Applying Blended Learning Approach to Teaching English to Master’s Students

Anna Kirillova¹, Evgeniya Koss¹, and Inna Usatova¹

¹Togliatti State University, Institute of Humanities and Pedagogy, Togliatti, Russian Federation

Abstract. The article focuses on the teaching English to Master’s students using blended learning approach. To meet the demand of professional standards teachers at Togliatti State University are to form foreign language communicative competence having just a few academic hours for oral communication. The suggested Project-Based Blended Learning Model is considered to be a solution to this problem. This Model consists of four basic elements: face-to-face learning, a Web 2.0 application LearningApps, MOOC Coursera and Reading Science. The way to implement the Model into educational process is shown. The paper is based on the own unique survey that yields some interesting results which prove the effectiveness of this Blended Learning Model. It gives the opportunity to create the environment for providing a learning pathway and the learning process control.

1 Introduction

The higher education system switching to the three-level framework (bachelor’s/ Master’s degrees and postgraduate studies) considers revising the education approaches both to English teaching and to other subjects. Sometimes it is possible to maintain this continuity within the same university but usually there are students from different higher educational institutions doing the Master’s degree and as a rule, their English skills differ. Therefore, the objective of the English Language Teaching to Masters is to fill in the English skills gap and to form an ability to interact within the professional and academic communities.

Following its mission Togliatti State University (TSU) trains “widely demanded and highly-qualified professionals, who have competitive advantage in the labour market”. “The focus on the world’s best samples of academic and research-based activities” through “innovation and receiving and implementing the cutting-edge results of the educational, research-based and project activities” [1] is the base for this training. In this situation English skills are of key importance for training a highly-qualified professional or a scientist being able to read and write scientific articles in English on the problems studied. Such a professional is able to publish his research papers in international journals as well as present the scientific results at conferences. So, it is by no means necessary to continue studying English at university paying special attention to the most demanded aspects [2].

The analysis of the State Educational Standards and the Master’s curriculum of Togliatti State University reveals that nowadays the main objective of teaching English is to “form an ability using modern communicative technologies including the use of a foreign language/ foreign languages, for academic and professional interaction” (general competence №4). At TSU this competence is formed via English. By reference to the State Educational Standards the components of this subject are as follows: the professional texts translation, oral and written communication. In accordance with the curriculum for intramural programmes there are 32 academic hours of the contact work and 148 academic hours of self-study an academic year. So, the lack of face-to-face hours for developing oral communication skills is obvious. Generally, 50% of TSU students doing the Master’s degree have an Elementary level of English, the other 50% of students have Pre-Intermediate and higher levels of English. However, upon graduating from university, a student should be able to demonstrate well-developed oral communication skills: the ability to present the results of the researches at conferences, to carry out a self-presentation; these are the components of “academic and professional interaction”.

Thus, while defining teaching a foreign language objective we should take into consideration the following facts:

• Different levels of the English language competence when starting the Master’s degree programme;
• A few number of academic hours in accordance with the curriculum [3];
• The lack of necessary equipment;
• The lack of up-to date books and training manuals.

In this regard, the issue of the content and methods of teaching English to Master’s students becomes crucial.

2 Materials and model

TSU has a distance learning system ROSDISTANT proposing a great variety of Master’s programs. The
contact work is carried out via offline consultations, forums and webinars. But the lack of the face-to-face work does not allow developing English oral communication skills completely.

For the intramural studies due to the limited number of academic hours the implementation of the blended learning (a mixture of self-study and distance learning) could be the best solution.

In 2006, the publication the first Handbook of Blended Learning by Bonk and Graham made this term more concrete. By defining "blended learning systems" as learning systems that "combine computer mediated instruction" with face-to-face instruction, Graham disputed the ambiguity and breadth of the term's definition [4].

Thus, blended learning is an educational approach combining learning with the help of a teacher (face-to-face learning) and online learning. It considers the student to control his own learning pathway, time, place and tempo of the study as well as the experience of the integration studying with the help of a teacher and online studying [5].

The intramural studies mean regular contact between a student and a teacher which allows providing a learning pathway, discussing the problems, correcting the mistakes. Distance learning system provides students with the multimedia IT and makes it possible to study anywhere and anytime. Both of them have benefits and drawbacks.

