Inter Alia
Published by The Slovene Association of LSP Teachers Volume 4, 2018, pp. 43–49

Teaching Languages for Medical Purposes for International Students

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Abstract

Over the past few decades the student body of the Medical School of the University of Pécs has become more and more international. A large student population comes from Norway, as UPMS and the Bjorknes Hoyskole (BH) in Oslo developed a joint programme in 2006, where Norwegian students start their medical studies in Norway and pursue them in Hungary. The students study Hungarian for medical purposes in both programmes, either using their mother tongue or English as a foreign language is as a medium of instruction. However, no research has been carried out so far to investigate the role of the language of instruction used in teaching in Hungary. The aim of the paper is to present the results of the first survey of a longitudinal study carried out to compare the two educational systems in Hungary and Norway. The primary objective was to identify whether the language of instruction has an effect on language acquisition. The results revealed that, as opposed to our hypothesis, there was no major difference in the language acquisition of the two main groups of students studying medical Hungarian in their mother tongue or in English.

Keywords: international, medical, Hungarian, language of instruction, LSP

1 Introduction

Teaching Languages for Specific Purposes (LSP) has become more complex recently, and it is an outstanding task due to the constant change and development of the modern and international higher education environment. Therefore, studies should focus on the cultural aspects of language teaching and on teaching methods meeting the needs of the new generations. This is particularly important in an intercultural setting, where educators now recognize the importance of being adequately prepared to work with students originating from different cultural backgrounds. The present longitudinal follow-up Norwegian-Hungarian comparative study aims to scrutinize the teaching of Hungarian for Medical Purposes from the perspectives of Norwegian, German and English as languages of instruction. An online questionnaire and oral tests were conducted, focusing on students' development in Hungarian as a second language for medical purposes. Student surveys serve as a proper platform to collect and analyse data, as well as to compare and contrast student populations with different backgrounds.

1.1 Higher education across the globe

For several decades, higher education worldwide has been transforming from national into international institutions (Németh & Szántóné, 2016). Universities and colleges offer their services not only to the local market,but recruit potential students from all over the world. The European student environment is also undergoing radical changes. More and more students go to study abroad either through various bilateral agreements, European Union-level mobility programmes, such as the Erasmus programme, or as international, degree-seeking students. Globalization and world-wide migration are also part of the reason why the scope of higher education has completely changed, thus enabling increased contact of diverse cultures (Németh et al., 2009).

As a consequence, the number of international students has been increasing quickly. In 2001, there were only one million students studying in a country, which was not their native land, but their number grew to 3.7 million by 2009 (Rekettye & Pozsgai, 2015). According to the estimation of UNESCO, by 2025, there will be eight million international students studying abroad (UNESCO, 2009). "Since English has become the lingua franca in almost all fields of science and professions, universities in English speaking countries, especially those of the United States and the United Kingdom, have a leading advantage" (Rekettye & Pozsgai, 2015, p. 13). This has prompted several universities in non-English speaking parts of the world to launch their programmes not only in their local languages, but in English as well.

1.2 Higher education in Hungary

With each passing year, Hungary is becoming increasingly multicultural. Comparing the latest census data with that of 2001, there is a significant increase in the number of foreign nationals residing in the country, whereas the number of those claiming to be Hungarian has decreased by more than a million (KSH, 2013).

Hungarian higher education has also undergone radical changes in the past twenty years. There is a significant demographic decline in the population. Based on the latest census data (KSH, 2012), the number of young people, who are the potential target of Hungarian higher education, has been decreasing significantly. In the age group of 20 and 24, their number decreased by 24% between 1980 and 2011, whilst in the age group of 25 and 29, the decrease is even higher, 31%. One explanation may be migration. Since Hungary joined the European Union in 2004, these age groups have been the most likely to migrate to more developed countries and settle there for shorter or longer periods

of time. As a result, they get into higher education in these countries, mostly the United Kingdom and Germany and not Hungary.

