Investigation of the English as a medium of instruction as a pedagogical technology in university educational activities

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Abstract. In 2020 the world has faced the pandemic situation with COVID-19 that caused a vast amount of challenges for many spheres of human life including the system of higher education. Students and faculty members of higher educational institutions were forced to critically change their learning style using distant technologies, Zoom and Moodle platforms which was not always perceived positively. Nevertheless, the existing situation of restrictions revealed larger opportunities for an increase in English learning and education through English. One of the most popular directions is English as a medium of instruction (EMI). The international character and popularity of English are undisputable, that’s why it is widely used to teach specific subjects in non-native English-speaking countries. Institutions of higher education all over the world start offering educational programs in English for disciplines in different training directions whether it is management or agriculture. The article aims at focusing on implementing EMI in two institutions of higher education in the Siberian Federal District where faculty members teach in English within modern European internationalization trend of offering courses and Master degree programs in English. The authors make an attempt to reveal advantages and disadvantages of EMI implementation and introduction. Based on the works and experiments of foreign scientists and having some experience in using English as a medium of instruction, the authors draw the conclusion that the EMI implementation in its pure form has certain imperfections. Consequently, the authors suggest the set of measures to make this process more effective: first, to search for opportunities for the foreign language additional study by students in the Bachelor’s degree, via elective courses, or Language Learning Business Centers; secondly, to use the so-called CLIL-ised EMI; thirdly, to provide faculty members with English-training courses and ensure the access to the resources for the development of methodological materials.

1. Introduction

Nowadays the worldwide distribution of the English language encountered an increasing necessity not only to study English, but also to educate through English. This tendency is ordinary for universities development all around the world, which makes them competitive and attractive for students from other countries. For many qualified specialists seeking to be in demand in the labor market, English is a good way to academic and professional mobility. In an academic context, English ceases to be an academic discipline, but becomes a means of acquiring knowledge, a means of training specialists in various fields, ranging from managerial and technical areas, comprising agricultural sphere. Nowadays there is a strong need for investigation and development of EMI as a pedagogical technology of educational activities of
the university for the working out of non-linguistic disciplines courses and programs in countries and regions where English is not an official language. It is essential to compare and contrast EMI, CLIL, ESP, EAP, as the up-to-date trend is the so-called CLIL-ised EMI, which unites the study of content of any specialty and foreign language. For example, Coyle, Hood, Marsh consider CLIL to be an educational technique which is focused both on using a foreign language for the educating content and learning language. It means that in educational process, there is a concentration on content, as well as on language. They are intertwined, even when at a definite time the accent is made on one or the other [1].

Chapple considers the phenomenon of use of English as medium of instruction at higher educational institutions of different countries to be “pandemic” in proportion and most essential tendency in educational internationalization [2].

Russia, which joined the Bologna Process aimed at forming a single educational space in 2003, is not an exclusion when using English as a means of teaching specialized subjects. The evidence is the growing number of national universities that are expanding the number of academic English-language programs and courses taught in English.

The enhanced role of English in higher education, where English is a non-native language, has caused a number of inevitable changes. The evidence of the education quality today is a number of courses that can be educated through English language. Quality education in turn supports the university to take a higher position in the international ranking, determines the amount of university funding, allows to receive accreditation from Russian and foreign agencies [3].

The language environment of universities has changed, and the requirements for training and hiring teaching staff to deliver such courses has also increased. The demand for the teaching staff is growing as well. EMI requires more than merely translating content and teaching it. It involves training subject matter in English, often in classes with students with diverse educational and lingua-cultural background. Moreover, publications in English in international journals, as well as conferences indexed in the Web of Science and Scopus databases, have become a mandatory requirement for all lecturers.

The reasons why universities can start teaching through English using EMI may be as follows:

- gaining access to advanced knowledge and improving global competitiveness;
- getting income;
- extension of students and teaching staff mobility;
- increasing employment possibilities for graduates and their competitiveness in the labor market;
- enhancing the English proficiency level;
- use of English as a neutral language, as a mediator in obtaining knowledge.

2. Methods of research
In this work the following theoretical research methods were used: analysis of scientific literature on the studied issue; synthesis; direct and indirect observation; generalization and systematization of the results formulated in the form of conclusions.

3. Results and discussion
To investigate EMI properly we should, first of all, look at its definition and differences between EMI and CLIL, EMI and ESP/EAP.

When English is applied as medium of instruction, it involves the use of English to teach academic subjects in the countries where English is not the first language. It usually does not comprise the purpose of enhancing students’ English language proficiency [4].

Content and Language Integrated Learning is an educational technic when a different language is involved in teaching of content and language with the aim of maintaining both content and language proficiency to predetermined levels [5].