The advantages of intramural studies include the following:
- A social contact is established between the students; the students and the teacher get acquainted personally;
- The teacher can react directly to arising difficulties and students’ needs;
- The teacher has an opportunity to plan the forthcoming part of training more carefully taking into account the requirements and the real interests of the students;

On the other hand, intramural studies also have some disadvantages:
- All students should be at the same time in the same place;
- All students should have the same level of knowledge;
- The pace of learning is not individual.

E-learning also has a number of advantages:
- The ability to choose from the content of the course the most useful and interesting to students elements and to build them in a more optimal way by dividing the learning content into modules;
- Freedom and flexibility: students learn to be independent in terms of time and place of learning through wide access to e-learning courses via the Internet;
- Involvement of all students through a variety of learning platforms;
- Simple, personalized support/advice to an individual student is possible, which in turn can reduce difficulties in mastering the material;
- Availability regardless of the geographical and temporal location of the student and the teacher;
- Social equality - equal opportunities for education regardless of the residence, health, elitism and material security of the student (there is no need to buy educational and methodical literature).

Electronic learning has also a number of lacks, such as:
- Absence of social contacts between the teacher and the students, between the students themselves (if there is no moderation of the course);
- There may be gaps and misunderstandings in the content of training in case of insufficient tutor support;
- Strict self-discipline and a high degree of consciousness are required, i.e. well-formed skills of independent learning;
- Training can often fail to achieve its purpose if there is no well-organized counseling;
- The lack of opportunity to express one's knowledge orally and as a consequence absence of oral skills training;
- The need for good technical equipment (computer and Internet access);
- Financial difficulties in the creation of e-courses.

Blended learning proposes the combination of the intramural studies and e-learning. This combination is considered to be a more productive form of studying. This is a balanced correlation of the intramural studies, self-study and learning in an electronic environment in order to improve the educational process efficiency. Blended learning has both online and offline training tools.

Implementing blended learning methods has advantages both for teachers and for students:
1. The flexibility of the blended learning paradigm. It allows varying the learning components proportion, setting up the tempo and the time of studying;
2. The improvement of the teaching and learning quality (due to the more effective model usage as it combines the best features of the traditional and innovative educational methods);
3. The possibility to control the educational activity (using different electronic resources);
4. The student’s motivation increasing via the using of the more attractive working forms;
5. The teacher’s control and the student’s self-control (via setting up the deadlines for the tasks’ doing and presenting the final project);
6. The possibility to study challenging course material and to do assignments of increasing complexity (for advanced students);
7. 24/7 free access to online educational resources (which helps to enhance knowledge and revise the learned topics);
8. The development of planning and organizing the learning activity skills (by analyzing the set goals and proposed results)
9. The possibility to constantly communicate online and offline in the chat, face-to-face at the classes (which is of great importance both for a teacher and for a student).

Thus, the term “blended learning” implies that the educational program is built up from the elements of synchronous and asynchronous teaching methods [6].

Different forms of asynchronous internet-communication, such as email, websites, forums, blogs
are used to teach the training material without any tutor’s assistance. For example, assignments for revising, testing, and doing the tasks of increasing complexity can be completed using the internet resources. The asynchronous internet-communication potential means that a student has more time for reflection and a greater access to the educational resources. Thus, the possibility to address lexical and grammar material as well as to revise and review it at any appropriate time and place is provided. The difficulties arising while self-studying can be discussed and eliminated during face-to-face classes.

The less students’ self-study skills are developed, the more important synchronous communication (virtual classroom, chats, video/audio link) is. Based on the knowledge of lexis, grammar, semantics and phonology, language skills are further formed with the help of intramural studies. In this case students are able to take part in discussions, present their projects, i.e. they take part in face-to-face learning and communicate with a teacher and other students. Thus, such a study form compensates the limited number of face-to-face hours given for English [7].

Taking into consideration the facts stated above, it can be concluded that blended learning combines the most effective teaching methods, and represents a harmonious combination of all the components, provided that the study is well-organized. The careful course planning and the choice of the optimal teaching methods, which are in accordance with the objectives and aims of the course and specific audience, can help organize the teaching and learning processes the most effectively.

In the modern science it could be argued that there are thousands of blended learning types to vary by content, scale, technology, learning spaces, etc. There may be identified 12 basic blended learning models [8] (Table 1).