As a consequence, fewer Hungarian students have been admitted to Hungarian higher education since the beginning of the 21st century. At the same time institutions receive less funding from the government, while their operational costs are on the rise. Therefore, tuition fees had to be introduced in several disciplines, mainly in Business Studies, Law and Humanities, to generate income. Yet, as a side effect of this, fewer Hungarian students have enrolled for studies. The Bologna process has also had its negative impact on the number of students. Many graduates in higher education decide to finish studying after earning their Bachelor degrees and immediately pursue employment (Pozsgai et al., 2012).

To balance the growing deficit, Hungarian higher education institutions generate income by launching international programmes. These are mostly available in English to target a higher student population, however, due to the proximity of German speaking countries, such as Austria and Germany, several programmes are also offered in German (Pozsgai & Németh, 2013).

This has led to the increase in the number of international students. Their number grew from 11,187 (academic year 2001/2002) to a total of 17,112 by the academic year of 2011/2012 (Császár & Wusching, 2014). In particular, Hungarian medical education has been very popular among international students; therefore, the vast majority of this student population studies medicine at one of the four medical schools in the country.

There are significant restrictions in the number of students admitted to medical schools in several European countries, such as Norway, Germany, Spain, and as a result, Hungary is one of the target countries for medical education in Europe, as demonstrated by the table below (Table 1). As Berács, Malota and Zsótér (2010) claim, the high quality of the services provided for the students both by the universities and the towns they are located in, also contribute to the substantial increase in the number of international medical students, which was more than 34% between 2001 and 2011.

Table 1: *Number of international students at Hungarian higher education institutions in 2012-2013. Source: Komlódiné Pozsgai, 2014*

	Name of University	Faculty	International students
1	Semmelweis University	Medicine	2120
2	University of Debrecen	Medicine	1713
3	University of Pécs	Medicine	1559
4	University of Szeged	Medicine	966
5	Corvinus University	Business and Economics	847
6	Szent István University	Veterinary	839
7	Eötvös Loránd University	Humanities	511
8	Corvinus University	Horticultural	464
9	Semmelweis University	Health Sciences	387
10	University of Debrecen	Dentistry	375

2 Internationalising Medical Education in Hungary

The medical schools started to introduce their programmes in different languages to attract more students from all over the world. Initially, it was the Semmelweis University in Budapest that launched the first German programme in 1983, followed by the first English programme at the Medical School of the University of Pécs in 1984. Shortly thereafter, the Medical School of the University of Szeged

introduced its English programme in 1985, followed by the Medical School of the University of Debrecen in 1987 (Császár & Wusching, 2014). In 2004, twenty years following the initial launch of its English programme, the UPMS introduced its medical education in German, targeting the student population in German speaking countries, such as Germany and Austria.

2.1 The Medical School of the University of Pécs (UPMS)

As enrolment data indicate (Student statistics, 2016), the total number of students enrolled in September 2016 at UPMS was 3,635 students. Analysing the data further, it is suggested that the number of Hungarian students today only makes up 43% of the total student population. The majority of the students (37%) are from Germany, close to 14% come from Iran and Norway respectively, and the remainder arrive from various countries spanning the globe.

International students may enrol in elective language courses for medical purposes in Hungarian. The students study Hungarian for four to six semesters and acquire four contact hours per week. The final language examination for medical purposes in Hungarian is a prerequisite for the Internal Propaedeutics course in the fifth semester. Comprehensively, this exam was created and is required to test the international students' level of communication skills with patients admitted to clinical wardsand do so at a basic level when taking medical history and performing physical examinations. As a follow-up task, students have to present the case history of the patient in English to their supervisors; therefore, it is imperative to understand their answers. In summary, what students are expected to learn is how to use the medical terminology in sentences, how to understand authentic medical discourse, and how to communicate effectively in typical situations throughout Hungarian clinics.

