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FOREIGN LANGUAGE TO MASTER DEGREE STUDENTS: APPROACH TO THE TECHNOLOGY SELECTION

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Abstract

The higher education system is constantly evolving and changing. In modern conditions, the main trend in education is the digitalization of education. One of the components of digitalization is online teaching/learning. This applies mainly to students of Master programs. This article deals with hybrid technology in the training of Master Degree students. Hybrid teaching comprises traditional classroom training with the use of digital media during classes and while doing tasks at home. The authors believe that the use of online learning helps to maintain an individual approach to students and, consequently, increase their motivation while learning a foreign language. We have also mentioned, that students taking their Master course are reluctant to take a foreign course on-line, although almost all of them do their first job after graduating from the university and seem to be exhausted after an eight-hour working day. Therefore, the authors review the existing experience in training a foreign language to the university students where distant technology is mixed with traditional teaching. The article demonstrates the personal experience of the authors in using the hybrid technology. To match the hybrid technology to the training foreign language process, the university teaching staff has to develop some new technology to combine online courses with traditional teaching including activities and exercises based on the needs and interests of the Master Degree students.

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1. Introduction

Currently, the most relevant trend in the development of modern society is the increasing globalization of all spheres of human activity, which leads to an increase in the requirements of an employer to undergraduates of technical universities in different spheres of their professional activity. The intellectual labor market is becoming more and more interested in the availability of those professionals, who have not only high-quality training in the field of their specialty, but know a foreign language at the level of international standards as well. In this regard, higher education institutions face the task of providing such a level of training, which would meet the need of modern enterprises in competent personnel, whose level of training, including knowledge of the English language as the language of international communication, would allow them to solve production tasks more effectively and demonstrate higher competitiveness. To answer these educational challenges, new perspective technologies are implemented, the technology of hybrid learning being one of them.

Hybrid learning is understood as combination of traditional intramural form of teaching with application of distance learning technologies (Jones & Sharma, 2017). Moreover, this idea of mixing traditional teaching and new digital technology integrated in it makes the hybrid technology rather attractive to both younger generation of students, living inside the digital world, and university educators mainly belonging to previous generations and mastering e-learning technology at the current moment. In addition, researchers consider the technology of hybrid learning a new one, nevertheless in the education science literature the terms of blended and hybrid learning could be used interchangeably (O'Byrne & Pytash, 2015).

Pombo and Moreira focus on hybrid technology as a multi-component pedagogical technology used together with the traditional training technology (Pombo & Moreira, 2010), but the effectiveness of the technology is still disputable.

Pratt (2002) underlines that blended learning could enforce the traditional learning giving a chance to improve the traditional class environment presenting a wide range of resources and technology to an experienced educator, who has to choose and manage to integrate them properly.

Doing her research, Voytovich (2013, 2014) reviewed the main features of e-learning technology mixed with the traditional training and grouped them as hybrid technology, however, distant learning is considered as a separate one, as it is used when the students are distant and cannot have a typical class. Other researchers also highlight the trend of hybrid training technology as a resource for educators and students learning a foreign language for professional purposes (Vereshchahina et al., 2018).

2. Problem Statement

The researchers discuss the effectiveness of the technology in teaching process; they consider various features of the chosen technology and their contribution to the graduates' competences (Jeffrey et al., 2014; Torrisi-Steele & Drew, 2013).

An individual approach to a learner is being lost in the process of traditional system of teaching a foreign language that results in reducing the quality of training future specialists, graduates of a technical university (Maslova & Kuklina, 2020).

An individual approach to a foreign language teaching involves putting the personality of a student in the center of the educational process. The focus on the intellectual needs of individuals, their priorities in choosing educational material, the level of competence and training in the subject, motivation and interest in learning becomes the leading criteria in training. Different level of knowledge of the English language of Master Degree students leads to the situation, when both, advanced students and those, whose level of training is low, or middle, lose interest in studying. The first group – because of an advanced level of training and, consequently, the need to solve more complex tasks and tasks for uprising competence, and the second group - feel frustration and disappointment in their abilities to cope with teacher's tasks. A teacher, in a classroom setting, when the lesson is time-limited and students fulfill the tasks of the same level of difficulty, does not have any possibility to vary the material in accordance with the level of training of learners and to keep the whole group of students engaged.

