Abstract

Traditional educational system is slowly adapted to fast technological changes in the contemporary information-oriented society. So, constant refreshment and improvement the content and methods of teaching are needed to prepare “new generation engineers” who will be capable to take responsibilities in decision making, capable to apply critical thinking and creative approaches to their work. These all imply to be strongly committed to self-development and lifelong learning.

Apart these skills, the crucial competence of engineers is the ability to use at least one foreign language, very often it is English, as a tool for professional communication in the national and international labour markets.

In spite of understanding the language importance, Russia has problems with language competence that is expressed in low ability of young specialists to be involved into international projects and research. This problem can be explained by some inconsistencies of existing language education system in Russia. First, it is the lack of continuity in language teaching of schools and universities; second, it is the lower mobility of Russia in comparison with Europe; and third, it is decreasing number of learning hours for language tuition.

To minimize these inconsistencies that back up the development, the language education system needs to be intensified by means of strengthening self-learning of students. Self-learning, in its turn, can not exist independently; it should be organized and methodically supported by tutors and teaching tools. In this term information technologies that provide online interactive teaching in combination with traditional class-learning methods can play a significant role.

This combination is called blended learning. The article addresses the practices of Russian language teachers in applying the method of blended learning in teaching English to nonlinguistic students. The experiment implies using the MOODLE platform that allows to download different-purposed materials including animation and authentic texts for listening and reading and to organize an individual learning trajectory of students monitored constantly by tutors.

Introduction

Teaching foreign languages for professional purposes is considered to be the priority in updating engineering education in Russia. The ability to communicate in other languages is becoming an integral part of professional competence of any specialist, no difference what field he/she works in. With changing requirements to specialist training there is a need to overhaul the content and approaches to teaching foreign languages to nonlinguistic students.

In the frame of the limited class hours new methodological teaching approaches should be based on individualization or autonomy that will serve the purpose of recognizing commitment to lifelong learning.

The popular motto of higher education nowadays is “to learn how to learn”. No university can graduate a specialist prepared to independent professional career; people become specialists in the process of their personal professional development. So, in this way, autonomy can be considered as a necessary condition, in which a student uses endless potential of a human brain and modern technologies, including information ones, to attain knowledge faster, with higher efficiency and less effort.

Blended Learning Method

Appearance of the information technologies in teaching foreign languages led to appearance of a relatively new method, called blended learning. The term is most commonly defined as a combination of online and face-to-face instruction (Reay, 2001; Rooney, 2003; Sands, 2002; Ward & LaBranche, 2003; Jeffrey R. Young, 2002). Based on the definition by C. Graham (2005) three components of blended learning can be singled out:

- face-to-face learning that represents a traditional format when instructors and students meet during classes;
- self-study learning that assumes different types of activities, such as search on the Internet, webquests, etc, performed by students unassisted;
- online collaborative learning – an online cooperative work of students and instructors in forms of webinars, wikis, Skype conferences, etc.

For the needs of this article blended learning can be defined as a method of teaching that combines the most effective face-to-face teaching techniques and online interactive collaboration, both constituting a system that functions in constant correlation and forms a single environment. The system will work effectively only if its components are balanced and methodically adequate to program educational objectives. In our opinion blended learning can be used to achieve the following pedagogic goals:

1. To prepare students to independent productive activity develop the following skills:
   - constructive and algorithmic thinking;
   - creative thinking due to decreasing the amount of reproductive activity;
   - communicative skills on the basis of performing team projects;
   - ability to find solutions in computer-simulated situations;
   - research skills;
   - skills of information culture and information processing.

2. To implement the social order:
   - to prepare specialists to working with information technologies;
   - to prepare specialists to independent lifelong learning by means of information technologies.

3. To intensify all levels of the educational process:
   - to increase effectiveness and teaching quality due to the use of information technologies;
   - to expose and use stimuli of cognitive activity promotion;
   - to deepen interdisciplinary connections.

Many tutors agree that combining online elements with face-to-face instruction means that learners show better performance than if they do learning only in a traditional class environment [3]. The article focuses on description of how to use the learning platforms that can be available through the Internet and what is the function of a tutor who uses these platforms as a tool for teaching English as a foreign language.

**Practices of Teaching with Moodle**

Learning foreign languages constitutes an invaluable part of an educational curriculum at Tomsk Polytechnic University (TPU). Even so, we can not boast of a huge number of contact hours because in spite of the understanding of the language importance it is not in priority for a technical institution. Teachers do much for intensification the learning process in the condition of limited hours and in their attempt they address resources that are able to accumulate much information, be flexible in choice and mobile for constant upgrading. In other words, they appeal to resource able to organize the ground for students’ self-working.