3 The Impact of the Language of Instruction - The Case Study

The research question of the present study is whether the language of instruction (either in their mother tongue or in English) has an impact on the performance of students learning Hungarian for Medical Purposes. Three different groups were involved in the study. The language of instruction is their mother tongue for the Norwegian students in Oslo and the German programme students in Hungary. In contrast, in the English programme, English language is used as a medium of instruction, which in most cases is not the mother tongue of the students. Our hypothesis was that those groups who study Hungarian using their mother tongue as the language of instruction would perform better at the end of the first and second semester.

The language instructors used the same course book and curriculum and the students were expected to take the same standardized oral exam at the end of each semester. Additionally, we conducted an online survey as part of a longitudinal study. The longitudinal, follow-up Norwegian-Hungarian comparative study aimed at examining multiple dimensions of teaching LSP, such as the influence of the language of instruction and the learning environment, the participants' motivation and the development of their intercultural competences. The questionnaire was an online anonymous survey and respondents were asked to choose a code name so that we could follow their development. The respondents were asked to fill in the questionnaire three times, at the beginning of their studies, at the end of the first semester and finally at the end of the second semester.

When conducting online research, there are several limitations, such as low response rate or using help when giving answers to language proficiency questions. To minimize these, we asked the participants to complete the survey in class. Each researcher devoted the last 30 minutes of their ultimate class in the semester to provide time for the students to complete the survey on their mobile devices or

laptops. The researcher stayed in the classroom to prevent any form of cheating by the students. The survey was opened the night before the session and was closed straight after completing the survey. Students were encouraged to fill in the survey, explaining both the importance of the research and the advantage of being able to follow their own development in the first year of their studies. As the ultimate language session preceded their oral exam, it also served as a practice and summary of their studies. We designed a system of code names and the results of their answers had no impact on the students' final grade.

A total of 158 students agreed to take part in the study. The composition of the students participating in the survey is shown in the figure below. All of the respondents were first year students at both schools. 58% of them were female and 42% were male. The majority (62%) were aged between 15 and 20.

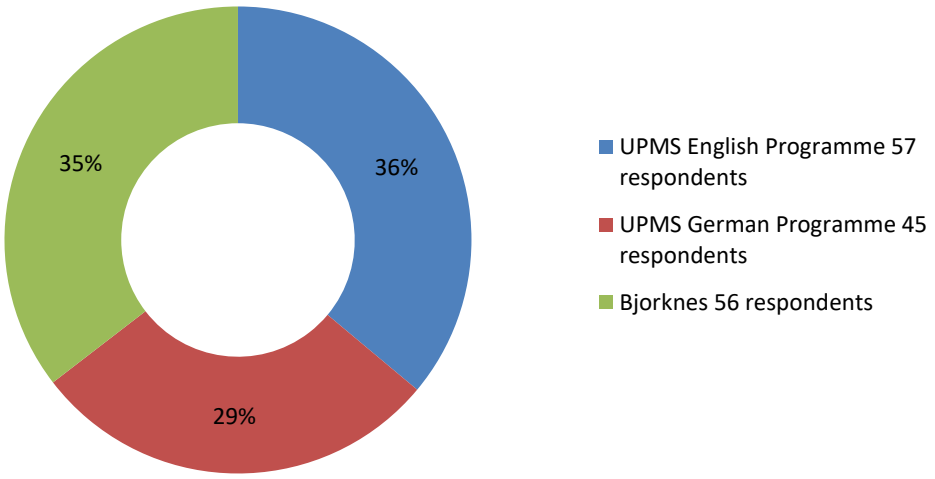

Figure 1: *The composition of the students participating in the survey*

The questionnaire contained open and closed questions, which can be divided into four categories: socio-demographic data (Section 1: 20 questions), motivational background (Section 2: 4 questions), development of their language proficiency in the form of a standardized test (Section 3: 32 questions) and questions related to their intercultural competences (Section 4: 25 questions). In the first group of questions, besides the standard socio-demographic data questions, we also mapped all the languages spoken by the students and their parents in order to get a better picture of their language background. In examining motivation, we were primarily interested in their extrinsic and intrinsic motivation. The third group of questions aimed at both tracking their progress in language learning, and comparing the respondent groups studying, either using the mother tongue or English as instruction language. Intercultural competence and the attitudes that are related to the culture of the given language play an important role in language learning. The fourth question group concerned their knowledge and attitude regarding the Hungarian culture, people and traditions and studying in a multicultural environment.