Traditional methods of teaching lack an important instrument, which is known as individual approach, application of which can give students opportunities to form their own, personal trajectory of studying, both at the lessons, hold in classes, at the university, and during self-preparatory sessions. Working out the individual trajectory of education, made by all participants of the course, in accordance with their personal requests, leads to the effective use of the potential of a learner as a subject of the educational process and involves the latter into active independent activity in getting knowledge.

3. Research Questions

Therefore, the study could raise a few research questions:

- How can implementation of hybrid learning technology help to solve the problem of losing an individual approach to Master Degree students when teaching a foreign language?
- What is the appropriate proportion between a traditional model of teaching (teacher-student interaction) and digital technology application?
- What online activities can be developed to increase the motivation of Master Degree students when studying a foreign language?

4. Purpose of the Study

The purpose of the study is to find the optimal conditions and proportions to implement the hybrid learning technology in teaching the English language to the Master students.

5. Research Methods

5.1. Theoretical overview on hybrid education

Böttcher (2013) in her research examines experience of the Goethe Institute in creating a hybrid learning environment and implementing various digital tools in the daily work of teaching staff and students. First of all, she clarifies the terms “hybrid learning”, “blended learning” and “distance learning” (see Table 01). These terms are often used interchangeably and this is wrong. She proposes the different traits.

Table 01. The difference between distance learning, blended learning and hybrid learning

Distance learning	Blended learning	Hybrid learning
<ul style="list-style-type: none"> ▪ Students do not attend classes as they are distant or they could attend virtual classes if the technology is available. ▪ They study independently (or with the help of a teacher or consultant by e-mail, phone, etc.) anywhere and anytime. ▪ They use traditional books and digital devices 	<ul style="list-style-type: none"> ▪ Students use online classes and traditional classes 	<ul style="list-style-type: none"> ▪ Most sessions are held in class. ▪ They use digital media in traditional classes ▪ Digital media is used as an addition to traditional classes

The Goethe Institute developed Online-Kursraum. This is a model virtual space on an e-learning platform that can be copied by any Goethe institution from anywhere in the world and adapted to the needs of a particular course. This ensures high quality materials and there is no need for each teacher to create their own materials. Online-Kursraum combines various content, tasks, online exercises, links to websites and applications for mobile devices and others.

It is important to combine online elements with classic classroom tasks such as role-playing games, discussions, and conversations. The Goethe Institute conducted a study in 2012, which showed that most students prefer direct contact with other students and teachers in the classroom in a foreign language lesson, but 48% of respondents choose a hybrid learning environment that uses digital media in addition to traditional classes (Böttcher, 2013).

Baġaban (2018) highlights the following benefits of hybrid learning:

- direct contact with the teacher (all questions and problems are solved in the lesson);
- new contacts and acquaintances;
- reliability of verification of acquired knowledge (the teacher controls this process);
- students' possession of materials that allow an individual approach to the process of acquiring knowledge. The student can study didactic materials on the Internet, as many times as necessary

5.2. The use of hybrid technologies to increase the motivation of Master Degree students in a technical university

The study is based on theoretical, empirical and statistical methods. Methodological and General theoretical aspects of individualization of training are covered in the research of classics of Russian pedagogics, such as L. S. Vygotsky, F. P. Kapterev, P. P. Blonsky (as cited in Dzhurinskiy, 2016).

In their research the authors, Bonk and Graham (2006), give the most accurate definition of the term Hybrid-learning (blended or mixed-learning) as a combination of new electronic means of education, comprising computer technologies application and traditional "face to face" approach, when students and a teacher are present in the class. According to the authors of this article, the new approach, based on the principles of hybrid learning, can lead to high results in teaching students a foreign language, when their mutual interactive communication is well organized: a teacher and learning students communicate with

each other by means of electronic tools, which is followed by class activities and individual consultations with a teacher. The teacher, before developing syllabus, undertakes some preparatory activities to clarify the information about:

- students' level of a foreign language competence;
- students' motivation to study a foreign language from professionally- oriented goal setting;
- students' choice of learning material and the tempo of its processing in accordance with the level of difficulty of given tasks.

