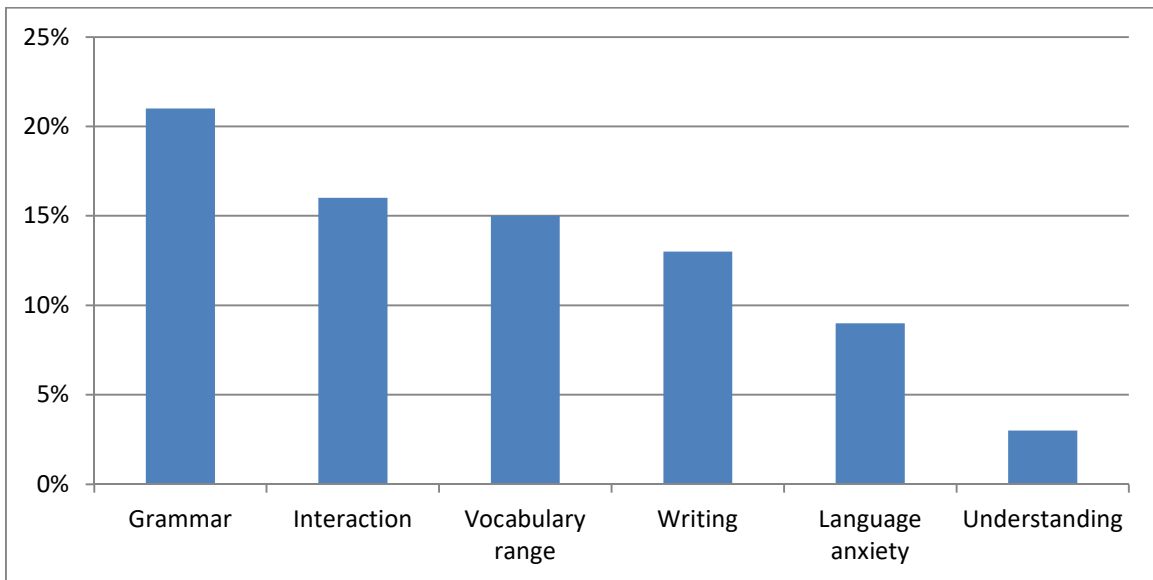
**Figure 12**

*Non-EMI FYS: Self-perceived language strengths when using the English language in general*



**Figure 13**

*Non-EMI FYS: Self-perceived language weaknesses when using the English language in general*



Their perceptions of grammar as their greatest weakness are similar to EMI students' perceptions.

It's difficult to memorise all the grammar rules. Because of that, it's easier to make a mistake when it comes to grammar than when it comes to vocabulary. (131, non-EMI FY)

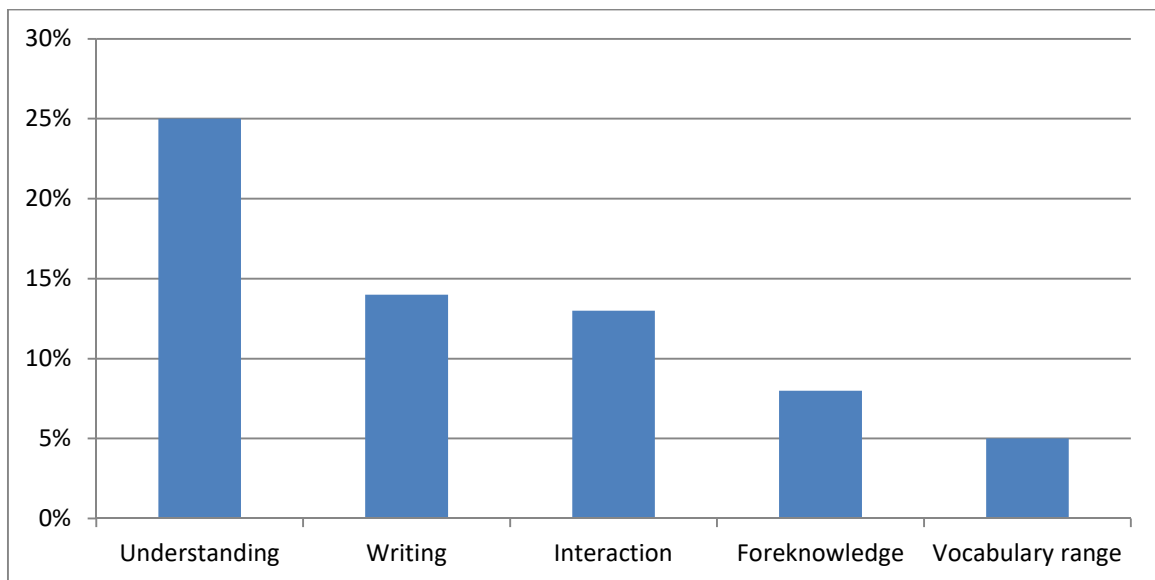
We just memorise the rules and learn them by heart, but we don't learn with understanding. (95, non-EMI FY)

English grammar is more complicated than Croatian grammar. There are irregular verbs, it's more complicated, but people take it for granted, they feel that they can communicate in English, and that they don't need grammar. (2, non-EMI FY)

The results concerning non-EMI FYS' usage of English for study purposes are presented in Figures 14 and 15. Understanding the English language well seems to be their greatest self-perceived strength (25%), as shown in Figure 14, while giving an oral presentation is perceived to be their greatest weakness (23%), as presented in Figure 15.

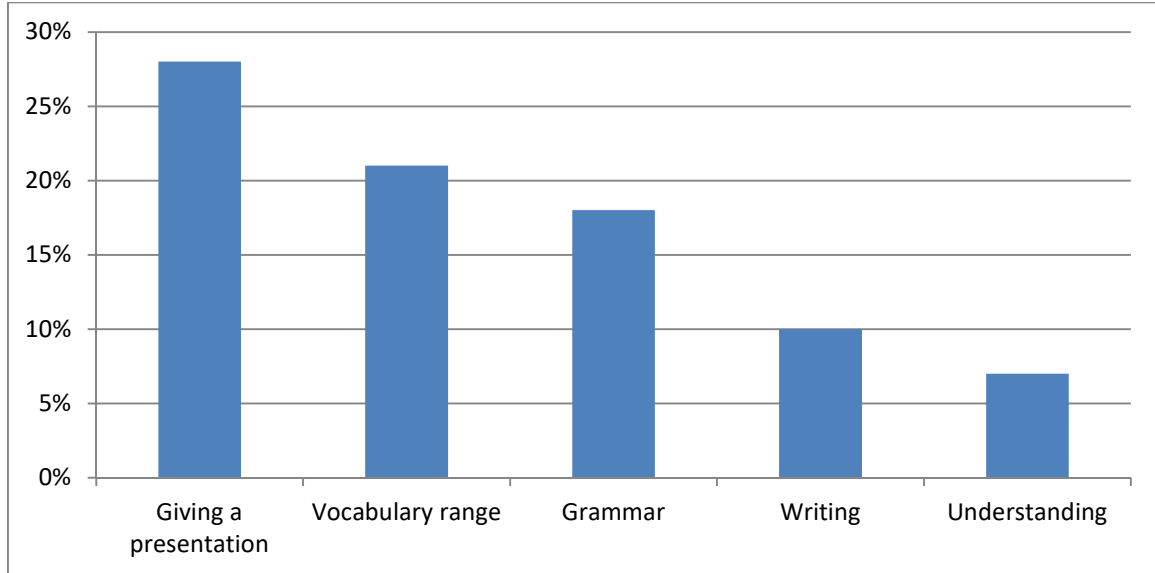
**Figure 14**

*Non-EMI FYS: Self-perceived language strengths when using the English language for study purposes*



**Figure 15**

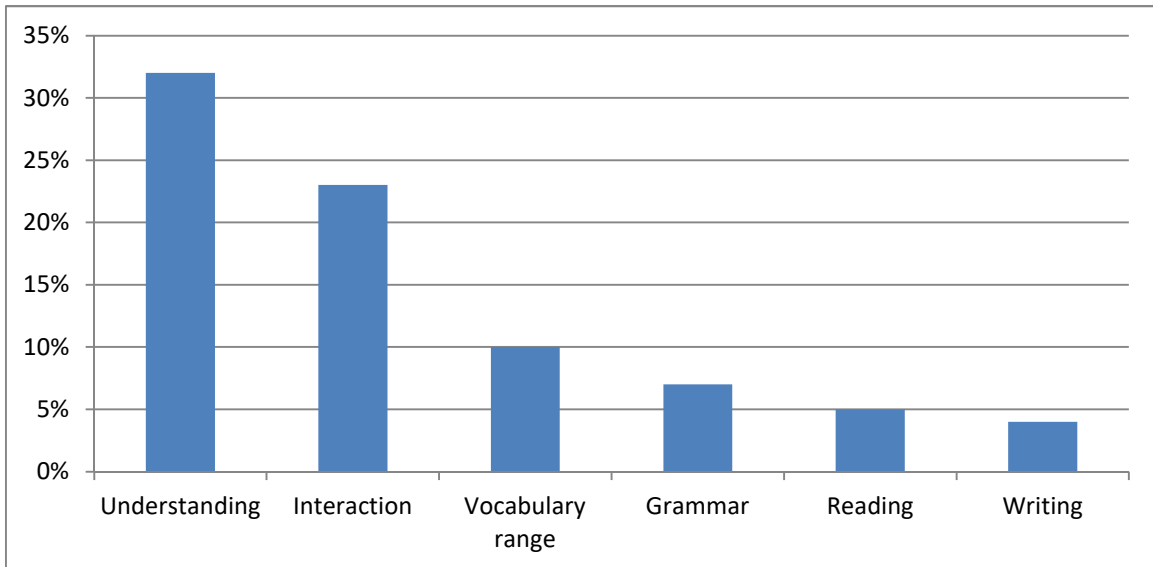
*Non-EMI FYS: Self-perceived language weaknesses when using the English language for study purposes*



With respect to non-EMI students' perceptions at the end of their studies, non-EMI TYS' self-perceived language strengths and weaknesses regarding the usage of English language in general are shown in Figures 16 and 17. The largest number of non-EMI TYS (32%) find their ability to understand the English language to be their greatest strength, as can be seen in Figure 16, whereas interaction seems to be perceived as both a strength (23%) and a weakness (25%), as can be seen in Figure 17. Two per cent of non-EMI TYS do not believe to have any weaknesses.

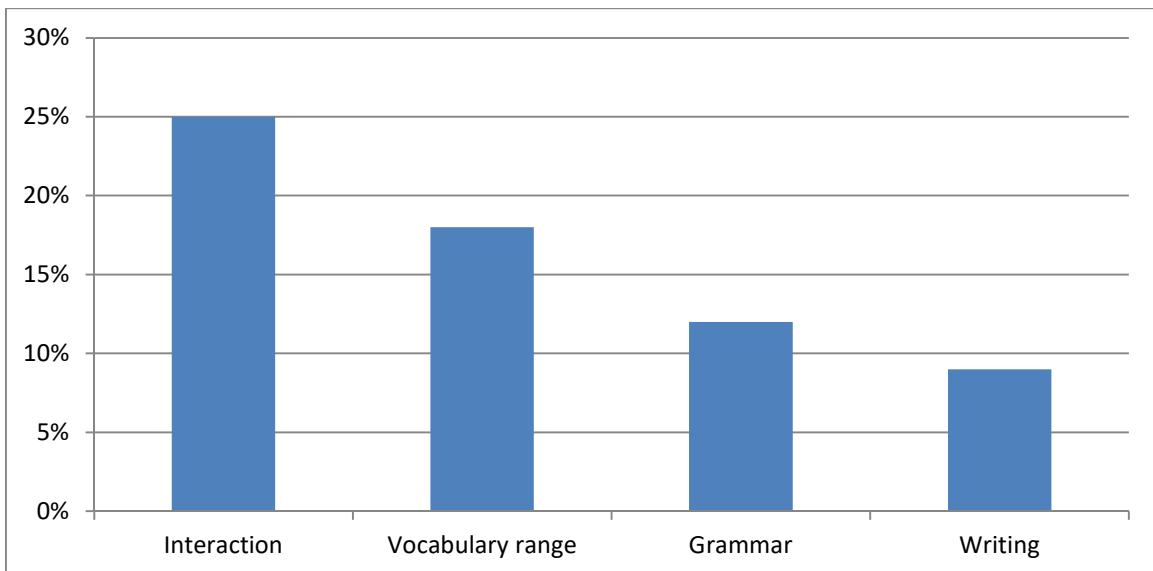
**Figure 16**

*Non-EMI TYS: Self-perceived language strengths when using the English language in general*



**Figure 17**

*Non-EMI TYS: Self-perceived language weaknesses when using the English language in general*

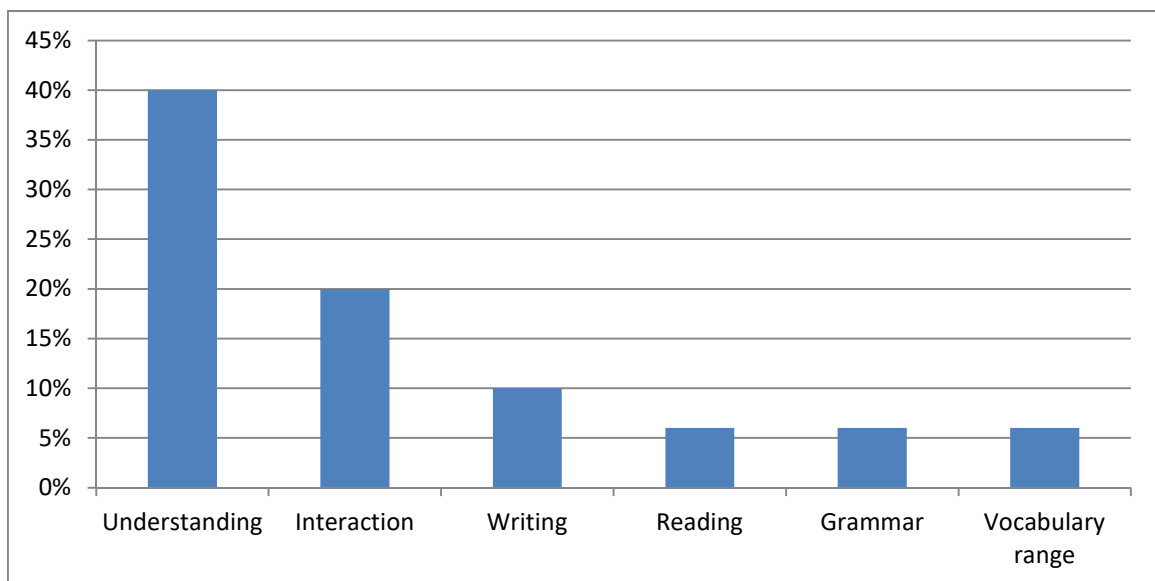


As for non-EMI TYS' self-perceived language strengths and weaknesses regarding the usage of English for study purposes, 40% of non-EMI TYS believe that their ability to understand the English language is their greatest strength, as shown in Figure 18. On the other

hand, 35% of non-EMI TYS perceive giving an oral presentation in English to be their greatest weakness, followed by a lack of knowledge in discipline-specific vocabulary (20%), as shown in Figure 19. Seven per cent of non-EMI TYS state that they have no problems when using English for study purposes. Conversely, 4% of students feel that they have no strengths.

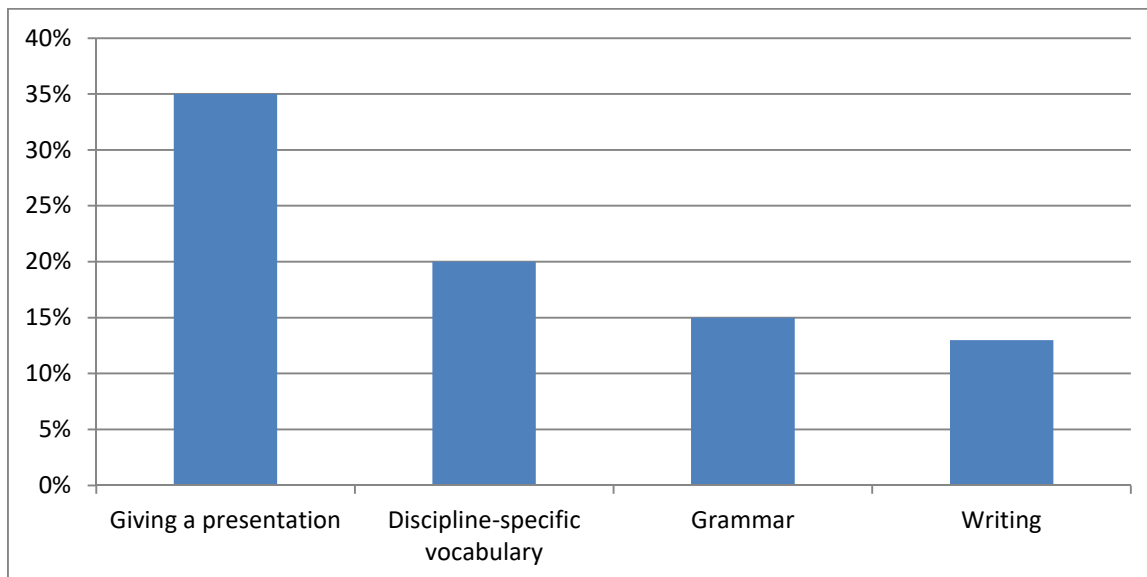
**Figure 18**

*Non-EMI TYS: Self-perceived language strengths when using the English language for study purposes*



**Figure 19**

*Non-EMI TYS: Self-perceived language weaknesses when using the English language for study purposes*



During the interviews, non-EMI TYS were asked to comment on their self-perceived issues with interaction and oral activities during classes.

We don't interact much in English. When we have a study-related activity to do as a group, we interact in Croatian because we all come from Croatia. (83, non-EMI TY)

I am sometimes embarrassed to use English. I am afraid that there will be grammar mistakes or that I will pronounce something wrong. (8, non-EMI TY)

I sometimes get confused when I am asked to speak in English. It's much easier for me to write in English, I have time to think and I can concentrate. (69, non-EMI TY)

### ***7.2.5. Students' expectations and expectation fulfilment as regards English language progress***

EMI FYS expect an improvement in their English language knowledge due to EMI, to help them continue their studies and/or build their careers abroad (Čakarun & Drljača Margić, 2022). As reported in Čakarun and Drljača Margić (2024), 43% of EMI FYS believe that the English-taught programme will help them advance their English language proficiency due to everyday exposure to and usage of the language. Twenty per cent of the students expect the



expansion of their vocabulary, whereas 28% hope for an improvement in their knowledge of discipline-specific terminology. An improvement in their communication skills is expected by 28% of EMI FYS, while 10% expect an improvement in their grammatical knowledge. Finally, 8% believe that their writing skills will be developed.

My English language knowledge will improve because we learn everything in English and I interact with teachers and colleagues during classes. (25, EMI FY)

I think my studies will contribute a lot because I will listen to and use the English language every day. (21, EMI FY)

My studies will contribute to my English language knowledge because I will learn new words and phrases in English and expand my vocabulary. (3, EMI FY)

My English will improve in all aspects: understanding, communication, grammar... (37, EMI FY)

On a scale from 1 (not at all) to 5 (to a very great extent), the mean demonstrating to what extent EMI FYS expect their English to improve is 4.39 (SD 0.60, min = 3, max = 5).

At the end of their undergraduate studies, EMI TYS mostly confirm the fulfilment of their expectations, primarily regarding the acquisition of discipline-specific vocabulary. More specifically, 62% report the acquisition of discipline-related vocabulary, 30% feel overall more proficient in the English language, 26% believe that their communication skills have improved, and 5% describe the improvement of their grammar skills. Around 20% of the students, whose expectations have not been fulfilled, mostly ascribe that to their content teacher's limited English language proficiency.

I can say that my vocabulary has expanded and that I am familiar with more discipline-specific terms now. (5, EMI TY)

I was forced to use the language every day. I had to learn and read literature in English, which improved my English language knowledge. (10, EMI TY)

My English language knowledge has improved because we had a lot of seminars and presentations, which contributed to the improvement of my communication skills. (2, EMI TY)

I can't say that my expectations have been fulfilled. I think that teachers should work on their English language and encourage communication with students during classes, instead of avoiding it. (17, EMI TY)

On a scale from 1 (not at all) to 5 (to a very great extent), the mean showing to what extent EMI TYS perceived their English to have improved is 4 (SD 0.852, min = 2, max = 5). Concerning the additional open-ended question inquiring into the fulfilment of their expectations regarding their English language progress, 83% of EMI TYS confirmed the fulfilment of their expectations.

Non-EMI FYS students also expect to improve their English language knowledge due to their undergraduate studies, especially in the domain of business English (Čakarun & Drljača Margić, 2022). More specifically, as reported in Čakarun and Drljača Margić (2024), 39% hold that their knowledge of discipline-specific terminology in English will be broadened, and 26% expect the development of their spoken production and communication skills. Eighteen per cent of the students expect an increase in their vocabulary knowledge, and 23% state that their English language will generally improve. Finally, 8% believe that they will understand English better, 5% expect an improvement in their grammatical knowledge, and 2% expect their writing skills to improve.

My English language knowledge will certainly improve. I will learn some new discipline-specific words and phrases. (217, non-EMI FY)

We will expand our vocabulary, which contributes to understanding and knowing the language better. (121, non-EMI FY)

Our studies will help us acquire new vocabulary and improve our communication skills. I think our English language knowledge will improve in general. (87, non-EMI FY)

On a scale from 1 (not at all) to 5 (to a very great extent), the mean revealing to what extent non-EMI FYS expect their English to improve is 3.82 (SD 0.72, min = 2, max = 5).

In their third year, non-EMI students confirm the fulfilment of their first-year expectations. Seventy-four per cent of non-EMI TYS believe that their studies contributed to their increased knowledge of discipline-specific vocabulary, and 10% say that their

communication skills have been improved. Nine per cent of the students hold that their English language knowledge has improved in general, and 8% refer to the development of their grammar skills. Two per cent of non-EMI TYS describe the improvement of their writing skills. Eight per cent, however, do not report any progress, mostly due to the small number of ESP courses they took during their undergraduate studies.

I expected to acquire vocabulary related to economics, which I could then relate to the content courses in Croatian, and I can say my expectations have been fulfilled. (62, non-EMI TY)

We learned a lot of new terminology, and our communication skills have been enhanced due to group work and participation in classes. (63, non-EMI TY)

My expectations are fulfilled. We revised grammar, but also expanded our vocabulary with new discipline-specific items. (82, non-EMI TY)

I took only the obligatory ESP courses during our first year of study and I don't think that contributed to my English language knowledge. (99, non-EMI TY)

Some non-EMI TYS argue that progress in business English is due to their studies, that is, ESP courses, where the emphasis is almost exclusively on discipline-specific vocabulary, whereas their general English progress for the most part cannot be related to their studies. Some students, however, point out that business and general English are inseparable and that they simultaneously progress thanks to their studies.

The name of the course we took was *Business English*, of course we focused on business English more. However, you need general English in order to communicate in class and to follow what is said. I think that general English language knowledge is a matter of personal endeavour. (83, non-EMI TY)

I think I progressed both in business and in general English. Of course, my progress is greater in business English because that's what we learned here during our undergraduate studies, but I also progressed in general English because I watch movies in English, read magazines, follow the news. (82, non-EMI TY)

Students may feel that way because the focus is on discipline-specific vocabulary, but if you attend classes, it is not possible for your English language knowledge to improve only partially. (88, non-EMI TY)

The mean showing to what extent non-EMI TYS perceived their English to have improved on a scale from 1 (not at all) to 5 (to a very great extent) is 3.39 (SD 0.89, min = 1, max = 5). As for the additional open-ended question inquiring into the fulfilment of their expectations regarding their English language progress, 84% of non-EMI TYS confirmed the fulfilment of their expectations. Comparing this percentage with the percentage of EMI TYS who confirmed the fulfilment of their expectations, the difference between the groups is not statistically significant (chi-square = 0.02, p = 0.87).

#### ***7.2.6. Students' views on language support***

With regard to the ESP courses offered during their undergraduate studies, EMI FYS believe that ESP courses will be helpful in the acquisition of discipline-specific vocabulary, because new vocabulary items are more thoroughly explained here than in content courses (Čakarun & Drljača Margić, 2022). They also point out that the content, teaching methods and atmosphere in ESP classes have a favourable impact on the development of their English language competences.

*Business English* will be useful because, in our other courses, teachers do not really explain all new vocabulary. Besides, in *Business English* we will also revise grammar and improve our communication skills. (40, EMI FY)

*Business English* is helpful because we cover topics related to economics, but the atmosphere is relaxing and communication is enhanced. It definitely contributes to our English language knowledge. (24, EMI FY)

I think *Business English* will be useful because it will help us expand our vocabulary. If we are acquainted with discipline-specific vocabulary and with the topics in economics, it is easier to discuss those topics in English. (7, EMI FY)

EMI TYS confirm the fulfilment of the expectations they had at the beginning of their undergraduate studies. They explain that it was easier to acquire discipline-specific

vocabulary due to ESP courses and that the courses provided a foundation they build on in other English-taught courses.