Due to the limited length of this paper, only the second group of questions is analysed regarding the development of their language proficiency in the form of a standardized test. The 32 questions were compiled based on the curriculum and the students had to answer all in writing. They had seven questions related to general greetings and some specific communicative functions, such as wishing patients a speedy recovery. The next five prompts assessed their ability to introduce themselves briefly in the target language and to initiate conversation with the patient. The respondents were also asked to formulate seven questions in Hungarian about patients' biodata and risk factors, such as smoking,

drinking alcohol and taking medications. There were four questions related to the onset, location, character and radiation of pain. Finally, the students were asked to take a brief medical history regarding nine symptoms. The symptoms were related to common complaints such as headache, cough, fever etc. The table below illustrates the results of the third survey at the end of the second semester.

Table 2: *Results of the third survey-percentage of correct responses in Section 3*

	Bjorknes	German prog.	UPMS-English prog.
Greetings	94 %	88 %	80 %
Introduction	91 %	90 %	89 %
Biodata and risk factors	96 %	90 %	91 %
Pain	66 %	74 %	83 %
Symptoms	85 %	87 %	82 %

As can be seen from the table above, the three groups of students gave relatively similar correct answers in almost all sections. Interestingly, the percentage of correct answers when forming greetings was higher for the Bjorknes students. These results were unexpected, as the other two groups of respondents study Hungarian in the native language environment, whereas students from Bjorknes learn the language in Norway. The other major difference can be detected in the total scores of questions related to pain. Those students who attend the Medical School in Hungary gave correct answers in 74% and 83% in the German and English programmes respectively. Only 66% of the respondents in Norway could answer correctly. These results can be due to several factors, one of them being different teaching methods. The teachers in Hungary have more opportunities to work with skilled experts and clinicians who emphasize the importance of clinical skills.

Table 3: *The percentage of correct responses in Section 3*

	Mother tongue-language of instruction	English –as a medium of instruction
Bjorknes - Total score:	**86.4%**	
German programme - Total score:	**85.8%**	
UPMS-English programme - Total score:		85%

As Table 3 shows, there was no significant difference in the percentages of correct answers given by the three different groups of students. 86.4% of the Bjorknes and 85.8% of the German programme students who study using the mother tongue as the medium of instruction gave correct answers. The total score of correct answers was 85% for the English programme students, where English was used as a medium of instruction. To sum up, contrary to our hypothesis, there was no remarkable difference in the students' performance. The results were supported by the oral tests at the end of each semester. In conclusion, the language of instruction has no significant impact on the learning of Hungarian for Medical Purposes in the first two semesters. One explanation may be the standardised methodology applied in all three programmes, i.e. the same medical Hungarian course book is used and the outcome requirements are also the same at the two institutions.

4 Discussion

As part of broader research, the purpose of the present study was to examine the effects of the language of instruction on the language acquisition of Hungarian language learners in medical education. The

survey investigated the development of language skills among international students in two institutions, studying with the help of their mother tongue or using English as a medium of instruction. Findings from this study suggest that there were no significant differences in the performance of students when instructed in their mother tongue or in English. All of the acquired data can be used and will hopefully promote more effective teaching strategies in all the affected programmes in the following semesters. Future studies examining broader range of skills over a longer period of time may be beneficial and may include the longitudinal effect of language of instruction and performance on the language outcomes of LSP learners.

Today, university students commonly go abroad and enter universities where the language of instruction is often not their mother tongue. Student surveys and research regarding different cultures and language of instruction seem to be especially useful in this dynamic higher education environment.

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