The Common European Framework of Reference (CEFR), a system of foreign language proficiency levels determination, which is used in the European Union, provides the assessment of language competence, and with the help of which students are able to choose their level out of six possible ones. Students' basic level of knowledge of a foreign language allows to form the individual trajectory of learning English language, when a student with poor knowledge of English (Level of competence A 1) can start with elementary tasks and a student, who has an advanced level (Level of competence B 1) is allowed to do difficult exercises. The teacher can differentiate the tasks to meet the requests of all learners and the task can be achieved by educational online technologies, which are considered to have supplementary materials for different groups of students.

According to the questionnaire, held by the teachers of English language of the Department of Foreign Languages for Engineering Students at Reshetnev Siberian State University, Krasnoyarsk city, held among the students of Institute of Informatics and Telecommunications (Specialty - Informatics and Computer engineering) and among the students of Civil Aviation and Customs Affairs (Specialty – Aircraft engines) - 58 % and 44 % of respondents are interested in professional communication in English; 78 % and 62 % are ready to study materials on the specialty in a foreign language on the Internet; 78% and 60 % think about potential employment abroad (CV, cover letter, interview); 80% and 70% are interested in reading documentation for software development tools in the English language (frameworks, libraries, programming languages); 52% and 48% are ready to make a presentation at an international conference; 73% and 60% - would like to participate in the international exchange programs; 60% and 42% of respondents are interested in the opportunity to win a grant.

Taking into consideration authentic interests of the students, which concern their future professional activities, it is possible to stimulate motivation to study of the latter. Figure 01 shows the result of the questionnaire survey.

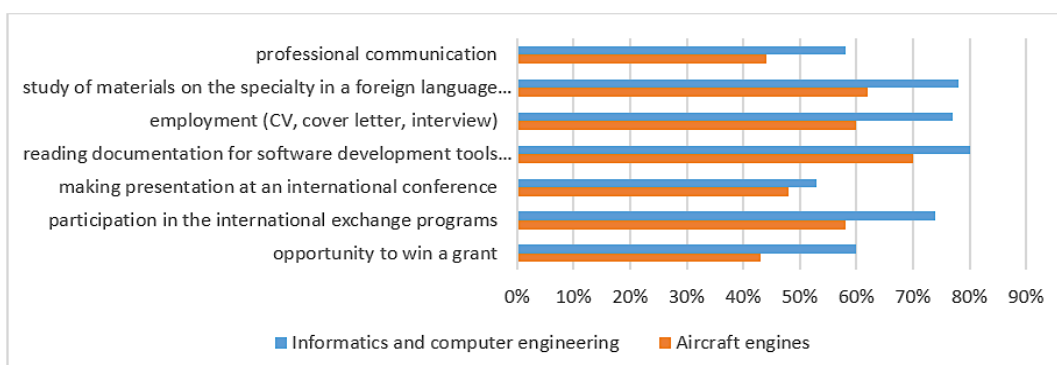


Figure 01. Comparative analysis of students' professional interests

The analysis of the data questionnaire survey shows that students, whose professional interests are closely connected with studying English, are ready to learn a foreign language, but the level of competence and proficiency of students of the Institute of Informatics and Telecommunications is higher and this is reflected in more high values of the figures on the diagram. Taking into consideration the ideas of individual approach, the teachers include in the syllabus the topics, which meet the requirements of the students: international academic conferences participation, international cooperation programs, networking, presentation skills, using English as media for writing instructions. The choice of the vocabulary is to be determined by the same reasons: computer application, aircraft terminology, grant proposal writing and others. Explanation of theoretical and practical grammar material is given in class and followed by Internet resources or by special tasks, presented in the electronic form. The individual trajectory of learning English formation means that a Master Degree students chooses grammar, vocabulary and aspects of listening, writing, speaking, reading skills themselves, to meet their needs. The teacher's role changes – he/she must have mastery to consult students how to give preferences, according to their genuine needs, to stretch their mental and creative abilities, to help to choose the most appropriate tasks in accordance with the requirements, oriented to their professional activities. The teacher has to have sufficient level of competence and literacy in IT technologies materials development and application to be able to create different methodological and educational complexes on relevant courses of study.

Taking into account the needs and interests of the Master Degree students, the teaching staff of the Department of Foreign Languages for Engineering Students at Reshetnev Siberian State University have developed the courses materials in the Moodle environment.

The electronic courses are hosted on the distance learning server of the university. They include different types of activities and exercises: for example, interactive exercises, wiki translation, online microconferencing, role plays, search for commercial applications of the specified technical effects / devices in a foreign language and other tasks.