I found those courses extremely useful because I had finished grammar school and knew nothing about economics. In *Business English* I became acquainted with discipline-specific vocabulary I wasn't even aware of. It provided a great foundation and it's great that *Business English 1* is the course offered right at the beginning of our studies, because we can later understand the contents of other courses more easily. (12, EMI TY)

I think the courses were really useful during our first year of study. I don't have a problem with English in general, but I did have problems with business English. In those courses, vocabulary was explained in a simpler and more practical manner than in other courses. That was a great basis we used and expanded on later. (10, EMI TY)  
In *Business English* classes we covered some pretty important basic discipline-specific vocabulary items. For example, when we later took a course in accounting, I was already familiar with some vocabulary, which helped me understand what the course was about. (15, EMI TY)

EMI TYS were additionally asked about language support and language feedback in other courses. More specifically, they were asked whether teachers in their content courses provide any kind of language feedback. The students explained that both students and teachers make mistakes, but there is no reference to language or correction because the emphasis is on conveying the message.

I know I make mistakes, but nobody has ever corrected me. Sometimes students ask how something is said and teachers tell us, they help us with that, but it doesn't happen often. (12, EMI TY)

Teachers only cover the content. I don't think it has ever happened that a teacher corrected anyone. It happened a few times that a teacher or a student couldn't remember how to say something, and then they would ask in Croatian and somebody would tell them, but that wasn't a correction with the aim of improving the language. The focus has always been on the content. (10, EMI TY)

Teachers only cover the content, there is no reference to the language. If somebody makes a mistake, we all understand the point, it doesn't really matter. (22, EMI TY)

Although there is no language feedback, nor do teachers point to language mistakes, students hold that teachers should make reference to language. The majority, however, think so only if the teacher had excellent language skills or if they were native speakers.

Language feedback would make sense only if the teacher were a native speaker, otherwise I don't see the point. For example, if there is a discussion in class or if a student asks a question and makes an error, a teacher should provide feedback in such situations. Feedback would also be useful when it comes to final exams, which are written by hand; when we write seminar papers, we use the computers and the autocorrect option. (5, EMI TY)

I don't think that our teachers should provide language feedback because their English is not really perfect. In general, however, I think language feedback is a good idea. If our teachers were native speakers, then they could provide feedback during some activities, such as discussions during classes or situations where we have to express our opinions. (23, EMI TY)

I think teachers should provide language feedback because we would then try to improve our language and work on our mistakes. I think feedback would be useful when we give presentations. A teacher shouldn't criticise, but warn the student and point out what to work on. (15, EMI TY)

Non-EMI FYS have similar expectations at the beginning of their studies. They expect the courses to be helpful, especially in terms of discipline-specific vocabulary (Čakarun & Drljača Margić, 2022).

The *Business English* course will help because I will learn new phrases and words. I have never learned about economics in English before, so I am not really familiar with discipline-specific vocabulary. (201, non-EMI FY)

I think the courses will be great. It is important to learn some discipline-specific expressions, such as *white collar*, *blue collar*, *CEO* etc. We also use some abbreviations in English in some of our other courses. (213, non-EMI FY)

The courses will help us improve our knowledge in terms of discipline-related vocabulary, it's not like we read anything about economics in English on the Internet. (161, non-EMI FY)

Non-EMI TYS confirm the fulfilment of those expectations and explain that there has been a progress in their knowledge, primarily regarding discipline-specific vocabulary, but also communication and receptive skills. Some students believe that classes should include more interactive activities.

After taking the *Business English* courses, I can understand the news from the world easier. It is much easier for me now to understand why Elon Musk bought 9.2% of Twitter stock. When I read something discipline-specific like that, I can understand what I read more easily, I don't have to stop and translate anything. (83, non-EMI TY)

I wanted to improve my English and I think I have done that. We got some basic knowledge in the area of finance and we improved our communication skills. More project-based learning within the courses would be great, but then again, there is a lot of discipline-specific vocabulary, we can't really learn that on our own. (82, non-EMI TY)

My expectations regarding the *Business English* courses have been fulfilled, but I would suggest more creative workshops with an emphasis on communication, including discussions and debates. (114, non-EMI TY)

### ***7.2.7. Students' perspectives on the most beneficial classroom activities***

EMI TYS were also asked which activities (attending classes, reading literature, writing seminar papers, classroom interactions) contributed most to their language progress. They all agree that interactive activities contributed significantly to their English language advancement. Fifty per cent of EMI TYS add that reading (expert) literature was very helpful, 40% state that writing seminar papers or being involved in writing activities during classes also helped a lot, while 40% underline the importance of listening to teachers during classes.

Additionally, 25% of the students believe that using English in their free time accelerated their English language progress.

I learn new vocabulary when I prepare for my exams and read expert literature. When I don't understand something, I google that. I interact with my teachers and with exchange students, which contributes to my self-confidence and the development of my communication skills. Reading, writing, listening to English, using English – all of that helps. (10, EMI TY)

Reading expert literature, writing seminar papers and participating in class. I think those three activities contribute the most. (5, EMI TY)

I think all our activities contribute in the same way. A mixture of class activities and using English in my free time facilitated my English language progress. (12, EMI TY)

Regarding non-EMI TYS, who took ESP courses during their undergraduate studies, 50% of them believe that activities during classes and activities they undertake in their free time jointly contributed to their English language progress. Fifty per cent of the students hold that reading (expert) literature was very helpful. Thirty-eight per cent of non-EMI TYS believe that interactive activities during classes contributed significantly to their English language progress, 25% state that writing activities were quite helpful, and 25% referred to listening to their teacher during classes as very beneficial. Two students (12.5%) find that presentations they gave in class were very important for developing their own command of the language.

I think it's the combination of classes and tasks done at home for the purposes of my studies. When I have to do research regarding something we mentioned during classes, I do it in English and consequently learn some new vocabulary. (44, non-EMI TY)

I work at a reception desk during summer and I think both my English classes and my job contributed to my English language progress. During our English classes, we focused on discipline-specific vocabulary. We sometimes had projects in our Croatian-taught classes and had to do research at home. I always did it in English because there were more sources than in Croatian and then I realised that I could understand the



discipline-specific vocabulary we were taught in our English classes. (106, non-EMI TY)

Writing seminar papers and learning for exams using the literature in English helps the most. You really have to sit, read, understand what you are reading, you can't really just memorise everything by heart. (82, non-EMI TY)

This chapter has presented the results of the research conducted for the purposes of this thesis. More specifically, the results of the language tests written by EMI and non-EMI students at the beginning and the end of their undergraduate studies were presented, as well as a comparison of those results. The chapter has also offered insights into students' motivation, expectations, views and perceptions. In the next chapter, the main findings of the thesis are discussed and related to other relevant findings obtained from similar studies.

## 8. Discussion

The findings of this longitudinal study show that, at the beginning of their undergraduate studies, EMI students have greater general and business English knowledge than non-EMI students. The average number of points achieved on each test and the differences between the test results of EMI and non-EMI FYS presented in section 7.1.1. indicate that all the differences are statistically significant, pointing to EMI FYS' better English knowledge. The self-assessment mean for their English language skills according to the CEFR is also higher than that of non-EMI students.

When analysing the results that EMI and non-EMI students obtained in their third year of study, that is, at the end of their undergraduate studies, EMI TYS again achieved better results than their non-EMI counterparts. As at the beginning of their studies, all the differences between EMI and non-EMI TYS are also statistically significant (see section 7.1.2.).

Comparison of EMI and non-EMI FYS' and TYS' results presented in section 7.1.3. indicates that EMI and non-EMI students make similar language progress in general English, whereas EMI students progress better in business English. More specifically, EMI students' means are higher than those of non-EMI students in both their first and their third years. However, EMI students progress better on the OPT, while non-EMI students make greater progress on the C-test. Regarding the BET, the progress of EMI students is better. As for the results of their self-assessment, there is a rise for both groups. However, the self-assessment rise of EMI students is greater than that of non-EMI students.

When looking at students' self-assessment of their academic English language skills, as shown in section 7.2.1., EMI students' self-assessment is also higher than non-EMI students' self-assessment for each skill, in both their first and their third years of study. To be more specific, both groups of students perceive their ability to understand instructions in classes as their best developed academic English language skill in both their first and their third years of study, with higher means for EMI students. EMI students regard understanding expert literature in English as their greatest challenge in their first year of study, and their ability to discuss specific topics in class in their third year of study, while non-EMI students feel the same for giving oral presentations in English in their first year and understanding expert literature in English in their third year.

These findings confirm those of other studies, which report on the improvement of EMI students' English language knowledge during their studies (Cosgun & Hasırcı, 2017; Li, 2017; Rogier, 2012; Vidal & Jarvis, 2020; Yuksel et al., 2023). The findings presented in this thesis largely corroborate the findings of the preliminary study presented in Čakarun and Drljača Margić (2021), where non-EMI students progressed better in general English, and EMI students in business English. When students are tracked throughout their undergraduate studies and examined both at the beginning and the end of their studies, the results do not differ greatly. The motivation, expectations, views and perceptions described via the questionnaires and during the interviews point to the fact that EMI students' motivation for language learning is greater than the motivation of non-EMI FYS at the beginning of their studies (cf. Chen & Kraklow, 2015). They are motivated to learn the language and improve their English language knowledge due to their inclination to continue their studies and/or pursue their careers abroad (Chen & Kraklow, 2015; Collins, 2010; Drljača Margić, 2021; Drljača Margić & Vodopija Krstanović, 2017; Drljača Margić & Žeželić, 2015; Ekoç, 2020; Fernández-Costales, 2017; Fidan Uçar & Soruç, 2018; Hu et al., 2014; Iwaniec & Wang, 2022; Jiang & Zhang, 2019; Kim & Yoon, 2018; Kirkgöz, 2005; Kirkgöz, 2014; Kuchah, 2016; Sahan & Şahan, 2024). The responses gained from EMI TYS also show greater linguistic self-confidence at the end of their undergraduate studies than at the beginning. They believe that they have achieved their goal of improving their English language knowledge, and they plan on continuing their graduate studies abroad. These findings are in line with Guo et al. (2018: 10), who note that EMI enhances students' learning motivation, which is "driven by external forces of parental and social expectation for job placement in foreign-run corporations and admission to graduate schools overseas". Besides this, the self-assessment rise among EMI students participating in this study is greater than that of non-EMI students at the end of their undergraduate studies, which points to an important contribution of EMI to the enhancement of students' linguistic self-confidence (cf. Fernández-Costales, 2017; Wilang & Nupong, 2022). Similarly, the self-assessment of their academic English language skills is also higher than that of non-EMI students, indicating students' recognition of how EMI contribution to the development of those skills.

Unlike EMI students, non-EMI students have different interests and plan to stay in Croatia, as shown in section 7.2.2. Additionally, 50% of them are deterred by the belief that it would be more demanding to study in a foreign language. What is interesting is that this

percentage rises at the end of their undergraduate studies, where 67% of non-EMI TYS hold that belief, despite the results of the language tests indicating their progress in both general and business English. It seems that their studies strengthened their belief that studying in their mother tongue is already difficult enough due to a large amount of discipline-specific vocabulary and content that needs to be acquired, and that studying in a foreign language would have an exacerbating effect (cf. Drljača Margić & Vodopija Krstanović, 2017; Kim et al., 2016). The underlying rationale for these findings might be the fact that a greater number of EMI students completed grammar school in comparison to non-EMI students, and that over 90% of EMI FYS have reached a higher level of English on the national school-leaving examination, in comparison to 47.2% of non-EMI FYS, which might also be an explanation for the greater self-assessment mean of EMI students at the beginning of their studies. As discussed in Čakarun and Drljača Margić (2022), in the Croatian school system, the focus on foreign languages is greater in grammar schools than in vocational schools, resulting in EMI students, who predominantly come from grammar schools, having better English language knowledge at the beginning of their undergraduate studies and therefore being more confident in it. What is worth mentioning here is that EMI gets its full recognition in students' third year. Although exposure to English in students' free time contributes significantly to their language development, at the end of their studies, EMI students increasingly ascribe their English language proficiency development to their studies, especially in terms of business English, as their studies provide a basis which they can then build on and use to expand their knowledge on their own. It is also noteworthy that EMI students' self-assessment of their academic English language skills is greater than that of non-EMI students at both the beginning and the end of their studies, leading to the conclusion that EMI not only contributes to the advancement of students' English language knowledge but also to the development of their academic English language skills. Although non-EMI TYS underline the importance of both their exposure to the language in their leisure time and their education, they do not attribute their English language progress to education as much as EMI TYS, and the self-assessment of their academic English language skills is also lower. The latter explain that being exposed to the language in class every day and undertaking class-related activities, such as writing seminar papers, listening to teachers or doing research for their study-related projects largely contribute to the improvement of their English language knowledge (cf. Čakarun & Drljača Margić, 2022). They greatly attribute their language progress to language

immersion in higher education and thus indirectly suggest that language immersion is more beneficial for language progress than EFL or ESP classes.

As already mentioned, this is primarily true for business English. While general language progress is inevitably the joint result of students' education and their exposure to the language in their free time, students' progress in business English can be primarily attributed to education, including both classroom activities and tasks outside the classroom. Moreover, EMI students' greater progress in business English can be primarily related to English as the medium of education.

When asked to specify their language strengths and challenges, the results presented in section 7.2.4. point to interaction and understanding as EMI and non-EMI students' self-perceived language strengths at both the beginning and the end of their studies, which is also in line with the self-assessment of students' academic English language skills. Interestingly, both groups of FYS perceived grammar to be their greatest language weakness when using the English language in general. Regarding the usage of the English language for study purposes, EMI students specify discipline-specific vocabulary to be their self-perceived language weakness in their first year, and writing in their third year, whereas non-EMI students outline oral activities as their greatest self-perceived language weakness at both the beginning and the end of their studies, which is also in line with the self-assessment of their academic English language skills, where they assessed oral skills with a lower mean. As additionally gained from the interviews, at the end of their studies, EMI students still perceive discipline-specific vocabulary to be a challenge, mostly since it is not vocabulary used on an everyday basis. Although ESP classes are of significant help, EMI students also mention coping strategies, which, in their opinion, were employed more often in their first year of study, when they had to take extra time after classes in order to find and understand the meaning of new discipline-specific vocabulary (Ali, 2020; Jiang & Zhang, 2019; Muttaqin & Chuang, 2022; Wilang, 2022). This extra time, although decreasing throughout their studies, also contributes to language progress, which is in line with Moratinos-Johnston et al. (2019), who describe the experiences of students who had difficulties coping with EMI at the beginning of their studies. However, with additional endeavour, their initial challenges decreased with time and their English language skills improved.

When looking at students' responses regarding the language support provided during their studies, it can be seen that both EMI and non-EMI FYS believe that the ESP courses

offered throughout their course of study will be helpful, particularly concerning the acquisition of discipline-specific vocabulary. Non-EMI TYS state that those expectations have been fulfilled, but they wish for more interactive activities during classes, which would provide them with the opportunities for using English more often. Based on their self-perceived language weaknesses, where they found interactive activities to be their greatest challenge, it may be concluded that a limited number of ESP classes offered to non-EMI students during their studies is not sufficient for the development of students' oral skills. Conversely, all EMI TYS agree that interactive activities were most valuable in terms of contribution to their English language progress, as shown in section 7.2.7., pointing to the fact that, in EMI, students have more opportunities to interact in English and to use English in general. Likewise, Jiang and Zhang (2019), Hu et al. (2014) and Yang et al. (2019) underline the importance of interactive activities, as they contribute to both language and content knowledge improvement. Storch and Hill (2008: 04.13) also note that interaction, that is, "an input-rich environment, and opportunities to produce output", is essential for the development of students' English language skills. This is in line with Long's Interaction Hypothesis, Swain's Output Hypothesis, SCT and language socialisation, which accentuate the significance of interaction and collaboration (see chapter 4). EMI TYS describe the ESP courses they attended in their first year as major support at the beginning of their studies, largely due to their content teachers not directly referring to the language in their classes. Thus, ESP courses are seen as useful scaffolding for both content and language acquisition. In a similar vein, in a study conducted by Hu et al. (2014), EMI students were provided with additional reading, listening and speaking classes, which they found to be a valuable contribution to the improvement of their English language proficiency, and Cicillini (2021) reports on language support classes which the students consider to be highly beneficial. Also, the participants in studies conducted by Aizawa et al. (2023) and Arnó-Macià et al. (2020) emphasise the benefits of ESP courses that they attended during their course of study. The students from a study conducted by Barrios et al. (2016) believe that ESP courses should be offered as part of a partially English-taught programme they attend, but also that content teachers should place more focus on language. This is in line with most of the SLA theories presented in chapter 4 of this thesis. All theories, apart from Krashen's Monitor Theory, refer to the importance of language support to some degree. While Krashen believes that comprehensible input is sufficient for the acquisition of language, interaction and language

support play an important role according to behaviourist views, the Interaction Hypothesis, the Output Hypothesis, SCT, language socialisation and research based on content-based instruction. According to these theories, teachers' corrective feedback, as well as opportunities for interaction in class, are of considerable importance when it comes to second language acquisition. However, despite students' wishes or needs, content teachers do not feel responsible for students' language knowledge or competent to deal with the language, and they focus (almost) exclusively on the content (Aguilar, 2017; Aguilar & Rodríguez, 2012; Costa 2012; Dafouz et al., 2014; Pun et al., 2022). This is also noticeable from the EMI students' perceptions presented in section 7.2.4., as they perceive discipline-specific vocabulary in their first year of study and writing in their third year of study to be their greatest challenges with regard to the use of English for study purposes. From their comments, it can be seen that they wish for more activities that would focus on and help them develop those skills. However, language-related learning outcomes are not stipulated in content courses' curricula (Pecorari & Malmström, 2018; Smit, 2013). Moreover, similarly to the findings of Barrios et al. (2016), Byun et al. (2011), Cicillini (2021), Fernández-Costales, 2017, Fidan Uçar and Soruç (2018), Lei and Hu (2014) and Muttaqin and Chuang (2022), EMI students in this study doubt their content teachers' ability to deal with language issues and prefer their teachers with weaker language proficiency not to give language feedback (cf. Aguilar & Rodríguez, 2012). Consequently, as Jiang et al. (2016: 10) conclude, "if EMI is not a favourable source of language learning, students will naturally turn to ESP programmes for language assistance". Hence, Aizawa (2024), Aizawa et al. (2023), McKinley and Rose (2022) and Wilang and Nupong (2022) advocate for the provision of language support, which enables easier understanding of discipline-specific content, and is also essential for the advancement of students' English language proficiency.

Regarding students' expectations at the beginning and their expectation fulfilment at the end of their studies, both EMI and non-EMI FYS generally expect their English language knowledge to improve during their studies, although EMI students' expectations are greater than those of their non-EMI counterparts. While non-EMI FYS expect the improvement specifically in business English, EMI FYS also strongly believe that studying in English will contribute to the improvement of their general English language knowledge, given their everyday exposure to the language. However, although more than 80% of both EMI and non-EMI TYS confirm the fulfilment of their first-year expectations, the mean concerning the

extent of their expectation fulfilment decreases slightly for both groups of students (see section 7.2.5.). This decrease for non-EMI students might be due to a small number of ESP courses during their undergraduate studies, and due to the fact that the courses were primarily focused on discipline-specific vocabulary, with little room for work on general English and communication in the language, causing students to feel that progress in general English related to their studies was limited. For EMI TYS the decrease might be due to the above-described absence of language feedback and some content teachers' limited language knowledge (cf. Barrios et al., 2016). The reason for EMI students' high language-related expectations might be the expected language progress that is usually associated with studying in English. However, as shown throughout this thesis and confirmed by the findings presented herein, although their expectations might not be fully met, EMI students who participated in this study generally perceive studying in English positively and, despite certain (self-perceived) challenges, their English language proficiency is more advanced due to studying in English.

In this chapter, I have analysed and discussed the results obtained by the research conducted for the purposes of this thesis, and related the findings to those of extant literature. Chapter 9, which is the concluding chapter, answers the research questions, provides final conclusions on the topic and proposes future initiatives for research into EMI students' English language proficiency.



## 9. Conclusion

As explained at the beginning of this thesis, EMI is defined as the usage of the English language for teaching and learning in contexts where English is a foreign language. Although one of the stated benefits of EMI is the advancement of students' English language knowledge, teachers are focused on the acquisition of content, and the acquisition of the language is expected to be a by-product of studying in English (Dearden, 2018; Rogier, 2012). This is in accordance with Krashen's Input Hypothesis, which claims that language is acquired by understanding the meaning of comprehensible input, and that focus on form is not necessary (Krashen, 1982).

Notwithstanding a rise in the number of studies investigating EMI in general, studies examining students' English language proficiency and progress due to studying in English have been sparse, and their findings inconsistent. The purpose of this research was, therefore, to fill this gap and address this scarcely investigated aspect of EMI.

The thesis aimed to examine the effect of EMI on students' English language progress. To fulfil that aim, EMI students' English language proficiency in both general and business English was examined at the beginning and the end of their undergraduate studies and compared with the proficiency of their non-EMI counterparts. Additional inquiry was made into students' motivation for enrolment in EMI, expectations (fulfilment), views and perceptions regarding their English language development due to EMI.

The findings show that EMI students have better English language knowledge than non-EMI students at both the beginning and the end of their studies. They perform better in all tests and their self-assessment is higher. This is in line with the findings of the research conducted by Kim and Yoon (2018: 191), where EMI students also perform better than non-EMI students, leading to the conclusion that "more English-proficient students took the EMI classes". When EMI and non-EMI students' results are compared, it can be seen that both EMI and non-EMI students' English language proficiency is advanced during their course of study. In other words, the language test results, as well as their self-assessment means, are higher at the end of their undergraduate studies. Additionally, the comparison of their results presented in section 7.1.3. shows that these two groups of students make similar language progress in general English. However, when it comes to business English (the field of economics), EMI students' progress is greater. Besides, the self-assessment rise of EMI students is also greater than that of non-EMI students.

The qualitative findings offer some explanations for the quantitative findings. EMI students' main motivation for enrolling in an English-taught study programme is their wish to continue their studies or pursue their careers abroad. At the end of their undergraduate studies, some of them confirmed that they would like to continue their graduate studies in a foreign country. Conversely, non-EMI students opted for other study programmes, which were not offered in English, given their future plans and interests, but also because they considered studying in English to be more demanding. Some were also unaware that there was an English-taught programme at EFRI, while others did not want to pay the tuition fee. It seems that EMI students, who already have better English language knowledge than their non-EMI counterparts at the beginning of their studies, are also more motivated to improve their English language skills further with the aim of being better prepared for a future outside their home country.

The findings of this study also show that both EMI and non-EMI students attach greater significance to their own engagement (activities in English undertaken in their free time) at the beginning of their studies. However, the percentage of both EMI and non-EMI students who find their education to be important for their English language progress, in addition to their own engagement, rises towards the end of their studies.

Students' perceptions of their language strengths and weaknesses reveal that both EMI and non-EMI FYS and TYS perceive interaction and understanding to be their greatest language strengths when using English in general and for study purposes. However, at the beginning of their studies, both groups of students perceive grammar as their greatest weakness in general. Nevertheless, their self-perceived issues with grammar do not necessarily have to be weaknesses. Their perceptions only show that they mostly use grammatical structures subconsciously, that they are not necessarily familiar with grammar rules and, as stated by the students, that they do it by ear. However, applying grammar by ear does not necessarily indicate an incorrect usage of grammatical structures. Therefore, students' perceptions regarding the usage of grammar require additional attention and research. When asked about using English for study purposes, EMI students find discipline-specific vocabulary to be their greatest weakness at the beginning of their studies, and writing at the end of their studies. Non-EMI students, on the other hand, describe oral activities, specifically giving presentations, as their greatest self-perceived language weakness at both the beginning and the end of their studies. These perceptions offered by non-EMI students

lead to the conclusion that they do not have sufficient opportunities during their course of study to interact in English or improve their oral skills. The self-assessment of their academic English language skills, which is higher for EMI students, corroborates these findings. Given that non-EMI students only had two ESP courses in their first study year, and that only a limited number of students were able to take elective ESP courses in their second and third years of study, it is not surprising that they perceive oral activities challenging and the development of their academic skills less prominent. Conversely, giving a presentation is identified as a challenge by only 20% of EMI FYS, whereas nobody perceived it as one of their weaknesses in their third year of study. Although the perceptions of these two groups of students are difficult to compare due to their unequal exposure to language and opportunities to use the language throughout their studies, their comparison still provides insights into the development of students' (academic) skills, implying that EMI enhances the possibility of students using the language and practising their academic English language skills during their studies.