Consider one of such resources in use, look at Moodle. This refers to a Virtual Learning Environment and is one of the most effective learning tools. Moodle supports a learning model where a tutor acts as a course moderator. The platform provides an individual approach to each student by creating a virtual environment for group collaboration.

For instance, at TPU we developed an English grammar module integrated into a General English course. This course was created for constant mastering of grammatical skills. In a theoretical part of the course the rules are given in attempt to explain the essence of one or another grammatical phenomenon, and show its place in the language system. Students learn to analyze grammatical structures, define regularities and become aware of exceptions. This part of the course provides student’s autonomy in learning and revising any material missed and badly acquired during guided lessons. A practical part of the course is devoted to working through and polishing grammar material of the theoretical part.

As any other teaching tool Moodle has some advantages and disadvantages. One of the biggest advantages is delivery, rather than a collection of disparate online tools. Everything is in one place, learners’ work, grades and contributions can be easily monitored. Being in one place (in this case, in one website!) it is also easier to build a sense of online community among learners than by email [3].
To other advantages can be referred source availability to everyone at all times. It allows training according to the 24/7/365 principle; which means that students can learn 24 hours a day, 7 days a week and 365 days a year. The lectures and assignments are available at any time and it is for participants to decide how fast they want to go through the course. Being in online environment, students can work not only with course materials but also access any web resource.

Moodle functions and their potential for the learning activities can be presented schematically in the form of the following matrix (table 1):

<table>
<thead>
<tr>
<th>Moodle element</th>
<th>Application in language teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment:</td>
<td>Can be used for translation, text reference, gap-filling and transformation exercises, writing essays and letters, etc. There is a possibility to attach an audio or video file for listening comprehension tasks.</td>
</tr>
<tr>
<td>• online activity</td>
<td></td>
</tr>
<tr>
<td>• offline activity</td>
<td></td>
</tr>
<tr>
<td>• uploading a file</td>
<td></td>
</tr>
<tr>
<td>Journal</td>
<td>Offers the same forms of work as “Assignment” but provides students with the opportunity to return to a text of an assignment many times to correct it in compliance with tutor’s comments.</td>
</tr>
<tr>
<td>Survey</td>
<td>Represents questions with variants of answers; allows getting statistics of answers in percentage and in a form of a diagram.</td>
</tr>
<tr>
<td>Glossary</td>
<td>Gives opportunity to create a glossary of lexical units, terms, quotations, etc. both for students and tutors; automatically links words and expressions of the course with their definitions in glossary.</td>
</tr>
<tr>
<td>Lesson/lecture</td>
<td>Intended for step-by-step study of a topic: each correct answer opens a new page with a new assignment or information. Incorrect answer returns students to description of the topic. This element can be used for presentation of cultural information, teaching grammar, reading, listening, etc.</td>
</tr>
<tr>
<td>Wiki</td>
<td>Can be used for creating collaborative group projects where all participants have rights to edit a text.</td>
</tr>
<tr>
<td>Forum</td>
<td>Intended for information exchange between all course participants. This element can be used for group discussions and communication with a tutor.</td>
</tr>
<tr>
<td>Test</td>
<td>Allows creating a question bank used for continuous and final assessment; contains different types of questions.</td>
</tr>
<tr>
<td>Resource:</td>
<td>Intended for placing different information: text, graphics, audio and video files, source lists, and useful links directory. Unlike all previous elements Resource doesn’t involve interaction and assessment.</td>
</tr>
<tr>
<td>• text page</td>
<td></td>
</tr>
<tr>
<td>• web page</td>
<td></td>
</tr>
<tr>
<td>• directory</td>
<td></td>
</tr>
<tr>
<td>• link to a file or</td>
<td></td>
</tr>
<tr>
<td>• web site</td>
<td></td>
</tr>
</tbody>
</table>

The Moodle platform also enables flexible organization of the educational process. The platform gives an opportunity to focus on more complex sections of the course leaving simple pieces for self-study. Automation of the learning process can extremely facilitate teachers’ work. All the results are checked and stored in the gradebook.

Multimedia effects are the next appealing component of Moodle courses. Besides the traditional textual and graphical information e-learning involves multimedia tools: animation, video, audio and color. This provides visualization of the teaching material and allows using most mechanisms of perception the new information by humans.

However, Moodle environment has certain disadvantages. Computer-aided learning will never replace direct teacher-student interaction; pure e-learning is impersonal. Providing extensive automation of education, e-learning cannot take into account individual characteristics of students’ intelligence and temper. This does not mean that the new technology should be rejected.