For higher education neither ‘CLIL’, nor ‘ICLHE’ (Integrating Content and Language in Higher Education) are suitable to be implemented. The main role of these educational approaches is the same
importance of content and language learning. Such role is quite hard to apply to higher education. ‘EMI’ is more appropriate for higher education where English is first of all used as the medium of instruction [6].

English for specific purposes focuses on professional language, which strives to teach the language important for effective communication in future work or study areas [7].

So, ESP trains students for their professional careers, helps them to understand the language of their professional sphere. Except discipline vocabulary and other linguistic features, it is also necessary to introduce to students’ other basic aspects of their discipline. Therefore, ESP courses acquaint students with a different variant of academic communication, teaches such skills as giving presentations, note-taking, participating in discussions, using academic writing. All these skills are of main importance in most disciplines [6].

EMI is tightly connected with movement towards higher education internationalization and unification. Modern researchers see the internationalization of education as an expansion of common outlines in the national education of different countries. It happens due to a definite similarity in countries technological and socio-economic development, and also to the process of international integration. So, it affects both the content of the educational process and its form and increases the time length of the process [8].

EMI application can be considered as an access to advanced knowledge, an opportunity to attract students and faculty members from foreign countries, develop academic mobility, conduct joint training of university students in multinational groups, attract talented students to scientific and professional activities, expand university research capabilities and create its competitive features in the educational market. However, some studies show that a higher percentage of students in English-language programs indicate the desire to improve their English language, rather than interest in the course content, the main reason for admission to such a program [9].

Breaking language barriers, English-language courses can be an excellent source of income, especially when domestic enrollment experiences a decline. Some universities charge higher fees to domestic applicants for such programs. Graduates of English-language programs, in turn, get the opportunity for more profitable employment opportunities, competitiveness in the world labor market. Internationalizing a university can be conceived in the narrow sense of attracting and admitting foreign students. It may additionally be conceived as attracting and employing international faculty. However, internationalization can mean much more than this. A university may strive to prepare its domestic students for an international world and in order to do this the very nature of a university located in a single geographical space begins to be challenged [10].

Though the main reason for using EMI is education through English, enrolling in such courses students want to improve their English skills, and this fact should not be underestimated. On the one side, this pedagogical technology means using a foreign language only as a tool, and EMI lecturers are not intermediaries in the improvement of students' foreign language proficiency. On the other side, a good knowledge of a foreign language may help specialists from non-English-speaking countries integrate into the world labor market. International student exchange programs and academic mobility will expand consequently. Programs of good quality offer students to obtain knowledge through authentic language using a communicative approach. Proficiency in English today is considered today an obligatory competence and skill in many countries. It is, without a doubt, a key to the modernization and global competitiveness of any country.

One should keep in mind that along with the supporters of using EMI, its opponents also exist. They have an opinion that the widespread of the above-mentioned pedagogical technology has a strong chance to cause negative influence on the development of national higher education systems:

- many countries experience artificial and exaggerated popularization of certain English-language scientific schools;
- there may exist the inability to ensure the high level of comprehensive study of any specific discipline in a foreign language;
• the institutions of higher education observe the scientific publications reduction in native language, which it may undoubtedly cause the national scientific schools destruction and strong decrease in scientific publishing business.

Despite the shortcomings of EMI as an educational technology, its development and spread all over the world can no longer be restricted and stopped, as well as the globalization and integration processes. Universities of the Siberian region are no exception and can be an example of the effective implementation of this technology in the educational process.

International cooperation is one of the priority areas of activities of Reshetnev Siberian State University of Science and Technology and Krasnoyarsk State Agrarian University. It is based on the short-term, long-term and present plans that make a contribution to the higher educational institutions development where they act and work as full participants in the integration of Russian higher education into the European and international educational space and a significant partners for foreign universities, international organizations and various companies.

So, at Reshetnev Siberian State University of Science and Technology over 600 foreign students were educated in 2019. Among the university tasks was also attracting foreign students to places with full reimbursement of costs, so since 2017 the number of foreign students studying under contracts has increased by 17%.

In 2019 four Master’s programs in English were implemented in the following areas of study: Management; Organization and Management of Knowledge-Intensive Industries; Physics; System Analysis and Management. For the first time foreign students graduated from Master's programs delivered in English. Students from China and Nigeria got Master’s degree in Organization and management of knowledge-intensive industries and in Physics.

Implementation of exchange programs has continued between Reshetnev Siberian State University of Science and Technology and Czech Technical University, Czech Republic (CTU); Budapest Business School, Hungary (BBS); University of Applied Sciences Upper Austria, Austria (FHUpperAustria); Maribor University and Xingtai University, China (XTU).

In 2019 80 students and postgraduates of Reshetnev Siberian State University of Science and Technology took part in international mobility programs:

• included education (China, Slovenia, Germany, Hungary, Czech Republic);
• research internship (Austria, Germany, Czech Republic);
• sports activities (Hungary, Greece, Turkey, Estonia, Japan);
• Olympiads (Belarus);
• summer schools (China);
• scholarships and grants from a foreign government (Hungary, Finland, China);
• double Degrees (China).