Concerning students' expectations and the fulfilment thereof, although both groups of FYS expect their English language knowledge to improve during their studies, EMI FYS' expectations are greater than those of non-EMI FYS. Whereas non-EMI students expect progress in their English language mostly in the area of business English, EMI students expect a general improvement in their English, due to studying in English and being exposed to the language on a daily basis. Nevertheless, while both EMI and non-EMI TYS confirm the fulfilment of their expectations, it seems that their expectations were not fully met. Non-EMI TYS appear somewhat dissatisfied with a limited number of ESP courses during their studies, and the limited expectation fulfilment of EMI TYS might be attributed to the lack of language feedback and limited language skills of some content teachers. What is significant, however, is that EMI students acknowledge the importance of ESP courses alongside their content courses because the former serve as scaffolding for the latter, and because they appreciate an explicit focus on the language and language feedback that they get only in ESP courses (cf. Macaro & Han, 2020). Although improvement in EMI students' English language knowledge is an apparent advantage of EMI, it seems that teaching and learning in English without any kind of language support is not considered sufficient for the advancement of students' English language proficiency (Cosgun & Hasırcı, 2017; Galloway et al., 2017). EMI students in this study find the ESP courses offered during their first year of study to be extremely useful,

primarily because those classes enhanced their understanding of the content in other courses. In addition, they see language feedback and correction as an important part of their English language progress. However, in their opinion, teachers should be language experts in order to do that, which indicates that they do not expect language feedback from their content teachers, but underline the importance of language support in EMI provided by language specialists. This is corroborated by other studies (Aizawa, 2024; Alhassan et al., 2021; Arnó-Macià et al., 2020; Barrios et al., 2016; Cosgun & Hasırcı, 2017; Costa & Mastellotto, 2022; Galloway & Rueg, 2020; Huang, 2015; Kym & Kym, 2014; Rose et al., 2023; Sahan & Şahan, 2024; Wilang, 2022) and emphasises the need for language support and an explicit focus on language in EMI. Although EMI is most often part of the top-down policies of different universities, introduced with the aim of internationalisation, the implementation and structure of EMI should be reconsidered and more attention should be devoted to the needs of its stakeholders. Moreover, EMI students participating in this study explain that class-related activities, such as interactive activities, reading (expert) literature, writing seminar papers and listening to teachers are of significant importance for the development of their English language knowledge (cf. Čakarun & Drljača Margić, 2022). To some extent, these findings contradict Krashen's Input Hypothesis and support other SLA theories, namely behaviourist views, the Interaction Hypothesis, the Output Hypothesis, SCT, language socialisation and research regarding content-based instruction, showing that, without language support, exposure to the language is not solely sufficient for the improvement of students' language knowledge. Although input and exposure are important, as well as the usage of language, language feedback and correction can also contribute significantly to acquiring the language correctly and advancing one's language proficiency.

Overall, with regard to the findings presented in this thesis, it can be concluded that EMI contributes to the improvement of EMI students' English language knowledge (cf. Cicillini, 2021; Rogier, 2012; Sahan & Şahan, 2024; Yuksel et al., 2023) given their everyday exposure to the language, engagement in various study-related activities both in and outside the classroom, and language support provided through ESP courses. Although EMI primarily advances students' business English language, complemented by students' use of English in their free time, it also fosters the development of their general English language proficiency.

This thesis has explored the English language progress of undergraduate EMI students of economics at the University of Rijeka, Faculty of Economics and Business, and compared

their progress with that of their non-EMI counterparts. In addition, their motivation for enrolment in EMI, expectations (fulfilment), views and perceptions regarding their English language improvement due to EMI were examined. It must, however, be taken into account that the study was conducted at only one institution, encompassing a small sample of students, which provides limited opportunities for painting a bigger picture. An additional challenge was the type of test used in this kind of research. In the absence of a standardised test for investigating EMI students' English language knowledge, similarly to some other researchers (Cicillini, 2021; Cosgun & Hasircı, 2017; Yuksel et al., 2023), in addition to the OPT, which was used to examine students' general English language command, I designed the C-test and the BET to investigate students' general and business English proficiency. Although it is difficult to draw a general conclusion regarding EMI students' English language proficiency, this thesis gives new insights into this insufficiently explored aspect of EMI, which deepen the understanding of the EMI phenomenon and its impact on students' English language progress.

## References

- Aguilar, M. (2017). Engineering lecturers' views on CLIL and EMI. *International Journal of Bilingual Education and Bilingualism*, 20, 722–735.
- Aguilar, M. & Rodríguez, R. (2012). Lecturer and student perceptions on CLIL at a Spanish university. *International Journal of Bilingual Education and Bilingualism*, 15(2), 183–197.
- Aizawa, I. (2024). Tracking the first-year experience in English medium instruction: A pre-post study of transitional challenges. *English for Specific Purposes*, 73(2024), 20–32.
- 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.
- Alhassan, A., Ali, N.A. & Ali, H.I.H. (2021). EFL students' challenges in English-medium business programmes: Perspectives from students and content teachers. *Cogent Education*, 8(1). DOI: 10.1080/2331186X.2021.1888671
- Ali, H.I.H. (2020). Omani Students' Coping Strategies in an English Medium Engineering Programme. *Arab World English Journal*, 11(2), 361–382.
- Allan, D. (2004). *Oxford Placement Test*. Oxford: Oxford University Press.
- Altbach, P.G. (2007). The imperial tongue: English as the dominating academic language. *Economic and Political Weekly*, 42(36), 3608–3611.
- Ament, J.R. & Pérez Vidal, C. (2015). Linguistic outcomes of English medium instruction programmes in higher education: A study on economics undergraduates at a Catalan university. *Higher Learning Research Communications*, 5(1), 47–67.
- 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.
- Atlı, I. & Özal, D. (2017). Does English medium instruction (EMI) make a difference on student motivation?. *Journal of Language Research (JLR)*, 1(1), 25–36.
- Bamond Lozano, V.M. & Strotmann, B. (2015). Internationalizing higher education: Language matters. *TESOL Quarterly*, 49(4), 847–857.

- Barnard, R. (2014). English medium instruction in Asian universities: Some concerns and a suggested approach to dual medium instruction. *Indonesian Journal of Applied Linguistics*, 4(1), 10–22.
- Barrios, E., López-Gutiérrez, A. & Lechuga, C. (2016). Facing challenges in English-medium instruction through engaging in an innovation project. *Procedia - Social and Behavioral Sciences*, 228, 209–214.
- Block, D. (2021). English-medium instruction in (neoliberalised) higher education: Questioning some assumptions. In E. Arnó-Macià, M. Aguilar Pérez, J. Borràs, G. Mancho Barés, B. Moncada Comas & D. Tatzl (Eds.), *Multilingual academic and professional communication in a networked world. Proceedings of AELFE-TAPP 2021*. Vilanova i la Geltrú: Universitat Politècnica de Catalunya. [https://upcommons.upc.edu/bitstream/handle/2117/348761/AELFE\\_TAPP\\_BLOCK\\_%20final.pdf?sequence=1&isAllowed=y](https://upcommons.upc.edu/bitstream/handle/2117/348761/AELFE_TAPP_BLOCK_%20final.pdf?sequence=1&isAllowed=y)
- Bolton, K., Botha, W. & Lin, B. (2024). English-medium instruction in higher education worldwide. In K. Bolton, W. Botha & B. Lin (Eds.), *The Routledge Handbook of English-Medium Instruction in Higher Education* (pp.1–17). London: Routledge.
- British Council. (2021). *The changing landscape of English-taught programmes*. British Council.
- Brown, J.D. (2001). *Using surveys in language programs*. Cambridge, UK: Cambridge University Press
- Byun, K., Chu, H., Kim, M., Park, I., Kim., S. & Jung, J. (2011). English-medium teaching in Korean higher education: Policy debates and reality. *Higher Education*, 62(4), 431–449.
- Chen, Y.-L.E. & Kraklow, D. (2015). Taiwanese college students' motivation and engagement for English learning in the context of internationalization at home: A comparison of students in EMI and non-EMI programs. *Journal of Studies in International Education*, 19(1), 46–64.
- Cicillini, S. (2021). *The language factor in English-medium instruction (EMI). The students' language experience in an EMI class in Medicine and Surgery*. [Unpublished doctoral dissertation]. University of Turin.
- Collins, B.A. (2010). English-medium higher education: Dilemma and problems. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 39, 97–110.

- Connelly, L.M. (2008). Pilot studies. *Medsurg Nursing*, 17(6), 411–412.
- Cook, V. (2016). *Second language learning and language teaching*. New York & London: Routledge.
- 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.
- Costa, F. (2012). Focus on form in ICLHE lectures in Italy: Evidence from English-medium science lectures by native speakers of Italian. *AILA Review*, 25(1), 30–47.
- Costa, F. & Mastellotto, L. (2022). The role of English for specific purposes (ESP) in supporting the linguistic dimension in English-medium instruction (EMI). *CLIL Journal of Innovation and Research in Plurilingual and Pluricultural Education*, 5(2), 37–52.
- Council of Europe. (2001). *Common European framework of reference for languages: Learning, teaching, assessment*. Cambridge: Press Syndicate of the University of Cambridge.
- Creswell, J.W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2<sup>nd</sup> edition). Thousand Oaks, CA: Sage Publications.
- Čakarun, K. & Drljača Margić, B. (2021). Language progress of EMI and non-EMI economics undergraduates: A comparative perspective. In E. Arnó-Macià, M. Aguilar Pérez, J. Borràs, G. Mancho Barés, B. Moncada Comas & D. Tatzl (Eds.), *Multilingual academic and professional communication in a networked world. Proceedings of AELFE-TAPP 2021*. Vilanova i la Geltrú: Universitat Politècnica de Catalunya.  
[https://upcommons.upc.edu/bitstream/handle/2117/348563/AELFE\\_TAPP%20%c4%8cakarun.pdf?sequence=1&isAllowed=y](https://upcommons.upc.edu/bitstream/handle/2117/348563/AELFE_TAPP%20%c4%8cakarun.pdf?sequence=1&isAllowed=y)
- Čakarun, K. & Drljača Margić, B. (2022). Motivacija studenata za studijski program na engleskome jeziku i očekivanja vezana uz jezični napredak. *Strani jezici*, 51(2022), 207–231.
- Čakarun, K. & Drljača Margić, B. (2024). EMI versus non-EMI: Students' motivation, expectations and language progress. In M. Aguilar-Pérez, B. Moncada-Comas & D. Tatzl (Eds.), *Developing Language Competence through English for Specific*



- Purposes in English-Medium University Settings* (pp. 52–67). Bristol: Multilingual Matters.
- Dafouz, E., Camacho, M. & Urquia, E. (2014). “Surely they can’t do as well”: A comparison of business students’ academic performance in English-medium and Spanish-as-first-language-medium programmes. *Language and Education*, 28(3), 223–236.
- Dalton-Puffer, C. (2008). Outcomes and processes in content and language integrated learning (CLIL): Current research from Europe. In W. Delanoy & L. Volkman (Eds.), *Future Perspectives for English Language Teaching* (pp. 139–157). Heidelberg: Carl Winter.
- Dearden, J. (2014). *English as a medium of instruction – a growing global phenomenon*. British Council.  
[https://www.britishcouncil.es/sites/default/files/british\\_council\\_english\\_as\\_a\\_medium\\_of\\_instruction.pdf](https://www.britishcouncil.es/sites/default/files/british_council_english_as_a_medium_of_instruction.pdf)
- Dearden, J. (2018). The changing roles of EMI academics and English language specialists. In Y. Kırkgöz & K. Dikilitaş (Eds.), *Key Issues in English for Specific Purposes in Higher Education* (pp. 323–338). Berlin, Germany: Springer.
- Delicado-Puerto, G., Alonso-Díaz, L. & Fielden Burns, L.V. (2022). Teaching students, creating teachers: Focusing on future language teachers and their education for bilingual classrooms. *Teaching English as a second or foreign language – electronic journal (TESL-EJ)*, 25(4). <https://tesl-ej.org/pdf/ej100/a10.pdf>
- Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative and mixed methodologies*. Oxford: Oxford University Press.
- Dörnyei, Z. & Taguchi, T. (2010). *Questionnaires in second language research construction, administration, and processing* (2<sup>nd</sup> edition). London: Routledge.
- Drljača Margić, B. (2021). Englishization of Croatian higher education: Conceptualizations, manifestations, and implications. In R. Wilkinson & R. Gabriëls (Eds.), *The Englishization of European higher education* (pp. 307–325). Amsterdam: Amsterdam University Press.
- Drljača Margić, B. & Vodopija-Krstanović, I. (2017). *Uncovering English-Medium Instruction: Glocal Issues in Higher Education*. Frankfurt am Main: Peter Lang.
- Drljača Margić, B. & Vodopija-Krstanović, I. (2020). The benefits, challenges and prospects of EMI in Croatia: An integrated perspective. In S. Dimova & J. Kling (Eds.),

- Integrating Content and Language in Multilingual Universities* (pp. 75–96). Cham: Springer.
- 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. English in Europe, Volume 2* (pp. 311–332). Berlin: Walter de Gruyter.
- Duff, P. (2010). Language socialization. In S. McKay & N.H. Hornberger (Eds.), *Sociolinguistics and language education* (pp. 427–455). Bristol, UK: Multilingual Matters.
- Ekoç, A. (2020). English medium instruction (EMI) from the perspectives of students at a technical university in Turkey. *Journal of Further and Higher Education*, 44(2), 231–243.
- Ekonomski fakultet Sveučilišta u Rijeci [University of Rijeka, Faculty of Economics and Business]. (2010). *Strategy of the Faculty of Economics Rijeka for the period 2010-2015*. Rijeka: Ekonomski fakultet Sveučilišta u Rijeci.
- Ekonomski fakultet Sveučilišta u Rijeci [University of Rijeka, Faculty of Economics and Business]. (2017). *Development strategy of the Faculty of Economics and Business in Rijeka 2017-2025*.  
<https://www.efri.uniri.hr/upload/Regulations/EFRIDEVELOPMENTSTRATEGY20172025.pdf>
- Ellis, R. (1994). *The study of second language acquisition*. Oxford: Oxford University Press.
- Fang, F. & Hu, G. (2022). English medium instruction, identity construction and negotiation of Teochew-speaking learners of English. *Journal of Multilingual and Multicultural Development*. DOI: 10.1080/01434632.2022.2051711
- Fernández-Costales, A. (2017). Assessing students' perceptions regarding English Medium Instruction in Higher Education. *Didáctica Lengua y Literatura*, 29, 43–63.
- Fidan Uçar, H. & Soruç, A. (2018). Examining Turkish university students' sense of achievement, motivation, and anxiety: A comparison of the English- and French-medium education systems. *Eurasian Journal of Applied Linguistics*, 4(2), 177–191.
- Flick, U. (2018). *Doing Triangulation and Mixed Methods*. Thousand Oaks, CA: SAGE Publications.

- Galloway, N., Kriukow, J. & Numajiri, T. (2017). *Internationalisation, higher education and the growing demand for English: An investigation into the English medium of instruction (EMI) movement in China and Japan*. London: British Council.
- Galloway, N. & Rose, H. (2021). English medium instruction and the English language practitioner. *ELT Journal*, 75(1), 33–41.
- Galloway, N. & Rueg, R. (2020). The provision of student support on English medium instruction programmes in Japan and China. *Journal of English for Academic Purposes*, 45. DOI: 10.1016/j.jeap.2020.100846
- Guo, H., Tong, F., Wang, Z., Min, Y. & Tang, S. (2018). English- vs. Chinese-medium instruction in Chinese higher education: A quasi-experimental comparison. *Sustainability*, 10(11), 4230. DOI: 10.3390/su10114230
- Hu, G., Li, L. & Lei, J. (2014). English-medium instruction at a Chinese University: rhetoric and reality. *Language Policy*, 13, 21–40.
- Hu, G. & Lei, J. (2014). English-medium instruction in Chinese higher education: A case study. *Higher Education*, 67, 551–567.
- Huang, D.-F. (2015). Exploring and assessing effectiveness of English medium instruction courses: The students' perspectives. *Procedia - Social and Behavioral Sciences*, 173, 71–78.
- Hultgren, A.K. & Wilkinson, R. (2022). New understandings of the rise of English as a medium of instruction in higher education: The role of key performance indicators and institutional profiling. *International Journal of the Sociology of Language*, 2022(277), 47–59.
- Hummel, K. M. (2014). *Introducing second language acquisition: Perspectives and practices*. Malden, MA: Wiley-Blackwell.
- Isaac, S. & Michael, W.B. (1995). *Handbook in research and evaluation*. San Diego, CA: Educational and Industrial Testing Services.
- Iwaniec, J. & Wang, W. (2022). Motivations to enrol in EMI programmes in China: An exploratory study. *Applied Linguistics Review*. DOI: 10.1515/applirev-2021-0180
- Jenkins, J. (2019). English medium instruction in higher education: The role of English as lingua franca. In A. Gao, C. Davison & C. Leung (Eds.), *Second handbook of English language teaching* (pp. 91–108). New York: Springer International Publishing.

- Jiang, A.L. & Zhang, L.J. (2019). Chinese students' perceptions of English learning affordances and their agency in an English-medium instruction classroom context. *Language and Education*, 33(4), 322–339.
- Jiang, L., Zhang, L.J. & May, S. (2016). Implementing English medium instruction (EMI) in China: Teachers' practices and perceptions, and students' learning motivation and needs. *International Journal of Bilingual Education and Bilingualism*, 22(2), 10–119.
- Kim, E.G., Kweon, S.-O. & Kim, J. (2016). Korean engineering students' perceptions of English-medium instruction (EMI) and L1 use in EMI classes. *Journal of Multilingual and Multicultural Development*, 38(2), 130–145.
- Kim, E.G. & Yoon, J.-R. (2018). Korean science and engineering students' perceptions of English-medium instruction and Korean-medium instruction. *Journal of Language, Identity & Education*, 17(3), 182–197.
- Kırkgöz, Y. (2005). Motivation and student perception of studying in an English-medium university. *Journal of Language and Linguistic Studies*, 1(1), 101–123 .
- Kırkgöz, Y. (2014). Students' perceptions of English language versus Turkish language used as the medium of instruction in higher education in Turkey. *Turkish Studies*, 9(12), 443–459.
- Kirkpatrick, A. (2014). The language(s) of HE: EMI and/or ELF and/or multilingualism?. *The Asian Journal of Applied Linguistics*, 1(1), 4–15.
- Klein-Braley, C. (1985). A cloze-up on the C-Test: A study in the construct validation of authentic tests. *Language Testing*, 2(1), 76–104.
- Klein-Braley, C. (1997). C-Tests in the context of reduced redundancy testing: An appraisal. *Language Testing*, 14(1), 47–84.
- Klein-Braley, C. & Raatz, U. (1984). A survey of research on the C-Test1. *Language Testing*, 1(2), 134–146.
- Knight, J. (2003). Updating the definition of internationalization. *International Higher Education*, 33 (Fall), 2–3.
- Knight, J. (2005). An internationalization model: Responding to new realities and challenges. In H. de Wit, I. C. Jaramillo, J. Gacel-Ávila, & J. Knight (Eds.), *Higher Education in Latin America: The international dimension* (pp. 1–38). Washington, D.C.: The World Bank.

- Krashen, S.D. (1982). *Principles and practice in second language acquisition*. Oxford: Pergamon Press.
- Krosnick, J.A. & Presser, S. (2010). Question and questionnaire design. In J. D. Wright & P. V. Marsden (Eds.), *Handbook of Survey Research* (pp. 263–313). West Yorkshire, England: Emerald Group.
- Kuchah, K. (2016). English-medium instruction in an English–French bilingual setting: Issues of quality and equity in Cameroon. *Comparative Education*, 52(3), 311–327.
- Kym, I. & Kym, M.H. (2014). Students’ perceptions of EMI in higher education in Korea. *The journal of Asia TEFL*, 11(2), 35–61.
- Lantolf, J.P., Thorne, S.L. & Poehner, M.E. (2015). Sociocultural theory and second language development. In B. VanPatten & B. J. Williams (Eds.), *Theories in second language acquisition* (2<sup>nd</sup> edition) (pp. 207–226). London: Routledge.
- Lasagabaster, D. (2018). Fostering team teaching: Mapping out a research agenda for English-medium instruction at university level. *Language Teaching*, 51(3), 400–416.
- Lasagabaster, D. (2022). *English-medium instruction in higher education*. Cambridge: Cambridge university press.
- Lasagabaster, D. & Sierra, J.M. (2010). Immersion and CLIL in English: More differences than similarities. *ELT Journal*, 64(4), 367–375.
- Lei, J. & Hu, G. (2014). Is English-medium instruction effective in improving Chinese undergraduate students’ English competence?. *International Review of Applied Linguistics in Language Teaching*, 52(2), 99–126.
- Li, M. (2017). Evaluation of learning outcomes in an education course: Does it work?. In J. Zhao & L.Q. Dixon (Eds.), *English-medium instruction in Chinese universities: Perspectives, discourse and evaluation* (pp. 147–164). London: Routledge.
- Lightbown, P. & Spada, N. (2013). *How languages are learned*. Oxford: Oxford University Press.
- Long, M.H. (1996). The role of the linguistic environment in second language acquisition. In W.C. Ritchie & T.K. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413–268). San Diego: Academic Press.
- Lueg, K. & Lueg, R. (2015). Why do students choose English as a medium of instruction? A Bourdieusian perspective on the study strategies of non-native English speakers. *Academy of Management Learning and Education*, 14(1), 5–30.