We have observed various researches concerning implementation of different models (types) of blended learning [9, 10, 11, 12] which provided us by key points for future experimental model.

Table 1. Types of Blended Learning and Their Main Characteristics

| Types of Blended Learning                        | Main Characteristics                                                                                                                                 |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Station Rotation Blended Learning               | students rotate through stations on a fixed schedule, where at least one of the stations is an online learning station                                  |
| Lab Rotation Blended Learning                   | students rotate through stations on a fixed schedule in a dedicated computer lab allowing for flexible scheduling arrangements with teachers enabling schools to make use of existing computer labs |
| Remote Blended Learning                         | student’s focus is on completing online coursework while only meeting with the teacher intermittently/as-needed                                           |
| Flex Blended Learning                           | students move on an individually customized, fluid schedule among learning modalities but the teacher of record is on-site and provides face-to-face support on a flexible basis |
| The ‘Flipped Classroom’ Blended Learning        | students are introduced to content at home, and practice working through it at school supported by a teacher and/or peers                                        |
| Individual Rotation Blended Learning            | students rotate through stations, but on individual schedules set by a teacher or software algorithm, they rotate only to the activities scheduled on their playlists |
| Project-Based Blended Learning                  | student uses both online learning – either in the form of courses or self-directed access – and face-to-face instruction and collaboration to design, iterate, and publish project-based learning assignments, products, and related artifacts |
| Self-Directed Blended Learning                  | students use a combination of online and face-to-face learning to guide their own personalized inquiry, achieve formal learning goals, connect with mentors physically and digitally, etc. |
| Inside-Out Blended Learning                     | experiences are planned to ’finish’ or ’end up’ beyond the physical classroom, but still require and benefit from the unique advantages of both physical and digital spaces |
| Outside-In Blended Learning                     | experiences are planned to ’start’ in the non-academic physical and digital environments students use on a daily basis, but finish inside a classroom |
| Supplemental Blended Learning                   | students complete either entirely online work to supplement their day-to-day face-to-face learning, or entirely face-to-face learning experiences to supplement the learning gained in online courses and activities |
| Mastery-Based Blended Learning                  | students rotate between online and face-to-face learning (activities, assessments, projects, etc.) based on the completion mastery-based learning objectives |
Table 2. Applications for Creating Online Courses

| A Tool     | Drawbacks                                                                 | Benefits                                                                 |
|------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Modular systems | Not flexible enough for users, you need to use only certain modules   | A free resource that makes it available to anyone; the teacher creates independently educational tools in accordance with current needs; no need to search for hosting; the possibility of sharing by registered users; a large selection of interactive templates for creating exercises; training modules can be combined at the request of the teacher; training modules provide not only digitalization, but also gamification; the teacher has the opportunity to create a personal account for each participant and control the progress of students; user-friendly interface, you can easily learn how to use it even without special programming skills. |
| MOOC       | Mostly all courses are paid; lack of motivation (low motivation) for students to complete the courses; the same set of tools for different courses; teachers practically do not participate in learning activities | A large variety of ready-made courses; after successful completion you can get a certificate. |
| LMS/LCMS   | You must search independently for hosting content; lack of flexibility in adjustment; imperfect tool for working with speaking | The teacher has the opportunity to select educational tools for the student, according to his abilities and performance; the ability to control the progress of each student with commenting on errors; suitable for testing writing, reading, listening skills. |

With relation to the objectives, aims and peculiarities of English learning at TSU, we consider the Project-Based Blended Learning Model to be the most effective for implementation into the learning process. This Model proposes the student to use both online learning (courses or independent study) and individual learning and collaboration for developing, implementing and publishing projects. We consider this Model to be the most suitable for improving the learning process having the limited number of academic face-to-face hours, different English skills and motivation levels of the students, and for forming the skill to apply modern communicative technologies to academic and professional interaction.

Table 2 represents some modern electronic applications, enabling online courses to be implemented.