The following online methods are used: chats, forums and tests and others. The teaching staff have developed some new methods, for example, commercialization of technical effects or devices in the form of their description (presentation) in a foreign language followed by anonymous voting (the purpose of voting is to identify the most successful proposals).

The courses developed by the Department of Foreign Languages for Engineering Students include different types of exercises:

- Interactive exercises and tests created in the shell program called Hot potatoes. This program allows to create the following types of tasks: JQuiz (multiple choice questions), JCloze (filling the gaps), JMix (sequence recovery), JCross (making crosswords), JMatch (matching).
- Wiki-translation: Master Degree students translate texts in their specialty. wiki environment allows to assign roles among the participants of the translation, as well as assess every student according to their contribution to the translation. This type of exercise helps develop teamwork skills using modern tools and technologies.
- Role-playing: Master Degree students are given some roles. Their task is to discuss some issues on the project forum. This type of work contributes to improvement of communicative competencies of Master Degree students.

- Scientific micro-conferences: Master Degree students write some articles and post them on site. Students may add video presentations as well. Other participants of the conference (other Master degree students, the teachers of foreign languages, teachers of technical subjects) discuss the article, ask questions and make their own comments (Kurenkova et al., 2020).

The individual trajectory of learning English formation gives the students possibilities to choose the material to study from electronic base resources in accordance with their level of foreign language proficiency, degree of difficulties of the tasks being performed, professional interest to study the language. In the authors' opinion, hybrid education enhances the motivation of Master Degree students learning a foreign language. It makes the educational process more vivid, balanced and effective. Most Master Degree students prefer hybrid studies to classical classroom teaching or distance learning. It is the optimal solution for the adults who work but continue their studies at a university.

6. Findings

Assumptions and the results, set in this research, can be applied in educational process to give the students opportunities to form their individual trajectory of education in learning such a subject of interdisciplinary course as a foreign language on the basis of combination of traditional and hybrid learning. The role of independent work in learning foreign languages is closely connected and depends on the degree of motivation of the students. According to the authors, the model of «hybrid learning» is presented as the leading motivating factor to study a foreign language by the Master Degree students of a technical university. The average proportion between traditional classes and electronic course studies, according to the authors of this study, is 60% to 40%, respectively. Self-organization, self-control, self-realization, self-development, self-diagnostics are the basic characteristic features of the students' personality, realizing their own intellectual, cognitive, educational and professional aims that will help them to be effective in their future activities as specialists and get prospects for building a successful career.

The materials for the online courses, developed by the teaching staff of the Department of Foreign Languages for Engineering Students at Reshetnev Siberian State University, have become a good “remedy” to cure boredom to both educators and students in the current situation with the coronavirus pandemic. A few electronic resources made it easy to switch from hybrid learning to distance learning, though at the same time they belong to hybrid technology and still obtain all their characteristics. The students realize that their results could be discussed in-class.

7. Conclusion

Completing the research, we could focus again on the well-developed traits of the hybrid technology making it so attractive for both educators and students taking their Master courses in engineering. We should also say that according to our analysis they conceive the hybrid technology as additional to the traditional teaching in class, and not the leading one.

From the students' view point, the technology could be really useful for the independent studies; however, it needs to meet very serious requirements: it has to be understandable and easy to do independently; they could realize how they apply the results of the studies. It would be better if they could

see the immediate results after the implementation of the skills. This is the most critical requirement, in our opinion, as it could make them feel skillful.

The life and teaching experience of educators makes us realize that our Master students would like to select a course that will not destruct their expectations; they would like to continue mastering the language. Therefore, Master course should provide the students with the materials they could apply to their professional purposes, on the one hand; on the other hand, the proposed foreign language course has to be based on their previous courses but with the focus on the productive skills such as speaking and writing. Reading becomes a means to process the resources. We could conclude that hybrid technology could be rather efficient if educators use the technology in the extent required by the students. We believe that individual approach is the key when we create a class or a course.

Moreover, we could share Huang's (2010) opinion based on the global experience of any e-learning realization. Any type of e-learning could be successful due to a university support of e-learning system development and the educators' development. The hybrid technology really requires less contributions and investments, though the outcomes are comparatively easy to obtain and control.

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