- Macaro, E. & Akincioglu, M. (2018). Turkish university students' perceptions about English medium instruction: Exploring year group, gender and university type as variables. *Journal of Multilingual and Multicultural Development*, 39(3), 256–270.
- Macaro, E., Curle, S., Pun, J., An, J. & Dearden, J. (2018). A systematic review of English medium instruction in higher education. *Language Teaching*, 51(1), 36–76.
- Macaro, E. & Han, S. (2020). English medium instruction in China's higher education: Teachers' perspectives of competencies, certification and professional development. *Journal of Multilingual and Multicultural Development*, 41(3), 219–231.
- Maiworm, F. & Wächter, B. (2002). *English-Language-Taught Degree Programmes in European Higher Education – Trends and Success Factors*. Bonn: Lemmens Verlags- & Mediengesellschaft.
- Martinez, R. (2016). English as a medium of instruction (EMI) in Brazilian higher education: Challenges and opportunities. In K. R. Finardi (Ed.), *English in Brazil: Views, policies and programs* (pp. 191–228). SciE-LO-EDUEL.
- Martinez, R. & Fernandes, K. (2020). Development of a teacher training course for English medium instruction for higher education professors in Brazil. In M. Sánchez Pérez (Ed.), *Teacher training for English medium instruction in higher education* (pp. 125–152). IGI Global.
- McKinley, J. & Rose, H. (2022). English language teaching and English-medium instruction. Putting research into practice. *Journal of English-Medium Instruction*, 1(1), 85–104.
- Merino, J.A. & Lasagabaster, D. (2018). CLIL as a way to multilingualism. *International Journal of Bilingual Education and Bilingualism*, 21(1), 79–92.
- Mills, G.E. & Gay, L.R. (2016). *Educational research: Competencies for analysis and applications* (11<sup>th</sup> edition). London: Pearson Education.
- Ministarstvo znanosti i obrazovanja [Ministry of Science and Education]. (2024). *Akreditirani studijski programi*.  
<https://hko.srce.hr/usp/pretrazivanje?naziv=&vrsta=on&vrsta=on&vrsta=on&vrsta=on&vrsta=on&vrsta=on&vrsta=on&vrsta=on&vrsta=on&nositelj=0&izvodac=0&vlasnistvo=0&strucniNazivText=&strucniNaziv=-1&sifraUpisnik=&podrucje=0&polje=0&mjesto=0&tipLokacije=0&jezikIzvođenja=en&nacinImplementacije=on&nacinImplementacije=on&nacinImplementacije=o>

[n&\\_nacinImplementacije=on&akGodIzvođenja=0&stem=0&\\_jednopredmetni=on&\\_jednopredmetni=on&stemStipendije=0&\\_nacinIzvođenja=on&\\_nacinIzvođenja=on](#)

- Mitchell, R., Myles, F. & Marsden, E. (2019). *Second language learning theories*. London: Routledge.
- Moratinos-Johnston, S., Juan-Garau, M. & Salazar-Noguera, J. (2019). The effects of English-medium instruction in higher education on students' perceived level and self-confidence in EFL. In C. Pérez Vidal, S. López-Serrano, J. Ament & J.T.W. Dakota (Eds.), *Learning context effects: Study abroad, formal instruction and international immersion classrooms* (pp. 75–100). Berlin: Language Science Press.
- Muttaqin, S. & Chuang, H-H. (2022). Learning expectations, challenges, and strategies of university students on English-medium instruction. *Journal on English as a Foreign Language*, 12(2), 272–294.
- Ochs, E. & Schieffelin, B.B. (2009). Language acquisition and socialization: Three developmental stories and their implications. In A. Duranti (Ed.), *Linguistic anthropology: A reader* (pp. 296–328). Oxford, UK: Blackwell Publishing Ltd.
- Ochs, E. & Schieffelin, B.B. (2011). The theory of language socialization. In A. Duranti, E. Ochs & B.B. Schieffelin (Eds.), *The handbook of language socialization* (pp. 1–21). Oxford, UK: Blackwell Publishing Ltd.
- Patten, M.L. (2014). *Questionnaire research: A practical guide* (4<sup>th</sup> ed.). Glendale, CA: Pyrczak Publishing.
- Pecorari, D. (2020). English medium instruction: Disintegrating language and content?. In S. Dimova & J. Kling (Eds.), *Integrating content and language in multilingual universities* (pp. 15–36). Cham: Springer.
- Pecorari, D. & Malmström, H. (2018). At the crossroads of TESOL and English medium instruction. *TESOL Quarterly* 52(3), 497–515.
- Phillipson, R. (2015). English as threat or opportunity in European higher education. In S. Dimova, A.K. Hultgren & C. Jensen (Eds.), *English-medium instruction in European higher education. English in Europe* (pp. 19–42). Berlin: Walter de Gruyter.
- Pun, J., Thomas, N. & Bowen, N.E.J.A. (2022). Questioning the sustainability of English-medium instruction policy in science classrooms: Teachers' and students' experiences at a Hong Kong secondary school. *Sustainability*, 14(4), 2168. DOI: 10.3390/su14042168

- Raatz, U. & Klein-Braley, C. (2002). Introduction to language testing and to C-Tests. In J. A. Coleman, R. Grotjahn & U. Raatz (Eds.), *University language testing and the C-Test* (pp. 75– 87). Bochum: AKS-Verlag.
- Rahman, M.M., Singh, M.K.M. & Karim, A. (2018). English medium instruction innovation in higher education: Evidence from Asian contexts. *Journal of Asia TEFL*, 15(4), 1156–1164.
- Richards, J.C. & Pun, J. (2023). A typology of English-medium instruction. *RELC Journal*, 54(1), 216–240.
- Rogier, D. (2012). *The effects of English-medium instruction on language proficiency of students enrolled in higher education in the UAE* [Doctoral dissertation, The University of Exeter]. University of Exeter Repository.  
<https://ore.exeter.ac.uk/repository/bitstream/handle/10036/4482/RogierD.pdf>
- Rose, H., Curle, S., Aizawa, I. & Thompson, G. (2020). What drives success in English medium taught courses? The interplay between language proficiency, academic skills and motivation. *Studies in Higher Education*, 45(11), 2149–2161.
- Rose, H., Macaro, E., Sahan, K., Aizawa, I., Zhou, S. & Wei, M. (2023). Defining English medium instruction: Striving for comparative equivalence. *Language Teaching*, 56(4), 539–550.
- Sah, P.K. (2022). A research agenda for English-medium instruction: Conversations with scholars at the research fronts. *Journal of English-Medium Instruction*, 1(1), 124–136.
- Sahan, K. & Şahan, Ö. (2024). Investigating student and alumni perspectives on language learning and career prospects through English medium instruction. *Teaching in Higher Education*, 29(1), 194–215.
- Schieffelin, B.B. & Ochs, E. (1986). Language socialization. *Annual review of anthropology*, 15(1986), 163–191.
- Smit, U. (2013). Learning affordances in integrating content and English as a lingua franca ('ICELF'): On an implicit approach to English medium teaching. *Journal of Academic Writing*, 3(1), 15–29.
- Storch, N. & Hill, K. (2008). What happens to international students' English after one semester at university?. *Australian Review of Applied Linguistics*, 31(1), 04.1–04.17.



- Sveučilište u Rijeci [University of Rijeka]. (2007). *University of Rijeka Strategy 2007-2013*.  
[https://digarhiv.gov.hr/arhiva/174/108195/www.fthm.uniri.hr/files/Web/English/University\\_of\\_Rijeka\\_Strategy\\_2007\\_2013\\_English.pdf](https://digarhiv.gov.hr/arhiva/174/108195/www.fthm.uniri.hr/files/Web/English/University_of_Rijeka_Strategy_2007_2013_English.pdf)
- Sveučilište u Rijeci [University of Rijeka]. (2014). *The University of Rijeka 2014-2020 Strategy*.  
[https://uniri.hr/wp-content/uploads/2020/09/Strategy\\_UNIRI\\_2014\\_2020.pdf](https://uniri.hr/wp-content/uploads/2020/09/Strategy_UNIRI_2014_2020.pdf)
- Sveučilište u Rijeci [University of Rijeka]. (2021). *University of Rijeka Strategy 2021-2025*.  
[https://uniri.hr/wp-content/uploads/2021/04/University\\_of\\_Rijeka\\_Strategy\\_2021-2025.pdf](https://uniri.hr/wp-content/uploads/2021/04/University_of_Rijeka_Strategy_2021-2025.pdf)
- Sveučilište u Rijeci [University of Rijeka]. (2024). *Sveučilište u brojevima*.  
<https://uniri.hr/studiranje/sveuciliste-u-brojevima/>
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235–253). Rowley, MA: Newbury.
- Tamtam, A.G., Gallagher, F., Olabi, A.G. & Naher, S. (2012). A comparative study of the implementation of EMI in Europe, Asia and Africa. *Procedia – Social and Behavioral Sciences*, 47, 1417–1425.
- Tatzl, D. (2011). English-medium masters' programmes at an Austrian university of applied sciences: Attitudes, experiences and challenges. *Journal of English for Academic Purposes*, 10(4), 252–270.
- Tejada-Sánchez, I. & Molina-Naar, M. (2020). English medium instruction and the internationalization of higher education in Latin America: A case study from a Colombian university. *Latin American Journal of Content & Language Integrated Learning*, 13(2), 339–367.
- Thabane, L., Ma, J., Chu, R., Cheng, J., Ismaila, A., Rios, L. P., Robson, R., Thabane, M., Giangregorio, L. & Goldsmith, C.H. (2010). A tutorial on pilot studies: The what, why and how. *BMC medical research methodology*, 10(1), 1–10.
- The European Higher Education Area. (1999, June 19). *The Bologna Declaration*.  
[https://www.ehea.info/media.ehea.info/file/Ministerial\\_conferences/02/8/1999\\_Bologna\\_Declaration\\_English\\_553028.pdf](https://www.ehea.info/media.ehea.info/file/Ministerial_conferences/02/8/1999_Bologna_Declaration_English_553028.pdf)
- The United Nations Educational, Scientific and Cultural Organization. (2015). *UNESCO Science Report: Towards 2030*.

<https://uis.unesco.org/sites/default/files/documents/unesco-science-report-towards-2030-part1.pdf>

- Turhan, B. & Kirkgöz, Y. (2018). Motivation of engineering students and lecturers toward English medium instruction in Turkey. *Journal of Language and Linguistic Studies*, 14(1), 261–277.
- UNESCO Institute for Statistics. (2024). *Outbound internationally mobile students by host region*. <http://data.uis.unesco.org/index.aspx?queryid=3807>
- VanPatten, B. & Williams, J. (2015). Early theories in SLA. In B. VanPatten & J. Williams (Eds.), *Theories in second language acquisition: An introduction* (2nd ed., pp. 17–35). New York and London: Routledge.
- 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.
- Vinke, A.A. (1995). *English as the medium of instruction in Dutch Engineering education*. [Doctoral dissertation, Delft University of Technology]. TU Delft Repository. <https://repository.tudelft.nl/islandora/object/uuid:491b55f9-fbf9-4650-a44d-acb9af8412a8?collection=research>
- Vygotsky, L.S. (1935/1978). *Mind in Society*. Boston, MA: Harvard University Press.
- Wächter, B. & Maiworm, F. (2008). *English-Taught Programmes in European Higher Education – The State of Play in 2014*. Bonn: Lemmens Medien GmbH.
- Wächter, B. & Maiworm, F. (Eds.). (2014). *English-Taught Programmes in European Higher Education – The Picture in 2007*. Bonn: Lemmens Medien GmbH.
- Walkinshaw, I., Fenton-Smith, B. & Humphreys, P. (2017). EMI issues and challenges in Asia-Pacific higher education: An introduction. In B. Fenton-Smith, P. Humphreys & I. Walkinshaw (Eds.), *English Medium Instruction in Higher Education in Asia-Pacific*. Cham: Springer. DOI: 10.1007/978-3-319-51976-0\_1
- Wilang, J.D. (2022). Specific anxiety situations and coping strategies in full English medium instruction engineering programs. *International Journal of Engineering Pedagogy (iJEP)*, 12(6), 70–84.
- Wilang, J.D. & Nupong, S. (2022). Factors affecting EMI attitudes of engineering and nursing students. *Theory and Practice in Language Studies*, 12(3), 437–446.

- Wilkinson, R. (2013). English-medium instruction at a Dutch university: Challenges and pitfalls. In A. Doiz, D. Lasagabaster & J. M. Sierra (Eds.), *English-Medium Instruction at Universities: Global Challenges* (pp. 3–24). Clevedon, UK: Multilingual Matters.
- Wilkinson, R. (2017). Trends and issues in English-medium instruction in Europe. In K. Ackerley, M. Guarda & F. Helm (Eds.), *Sharing Perspectives on English-Medium Instruction* (pp. 35–75). Bern: Peter Lang AG, International Academic Publishers.
- Wilkinson, R. & Gabriëls, R. (2021). Introduction: The tension between monolingualism and multilingualism. In R. Wilkinson & R. Gabriëls (Eds.), *The Englishisation of higher education in Europe* (pp.11–36). Amsterdam: Amsterdam University Press.
- Wilkinson, R. & Gabriëls, R. (2022, Oct 18–21). *Choosing EMI to enhance job prospects: Career perceptions and a nomadic elite* [Conference presentation]. 7th ICLHE Conference “EMI, ICLHE and Englishization: Reflecting on the changing university”, Maastricht, the Netherlands.
- Yang, X. (2017). Balance of content and language in English-medium instruction classrooms. In J. Zhao & L.Q. Dixon (Eds.), *English-medium instruction in Chinese universities: Perspectives, discourse and evaluation* (pp. 23–44). London: Routledge.
- Yang, M., O’Sullivan, P.S., Irby, D.M., Chen, Z., Lin, C. & Lin, C. (2019). Challenges and adaptations in implementing an English-medium medical program: A case study in China. *BMC Medical Education*, 19(15). DOI: 10.1186/s12909-018-1452-3
- Yuksel, D., Soruç, A., Altay, M. & Curle, S. (2023). A longitudinal study at an English medium instruction university in Turkey: The interplay between English language improvement and academic success. *Applied Linguistics Review*, 14(3), 533–552.
- Zappa-Hollman, S. & Duff, P.A. (2019). Exploring issues in language and content instruction. In G. Barkhuizen (Ed.), *Qualitative Research Topics in Language Teacher Education* (pp. 186–191). New York: Routledge.

## **Abstract**

English-medium instruction (EMI) is defined as “the use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language of the majority of the population is not English” (Macaro et al., 2018: 37). Due to a considerable increase in English-taught study programmes worldwide, EMI is considered to be “a rapidly growing global phenomenon” (Dearden, 2014: 2). Among many advantages of EMI, such as the increased internalisation and visibility of institutions, as well as the enhancement of teacher’s career opportunities, the improvement in EMI students’ English language proficiency due to their everyday exposure to the language (cf. Dearden, 2014; Rogier, 2012) is regarded to be one of the greatest benefits. This is also in line with Krashen’s Input Hypothesis, according to which comprehensible input is sufficient for acquiring the language (Krashen, 1982). Nevertheless, research on EMI students’ English language knowledge and progress has been scarce, and the available findings inconsistent. Moreover, a very small number of studies include a comparison non-EMI group (cf. Macaro et al., 2018).

The aim of this longitudinal research was, therefore, to address this insufficiently explored aspect of EMI by investigating EMI students’ English language knowledge at the beginning and the end of their undergraduate studies and comparing their results with the results of their non-EMI counterparts. Additionally, students’ (lack of) motivation for enrolment in EMI, expectations (fulfilment), views and perceptions concerning EMI and English language learning were inquired into. Triangulation was applied during the collection of data, in order to gain a more profound understanding of the research subject. The following research methods were utilized: a questionnaire, the Oxford quick placement test, the C-test and the Business English test. Interviews with the students were also carried out in order to additionally explore their perceptions, beliefs and attitudes regarding their English language development. Since the research provided both quantitative and qualitative data, the former were statistically analysed with the help of the Stata software, whereas the latter were analysed thematically. The participants of the study were students studying at the University of Rijeka, Faculty of Economics and Business, where this research was conducted. The sample comprised 256 first-year students (FYS) (40 EMI and 216 non-EMI), who completed the questionnaire, and 197 FYS (35 EMI and 162 non-EMI), who completed the language tests. Twenty-four FYS (9 EMI and 15 non-EMI) volunteered to participate in an interview. With regard to third-year students (TYS), a total of 141 TYS (23 EMI and 118 non-EMI)

completed both the questionnaire and the tests, and 26 TYS (8 EMI and 18 non-EMI) were interviewed. All participants were Croatian. Foreign students were not included in the study, as they were mostly exchange students who spent one or two semesters at the Faculty.

The findings point to EMI students' greater English language proficiency and higher self-assessment means both at the beginning and the end of their undergraduate studies. However, the comparison of students' first-year and third-year achievements indicates EMI and non-EMI students' similar progress in general English language, and EMI students' greater progress in business English language. In addition, qualitative findings point to EMI students' higher motivation for choosing an English-taught study programme and greater expectations regarding their English language advancement. During the interviews, the students revealed that the English for specific purposes courses offered during their course of study were of considerable significance at the beginning of their studies, leading to the conclusion that language support is a valuable addition to English-taught study programmes and that an explicit focus on language is favourable when it comes to the development of students' English language knowledge (Galloway et al., 2017). These findings to an extent contradict Krashen's Input Hypothesis (1982), and support second language acquisition theories such as the Interaction Hypothesis, the Output Hypothesis, the Sociocultural Theory and language socialisation, which state that interaction, language feedback and language correction are crucial for the advancement of language proficiency.

Although this research was conducted at only one institution, encompassing a small sample of students, which makes it difficult to draw general conclusions, this thesis significantly contributes to an inadequately investigated aspect of EMI. Also, these findings, as well as the research methods, provide a valuable basis for future research on EMI students' English language proficiency.

**Keywords:** English for specific purposes (ESP); English language progress; English-medium instruction (EMI); expectations; motivation; perceptions; students

## Sažetak

Istraživanje jezičnog napretka u engleskome kao jeziku visokoškolske nastave (EJVIN-u): analiza slučaja EJVIN-studenata prijediplomskoga studija ekonomije

Engleski kao jezik visokoškolske nastave (EJVIN) definiran je kao „upotreba engleskog jezika za poučavanje akademskih predmeta (s izuzetkom predmeta vezanih uz sam engleski jezik) u zemljama ili na teritorijima gdje prvi jezik većine stanovnika nije engleski“ (Macaro i sur., 2018: 37). Zbog sve većeg broja studijskih programa na engleskome jeziku diljem svijeta, EJVIN se smatra „brzo rastućim globalnim fenomenom“ (Dearden, 2014: 2). Studijski programi na engleskom jeziku počeli su se uvoditi 1980-ih godina u Nizozemskoj (Wilkinson, 2013). Ubrzo su i druge države diljem Europe počele slijediti njihov primjer, prvenstveno skandinavske zemlje, a zatim i ostale. Wächter i Maiworm proveli su tri studije koje prikazuju razvoj i širenje EJVIN-a na području Europe (Maiworm i Wächter, 2002; Wächter i Maiworm, 2008, 2014). Rezultati prve studije koja je bila provedena 2001/2002. godine upućuju na 725 EJVIN-programa koja su u to vrijeme bila prisutna u Europi. Druga studija bila je provedena pet godina kasnije, a autori su locirali 2389 EJVIN-programa u Europi. Godine 2014. provedena je treća studija, čiji rezultati upućuju na 8089 EJVIN-programa na području Europe. Autori su istaknuli porast od 239% u broju EJVIN-programa u razdoblju između 2007. i 2014. godine (Wächter i Maiworm, 2014). Sukladno posljednjim dostupnim podacima, na području Europe u 2021. godini bilo je 17,562 studijskih programa na engleskom jeziku (British Council, 2021). U Hrvatskoj je trenutno dostupno 130 EJVIN-programa, a od toga 18 na Sveučilištu u Rijeci, gdje je ovo istraživanje provedeno (Ministarstvo znanosti i obrazovanja, 2024). Ovakve, sveobuhvatne studije, provedene su samo na području Europe, no iz literature je vidljivo širenje EJVIN-a i na drugim kontinentima, posebice na području Azije. Osim toga, pretraživanje objavljene literature pomoću Google znalca upućuje na porast broja objavljenih znanstvenih radova i knjiga na temu EJVIN-a za 1145% u posljednjih sedam godina.

Jedna je od glavnih pokretačkih sila EJVIN-a internacionalizacija, definirana kao „proces integracije međunarodne, interkulture ili globalne dimenzije u svrsi, funkcijama ili izvedbi visokoškolskoga obrazovanja“ (Knight, 2003: 2). U kontekstu EJVIN-a, internacionalizacija je vezana uz privlačenje stranih studenata (Galloway i sur., 2017; Macaro i sur., 2018; Richards i Pun, 2023), a upravo se to smatra i jednom od glavnih prednosti

institucija koje nude studijske programe na engleskom jeziku. Smatra se i da se institucijama povećava vidljivost, prestiž i konkurentnost na međunarodnoj razini (Bolton i sur., 2024; Galloway i sur., 2017; Richards i Pun, 2023; Wilkinson, 2013). EJVIN nosi određene prednosti i nastavnicima jer im nudi veću mogućnost usavršavanja i priliku za razvoj međunarodne karijere (Drljača Margić i Vodopija Krstanović, 2017; Galloway i sur., 2017; Kym i Kym, 2014). Što se tiče studenata, jednom od najvećih prednosti EJVIN-a smatra se poboljšanje jezičnog umijeća studenata u engleskom jeziku kao rezultat istovremenog usvajanja jezika i sadržaja (Dearden, 2018; Drljača Margić i Vodopija Krstanović, 2017; Galloway i sur., 2017; Richards i Pun, 2023; Wilkinson, 2013). Vjeruje se da studenti usvajaju jezik uzgredno, zbog svakodnevne izloženosti (Dearden, 2014; Rogier, 2012), što je u skladu s Krashenovom pretpostavkom o jezičnom unosu (engl. Input Hypothesis), prema kojoj nije potrebno eksplicitno poučavanje stranog jezika dok postoji razumljivi jezični unos (Krashen, 1982). Osim toga, smatra se da studenti zahvaljujući studiju razvijaju i interkulturnu svijest (Galloway i sur., 2017; Richards i Pun, 2023) te da imaju veće mogućnosti razvoja karijere u inozemstvu upravo zbog poboljšanja jezičnih vještina (Drljača Margić i Vodopija Krstanović, 2017; Galloway i sur., 2017; Kym i Kym, 2014).

Unatoč tome, mali je broj studija koje ispituju učinak EJVIN-a na jezično umijeće studenata koji studiraju na engleskome (EJVIN-studenata), a rezultati su studija koje su dosad provedene nedosljedni. Dok rezultati pojedinih studija upućuju na napredak u jezičnom znanju EJVIN-studenata (Cicillini, 2021; Cosgun i Hasırcı, 2017; Li, 2017; Rogier, 2012; Vidal i Jarvis, 2020; Yuksel i sur., 2023), dio studija implicira da EJVIN nema značajan učinak na njihove jezične vještine (Ament i Pérez Vidal, 2015; Lei i Hu, 2014). Cicillini (2021) je provela longitudinalnu studiju čiji je cilj bio istražiti jezično umijeće EJVIN-studenata tijekom dvije akademske godine, s naglaskom na receptivne jezične vještine. Podaci su bili prikupljeni pomoću tri upitnika i dva jezična testa koje je sastavila autorica. Rezultati testova upućuju na statistički značajno poboljšanje u vještini čitanja, ali i na lošije rezultate u vještini slušanja. Autorica zaključuje da je do poboljšanja u vještini čitanja došlo slučajno i opisuje kako se studenti nisu posebice trudili oko unaprjeđenja navedene vještine. Osim toga, valja istaknuti kako su studenti slušali kolegij iz jezika za posebne namjene tijekom prve studijske godine te su smatrali da je broj sati iz tog kolegija bio premalen. Cosgun i Hasırcı (2017) također su proveli longitudinalnu studiju čiji je cilj bio ispitati jezične vještine EJVIN-studenata na početku i na kraju studija, odnosno nakon četiri do osam semestara. Autori su

koristili ispit koji je bio sastavljen za potrebe institucije, a čiji je cilj bio ispitati opće jezično umijeće studenata: čitanje, pisanje i slušanje za akademske vještine. Rezultati njihova istraživanja upućuju na statistički značajno poboljšanje jezičnih vještina studenata, osim vještine pisanja. Li (2017) je istraživala obim vokabulara, morfološku svijest i razumijevanje čitanja koristeći standardizirani test za vokabular i razumijevanje čitanja te test koji se nalazio u literaturi za ispitivanje morfološke svijesti. Studenti su bili testirani na početku i na kraju semestra, a sve su razlike bile statistički značajne. Međutim, studenti nisu bili zadovoljni usvajanjem sadržaja, za koje smatraju da je bilo otežano zbog jezičnih izazova. Rogier (2012) je provela longitudinalnu studiju čiji je cilj bio ispitati jezične vještine EJVIN-studenata nakon četiri godine studija na engleskom jeziku. Koristila je IELTS i zaključila da je u svim jezičnim vještinama (govorenje, čitanje, pisanje i slušanje) došlo do poboljšanja. Također, sve razlike u rezultatima bile su statistički značajne. Vidal i Jarvis (2020) željeli su utvrditi učinak EJVIN-a na jezično umijeće studenata te na kvalitetu napisanih eseja i na leksičku raznolikost. Oxford Placement Test korišten je za utvrđivanje jezičnog umijeća, dok su studenti morali napisati esej na temelju kojeg se utvrdila kvaliteta eseja i leksička raznolikost. Rezultati upućuju na poboljšanje jezičnog umijeća tijekom studija, no leksička raznolikost nije se poboljšala, a autori smatraju da je to zbog usredotočenosti na akademski i tehnički vokabular kojemu su studenti izloženi tijekom studija. Yuksel i sur. (2023) željeli su ispitati dolazi li do poboljšanja jezičnih vještina EJVIN-studenata nakon četiri godine EJVIN-a. Koristili su opći test jezika koji je bio prilagođena verzija Cambridge Preliminary English testa. Rezultati upućuju na statistički značajno poboljšanje jezičnih vještina studenata nakon četiri godine studija.

Međutim, vrlo mali broj studija uključuje usporedbu sa studentima koji studiraju na materinjem jeziku (usp. Macaro i sur., 2018). Ament i Pérez Vidal (2015) usporedili su dvije skupine studenata: tzv. *immersion* (IM) skupinu koja se sastojala od EJVIN-studenata i *semi-immersion* (SIM) skupinu koja se sastojala od studenata koji su pohađali između 18% i 41% EJVIN-kolegija. Studenti su bili ispitani na početku i na kraju akademske godine, a rezultati upućuju na sličan jezični napredak kod obje skupine studenata koji je bio statistički značajan samo kod SIM skupine. Lei i Hu (2014) usporedili su EJVIN-studente sa studentima koji su studirali na kineskom jeziku. Autori su zaključili da EJVIN-studenti nisu bili bolji od studenata koji su studirali na kineskom jeziku i da „EJVIN nije učinkovit u poboljšanju jezičnog umijeća studenata“ (Lei i Hu, 2014: 118).