Table 3. Possibilities of Modular Learning APPS System

| Learning Apps tools | Application in language teaching and learning |
|---------------------|-----------------------------------------------|
| **Digitalization**  | Can be used for creating translating, gap-filling, classification, matching, order and multiple-choice exercises. An audio or video file can be attached for listening comprehension tasks. |
| Matching pairs      |                                              |
| Group assignment    |                                              |
| Number line         |                                              |
| Simple order        |                                              |
| Free text input     |                                              |
| Matching pairs on images |                                  |
| Multiple-choice quiz|                                              |
| Cloze test          |                                              |
| **Gamification**    |                                              |
With relation to the objectives, aims and peculiarities of speaking adjustment; imperfect tool for working on the host content; lack of flexibility in tools for different courses; teachers practically do not participate in learning tools for the student, according to his abilities and the teacher has the opportunity to select educational exercises; training modules can be combined at the same time. A free resource that makes it available to anyone; the fact that it even without special programming skills. A large variety of ready-made courses; after successful request of the teacher; training modules provide not only digitalization, but also gamification; the teacher can ask to use only certain modules. A free tool that turns out to be the best choice. It is one of the most up-to-date Web 2.0 technologies, according to State Educational Standards. Let us consider in detail the possibilities for realizing our goal, offered by the modular LearningApps system. With relation to the objectives, aims and peculiarities of speaking adjustment; imperfect tool for working on the host content; lack of flexibility in tools for different courses; teachers practically do not participate in learning tools for the student, according to his abilities and the teacher has the opportunity to select educational exercises; training modules can be combined at the same time. A free resource that makes it available to anyone; the fact that it even without special programming skills. A large variety of ready-made courses; after successful request of the teacher; training modules provide not only digitalization, but also gamification; the teacher can ask to use only certain modules. A free tool that turns out to be the best choice. It is one of the most up-to-date Web 2.0 technologies, according to State Educational Standards. Let us consider in detail the possibilities for realizing our goal, offered by the modular LearningApps system.

### App Matrix

| App Matrix          | Organizes apps of different types according to the topic studied; all students can access the app(s) at the same time. |
|---------------------|----------------------------------------------------------------------------------------------------------|

### Audio/Video with notes

| • The Millionaire Game | Allows creating engaging games based on the teaching material; these apps can be played both with a computer or with another student. |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| • Group-Puzzle         |                                                                                                                             |
| • Crossword            |                                                                                                                             |
| • Work grid            |                                                                                                                             |
| • Where is what?       |                                                                                                                             |
| • Hangman              |                                                                                                                             |
| • Horse race           |                                                                                                                             |
| • Pairing Game         |                                                                                                                             |
| • Guess                |                                                                                                                             |

### Communication tools

| Voting                | Provides one or more questions for voting. Each question can have up to four answers; allows getting statistics in percentage and in a form of a diagram. |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Chat                  | Intended for a text-based communication between all course participants. This tool can be used for group discussions and communication with a tutor. When talking to someone in chat any typed text is received by other participants immediately. |
| Calendar              | Helps to organize classes, tests, other training events in a simple schedule; co-working is possible.                                     |
| Notebook              | Only an administrator can create new topics and posts, visible to the participants.                                                      |
| Pinboard              | All the participants can add text and multimedia notes; only an administrator can delete or edit these notes.                             |
Obviously, there are not only templates for creating “classic” exercises for finding matches, filling in gaps in the text, but also tasks in the form of games “Who Wants to Be a Millionaire”, “Quiz”, etc., as well as puzzles and crosswords, which, in addition to digitalization, provide simultaneously gamification of the educational process, supports students’ intrinsic motivation and interest in learning. Among the templates for creating learning blocks there can be chosen suitable for training reading, writing, listening and speaking. This system allows uploading pictures, photos, audio and video content that involves different types of memory and perception of reality. For audio-video resources you can create questions of different types. Thus, using the Project-Based Blended Learning Model we introduce and consolidate new training material with the help of distant e-learning assignments and then work out and control its retention during practical classes, ensuring the formation of skills in all four types of language activities.

In developing our training model, we also took into account the advantages of using various MOOC educational platforms, primarily Coursera (a project in the field of mass online education, founded by computer science professors at Stanford University Andrew Un and Dafna Koller). This platform is of great interest for our research in connection with its professional orientation and roundabounness [13].

With large amount of hours given for independent study combining with LearningApps, Coursera is an excellent video resource enabling Masters’ students to improve their professional English based on video courses. Students select themselves a course according to their training programme, register and listen to and watch lectures at any convenient time, carry out practical tasks and tests, answer self-checking questions and can communicate with other students.