**Individualized Instruction**

On-line learning allows taking into account individual characteristics of students, thus creating optimal conditions for revealing their individual potential. Moodle assignments can be adjusted to students’ individual needs and abilities, such as foreign language proficiency, memory capabilities and communication skills. These activities help weak students get engaged in a collaborative work and
impose high requirements to the strong ones. The cyberspace can be more appealing to shy students, who feel more confident at home in front of their computers than in a classroom. Therefore, Moodle increases the level of activity of each student thus contributing to the efficiency of knowledge and skill acquisition in the process of learning a foreign language.

Learning in Moodle environment contributes to development of student autonomy. Students become more active, demonstrate interest to the subject and teaching methods, and critically assess their skills through group discussion of problems and reasoning while defending their points of view. Student autonomy ensures transition from completing reproductive tasks to individualization of learning, characterized by high level of motivation.

Blended learning is focused on individualized instruction of each student and regular self-assessment through online collaboration. Stimulation of reflection is very important in this model. Reflection trains methods that helped in achieving the best results, promotes systematization and generalization of specific ways of activity. This method creates favorable conditions for integral development of students’ personality and self-study.

Tutor’s Role

It may seem surprising but a tutor’s role in blended learning is very important. Indeed, teaching workload increases, professional requirements rise and management control functions become more complicated. Using a blended learning method in teaching foreign languages induces tutors to constantly increase professional expertise, master computer skills, create new online courses, and contribute much time to lesson preparation.

Yet, in 1978, McKeachie identified six teaching roles, all of which can be applied to online teaching:

- A facilitator who enhances student learning by encouraging active participation in discussion and by helping the student to see education as meaningful and relevant.
- An expert who communicates expertise through lectures and discussions, and is able to stimulate students without overwhelming them.
- A formal authority that helps students by establishing boundaries such as acceptable conduct and dates of submission of materials.
- A socializing agent who has contacts within the larger academic community, and as such can be helpful to students in providing such things as letters of recommendation and links to research and publication sources.
- An ego ideal that is charismatic and shows commitment and enthusiasm not only to the subject matter but also to the students themselves.
- A person who demonstrates compassion and understanding of student needs [5].

Online tutors usually create their own courses and strive to make the courses engaging and effective, encouraging interaction, fostering reflection and self-improvement. E.S. Polat and M.V. Moiseeva, Russian researchers, prove that an online course should include the following didactic blocks:

- organizational and methodical;
- informative and training;
- identifying and controlling [6].

The first block includes information about goals and objectives of the course and explains how it links to other courses of the program. The informative and training block should consist of modules of theoretical material and practical tasks. The monitoring functions can be implemented in different ways: tests, webinars, online discussions, etc.

The first task of the tutor, willing to integrate blended learning into the process of teaching a foreign language, is to arrange learning material properly. In order to do this it is necessary to know in advance which material should be used in the class and which can be posted online. It means it is very important for teacher to understand which material should be explained and worked over in class and which is more appropriate for self-study.

Another significant factor for a tutor for successful integration of blended learning is a well-structured and thoroughly planned syllabus. A tutor should keep in the mind the following aspects: combination of online and classroom activities, adequacy of teaching goals regarding to students’ individual abilities, proper choice of teaching methods, monitoring and self-assessment tools.

When creating a course on the Moodle platform a tutor should also take into account that online courses should meet certain criteria such as:
- complete coverage of the subject area;
- unity of terminology;
- didactic consistency in selection of examples and assignments;
- methodically correct sequence of examples and assignments;
- interactivity of the learning tasks;
- freedom of choice of learning pathways.

The tutor guides students as they move through a huge amount of information, helps analyze and synthesize the course material, organizes collaboration and interaction of the participants of the learning process. T. Bender in her book characterizes such tutor’s style as being supportive and encouraging, giving ample feedback, being a good role model, being appropriately informal, and eliciting discussion [2].

Conclusion

Computer-mediated learning is becoming increasingly popular in teaching foreign languages. Modern students often expect online component or support as part of their course. Therefore many institutions offer online learning options to supplement face-to-face classes. Current research suggests that the best results come from a blended learning method. Blended learning can be very timesaving and provides convenience and flexibility of learning. It has a tremendous potential in teaching foreign languages as it offers an opportunity to integrate innovative and technological advances of online learning with interaction and participation of the best traditional practices.

References


Tatyana Krasnova is an English language instructor at the Department of Foreign Languages, Institute of Cybernetics, National Research Tomsk Polytechnic University.

Tatyana Sidorenko is an Associate Professor, Head of the Department of Foreign Languages, Institute of Cybernetics, National Research Tomsk Polytechnic University.