Osim navedenih studija koje se bave jezičnim umijećem studenata, veliki se broj studija bavi i percepcijama i stavovima EJVIN-studenata. Studije koje se bave istraživanjem motivacije i razloga za odabir EJVIN-programa sugeriraju da su studenti koji biraju EJVIN-programe motiviraniji od onih koji biraju programe na materinskom jeziku, što je često vezano uz njihove razvijenije jezične vještine (Chen i Kraklow, 2015). Osim toga, jedan od glavnih razloga za odabir EJVIN-programa je nastavak studija i stvaranje karijere u inozemstvu (Chen i Kraklow, 2015; Cicillini, 2021; Collins, 2010; Drljača Margić, 2021; Drljača Margić i Vodopija Krstanović, 2017; Drljača Margić i Žeželić, 2015; Ekoç, 2020; Fernández-Costales, 2017; Fidan Uçar i Soruç, 2018; Hu, i sur., 2014; Iwaniec i Wang, 2022; Jiang i Zhang, 2019; Kim i Yoon, 2018; Kirkgöz, 2005; Kirkgöz, 2014; Kuchah, 2016; Sahan i Şahan, 2024), a dodatni je razlog i poboljšanje jezičnih vještina studenata (Cicillini, 2021; Drljača Margić, 2021; Drljača Margić i Vodopija Krstanović, 2017; Drljača Margić i Žeželić, 2015; Fernández-Costales, 2017; Fidan Uçar i Soruç, 2018; Huang, 2015; Iwaniec i Wang, 2022; Kim i Yoon, 2018; Kirkgöz, 2014; Macaro i Akincioglu, 2018; Pun i sur., 2022; Sahan i Şahan, 2024; Turhan i Kirkgöz, 2018). S obzirom na očekivanja studenata vezanih uz razvoj jezičnog umijeća, pojedine studije upućuju na to da studenti očekuju razvoj svojeg jezičnog umijeća zahvaljujući studiju (Barrios i sur., 2016; Cicillini, 2021; Lei i Hu, 2014; Muttaqin i Chuang, 2022; Rose i sur., 2020; Yang, 2017), no isto tako, rezultati pojedinih studija impliciraju da njihova očekivanja nisu uvijek ispunjena, što je najčešće vezano uz ograničene jezične vještine nastavnika (Barrios i sur., 2016; Cicillini, 2021; Lei i Hu, 2014). Brojne studije opisuju jezične izazove s kojima se studenti susreću tijekom studija na engleskom jeziku, primjerice, otežano razumijevanje i usvajanje stručnog vokabulara (Kirkgöz, 2014; Kym i Kym, 2014; Pun i sur., 2022; Rose i sur., 2020), otežano usvajanje sadržaja zbog jezičnih izazova (Hu i sur., 2014) ili otežano razumijevanje predavanja koje uzrokuje površno učenje (Fidan Uçar i Soruç, 2018). Upravo zbog toga pojedini istraživači naglašavaju važnost jezične potpore koja doprinosi razvoju jezičnog umijeća EJVIN-studenata, kao i razvoju akademskih jezičnih vještina i lakšem usvajanju sadržaja na engleskom jeziku (Aizawa, 2024; Alhassan i sur., 2021; Arnó-Macià i sur., 2020; Barrios i sur., 2016; Cosgun i Hasırcı, 2017; Costa i Mastellotto, 2022; Galloway i Rueg, 2020; Kym i Kym, 2014; Rose i sur., 2023; Sahan i Şahan, 2024; Wilang, 2022).

U kontekstu svega navedenoga, cilj je ovog longitudinalnog istraživanja odgovoriti na nedostatak u istraživanjima ispitivanjem jezičnog umijeća EJVIN-studenata na početku i na

kraju njihova prijediplomskoga studija i usporedbom razine njihova znanja i njihova napretka u engleskom jeziku sa znanjem i napretkom u engleskom jeziku studenata koji studiraju na hrvatskom jeziku (HJVIN-studenata). Osim toga, ispitana je i studentska motivacija (ili njezin nedostatak) za upisivanje EJVIN-programa, očekivanja (i njihovo ispunjenje) te stavovi i percepcije studenata vezane uz EJVIN i uz učenje engleskog jezika. Rezultati istraživanja predstavljeni u ovoj doktorskoj disertaciji nadovezuju se na rezultate preliminarnog istraživanja koje je provedeno 2019/2020. godine, a koji su objavljeni u Čakarun i Drljača Margić (2021), Čakarun i Drljača Margić (2022) te Čakarun i Drljača Margić (u tisku). Preliminarno je istraživanje obuhvaćalo dvije različite generacije studenata čije se jezično umijeće u engleskom jeziku ispitivalo tijekom jedne akademske godine. Točnije, jezično umijeće studenata prve godine ispitalo se na početku te akademske godine, dok se jezično umijeće studenata treće godine ispitalo na kraju iste akademske godine. Rezultati predstavljeni u Čakarun i Drljača Margić (2021) upućuju na višu samoprocjenu i bolje jezično znanje EJVIN-studenata na početku i na kraju studija. Međutim, EJVIN-studenti ostvarili su veći napredak u području poslovnog engleskog jezika, dok su HJVIN-studenti ostvarili veći napredak u području općeg jezika. Osim toga, kvalitativni podaci koji su predstavljeni u Čakarun i Drljača Margić (2021) i Čakarun i Drljača Margić (u tisku) sugeriraju da EJVIN-studenti biraju studijski program na engleskom jeziku kako bi poboljšali svoje jezične vještine u engleskom jeziku te kako bi mogli nastaviti studij i graditi karijeru u inozemstvu. EJVIN-studenti također su zadovoljniji u smislu ispunjenja očekivanja vezanih uz razvoj jezičnih vještina. Jezično znanje engleskog jezika, kao i motivacija za upis, ispunjenje očekivanja, stavovi i percepcije vezani uz učenje engleskog jezika studenata prve godine koji su sudjelovali u preliminarnom istraživanju ponovno su ispitani u akademskoj godini 2021/2022., na kraju njihova prijediplomskoga studija. Rezultati tog longitudinalnog istraživanja fokus su ove doktorske disertacije. Drugim riječima, istraživanje predstavljeno u ovoj disertaciji nadovezuje se na rezultate preliminarnog istraživanja koristeći već predstavljene rezultate vezane uz studente prve godine i prateći te studente tijekom njihova prijediplomskoga studija, kako bi se istražio jezični napredak jedne generacije studenata te njihova motivacija, (ispunjenje) očekivanja, stavovi i percepcije na početku i na kraju studija.

Istraživačke metode koje su korištene tijekom preliminarnog istraživanja korištene su i za potrebe ove disertacije. Prilikom prikupljanja podataka, korištena je strategija triangulacije, koja je definirana kao „prikupljanje, analiza i 'kombiniranje' kvantitativnih i kvalitativnih

pristupa istraživanju kako bi se razumio istraživački problem [...] Glavna je svrha kombiniranja metoda iskorištavanje prednosti i kvantitativnih i kvalitativnih istraživačkih pristupa i strategija prikupljanja podataka da bi razumijevanje fenomena bilo potpunije nego što bi bilo moguće upotrebom samo kvantitativnog ili kvalitativnog pristupa“ (Mills i Gay, 2016: 444). U tu svrhu, tijekom istraživanja korištene su sljedeće istraživačke metode i pripadajući materijali: upitnik, Oxford Quick Placement Test (OPT), C-test i Business English test (BET), odnosno test poslovnog engleskog jezika. Što se tiče upitnika, korištena su dva upitnika (jedan za studente prve godine i drugi za studente treće godine) koji su bili prilagođene i proširene verzije upitnika korištenog u doktorskoj disertaciji D. Rogier (2012). EJVIN- i HJVIN-studenti ispunjavali su iste upitnike. Upitnik za studente prve godine sastojao se od četiri dijela. Prvi dio istraživao je opće informacije: spol, prethodno obrazovanje, mjesto školovanja, strane jezike koje su ispitanici učili tijekom školovanja, bavljenje engleskim jezikom u slobodno vrijeme te strani jezik položen na državnoj maturi i razinu. U drugom dijelu upitnika, studente se tražilo da procijene svoje engleske jezične vještine na razini od A1 do C2 prema Zajedničkom europskom referentnom okviru za jezike (2001). Treći dio upitnika sastojao se od samoprocjene akademskih jezičnih vještina na Likertovoj ljestvici od 1 (loše/nedovoljno) do 5 (odlično). Točnije, studenti su procjenjivali sljedeće akademske vještine na engleskom jeziku: sposobnost razumijevanja stručne literature, pisanja/hvatanja bilješki na nastavi, polaganja ispita, pisanja eseja i ostalih pisanih uradaka, razumijevanja predavanja, razumijevanja uputa na nastavi, postavljanja pitanja na nastavi, odgovaranja na pitanja na nastavi, usmenog izlaganja na određenu temu, komunikacije s ostalim studentima u radu u paru ili u skupini na nastavi te rasprave na određenu temu na nastavi. Četvrti se dio upitnika sastojao od šest pitanja otvorenog tipa koja su ispitivala stavove, percepcije i očekivanja studenata vezana uz njihovo učenje i napredak u engleskom jeziku tijekom studija. Upitnik za studente treće godine bio je prilagođena verzija upitnika za studente prve godine. U prvom su dijelu upitnika sva pitanja bila ista, no dodano je pitanje vezano uz sudjelovanje u programu studentske razmjene tijekom prijediplomskoga studija. Drugi i treći dio upitnika bili su isti kao i u upitniku za studente prve godine, dok je u četvrtom dijelu pitanje vezano uz očekivanja studenata bilo preformulirano. Osim toga, studente se dodatno pitalo smatraju li da je studij ispunio njihova očekivanja po pitanju poboljšanja razvijenosti njihovih jezičnih vještina u engleskome jeziku. Što se tiče OPT-a, radi se o standardiziranom testu koji se koristi kao „učinkovit instrument za početno

vrednovanje i pouzdano sredstvo ocjenjivanja učenika na svim razinama“ (Allan, 2004: 4). Piše se 30 minuta, a sastoji se od 60 pitanja višestrukog izbora. C-test ispituje opće znanje engleskog jezika, a sastavila ga je autorica istraživanja sukladno postojećoj literaturi (Klein-Braley, 1985, 1997; Klein-Braley i Raatz, 1984). Test se sastoji od pet kratkih odlomaka i ukupno nosi 100 bodova (svaki odlomak nosi 20 bodova). U testu nedostaje druga polovica svake druge riječi, počevši od druge rečenice u odlomku. Svaki odlomak nosi 20 bodova, a tekst se tada nastavlja do kraja odlomka. Test se piše 25 minuta (usp. Raatz i Klein-Braley, 2002). BET je također sastavila autorica istraživanja, a sastoji se od pet zadataka koji ispituju znanje stručnog vokabulara u području ekonomije. Pitanja su temeljena na završnim ispitima iz kolegija vezanih uz jezik za posebne namjene, ali i na sadržajima stručnih kolegija. Test nosi 30 bodova. Intervjui sa studentima također su provedeni kako bi se dodatno istražile njihove percepcije, vjerovanja i stavovi vezani uz razvoj engleskog jezika.

Sudjelovanje u istraživanju bilo je anonimno. Studentima je zadan obrazac prema kojemu su morali sastaviti zaporku. Na taj je način svaki student dobio jedinstvenu zaporku koju je koristio u navedenim istraživačkim materijalima na početku i na kraju studija, što je omogućilo usporedbu dobivenih rezultata. Istraživanjem su prikupljeni kvantitativni i kvalitativni podaci. Kvantitativni su podaci statistički analizirani pomoću softvera Stata. Statistička značajnost u razlikama između rezultata testova između EJVIN- i HJVIN-studenata prve i treće godine utvrđena je pomoću nezavisnih t-testova, dok je za obradu kvantitativnih podataka dobivenih upitnikom korištena deskriptivna statistika. Kvalitativni podaci iz upitnika analizirani su tematski: odgovori na pitanja otvorenog tipa kopirani su u Word-dokument i podijeljeni u skupine. Nakon toga su višestruko iščitavani i kodirani kako bi se identificirale bitne kategorije, teme i odnosi među njima (usp. Creswell, 2003). Intervjui su se snimali, a audio-zapisi su transkribirani i analizirani na isti način kao i kvalitativni podaci dobiveni upitnikom.

Sudionici istraživanja bili su studenti Ekonomskog fakulteta Sveučilišta u Rijeci, na kojemu je istraživanje provedeno. U istraživanju je sudjelovalo 256 studenata prve godine (40 EJVIN i 216 HJVIN-studenata) koji su ispunili upitnik te 197 studenata prve godine (35 EJVIN i 162 HJVIN-studenta) koji su riješili jezične testove. Dvadeset četiri studenta sudjelovala su u intervjuima (9 EJVIN i 15 HJVIN-studenata). Što se tiče studenata treće godine, 141 student (23 EJVIN i 118 HJVIN-studenata) ispunilo je i upitnik i testove, a 26 studenata sudjelovalo je u intervjuima (8 EJVIN i 18 HJVIN-studenata). Svi sudionici bili su

Hrvati, a strani studenti nisu bili uključeni u istraživanje jer se većinom radilo o studentima koji su na Fakultetu proveli kratko vrijeme u sklopu studentske razmjene. Valja napomenuti da su u vrijeme provođenja istraživanja svi studenti slušali dva kolegija iz jezika za posebne namjene, koji su im bili ponuđeni dva sata tjedno tijekom prve godine studija: *Poslovni engleski jezik 1* i njegova engleska inačica na EJVIN-programu *Business English 1* te *Poslovni engleski jezik 2* i njegova engleska inačica na EJVIN-programu *Business English 2*. Osim toga, HJVIN-studenti imali su mogućnost pohađanja izbornih kolegija iz jezika za posebne namjene tijekom druge i treće godine studija. Broj studenata koji mogu pohađati te kolegije ograničen je na 50, pa prosječno 17% HJVIN-studenata upisuje navedene kolegije.

Rezultati istraživanja upućuju na bolje znanje engleskog jezika EJVIN-studenata te na njihovu bolju samoprocjenu jezičnih vještina na početku i na kraju studija. Usporedba rezultata studenata ostvarenih na prvoj i trećoj godini, međutim, implicira sličan napredak EJVIN i HJVIN-studenata u općem engleskom jeziku i veći napredak EJVIN-studenata u poslovnom engleskom jeziku. Točnije, EJVIN-studenti ostvarili su veći napredak na OPT-u, dok su HJVIN-studenti ostvarili veći napredak na C-testu. Što se tiče testa poslovnog engleskog jezika, EJVIN-studenti ostvarili su najveći napredak. Glede samoprocjene akademskih jezičnih vještina, samoprocjena EJVIN-studenata viša je od samoprocjene HJVIN-studenata i na početku i na kraju studija. Dok svi studenti procjenjuju da im je razumijevanje uputa na nastavi na engleskom jeziku najrazvijenija akademska jezična vještina i na početku i na kraju studija, EJVIN-studenti navode razumijevanje stručne literature kao najveći izazov na kraju prve godine studija i sposobnost rasprave na određenu temu tijekom nastave na kraju treće godine studija, a HJVIN-studenti ističu usmeno izlaganje na određenu temu na nastavi na engleskom jeziku te razumijevanje stručne literature na engleskom jeziku kao najslabije razvijene akademske jezične vještine. Osim toga, rezultati kvalitativnog dijela istraživanja upućuju na veću motivaciju EJVIN-studenata za upis EJVIN-programa, ali i viša očekivanja vezana uz jezični napredak. Dok je EJVIN-studentima glavna motivacija za odabir studijskog programa na engleskom jeziku nastavak obrazovanja ili karijera u inozemstvu (usp. Chen i Kraklow, 2015; Collins, 2010; Drljača Margić, 2021; Drljača Margić i Vodopija Krstanović, 2017; Drljača Margić i Žeželić, 2015; Ekoç, 2020; Fernández-Costales, 2017; Fidan Uçar i Soruç, 2018; Hu i sur., 2014; Iwaniec i Wang, 2022; Jiang i Zhang, 2019; Kim i Yoon, 2018; Kirkgöz, 2005; Kirkgöz, 2014; Kuchah, 2016; Sahan i Şahan, 2024), HJVIN-studenti imaju različite interese i ne planiraju odlazak u inozemstvo te, sukladno tome, biraju

jedan od studijskih programa na hrvatskom jeziku. Osim toga, HJVIN-studenti studijski program na engleskom jeziku smatraju zahtjevnijim. Neki od njih tvrde da prilikom upisa nisu niti znali za postojanje takvog programa, a jedan dio studenata nije htio plaćati školarinu. Iz ovih podataka može se zaključiti da EJVIN-studenti ne samo da imaju bolje znanje engleskog jezika prilikom upisa na studij, već su i motiviraniji da usavrše svoje jezične vještine i pripreme se za budućnost u inozemstvu. U skladu s tim, njihova su očekivanja vezana uz jezični napredak također veća. EJVIN-studenti očekuju generalni napredak i opće poboljšanje znanja engleskog jezika, dok su HJVIN-studenti više fokusirani na područje poslovnog engleskog jezika i ono što će učiti u sklopu kolegija vezanih uz jezik za posebne namjene te ne očekuju opće poboljšanje jezičnih vještina u engleskom jeziku. Ta su očekivanja na kraju treće godine potvrđena. Obje skupine studenata navode i uporabu engleskog jezika u slobodno vrijeme, no EJVIN-studenti razvoj svojih jezičnih vještina pripisuju upravo EJVIN-u, posebice kad se radi o poslovnom engleskom jeziku. Objašnjavaju kako se studijem bave i u slobodno vrijeme pišući seminare ili provodeći istraživanje za projekt vezan uz studij, što doprinosi razvoju njihova jezičnog umijeća. Iz ovoga se može naslutiti kako EJVIN više doprinosi razvoju jezičnog umijeća u engleskom jeziku od kolegija vezanih uz jezik za posebne namjene, što je u skladu i sa samoprocjenom akademskih jezičnih vještina, koja je veća za EJVIN-studente. S obzirom na to da HJVIN-studenti imaju ograničen broj sati iz kolegija za posebne namjene tijekom studija te samo manji postotak studenata može upisati izborne kolegije koji su im ponuđeni tijekom prijediplomskoga studija, ne čudi da razvoj svojeg jezičnog umijeća u engleskom jeziku smatraju izazovnijim. Iako obje skupine studenata potvrđuju ispunjenje očekivanja koja su imali na početku studija, srednja vrijednost koja je dobivena izračunom odgovora na pitanje o doprinosu studija na razvoj jezičnih vještina u engleskom jeziku na Likertovoj ljestvici od 1 (studij uopće nije doprinio razvoju jezičnih vještina) do 5 (studij je doprinio u izrazito velikoj mjeri) blago se smanjuje na kraju prijediplomskoga studija. Njihova obrazloženja upućuju na to da je kod HJVIN-studenata do smanjenja vjerojatno došlo zbog malog broja sati iz kolegija za posebne namjene koji su im bili ponuđeni tijekom prijediplomskoga studija, kao i zbog činjenice da je fokus navedenih kolegija na stručni vokabular, što studente dovodi do zaključka da nisu imali prilike razvijati opći engleski jezik koliko su htjeli. Što se tiče EJVIN-studenata, smanjenje se najvjerojatnije dogodilo zbog nedostatka povratnih informacija vezanih uz sam jezik tijekom nastave, kao i zbog ograničenih jezičnih vještina nastavnika (usp. Barrios i sur., 2016). Podaci prikupljeni

intervjuima pokazuju da su EJVIN-studentima kolegiji vezani uz jezik za posebne namjene ponuđeni tijekom studija bili od velike važnosti na početku studija, što dovodi do zaključka da su jezična potpora i eksplicitna orijentiranost na jezik vrijedni dodaci studijskim programima na engleskom jeziku. Čini se da unaprjeđenju jezičnog umijeća EJVIN-studenata ne doprinosi samo poučavanje i učenje na engleskom jeziku, bez jezične potpore i izravnog fokusa na jezik (Cosgun i Hasircı, 2017; Galloway i sur., 2017). Nastavnici stručnih, nefiloloških kolegija ne osvrću se na sam jezik, te kolegiji vezani uz jezik za posebne namjene studentima služe kao sustavno pružana potpora (eng. scaffolding) usvajanju gradiva i jezika. Iako Krashen (1982) tvrdi da je razumljivi jezični unos dovoljan za usvajanje jezika, rezultati ove studije više su u skladu s teorijama usvajanja drugog jezika, kao što su hipoteza interakcije (engl. Interaction Hypothesis), hipoteza jezičnog ostvaraja (engl. Output Hypothesis), sociokulturna teorija (engl. Sociocultural Theory) i jezična socijalizacija (engl. language socialisation), koje tvrde da razumljivi jezični unos sam po sebi nije dovoljan, već su za usvajanje drugog jezika potrebni interakcija i jezična potpora. Jiang i sur. (2016: 10) ističu da „ukoliko EJVIN nije dostatan izvor učenja jezika, studenti će se okrenuti kolegijima koji su vezani uz jezik za posebne namjene za jezičnu pomoć“. Sudionici ovog istraživanja smatraju da su povratne informacije vezane uz sam jezik važan dio razvoja jezičnog umijeća, no mišljenja su da bi nastavnici koji će davati povratne informacije trebali biti jezični stručnjaci, što upućuje na važnost jezične potpore koju pružaju nastavnici iz jezika struke. To potvrđuju i druge studije (Aizawa, 2024; Alhassan i sur., 2021; Arnó-Macià i sur., 2020; Barrios i sur., 2016; Cosgun i Hasircı, 2017; Costa i Mastellotto, 2022; Galloway i Rueg, 2020; Huang, 2015; Kym i Kym, 2014; Rose i sur., 2023; Sahan i Şahan, 2024; Wilang, 2022) koje naglašavaju važnost jezične potpore i eksplicitnoga fokusa na jezik u EJVIN-u. Iako je razlog uvođenja EJVIN-a najčešće politička odluka različitih sveučilišta vezana uz internacionalizaciju, implementacija i struktura EJVIN-a trebala bi se preispitati i više bi se pažnje trebalo posvetiti potrebama dionika.

Značajnost je ovoga rada u tome što kroz testove, upitnike, intervju i usporedbu s HJVIN-studentima dokazuje da EJVIN doprinosi razvoju jezičnog umijeća EJVIN-studenata u engleskome jeziku. Iako se jezični napredak studenata u literaturi navodi kao jedna od najvažnijih prednosti EJVIN-a, nedostaju empirijska istraživanja koja bi to potvrdila. Unatoč tome što je ovo istraživanje provedeno na samo jednoj instituciji i uključuje mali uzorak studenata, ova disertacija doprinosi nedovoljno istraženom aspektu EJVIN-a. Osim toga, u

nedostatku standardiziranih testova za ispitivanje jezičnog umijeća EJVIN-studenata, za potrebe su istraživanja sastavljena dva testa: C-test za ispitivanje općeg znanja engleskog jezika i BET za ispitivanje znanja iz poslovnog engleskog jezika. Rezultati ove studije, kao i primijenjene metode istraživanja, stoga, daju uvid u jezično umijeće i jezični napredak studenata u EJVIN-u te pružaju temelj za buduća srodna istraživanja.

Ključne riječi: engleski kao jezik visokoškolske nastave (EJVIN); engleski jezik za posebne namjene (ESP); jezični napredak; motivacija; očekivanja; percepcije; studenti.



## Appendices

### Appendix 1

#### Questionnaire for FYS

Poštovani/a kolega/ice,

ovim upitnikom želimo ispitati samoprocjenu jezičnih i akademskih vještina studenata te stavove i razmišljanja vezana uz dosadašnja i buduća iskustva vezana uz nastavu na engleskom jeziku.

Molimo Vas da odgovorite na svako postavljeno pitanje jer nam je svako pitanje vrlo važno.

Ako želite prokomentirati nešto za što nije predviđeno mjesto, slobodno napišite svoj komentar na prazan prostor ili na poledinu stranice. Svaka primjedba vezana uz ovu temu dobro je došla.

Vaša iskustva, spoznaje i mišljenja o ovome području posebno su nam važni, pa Vas molimo za suradnju.

Nema ispravnih ni pogrešnih odgovora. Budite iskreni pri odgovaranju i slobodno izrazite svoje mišljenje.

Ovaj upitnik u potpunosti je anonimn a odgovori će se rabiti isključivo u svrhu istraživanja za doktorat.

**HVALA VAM NA SUDJELOVANJU!**

**LOZINKA**

--	--	--	--	--	--

### Opće informacije

Spol	M / Ž
Prethodno obrazovanje (završena srednja škola)	Gimnazija / Strukovna srednja škola
Mjesto školovanja (grad, država)	
Strani jezici koje ste učili tijekom dosadašnjeg obrazovanja 1. strani jezik _____ 2. strani jezik _____ 3. strani jezik _____	Godine učenja navedenog stranog jezika tijekom dosadašnjeg obrazovanja _____ _____ _____
Jeste li se dosad samostalno bavili engleskim jezikom u slobodno vrijeme?  Ukoliko je Vaš odgovor DA, molim navedite:	DA / NE  Način učenja (privatna poduka, škola stranih jezika, boravak u inozemstvu, gledanje/slušanje/čitanje sadržaja na engleskom jeziku) _____  Trajanje _____
Strani jezik položen na državnoj maturi i razina (viša ili niža)	

### Samoprocjena jezičnih vještina

Na ljestvici od A1 (najniža razina) do C2 (najviša razina), označite svoju razinu razvijenosti vještina (ljestvica za samoprocjenu priložena je na kraju upitnika).