In addition to LearningApps and Coursera students get acquainted with the technology of scientific text translation from English into Russian. Reading articles on their training programme is a necessary component of the Project-Based Blended Learning Model. This helps not only to collect empirical material for the subsequent thesis but also to gain a competent scientific knowledge when working on the final presentation and accumulating a professional thesaurus.

Figure 1 shows the proposed Project-Based Blended Learning Model for teaching English to Master’s students.

3 Results and discussion

The first part of the experiment on approbation of the Project-Based Blended Learning Model was held at TSU in the 2018-2019 academic year. Masters’ students of Mechanical Engineering Institute took part in it. The teachers participating in the experiment had the opportunity to work with the experimental and control groups.

Before starting the experiment, a placement language test and a survey of masters were conducted (with the help of LearningApps), which revealed the following:

- 58% of respondents entered Master’s degree programme are people with work experience in their professional field, 42% are students without any work experience;
- 97% of working students are going to work and study, and the majority of non-working people want to find work during their studies and also combine study with work;
- All respondents noted that, despite being busy, they are going to attend all classes;
- The majority of respondents confirmed the need to improve their speaking skills for professional purposes in accordance with the requirements of employers;
- 48% of Masters’ students have Elementary level, 32% - Pre-intermediate, 17% - Intermediate, 3% - Upper-intermediate;
- All students have the opportunity to work on the Internet remotely.

Traditional technology was applied to teaching students of the control groups: face-to-face learning with a teacher in the classroom and individual homework assignments with subsequent testing.

Teaching in experimental groups was carried out according to the suggested model and was as follows: at the introductory class students were introduced to the Project-Based Blended Learning Model, the purpose, objectives, learning technology and educational resources. The final work in both experimental and
control groups was the presentation of the project on the research topic or unit of the Master’s thesis research. The students of the experimental groups determined the pace, the amount of work and the level of the tasks to be performed themselves (for advanced students the tasks of increased complexity were developed).

At the last class the game “International Scientific Conference” was held where students presented their projects. The results of performances and participation were evaluated on a 5-point scale. As a result, the points in the experimental groups were higher.

The effectiveness of the Project-Based Blended Learning Model controlled by the language test and questioning of Master’s students revealed the following:

- The percentage of students with Elementary English level turned up to be 43%, Pre-Intermediate - 30%, Intermediate - 20%, Upper-Intermediate - 7%.
- Students of the experimental groups were satisfied with the learning process, noted the increased interest in learning the language and the relieve of language difficulties (the ability to speak more fluently);
- Students of the control groups were satisfied with the learning process in general but expressed a desire to change the format of self-study.

The teachers’ survey showed an increased learning motivation of students from experimental groups, more fluent communication and speaking skills, the learning process became more attractive for both students and teachers.

In our opinion it is wrong to oppose distance and traditional intramural studies. Both types of training have a number of advantages and disadvantages. The data obtained, as well as the personal experience of teaching the Masters’ students suggests that the most effective form of study for them is blended learning using both traditional intramural and distance learning technologies. The advantages of it are primarily in the combination of self-study with face-to-face learning in the classroom.

The use of a mixed training form leads to an increase in motivation of learning English. There is a natural development of modern communication means and a learning pathway organization, which contributes to the development of information and communication competence of the Masters’ students in accordance with the requirements of State Federal Standard.

At the same time the analysis of the work allowed us to identify key points that need to be taken into account during the following experiments:

- The lack of teaching methods in the electronic environment and as a result the need to design a proper learning technology and tools for its application, which leads to serious time losses;
- The teacher is to use the distance learning tools properly, i.e. should permanently develop the IT competence, otherwise it might lead to the waste of this resource potential;
- Students must have basic knowledge of technology and a desire to learn; otherwise the task of learning will be too challenging for them.

All these aspects will be taken into account when training the Masters’ students in 2019-2020 and continuing to test the Project-Based Blended Learning Model.

4 Conclusion

Based on the data obtained during the experiment we believe it is necessary to emphasize the following. The Project-Based Blended Learning Model proved to be effective in the process of teaching English to Masters’ students. It develops the ability to apply modern communication technologies to a foreign language for academic and professional interaction having a limited number of classroom hours. This model, by no means, contributes to the quality of Master’ training.

In addition to the training Master blended learning approach can be successfully applied to all levels of education and in all other forms of learning: for intramural form of study - primarily as a form of organizing students’ self-study; for extramural form of study as the main technology of the educational process implementation.

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