Invited scientists and professors, practitioners from China, Great Britain, and Slovenia work and teach at the university. The university faculty members conduct joint scientific and educational work with foreign colleagues, take an active part in foreign conferences of different level, workshops and seminars, and improve their English proficiency at special language programs. Even in the situation of self-isolation and COVID-19 spread, there appeared new sources of exchanging the information and experience, such as Zoom, various messengers, Skype etc. To prevent problems connected with cross-cultural communication lecturers pay special attention to formation of intercultural tolerance among students which is considered as a process of creating favorable conditions for acquiring a positive interaction with representatives of other cultures. This contributes to the development of cooperation and harmonization of relations in the group of students from different cultures, which ultimately makes the education process more effective [11].

Most universities joined the process of implementation of the Bologna Declaration at the beginning of the 21st century. So, since 2005, taking into account that English is a language of international
communication, and most Master degree programs in foreign universities carry out the educational process in English. Krasnoyarsk State Agrarian University has begun to gradually introduce the study of individual subjects in English. This can especially effectively be seen in the Institute of Economics and Management of the Agro-Industrial Complex, in the training direction 38.03.03 “Personnel management”, where the study of a foreign language and subjects in foreign language, such as “English for Professional Purposes” and “Human Resources Management Technologies” continues for four years. The mandatory requirement for faculty members who deliver such complex managerial disciplines is the necessity to combine an economic and philological education. They may have extensive experience in management as well. The goal is to form professional managerial knowledge and skills in English. That’s why the faculty members develop and publish through the university printing houses various professionally oriented text-books and take authentic materials as the basis.

KSAU teachers are actively involved in creating e-courses on Moodle platform and use different elements (including gamification, You-tube videos, crosswords etc.) and resources to make these educational courses more effective, bright and attractive for students. Communicative methodology is also actively implemented which forms not only linguistic competence but inter-personal communication skills. The attraction of foreign experts in the field of agriculture and management from Germany, Hungary, Slovenia, Mongolia, India, and China contribute to the effectiveness of the educational process, as foreign specialists deliver lectures in English and introduce students to the forms and methods of doing business abroad. The result of such an in-depth study of the language and subjects in it is the defense of the diploma project in a foreign language. From 10 to 25% of economic specialty Bachelors annually defend their projects in English.

In addition to the above-mentioned actions and measures, since 2020, Krasnoyarsk State Agrarian University has been developing a Master program in agricultural sphere completely in English, within the framework of the Erasmus+ grant, which, in our opinion, is indispensable in the existing social and economic conditions of uncertainty. Consequently, it will be in demand in the domestic and foreign educational market and will help attract foreign students. The university has faculty members who are able to deliver lectures and conduct practical classes in a foreign language. However, their percentage is still small. Therefore, the issue about the training of specialized scientists in the field of a foreign language arises. For a more in-depth study of English teaching staff attend English language course “English for working abroad” (72 hours), which introduces not only the English language, but also the culture, customs and traditions of English-speaking countries, business etiquette. The positive impact of these courses on faculty members is significant in terms of improving the quality of their training in general: teachers actively write and publish articles in English; participate in international conferences and speak English; attend and organize summer research schools on the basis of the studied methods, techniques and technologies. In addition, this area of faculty training contributes to the fact that both faculty and students pass the interview in English quite freely when looking for a job in a foreign country, doing the job as a visiting professor or continuing studies abroad.

4. Conclusion
The authors strongly believe that the global EMI trend will continue to accelerate. Having studied the works and experiments of foreign scientists and having some experience in using English as a means of instruction, the authors suppose that the implementation of the EMI approach in its pure form has certain imperfections and shortcomings. The number of class hours to study a foreign language in a Bachelor’s program is steadily decreasing, so education in a Master’s program in a foreign language becomes problematic.

In this regard, the authors propose, firstly, to find opportunities for improving language proficiency when acquiring a Bachelor’s degree, for example, through optional disciplines, or Language Learning Business Centers. Secondly, in the Master’s program the so-called CLIL-ised EMI should be used, which can help revive interest in language learning, develop skills in a number of subjects, enrich the curriculum, because the subject content and the language will be studied together. This, in turn, promotes intercultural communication, cross-cultural tolerance, and academic mobility. CLIL-ised EMI is context
inline and content driven. It has well-defined learning outcomes for content and language, uses language as a learning medium creatively; develops linguistic confidence and competence; promotes spontaneity, is a motivating factor for both teaching staff and students. Thirdly, it is necessary to provide the teaching staff with resources for the development of teaching materials, for the implementation of EMI as a pedagogical technology in university educational activities.

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