	A1	A2	B1	B2	C1	C2
Razumijevanje slušanoga						
Razumijevanje pročitanooga						
Govorna interakcija						
Govorna produkcija						
Pisanje						

## Akadske vještine

Na ljestvici od 1 do 5, zaokružite broj koji se najviše odnosi na Vas.

Za prve tri kategorije, molim da procijenite kakva će biti Vaša sposobnost tijekom studija.

	loša/ nedovoljna				Odlična
Moja sposobnost razumijevanja stručne literature na engleskom jeziku	1	2	3	4	5
Moja sposobnost pisanja/hvatanja bilješki na nastavi na engleskom jeziku	1	2	3	4	5
Moja sposobnost polaganja ispita na engleskom jeziku	1	2	3	4	5
Moja sposobnost pisanja eseja i ostalih pisanih uradaka na engleskom jeziku	1	2	3	4	5
Moja sposobnost razumijevanja predavanja na engleskom jeziku	1	2	3	4	5
Moja sposobnost razumijevanja uputa na nastavi na engleskom jeziku	1	2	3	4	5
Moja sposobnost postavljanja pitanja na nastavi na engleskom jeziku	1	2	3	4	5
Moja sposobnost odgovaranja na pitanja na nastavi na engleskom jeziku	1	2	3	4	5
Moja sposobnost usmenog izlaganja na određenu temu na nastavi na engleskom jeziku	1	2	3	4	5
Moja sposobnost komunikacije s ostalim studentima u radu u paru ili u skupini na nastavi na engleskom jeziku	1	2	3	4	5
Moja sposobnost rasprave na određenu temu na nastavi na engleskom jeziku	1	2	3	4	5

## Stavovi i osjećaji

Smatrate li da ste dosad ovladali engleskim jezikom najbolje što ste mogli? Molim Vas, obrazložite.

---

---

---

Vjerujete li da Vam je u dosadašnjem ovladavanju engleskim jezikom pomoglo isključivo obrazovanje ili Vam je više pomogao Vaš vlastiti angažman (škole stranih jezika, boravak u inozemstvu, gledanje sadržaja na engleskom jeziku, slušanje glazbe)?

---

---

---

Možete li opisati svoje jake strane i (eventualne) probleme u služenju engleskim jezikom općenito?

---

---

---

Što mislite, koje će biti Vaše jake strane i Vaši (eventualni) problemi u služenju engleskim jezikom za potrebe studija?

---

---

---

Mislite li da će studij doprinijeti razvoju Vaših engleskih jezičnih vještina? Molim Vas, obrazložite:

a) kako/u kojim aspektima?

---

---

---

b) u kojoj mjeri?

neće uopće doprinijeti					u izrazito velikoj mjeri
1	2	3	4	5	

Ukoliko imate dodatnih komentara o tematici koja se obrađuje ovim upitnikom, molim Vas da ih napišete.

---

---

---

\*\*\* Ovo istraživanje uključuje i provođenje intervjua sa studentima. Vaš pristanak na sudjelovanje u intervjuu bio bi nam od velike pomoći i koristi.

Biste li bili voljni sudjelovati u intervjuu?

DA NE

Ukoliko je Vaš odgovor pozitivan, molim Vas da upišete svoju e-mail adresu:

---

*Zahvaljujemo na trudu i vremenu uloženom u ovaj upitnik. Ako želite podijeliti dodatne komentare ili informacije s istraživačem, slobodno se obratite na adresu [kornelija.cakarun@efri.hr](mailto:kornelija.cakarun@efri.hr).*

## Appendix 2

### Questionnaire for TYS

Poštovani/a kolega/ice,

ovim upitnikom želimo ispitati samoprocjenu jezičnih i akademskih vještina studenata te stavove i razmišljanja vezana uz dosadašnja iskustva vezana uz nastavu na engleskom jeziku.

Molimo Vas da odgovorite na svako postavljeno pitanje jer nam je svako pitanje vrlo važno.

Ako želite prokomentirati nešto za što nije predviđeno mjesto, slobodno napišite svoj komentar na prazan prostor ili na poleđinu stranice. Svaka primjedba vezana uz ovu temu dobro je došla.

Vaša iskustva, spoznaje i mišljenja o ovome području posebno su nam važni, pa Vas molimo za suradnju.

Nema ispravnih ni pogrešnih odgovora. Budite iskreni pri odgovaranju i slobodno izrazite svoje mišljenje.

Ovaj upitnik u potpunosti je anonimn, a odgovori će se rabiti isključivo u svrhu istraživanja za doktorat.

**HVALA VAM NA SUDJELOVANJU!**

LOZINKA

--	--	--	--	--	--

### Opće informacije

Spol	M / Ž												
Prethodno obrazovanje (završena srednja škola)	Gimnazija / Strukovna srednja škola												
Mjesto školovanja (grad, država)													
Strani jezici koje ste učili tijekom dosadašnjeg obrazovanja 1. strani jezik _____ 2. strani jezik _____ 3. strani jezik _____	Godine učenja navedenog stranog jezika tijekom dosadašnjeg obrazovanja _____ _____ _____												
Ostali načini učenja stranog jezika (privatna poduka, škola stranih jezika, boravak u inozemstvu, gledanje/slušanje/čitanje sadržaja na stranom jeziku)	<table border="1"> <thead> <tr> <th>Strani jezik</th> <th>Način učenja</th> <th>Trajanje</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>	Strani jezik	Način učenja	Trajanje	_____	_____	_____	_____	_____	_____	_____	_____	_____
Strani jezik	Način učenja	Trajanje											
_____	_____	_____											
_____	_____	_____											
_____	_____	_____											
Jeste li tijekom studija sudjelovali u programu studentske razmjene?	DA / NE												
Ukoliko je Vaš odgovor DA, molim navedite:	<table border="1"> <thead> <tr> <th>Sveučilište / Država</th> <th>Trajanje</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="2">Jezik studiranja i sporazumijevanja</td> </tr> </tbody> </table>	Sveučilište / Država	Trajanje	_____	_____	Jezik studiranja i sporazumijevanja							
Sveučilište / Država	Trajanje												
_____	_____												
Jezik studiranja i sporazumijevanja													
Strani jezik položen na državnoj maturi i razina (viša ili niža)													

### Samoprocjena jezičnih vještina

Na ljestvici od A1 (najniža razina) do C2 (najviša razina), označite svoju razinu razvijenosti vještina (ljestvica za samoprocjenu priložena je na kraju upitnika).

	A1	A2	B1	B2	C1	C2
Razumijevanje slušanoga						
Razumijevanje pročitanooga						
Govorna interakcija						
Govorna produkcija						
Pisanje						

## Akadske vještine

Na ljestvici od 1 do 5, zaokružite broj koji se najviše odnosi na Vas.

	loša/ nedovoljna					Odlična
	1	2	3	4	5	
Moja sposobnost razumijevanja stručne literature na engleskom jeziku	1	2	3	4	5	
Moja sposobnost pisanja/hvatanja bilješki na nastavi na engleskom jeziku	1	2	3	4	5	
Moja sposobnost polaganja ispita na engleskom jeziku	1	2	3	4	5	
Moja sposobnost pisanja eseja i ostalih pisanih uradaka na engleskom jeziku	1	2	3	4	5	
Moja sposobnost razumijevanja predavanja na engleskom jeziku	1	2	3	4	5	
Moja sposobnost razumijevanja uputa na nastavi na engleskom jeziku	1	2	3	4	5	
Moja sposobnost postavljanja pitanja na nastavi na engleskom jeziku	1	2	3	4	5	
Moja sposobnost odgovaranja na pitanja na nastavi na engleskom jeziku	1	2	3	4	5	
Moja sposobnost usmenog izlaganja na određenu temu na nastavi na engleskom jeziku	1	2	3	4	5	
Moja sposobnost komunikacije s ostalim studentima u radu u paru ili u skupini na nastavi na engleskom jeziku	1	2	3	4	5	
Moja sposobnost rasprave na određenu temu na nastavi na engleskom jeziku	1	2	3	4	5	



### Stavovi i osjećaji

Smatrate li da ste dosad ovladali engleskim jezikom najbolje što ste mogli? Molim Vas, obrazložite.

---

---

---

Vjerujete li da Vam je u dosadašnjem ovladavanju engleskim jezikom pomoglo isključivo obrazovanje ili Vam je više pomogao Vaš vlastiti angažman (škole stranih jezika, boravak u inozemstvu, gledanje sadržaja na engleskom jeziku, slušanje glazbe)?

---

---

---

Koje su Vaše jake strane i Vaši (eventualni) problemi u služenju engleskim jezikom za potrebe studija?

---

---

---

Možete li opisati svoje jake strane i (eventualne) probleme u služenju engleskim jezikom općenito?

---

---

---

Mislite li da je studij doprinio razvoju Vaših engleskih jezičnih vještina? Molim Vas, obrazložite:

a) kako/u kojim aspektima?

---

---

---

b) u kojoj mjeri?

uopće nije doprinio					u izrazito velikoj mjeri
1	2	3	4	5	

Smatrate li da je studij ispunio Vaša očekivanja po pitanju poboljšanja razvijenosti Vaših engleskih jezičnih vještina?

---

---

---

Ukoliko imate dodatnih komentara o tematici koja se obrađuje ovim upitnikom, molim Vas da ih napišete.

---

---

---

\*\*\* Ovo istraživanje uključuje i provođenje intervjua sa studentima. Vaš pristanak na sudjelovanje u intervjuu bio bi nam od velike pomoći i koristi.

Biste li bili voljni sudjelovati u intervjuu?

DA NE

Ukoliko je Vaš odgovor pozitivan, molim Vas da upišete svoju e-mail adresu:

---

*Zahvaljujemo na trudu i vremenu uloženom u ovaj upitnik. Ako želite podijeliti dodatne komentare ili informacije s istraživačem, slobodno se obratite na adresu [kornelija.cakarun@efri.hr](mailto:kornelija.cakarun@efri.hr).*

Appendix 3

Oxford Quick Placement Test

Oxford University Press  
and  
University of Cambridge Local Examinations Syndicate

Name: .....

Date: .....

**quick  
placement  
test**

Version 1

This test is divided into two parts:

**Part One (Questions 1 – 40) – All students.**

**Part Two (Questions 41 – 60) – Do not start this part unless told to do so by your test supervisor.**

**Time: 30 minutes**

## Part 1

### Questions 1 – 5

- Where can you see these notices?
- For questions 1 to 5, mark **one** letter **A**, **B** or **C** on your Answer Sheet.

1

**Please leave your  
room key at Reception.**

- A in a shop
- B in a hotel
- C in a taxi

2

**Foreign money  
changed here**

- A in a library
- B in a bank
- C in a police station

3

**AFTERNOON SHOW  
BEGINS AT 2PM**

- A outside a theatre
- B outside a supermarket
- C outside a restaurant

4

**CLOSED FOR HOLIDAYS**  
Lessons start again on  
the 8 th January

- A at a travel agent's
- B at a music school
- C at a restaurant

5

**Price per night:**  
£10 a tent  
£5 a person

- A at a cinema
- B in a hotel
- C on a camp-site

**Questions 6 – 10**

- In this section you must choose the word which best fits each space in the text below.
- For questions **6** to **10**, mark **one** letter **A**, **B** or **C** on your Answer Sheet.

**Scotland**

Scotland is the north part of the island of Great Britain. The Atlantic Ocean is on the west and the North Sea on the east. Some people **(6)** ..... Scotland speak a different language called Gaelic.

There are **(7)** ..... five million people in Scotland, and Edinburgh is **(8)** ..... most famous city.

Scotland has many mountains; the highest one is called 'Ben Nevis'. In the south of Scotland, there are a lot of sheep. A long time ago, there **(9)** ..... many forests, but now there are only a **(10)** .....

Scotland is only a small country, but it is quite beautiful.

**6**   **A**   on                      **B**   in                      **C**   at

**7**   **A**   about                  **B**   between              **C**   among

**8**   **A**   his                          **B**   your                      **C**   its

**9**   **A**   is                              **B**   were                      **C**   was

**10**   **A**   few                          **B**   little                      **C**   lot

**Questions 11 – 20**

- In this section you must choose the word which best fits each space in the texts.
- For questions 11 to 20, mark **one** letter **A, B, C** or **D** on your Answer Sheet.

**Alice Guy Blaché**

Alice Guy Blaché was the first female film director. She first became involved in cinema whilst working for the Gaumont Film Company in the late 1890s. This was a period of great change in the cinema and Alice was the first to use many new inventions, (11) ..... sound and colour.

In 1907 Alice (12) ..... to New York where she started her own film company. She was (13) ..... successful, but, when Hollywood became the centre of the film world, the best days of the independent New York film companies were (14) ..... . When Alice died in 1968, hardly anybody (15) ..... her name.

- 11 A bringing      B including      C containing      D supporting
- 12 A moved      B ran      C entered      D transported
- 13 A next      B once      C immediately      D recently
- 14 A after      B down      C behind      D over
- 15 A remembered      B realised      C reminded      D repeated

### UFOs – do they exist?

UFO is short for 'unidentified flying object'. UFOs are popularly known as flying saucers, (16) ..... that is often the (17) ..... they are reported to be. The (18) ..... "flying saucers" were seen in 1947 by an American pilot, but experts who studied his claim decided it had been a trick of the light.

Even people experienced at watching the sky, (19) ..... as pilots, report seeing UFOs. In 1978 a pilot reported a collection of UFOs off the coast of New Zealand. A television (20) ..... went up with the pilot and filmed the UFOs. Scientists studying this phenomenon later discovered that in this case they were simply lights on boats out fishing.

- 16   A   because        B   therefore        C   although        D   so
- 17   A   look            B   shape            C   size            D   type
- 18   A   last              B   next              C   first              D   oldest
- 19   A   like                B   that                C   so                D   such
- 20   A   cameraman        B   director            C   actor              D   announcer

**Questions 21 – 40**

- In this section you must choose the word or phrase which best completes each sentence.
- For questions **21** to **40**, mark **one** letter **A**, **B**, **C** or **D** on your Answer Sheet.

- 21** The teacher encouraged her students ..... to an English pen-friend.  
A should write    B write    C wrote    D to write
- 22** They spent a lot of time ..... at the pictures in the museum.  
A looking    B for looking    C to look    D to looking
- 23** Shirley enjoys science lessons, but all her experiments seem to ..... wrong.  
A turn    B come    C end    D go
- 24** ..... from Michael, all the group arrived on time.  
A Except    B Other    C Besides    D Apart
- 25** She ..... her neighbour's children for the broken window.  
A accused    B complained    C blamed    D denied
- 26** As I had missed the history lesson, my friend went ..... the homework with me.  
A by    B after    C over    D on
- 27** Whether she's a good actress or not is a ..... of opinion.  
A matter    B subject    C point    D case
- 28** The decorated roof of the ancient palace was ..... up by four thin columns.  
A built    B carried    C held    D supported
- 29** Would it ..... you if we came on Thursday?  
A agree    B suit    C like    D fit
- 30** This form ..... be handed in until the end of the week.  
A doesn't need    B doesn't have    C needn't    D hasn't got
- 31** If you make a mistake when you are writing, just ..... it out with your pen.



- A cross            B clear            C do            D wipe
- 32 Although our opinions on many things ..... , we're good friends.  
A differ            B oppose            C disagree            D divide
- 33 This product must be eaten ..... two days of purchase.  
A by            B before            C within            D under
- 34 The newspaper report contained ..... important information.  
A many            B another            C an            D a lot of
- 35 Have you considered ..... to London?  
A move            B to move            C to be moving            D moving
- 36 It can be a good idea for people who lead an active life to increase their ..... of vitamins.  
A upturn            B input            C upkeep            D intake
- 37 I thought there was a ..... of jealousy in his reaction to my good fortune.  
A piece            B part            C shadow            D touch
- 38 Why didn't you ..... that you were feeling ill?  
A advise            B mention            C remark            D tell
- 39 James was not sure exactly where his best interests .....  
A stood            B rested            C lay            D centred
- 40 He's still getting ..... the shock of losing his job.  
A across            B by            C over            D through

## Part 2

***Do not start this part unless told to do so by your test supervisor.***

### Questions 41 – 50

- In this section you must choose the word or phrase which best fits each space in the texts.
- For questions 41 to 50, mark **one** letter **A, B, C** or **D** on your Answer Sheet.

### **The tallest buildings - SKYSCRAPERS**

Nowadays, skyscrapers can be found in most major cities of the world. A building which was many (41) ..... high was first called a skyscraper in the United States at the end of the 19th century, and New York has perhaps the (42) ..... skyscraper of them all, the Empire State Building. The (43) ..... beneath the streets of New York is rock, (44) ..... enough to take the heaviest load without sinking, and is therefore well-suited to bearing the (45) ..... of tall buildings.

- 41 A stages            B steps            C storeys            D levels
- 42 A first-rate        B top-class        C well-built        D best-known
- 43 A dirt            B field            C ground            D soil
- 44 A hard            B stiff            C forceful            D powerful
- 45 A weight        B height        C size            D scale

## SCRABBLE

Scrabble is the world's most popular word game. For its origins, we have to go back to the 1930s in the USA, when Alfred Butts, an architect, found himself out of (46) ..... He decided that there was a (47) ..... for a board game based on words and (48) ..... to design one. Eventually he made a (49) ..... from it, in spite of the fact that his original (50) ..... was only three cents a game.

- 46 A earning      B work      C income      D job
- 47 A market      B purchase      C commerce      D sale
- 48 A took up      B set out      C made for      D got round
- 49 A wealth      B fund      C cash      D fortune
- 50 A receipt      B benefit      C profit      D allowance

**Questions 51 – 60**

- In this section you must choose the word or phrase which best completes each sentence.
- For questions **51** to **60**, mark **one** letter **A**, **B**, **C** or **D** on your Answer Sheet.

- 51** Roger's manager ..... to make him stay late if he hadn't finished the work.  
A insisted      B warned      C threatened      D announced
- 52** By the time he has finished his week's work, John has hardly ..... energy left for the weekend.  
A any      B much      C no      D same
- 53** As the game ..... to a close, disappointed spectators started to leave.  
A led      B neared      C approached      D drew
- 54** I don't remember ..... the front door when I left home this morning.  
A to lock      B locking      C locked      D to have locked
- 55** I ..... to other people borrowing my books: they always forget to return them.  
A disagree      B avoid      C dislike      D object
- 56** Andrew's attempts to get into the swimming team have not ..... with much success.  
A associated      B concluded      C joined      D met
- 57** Although Harry had obviously read the newspaper article carefully, he didn't seem to have ..... the main point.  
A grasped      B clutched      C clasped      D gripped
- 58** A lot of the views put forward in the documentary were open to .....  
A enquiry      B query      C question      D wonder
- 59** The new college ..... for the needs of students with a variety of learning backgrounds.  
A deals      B supplies      C furnishes      D caters
- 60** I find the times of English meals very strange – I'm not used ..... dinner at 6pm.  
A to have      B to having      C having      D have

## Appendix 4

### C-test

**PASSWORD**

--	--	--	--	--	--	--

### INSTRUCTIONS

In the five passages below, parts of some words are missing. Your task is to complete the missing part of each word. You have 25 minutes at your disposal for doing the whole task. Please write in a legible way. If you make any corrections, please make sure it is clear what your final answer is.

#### Man's best friend

The fourth week in September (22 – 28) is National Dog Week in the USA, a week dedicated to our four-legged companions. Lots o\_\_\_\_\_ people sh\_\_\_\_\_ their li\_\_\_\_\_ with th\_\_\_\_\_ animals; so\_\_\_\_\_ dogs li\_\_\_\_\_ outside a\_\_\_\_\_ guard do\_\_\_\_\_, others occ\_\_\_\_\_ the hou\_\_\_\_\_ of th\_\_\_\_\_ owners a\_\_\_\_\_ are a\_\_\_\_\_ integral pa\_\_\_\_\_ of t\_\_\_\_\_ family. Dur\_\_\_\_\_ Dog We\_\_\_\_\_ perhaps w\_\_\_\_\_ should appre\_\_\_\_\_ just h\_\_\_\_\_ much joy we get from our canine companions.

#### TV – to watch or not to watch

It is hard to avoid television if you are a kid. If par\_\_\_\_\_ were re\_\_\_\_\_ to te\_\_\_\_\_ the tr\_\_\_\_\_, they wo\_\_\_\_\_ definitely ad\_\_\_\_\_ they u\_\_\_\_\_ TV a\_\_\_\_\_ a babys\_\_\_\_\_. However, exp\_\_\_\_\_ believe th\_\_\_\_\_ not on\_\_\_\_\_ that telev\_\_\_\_\_ has n\_\_\_\_\_ teaching va\_\_\_\_\_ for sm\_\_\_\_\_ children, b\_\_\_\_\_ it ste\_\_\_\_\_ time fr\_\_\_\_\_ activities wh\_\_\_\_\_ actually help develop their brain, like communicating with real people, playing, and using their imagination. If parents were aware that too much sitting in front of TV eventually leads to obesity, they would probably think twice.

## Communication skills

The ability to communicate effectively with superiors, colleagues, and staff is essential, no matter what industry you work in. Workers in \_\_\_\_\_ the dig \_\_\_\_\_ age mu \_\_\_\_\_ know h \_\_\_\_\_ to effec \_\_\_\_\_ convey a \_\_\_\_\_ receive mess \_\_\_\_\_ in per \_\_\_\_\_ as we \_\_\_\_\_ as v \_\_\_\_\_ phone, em \_\_\_\_\_, and soc \_\_\_\_\_ media. Good commun \_\_\_\_\_ skills wi \_\_\_\_\_ help y \_\_\_\_\_ get hi \_\_\_\_\_, land promo \_\_\_\_\_, and b \_\_\_\_\_ a success throu \_\_\_\_\_ your car \_\_\_\_\_. Continue to develop these skills once you're hired, and you'll impress your boss, teammates, and clients.

## Music – the challenge ahead

In the latter part of the 20<sup>th</sup> century, we saw a rapid increase in the opportunities available for listening to music through radio, TV, records, tapes, CDs, videos and a rapidly developing range of multi-media techniques. Along wi \_\_\_\_\_ this, there h \_\_\_\_\_ been a dec \_\_\_\_\_ in t \_\_\_\_\_ performance o \_\_\_\_\_ live mu \_\_\_\_\_ and i \_\_\_\_\_ the emplo \_\_\_\_\_ opportunities f \_\_\_\_\_ professional musi \_\_\_\_\_.

The wide \_\_\_\_\_ access t \_\_\_\_\_ music wi \_\_\_\_\_ probably cont \_\_\_\_\_. On a nati \_\_\_\_\_ level, n \_\_\_\_\_ major occa \_\_\_\_\_ is wit \_\_\_\_\_ music. For indiv \_\_\_\_\_, it prov \_\_\_\_\_ opportunities for numerous activities, formal and informal. Indeed, a society without music is unthinkable and the issue is not whether there will be music, but what the nature of that music will be.

## Philips

Philips, with almost \$30bn in annual sales, is one of Europe's biggest corporations. It n \_\_\_\_\_ only prod \_\_\_\_\_ billions o \_\_\_\_\_ light bu \_\_\_\_\_ and la \_\_\_\_\_ every ye \_\_\_\_\_ but i \_\_\_\_\_ also supp \_\_\_\_\_ TV tu \_\_\_\_\_ to alm \_\_\_\_\_ 20 per \_\_\_\_\_ of t \_\_\_\_\_ world's T \_\_\_\_\_ manufacturers. B \_\_\_\_\_ there i \_\_\_\_\_ one th \_\_\_\_\_ the Philips cons \_\_\_\_\_ products gr \_\_\_\_\_ doesn't d \_\_\_\_\_: make a pro \_\_\_\_\_. Gerard Kleisterlee, the newly appointed CEO, is about to change all that; he believes his vision of Philip's future will guide the company back to profitability.

## Appendix 5

### Business English test

PASSWORD

--	--	--	--	--	--

#### I. Choose the correct answer!

- 1) \_\_\_\_\_ is the responsibility for the repayment of debts.  
a) assets      b) capital      c) liability      d) shares
- 2) The \_\_\_\_\_ shows the difference between the revenues and costs in a period of time.  
a) profit and loss account      b) balance sheet      c) cash flow statement      d) net profit
- 3) \_\_\_\_\_ our back-office work to an overseas supplier would definitely be cheaper.  
a) downsizing      b) outsourcing      c) locating      d) appointing
- 4) \_\_\_\_\_ is the increase in the prices of goods and services over time.  
a) appreciation      b) amortization      c) inflation      d) depreciation
- 5) An individual who, rather than working as an employee, runs a small business and assumes all the risk and reward of a given business venture, idea, or good or service offered for a sale is a(n)  
a) auditor      b) manager      c) bookkeeper      d) entrepreneur
- 6) The various expenses of operating a business that cannot be charged to any one product, process or department are called  
a) headovers      b) overheads      c) losses      d) charges      \_\_\_\_\_ / 6

#### II. Fill in the blanks with appropriate words!

- 1) A country's \_\_\_\_\_ is the difference between the values of its imports and exports. If a country imports more than it exports, it has a trade \_\_\_\_\_. If it exports more than imports, it has a trade \_\_\_\_\_.
- 2) The formula: sales revenue - (cost of sales + operating expenses) helps us to calculate the firm's \_\_\_\_\_.
- 3) \_\_\_\_\_ are international commercial terms published by the International Chamber of Commerce (ICC). They are abbreviations used in international commercial transactions.
- 4) What is meant by "S.W.O.T."? A firm should be aware of its \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.  
\_\_\_\_\_ / 6

**III. True or false?**

- 1) Blue chips are shares that are expected to rise in value.
- 2) The financial condition of a company on a set date is shown on the Income Statement.
- 3) Bookkeeping is the clerical part of the accounting process.
- 4) Shareholders are the owners of a corporation and have little or no risk to their personal assets.
- 5) A current account pays little or no interest, but allows the holder to withdraw money with no restrictions.
- 6) Product, price, place and promotion are often referred to as promotional tools.

\_\_\_\_ / 6

**IV. Write the abbreviation in full.**

- 1) CEO \_\_\_\_\_
- 2) VAT \_\_\_\_\_
- 3) HR \_\_\_\_\_
- 4) R&D \_\_\_\_\_
- 5) GDP \_\_\_\_\_
- 6) LTD \_\_\_\_\_

\_\_\_\_ / 6

**V. Match!**

- |                         |                  |                  |
|-------------------------|------------------|------------------|
| a) dumping              | b) liquidity     | c) joint venture |
| d) distribution channel | e) interest rate | f) dividend      |

\_\_\_\_ available cash, and how easily assets can be turned into cash

\_\_\_\_ all the companies or individuals involved in moving a particular good or service from the producer to the consumer

\_\_\_\_ money paid to shareholders, a proportion of a company's annual profits

\_\_\_\_ two or more companies agree to collaborate and jointly invest in a separate business project

\_\_\_\_ the practice of firms selling to foreign markets at lower prices than are charged in domestic markets

\_\_\_\_ the amount a lender charges for the use of assets expressed as a percentage of the principal

\_\_\_\_ / 6



## Appendix 6

### Interview questions for non-EMI FYS

#### Dosadašnje obrazovanje

- Koliko dugo ste učili engleski tijekom dosadašnjeg školovanja?  
Jeste li učili engleski samo u školi ili još negdje?
- Jeste li znali da na fakultetu postoji engleski smjer?  
Kako ste odlučili koji smjer ćete upisati? / Kako to da ste upisali smjer na hrvatskom jeziku, kad ste imali mogućnost studiranja na engleskom?
- O čemu ovisi uspješnost učenja engleskog jezika u školi?  
Koliko snažan faktor je profesor koji vam predaje engleski, ovisi li puno o njemu?  
Osobna motivacija, je li i ona bitan faktor?
- Koji su prednosti i nedostaci dosadašnje nastave na engleskom jeziku? Što je najviše doprinijelo vašem trenutnom znanju?
- Što bi trebalo promijeniti/poboljšati što se tiče nastave engleskog jezika u osnovnoj i srednjoj školi? / Ima li nešto što biste vi promijenili?

#### Izloženost engleskom jeziku

- Koliko izloženost engleskom jeziku utječe na vašu generaciju, na opće znanje jezika?  
U kojem smislu?
- Smatrate li da putem medija možete naučiti više nego putem obrazovanja?
- Kako najčešće koristite medije? Na koji način primjenjujete svoje znanje jezika?

#### Jake i slabe strane

- Prema rezultatima upitnika, većina studenata se izjasnila da ima problem s gramatikom, tj. to se smatra najproblematičnijim područjem. Kako to objašnjavate kad se školski programi baziraju na eksplicitnom poučavanju gramatika već od viših razreda osnovne škole?

- Koliko generalno imate prilike aktivno koristiti jezik, primijeniti naučeno? Gdje/Na koji način?

### Očekivanja

- Što očekujete od kolegija Poslovni engleski jezik? Mislite li da ćete napredovati što se tiče znanja engleskog jezika?

## Appendix 7

### Interview questions for EMI FYS

#### Dosadašnje obrazovanje

- Koliko dugo ste učili engleski tijekom dosadašnjeg školovanja?  
Jeste li učili engleski samo u školi ili još negdje?  
Kako ste odlučili koji smjer ćete upisati? / Kako ste se odlučili za studij na engleskom jeziku?
- Smatrate li da vas škola treba bolje pripremiti za studiranje na engleskom jeziku?
- O čemu ovisi uspješnost učenja engleskog jezika u školi?  
Koliko snažan faktor je profesor koji vam predaje engleski, ovisi li puno o njemu?  
Osobna motivacija, je li i ona bitan faktor?
- Koji su prednosti i nedostaci dosadašnje nastave na engleskom jeziku? Što je najviše doprinijelo vašem trenutnom znanju?
- Što bi trebalo promijeniti/poboljšati što se tiče nastave engleskog jezika u osnovnoj i srednjoj školi? / Ima li nešto što biste vi promijenili?

#### Izloženost engleskom jeziku

- Koliko izloženost engleskom jeziku utječe na vašu generaciju, na opće znanje jezika?  
U kojem smislu?
- Smatrate li da putem medija možete naučiti više nego putem obrazovanja?
- Kako najčešće koristite medije? Na koji način onda primjenjuete svoje znanje jezika?

#### Jake i slabe strane

- Prema rezultatima upitnika, većina studenata se izjasnila da ima problem s gramatikom, tj. to se smatra najproblematičnijim područjem. Kako to objašnjavate kad se školski programi baziraju na eksplicitnom poučavanju gramatika već od viših razreda osnovne škole?

- Koliko generalno imate prilike aktivno koristiti jezik, primijeniti naučeno? Gdje/Na koji način?

### Očekivanja

- S obzirom na to da se sva nastava izvodi na engleskom jeziku, što očekujete od studija? Mislite li da ćete napredovati što se tiče znanja engleskog jezika?
- Smatrate li kolegij *Business English* potrebnim s obzirom na to da ste cijelo vrijeme izloženi jeziku? Zašto?

## Appendix 8

### Interview questions for non-EMI TYS

#### Dosadašnje obrazovanje

- Kako ste odlučili koji smjer ćete upisati?  
Kako to da ste upisali smjer na hrvatskom jeziku, kad ste imali mogućnost studiranja na engleskom? ( → vidjeti što su rekli pojedinačno na 1. godini studija)
- Smatrate li da ste po završetku srednje škole bili spremni za studiranje na engleskom jeziku?
- Koji su prednosti i nedostaci nastave na engleskom jeziku tijekom fakultetskog obrazovanja?
- O čemu ovisi uspješnost učenja engleskog jezika (u školi i na fakultetu)?  
Koliko snažan faktor je profesor koji vam predaje engleski, ovisi li puno o njemu?  
Osobna motivacija, je li i ona bitan faktor?
- Što je najviše doprinijelo vašem trenutnom znanju?
  - ako kažu angažman/aktivnosti u slobodno vrijeme:

Smatrate li da se tako može naučiti više nego putem obrazovanja? Kako onda aktivno koristite jezik i primjenjujete naučeno? Ako se koristite medijima, kako učite jezik?

#### Jake i slabe strane

- Prema rezultatima upitnika, veći dio studenata se izjasnio da ima problem s govorom/usmenim izražavanjem koji je uzrokovan nedovoljnim korištenjem jezika, što mislite o tome? Kako bi se to moglo poboljšati?
- Drugi izazov koji studenti navode je nedovoljno razumijevanje stručne literature i nedovoljno poznavanje stručnog vokabulara. Kako to objašnjavate kad tijekom studija učite isključivo poslovni engleski i na svim kolegijima iz engleskog jezika se radi gotovo isključivo samo o stručnim temama vezano uz područje ekonomije? Kako bi se to moglo poboljšati?

- Dosta veliki broj studenata referira se i na pisanje. Na što se tu točno misli (spelling, gramatika, koherentnost, vokabular)? Koliko imate prilike pisati na engleskom jeziku, kako bi se to moglo poboljšati?

### Očekivanja

- Jesu li ispunjena vaša očekivanja vezano uz kolegije iz poslovnog engleskog jezika? Jeste li uopće imali očekivanja i koliko su se ona ispunila? → *vidjeti što su rekli na 1. godini pojedinačno*
- Mislite li da ste napredovali u znanju engleskog jezika otkad ste upisali studij?
  - Ako kažu DA – što vam je točno pomoglo?
    - Predavanja nastavnika (tj. Predavanja iz poslovnog engleskog jezika)
    - Čitanje literature
    - Pisanje seminara
    - Interaktivni zadaci za vrijeme nastave (tj. aktivno korištenje jezika za vrijeme predavanja)
  - Ako kažu NE – zašto ne, u čemu je problem? Kako se to može popraviti?
- Neki studenti smatraju da su tijekom studija napredovali u području poslovnog engleskog jezika, ali da nisu napredovali u području općeg engleskog jezika. Što mislite o tome?

## Appendix 9

### Interview questions for EMI TYS

#### Dosadašnje obrazovanje

- Kako ste odlučili koji smjer ćete upisati? Kako/zašto ste se odlučili upisati smjer na engleskom jeziku? → *vidjeti što su rekli pojedinačno na 1. godini studija*
- Smatrate li da ste po završetku srednje škole bili spremni za studiranje na engleskom jeziku?
- Koji su prednosti i nedostaci nastave na engleskom jeziku tijekom fakultetskog obrazovanja?
- O čemu ovisi uspješnost učenja engleskog jezika (u školi i na fakultetu)?  
Koliko snažan faktor je profesor koji vam predaje engleski, ovisi li puno o njemu?  
Osobna motivacija, je li i ona bitan faktor?
- Što je najviše doprinijelo vašem trenutnom znanju?
  - ako kažu angažman/aktivnosti u slobodno vrijeme:

Smatrate li da se tako može naučiti više nego putem obrazovanja? Kako onda aktivno koristite jezik i primjenjujete naučeno? Ako se koristite medijima, kako učite jezik?

#### Jake i slabe strane

- Prema rezultatima upitnika, jedan dio studenata smatra da ima problem s pisanjem. Neki kažu da se radi o gramatičkim pogreškama, neki da se radi o spellingu. Vježbate li pisanje na engleskom? Kad hvatate bilješke, kako znate jeste li točno napisali novu riječ, provjeravate li to kod kuće? Koliko se profesori referiraju na pogreške u pisanju (npr. hoćete li na ispitu izgubiti bodove ako ste krivo napisali neku riječ)? Kako bi se ta vještina mogla bolje razvijati, tj. imate li neki prijedlog kako poboljšati vještinu pisanja?
- Nekoliko studenata navelo je i teže razumijevanje i usvajanje stručnih pojmova. Kako to objašnjavate kad tijekom studija učite isključivo poslovni engleski i na svim kolegijima se radi samo o stručnim temama vezano uz područje ekonomije? Kako to poboljšati?

- Gotovo trećina studenata koji su ispunjavali upitnik smatra da nema problema s engleskim jezikom, posebice što se tiče sporazumijevanja i komunikacije na engleskom. Smatrate li da je studij doprinio toj sigurnosti (zbog svakodnevnog korištenja jezika) ili nešto drugo?
  - budući da sva predavanja slušate na engleskom jeziku, koliko se (vi i profesori) osvrćete na sam jezik? Daju li vam profesori povratne informacije što se tiče samog jezika ili samo što se tiče gradiva?
  - Ukazuju li vam profesori na jezične posebnosti, tj. KOLIKO, KAKO i KADA se osvrću na jezik studenata?
    - ako kažu DA: koliko takav osvrt pomaže u učenju jezika/usavršavanju vaših jezičnih sposobnosti? Smatrate li to uopće potrebnim, trebaju li oni to raditi (kada i u kolikoj mjeri, ili ne)?
    - ako kažu NE: mislite li da bi se profesorili trebali osvrćati na jezik studenata? Kada i u kolikoj mjeri?
    - ako sami učite usput, kako to utječe na vaše znanje engleskog jezika, na koji način ga učite i na koji način napredujete?

### Očekivanja

- S obzirom na to da se sva nastava izvodi na engleskom jeziku, jesu li ispunjena vaša očekivanja vezano uz poboljšanje znanja iz engleskog jezika? → vidjeti što su rekli na 1. godini pojedinačno
- Misлите li da ste napredovali u znanju engleskog jezika otkad ste upisali studij?
- Smatrate li da ste bolji po pitanju:
  - Stručne terminologije
  - Širine vokabulara (općenito)
  - Tečnosti
  - Točnosti
  - Boljeg poznavanja gramatičkih struktura
  - Samopouzdanja – je li vaše samopouzdanje poraslo kad komunicirate na engleskom?



→ Ako kažu DA – što vam je točno pomoglo?

- Predavanja nastavnika
- Čitanje literature
- Pisanje seminara
- Rasprave za vrijeme nastave (tj. aktivno korištenje jezika za vrijeme predavanja)

→ Ako kažu NE – zašto ne, u čemu je problem? Kako se to može popraviti?

(\*ako kažu zbog profesora: veći dio studenata se u upitniku referirao na nedovoljno razvijene engleske jezične vještine profesora koji vam drže nastavu. Na što točno mislite, u čemu je problem? Jeste li očekivali više (neka pojasne što su točno očekivali)? Mislite li da to utječe na razvijenost vaših engleskih jezičnih vještina? )

- Smatrate li kolegije *Business English 1* i *2* koje ste imali na 1. godini potrebnima s obzirom na to da ste cijelo vrijeme izloženi jeziku? Zašto?

## Appendix 10

### Interviews: A written consent signed by the students

Molim Vas da pažljivo pročitate donji tekst.

---

**Istraživanje:** Utjecaj engleskog kao jezika visokoškolske nastave na razvoj engleskih jezičnih vještina studenata

**Istraživač:** Kornelija Čakarun

**Ustanova:** Sveučilište u Rijeci, Ekonomski fakultet

**Kontakt:** kornelija.cakarun@efri.hr

---

**OPIS ISTRAŽIVANJA:** Pozivam Vas da sudjelujete u istraživanju koje proučava (akademske) jezične vještine te stavove i razmišljanja studenata prvih i završnih godina Ekonomskog fakulteta Sveučilišta u Rijeci vezano uz engleski kao jezik visokoškolske nastave. Cilj je istraživanja istražiti i usporediti razvoj engleskih jezičnih vještina studenata upisanih u programe na kojima se nastava izvodi na hrvatskom jeziku te studenata upisanih u programe na kojima se nastava izvodi na engleskom jeziku, pri čemu obje skupine studenata slušaju kolegije fokusirane na engleski za posebne namjene.

Istraživanje uključuje intervju s polaznicima oba programa. Uz Vaše dopuštenje, intervju će biti snimljen snimačem zvuka, a snimke će biti pohranjene i dostupne samo istraživaču. Identitet ispitanika poznat je samo istraživaču, a prikupljeni podaci koristit će se za potrebe istraživanja, pisanja doktorskoga rada i publikacije rezultata. U analizi i publikaciji rezultata, Vaše se ime i prezime neće dovoditi u vezu s odgovorima na pitanja iz intervjuja.

**VREMENSKO TRAJANJE:** Intervju traje od 30 do 45 minuta.

**RIZICI I KORISTI:** Istraživanje ne nosi nikakve rizike za sudionike niti im donosi neposrednu korist.

**PRAVA SUDIONIKA:** Vaše je sudjelovanje u istraživanju dobrovoljno. U bilo kojemu trenutku možete odustati od sudjelovanja u istraživanju ili povući svoje podatke iz njega bez ikakvih posljedica. Imate pravo ne odgovoriti na postavljeno pitanje.

---

Ako pristajete sudjelovati u istraživanju, molimo Vas da ispunite ovaj obrazac.

**Ime i prezime:** \_\_\_\_\_

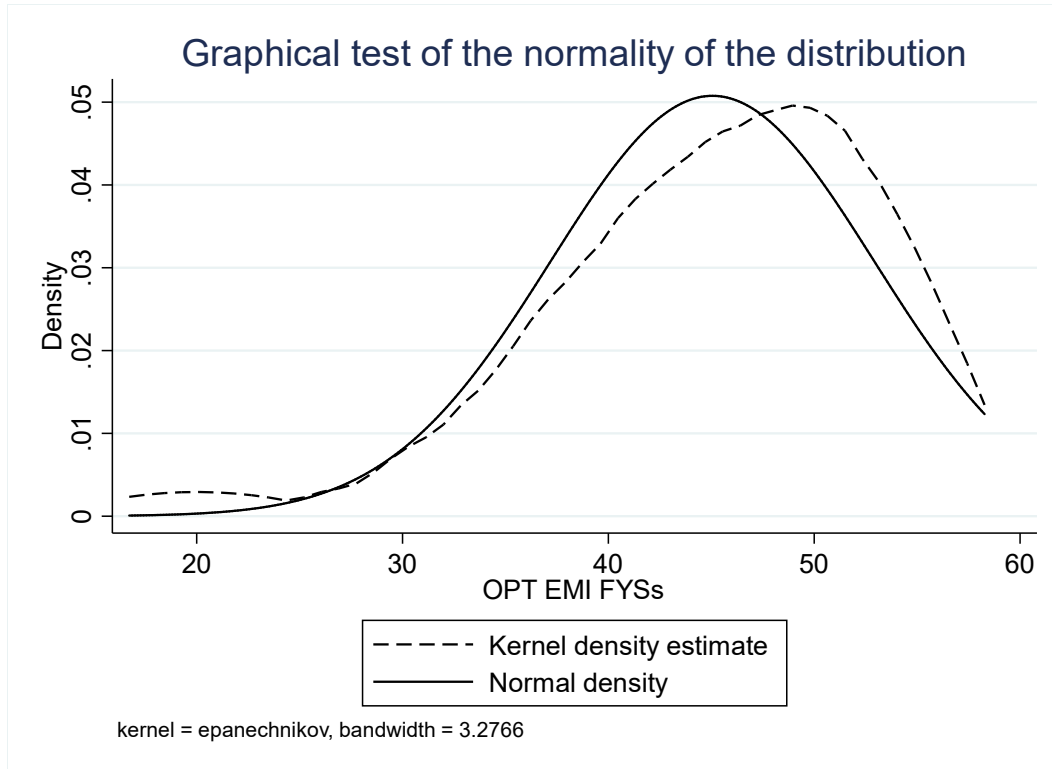
**Potpis:** \_\_\_\_\_

**Datum:** \_\_\_\_\_

## Appendix 11

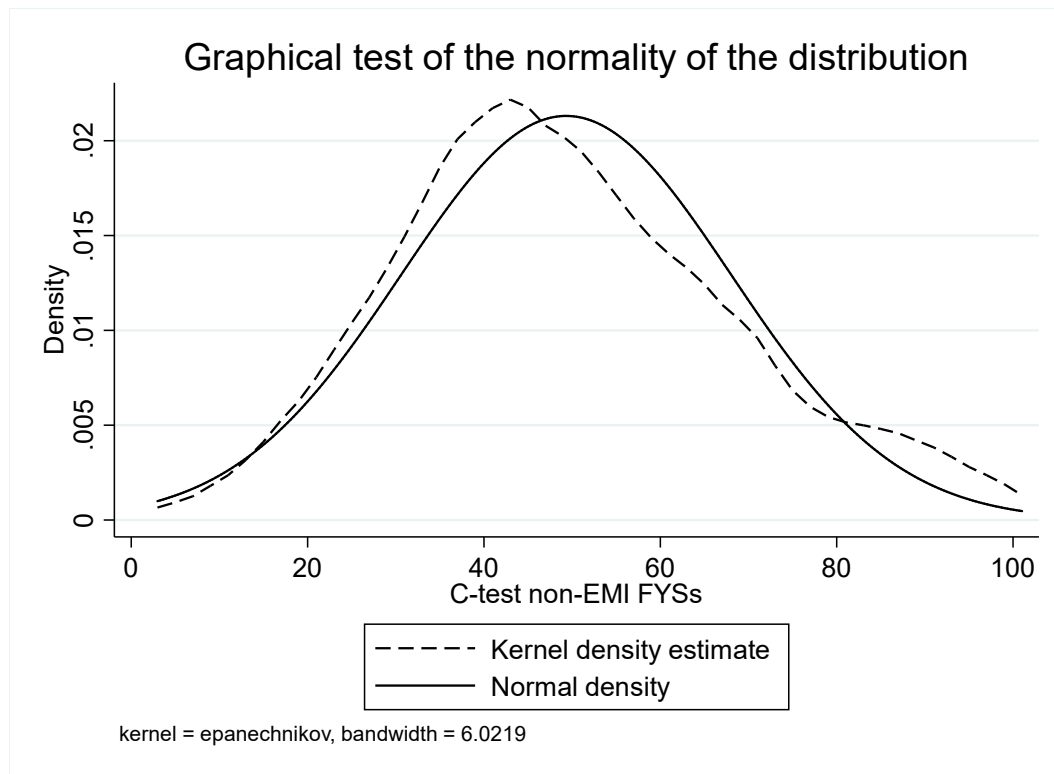
### Kernel density estimates and the results of the Skewness/Kurtosis test for normality for all groups and tests

Kernel density estimate for the OPT results of EMI FYs



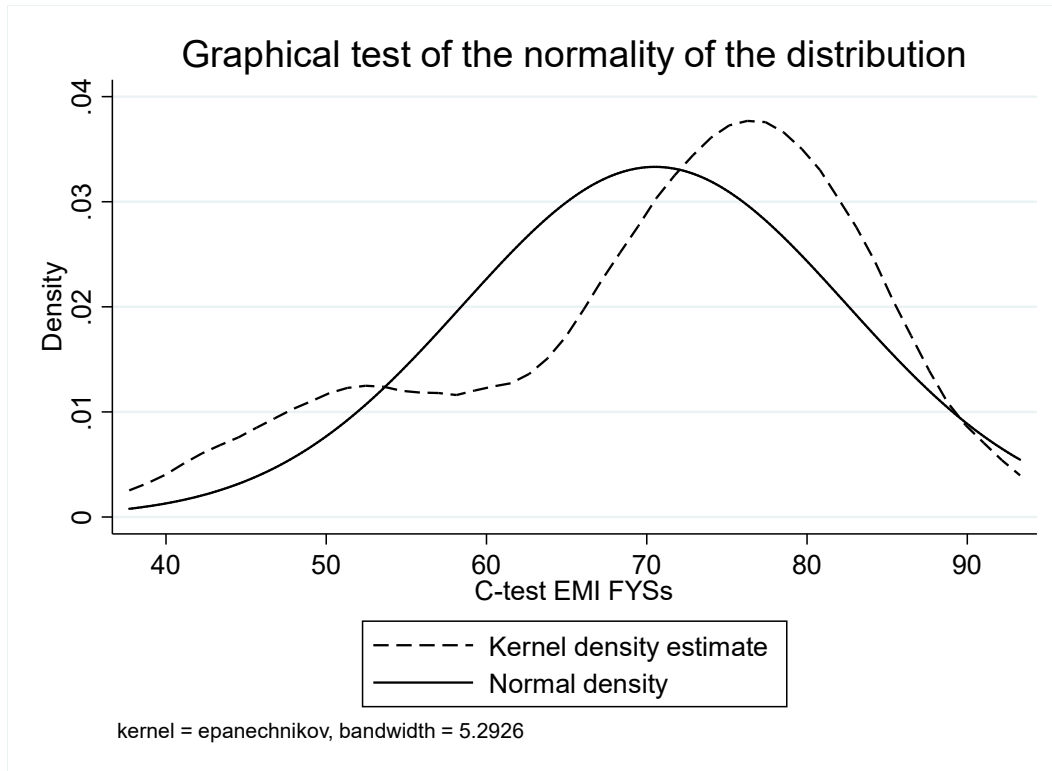
Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
OPT	35	0.0116	0.0846	8.07	0.0177

Kernel density estimate for the C-test results of non-EMI FYs



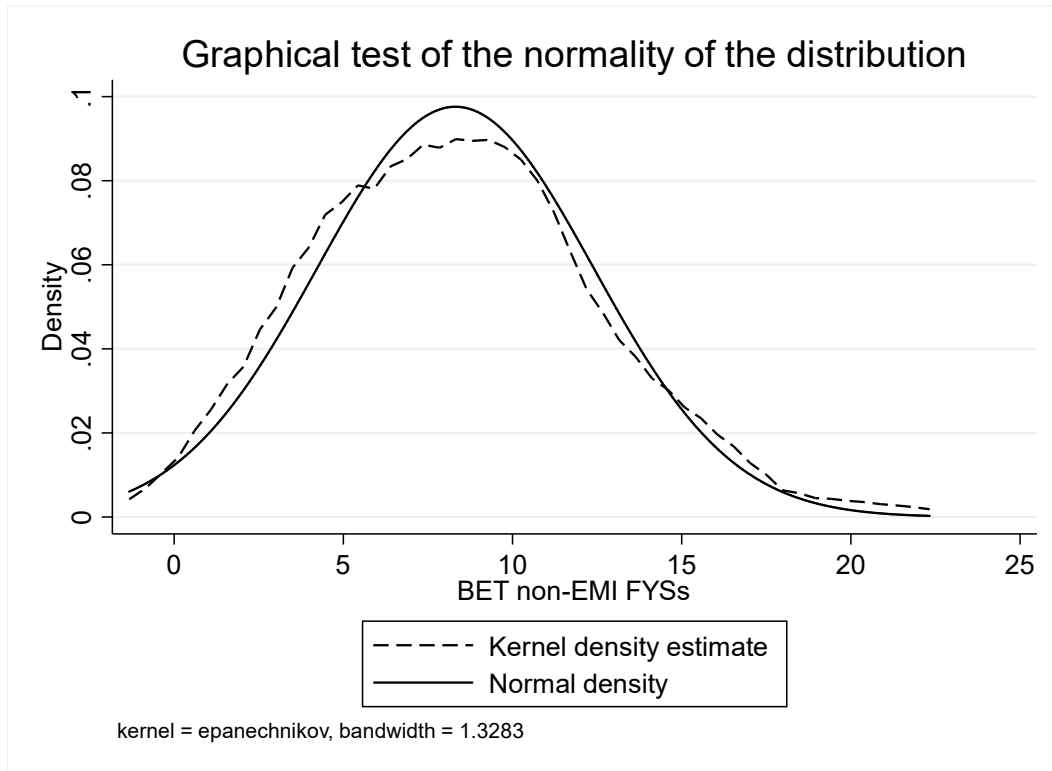
Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
C-test	162	0.0319	0.6718	4.84	0.0888

Kernel density estimate for the C-test results of EMI FYs



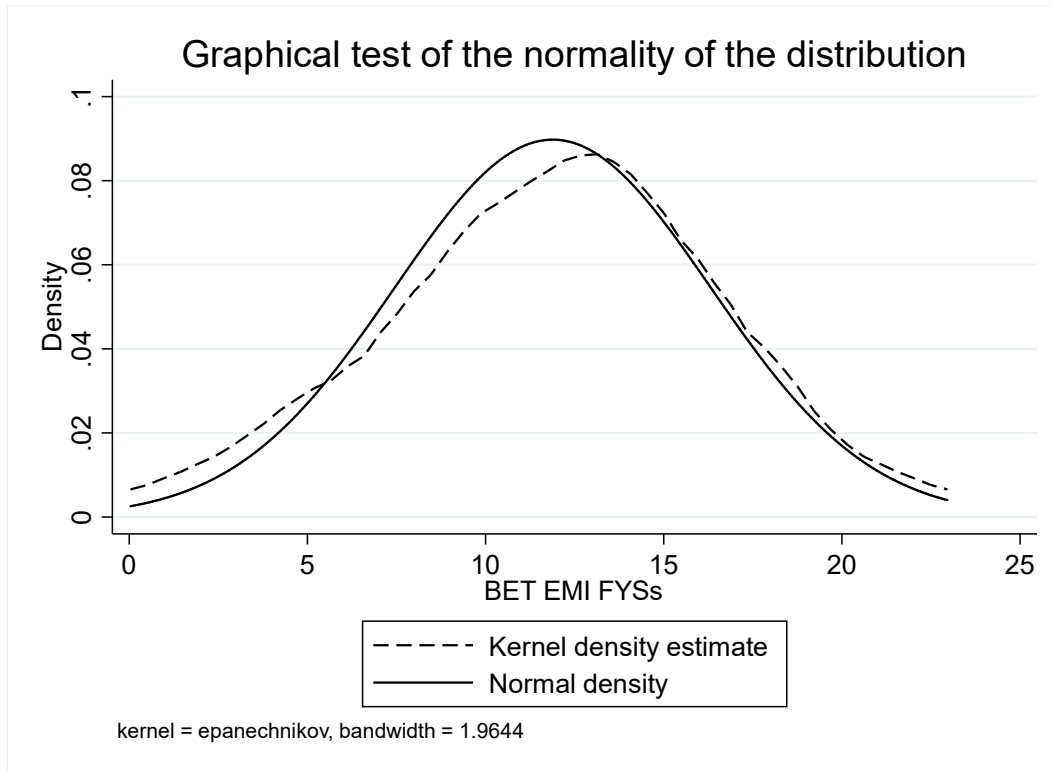
Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
C-test	35	0.0363	0.9053	4.48	0.1067

Kernel density estimate for the BET results of non-EMI FYs



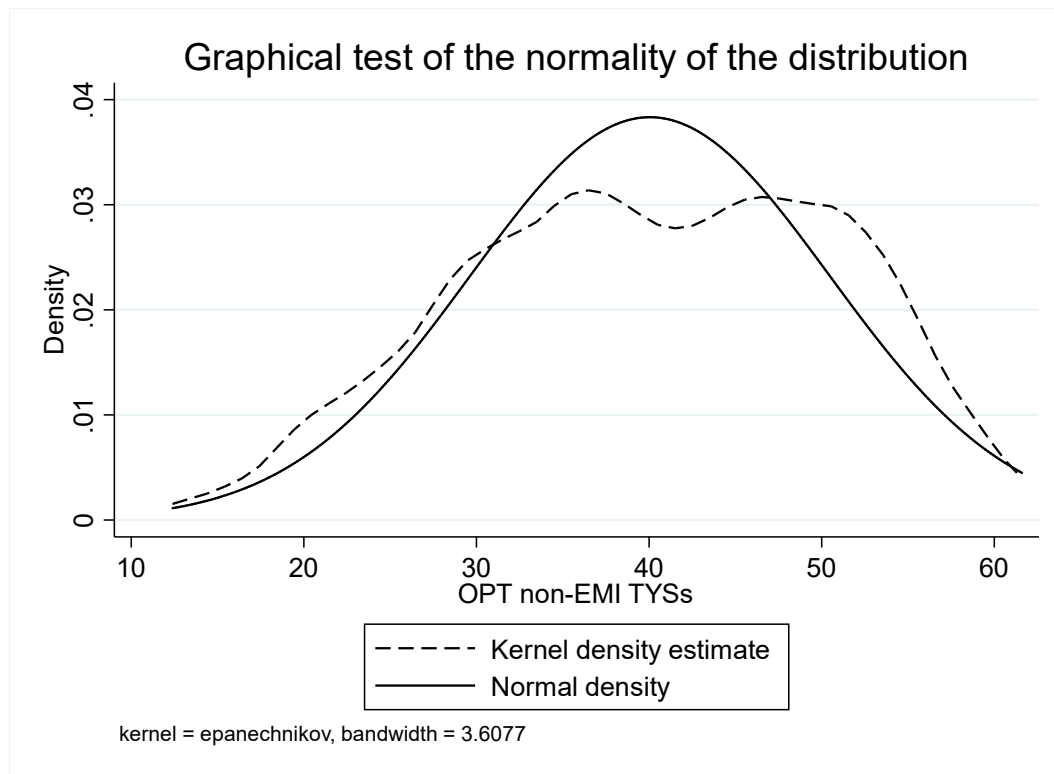
Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
BET	162	0.0502	0.8973	3.91	0.1417

Kernel density estimate for the BET results of EMI FYs



Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
BET	35	0.5753	0.9189	0.32	0.8503

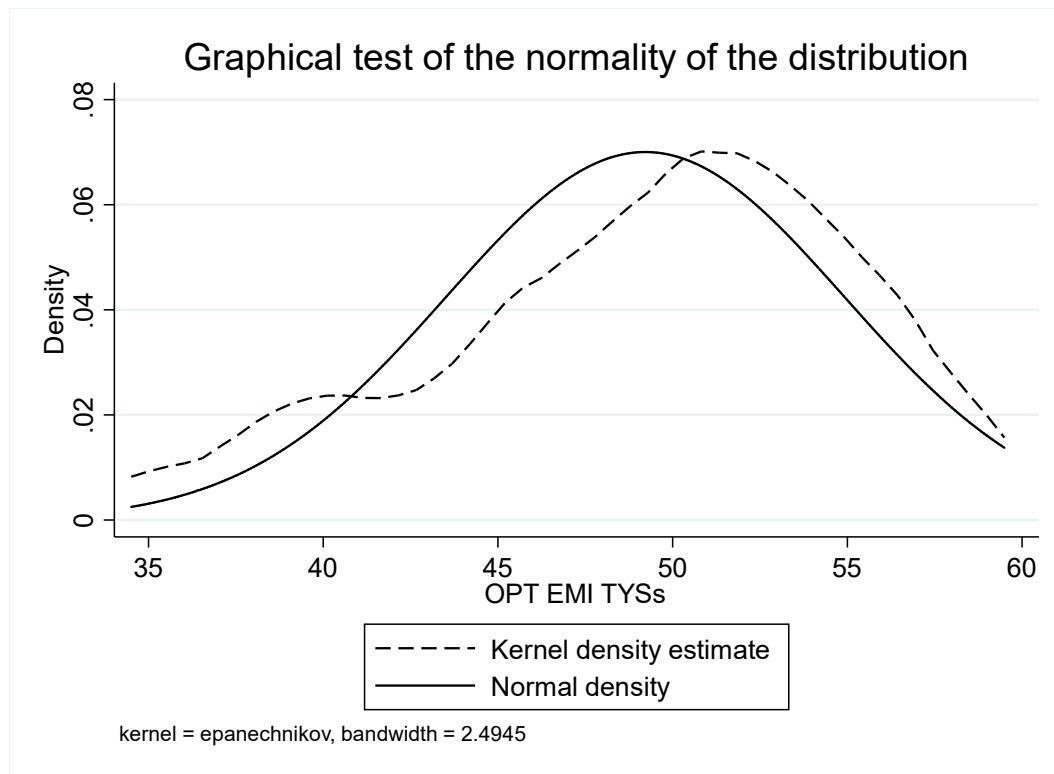
Kernel density estimate for the OPT results of non-EMI TYS



Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
OPT	118	0.3064	0.0016	9.55	0.0084

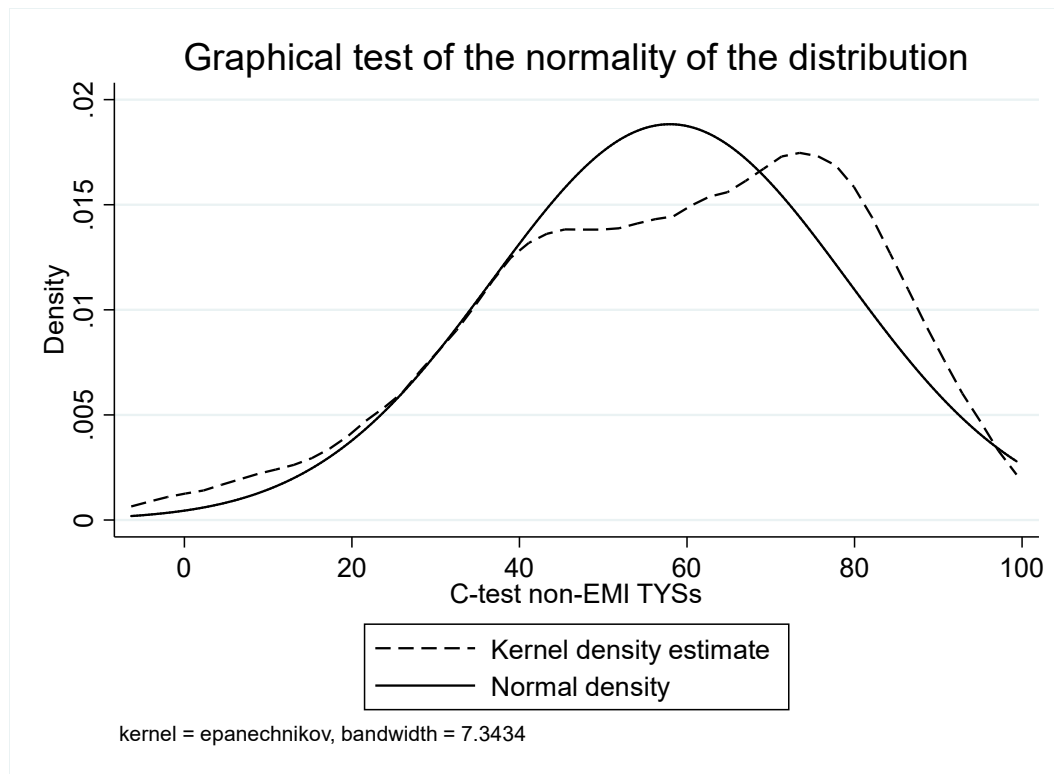


Kernel density estimate for the OPT results of EMI TYS



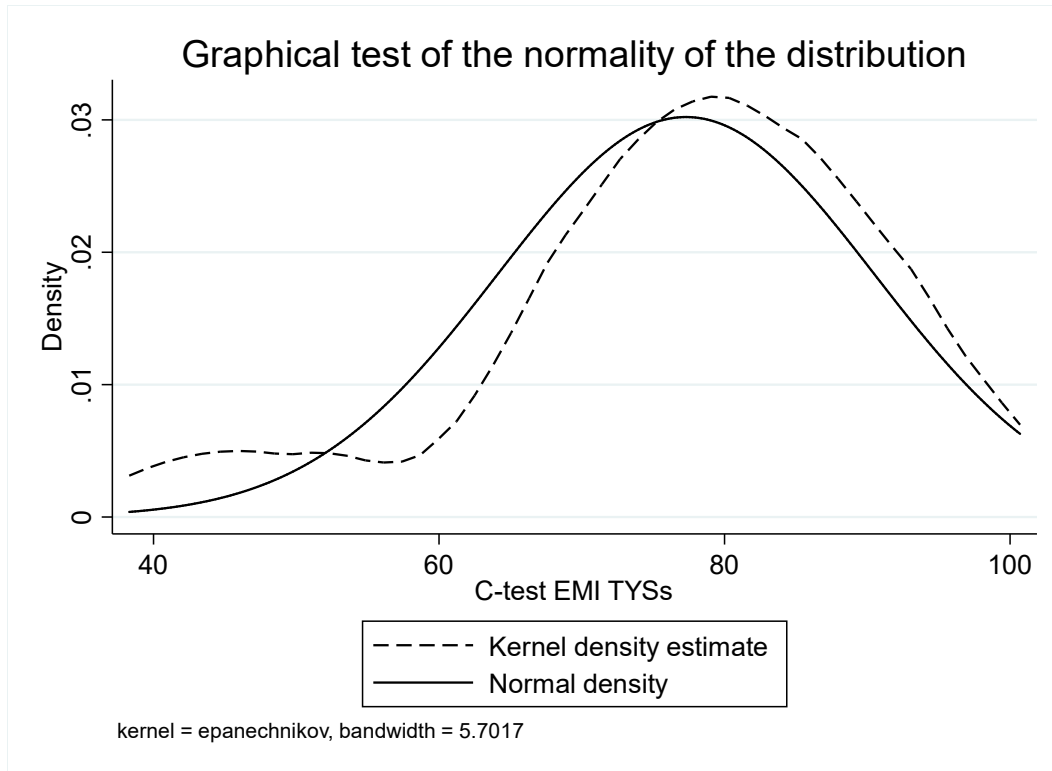
Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
OPT	23	0.1531	0.9469	2.27	0.3213

Kernel density estimate for the C-test results of non-EMI TYS



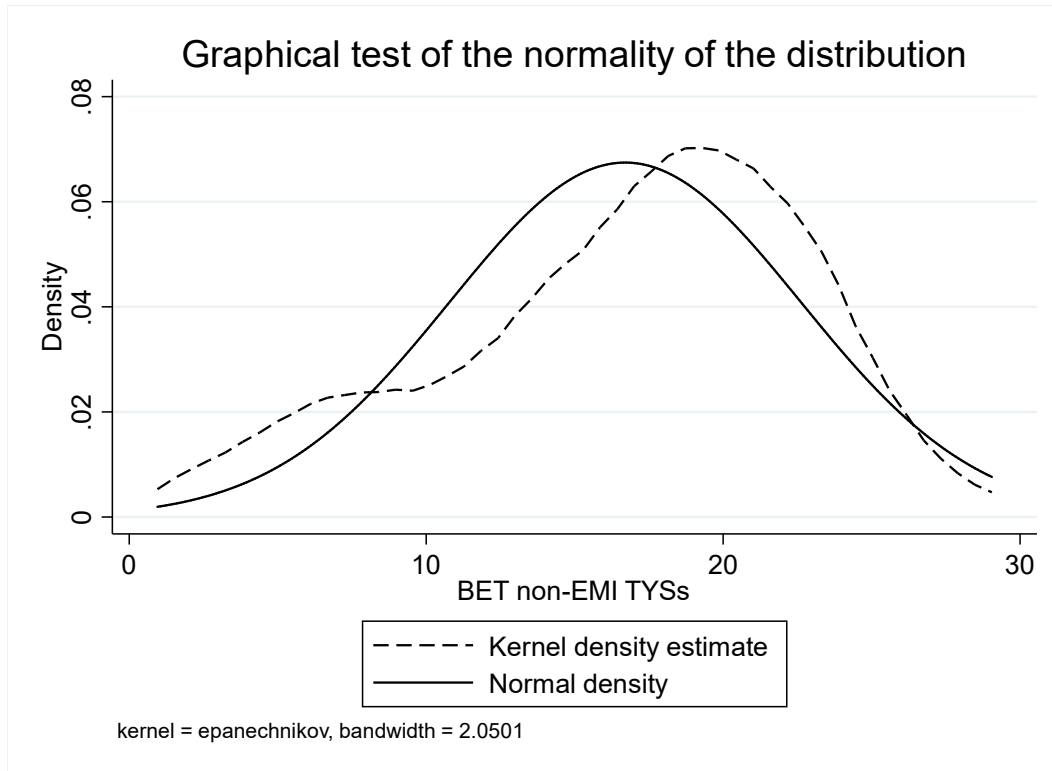
Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
C-test	118	0.0238	0.4042	5.62	0.0601

Kernel density estimate for the C-test results of EMI TYS



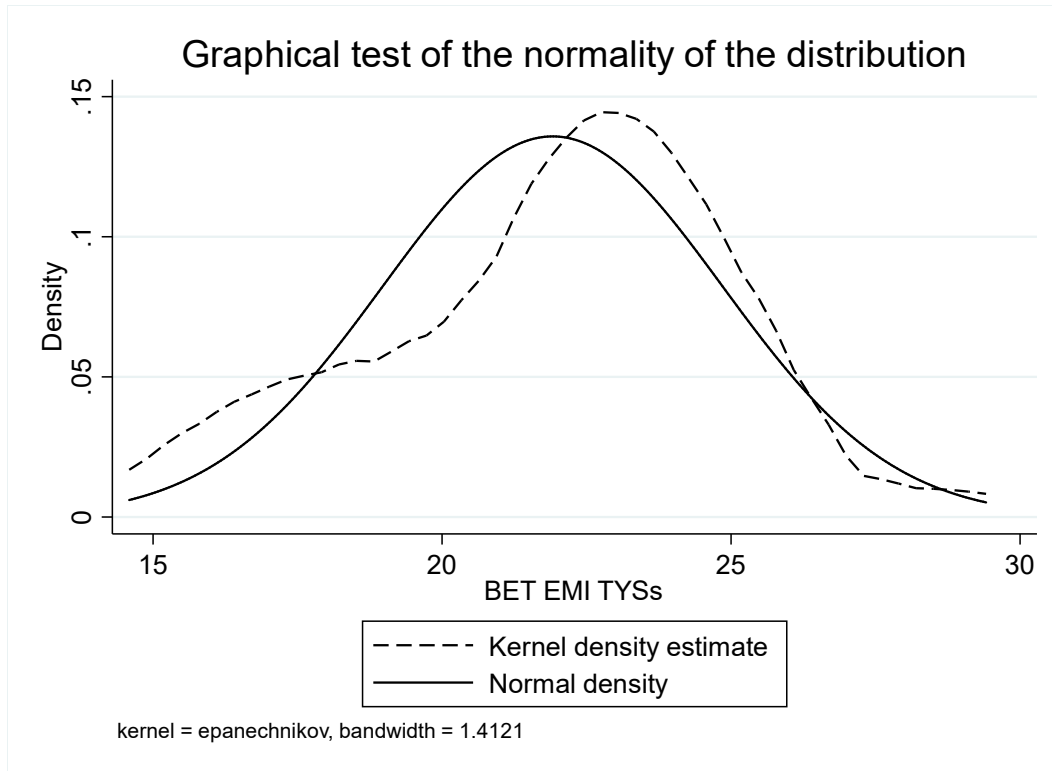
Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
C-test	23	0.0393	0.2038	5.58	0.0615

Kernel density estimate for the BET results of non-EMI TYS



Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
BET	118	0.0100	0.3420	6.97	0.0307

Kernel density estimate for the BET results of EMI TYS



Skewness/Kurtosis tests for normality					
Variable	Observations	Pr(Skewness)	Pr(Kurtosis)	Chi2(2)	p-value
BET	23	0.3431	0.8269	1.02	0.6007

## Appendix 12

**The re-examination of the OPT and the BET results for EMI and non-EMI TYS  
with the two-sample Wilcoxon rank-sum (Mann-Whitney) test**

<b>Test</b>	<b>Group</b>	<b>Year</b>	<b>z-score</b>	<b>p-value</b>
OPT	EMI	3	-3.979	0.0001
	Non-EMI	3		
BET	EMI	3	-4.351	0.00
	Non-EMI	3		

## **Curriculum Vitae**

Kornelija Čakarun was born in Rijeka in 1987. After primary school, she attended Prva riječka hrvatska gimnazija, where she was the best student of the 2005/2006 generation. She also attended the music school “Mirković”. In 2009, she obtained a bachelor’s degree in English language and literature and German language and literature at the Faculty of Humanities and Arts in Rijeka, and in 2012, she obtained a master’s degree in English language and literature and German language and literature education at the Faculty of Humanities and Social Sciences in Zagreb. She took the state qualifying exam in 2015, and in 2021, she enrolled in the postgraduate doctoral study programme “Humanities” at the University of Zadar (scientific area Philology – linguistics).

She has gained work experience working in the education system as a teacher of English and German as foreign languages in different primary and secondary schools, as well as in foreign language schools in Rijeka and on the island of Krk. She also worked as a translator. In October 2018, she started working at the Faculty of Economics and Business, University of Rijeka, first as an external associate, and from March 2019 as a lecturer. She currently holds the position of a senior lecturer. She teaches courses related to business English and business German.

Her research and scientific interests are English-medium instruction and second language acquisition, as well as English for specific purposes. She has presented at several international scientific and expert conferences. She has also co-authored several scientific papers.

## Životopis

Kornelija Čakarun rođena je u Rijeci 1987. godine. Po završetku osnovne škole upisala je jezični smjer u Prvoj riječkoj hrvatskoj gimnaziji, gdje je bila proglašena učenicom generacije. Uz gimnaziju, pohađala je i srednju glazbenu školu „Mirković“. Godine 2009. stekla je titulu prvostupnika engleskoga jezika i književnosti i njemačkoga jezika i književnosti na Filozofskom fakultetu u Rijeci, a 2012. godine stekla je titulu magistre engleskoga jezika i književnosti i magistre edukacije njemačkoga jezika i književnosti na Filozofskom fakultetu u Zagrebu. Stručni ispit za učitelja engleskog jezika položila je 2015. godine, a 2021. godine upisala je poslijediplomski sveučilišni studij „Humanističke znanosti“ na Sveučilištu u Zadru (znanstveno polje Filologija – lingvistika).

Radno iskustvo stjecala je radeći u obrazovnom sustavu kao nastavnica engleskog i njemačkog jezika u osnovnim i srednjim školama te u školama stranih jezika na području grada Rijeke i otoka Krka. Radila je i kao prevoditelj. Od listopada 2018. godine počinje raditi na Ekonomskom fakultetu Sveučilišta u Rijeci, prvo kao vanjski suradnik, a od ožujka 2019. godine i kao predavač. U svibnju 2024. godine izabrana je u zvanje višeg predavača. Nositeljica je kolegija iz poslovnog engleskog i poslovnog njemačkog jezika.

Istraživački i znanstveni interesi usmjereni su joj prvenstveno na engleski kao jezik visokoškolske nastave i usvajanje drugog jezika te na jezik za posebne namjene. Izlagala je na nekoliko međunarodnih znanstvenih i stručnih skupova i koautorica je nekoliko znanstvenih radova.