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An Algorithm for the Integration of Information and Communication Technologies in Teaching Languages for Special Purposes (the Example of Russian as a Foreign Language)

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Abstract

This article is dedicated to the integration of information and communication technologies (ICT) in the process of teaching Russian as a foreign language for special purposes at an advanced stage of studying for students of non-linguistic disciplines. Based on many years of teaching experience in a virtual environment, the authors show forms of successful organization of the educational process provide tactics and a strategy for studying using presentations, video lectures and webinars, as well as teaching aids based on the electronic platform MOODLE. The developed algorithm of a mixed model of teaching enables good use of the potential of information and communication tools in the practice of teaching the Russian language for special purposes (economics and finance specializations).

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1. Introduction

Information technologies have radically changed the approach to teaching in terms of learning and digestion of

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knowledge and skills of students. There has been a mode delivery transformation of teachers' knowledge and skills. The rapid development of ICT and its wide use in the teaching of Russian not only expanded the competence of language teaching, but also led to the formation of a new trend: e-linguistics (or computer linguistics). The main purpose of e-linguistics is to provide a theoretical and practical base for language teaching in the new conditions of the information society (Khromov, 2014). The electronic language teaching in our study converts the spontaneous process of informatization of theory and practice of teaching Russian into a scientific system managed by teachers and linguists.

Strategy and tactics, as well as the practice of integration of ICT in teaching Russian as a foreign language (RAFL) at an advanced stage has been actively discussed in the modern methodological literature over the past 15 years (Bogomolov, Dunaeva, Nikolenko, Azimov, Garcov, Tryapelnikov, Khromov, and others), but at the same time the teaching the Russian language for special purposes to students of non-linguistic specialties is being neglected; the accumulated experience is still little recorded in the academic and methodological literature.

Teaching RAFL at the present stage requires a significant increase in the amount of independent work of students. This requires a reconsideration of approaches to methodologically support students' work. Today, the teacher and the student have an equal opportunity for the organization of the educational process with the use of electronic media. At first it is necessary to determine the understanding of virtual learning environments, as there are various approaches to this problem in the academic and methodological literature.

We accept A. N Bogomolov's definition as a basic working approach: "The virtual learning environment is a unified information training field, which enables the full realization of a complex of innovative individual-centered learning technologies aimed at remote pedagogical contact, providing a high degree of student's autonomy in choosing the trajectory of learning, self-control of the chosen path of learning and that encourages self-evaluation of educational achievement "(Bogomolov, 2013, p. 32).

In non-philological practice, Russian language proficiency for a foreign student is a necessary communication tool for future professional communication. In order to solve various communication tasks in teaching and professional spheres of socializing, a student should possess the following professional competences:

- analyze and interpret professionally-oriented information contained in authentic texts and documents;
- realize the collection, analysis and processing of data which are necessary for solving professional tasks;
- organize the activity of a small group created for the realization of a certain educational project;
- use modern technical means and information technologies etc. for solving communicative tasks (Skorikova & Orlov, 2013).

The most important aspect of teaching the Russian language for special purposes to a foreign student in Russian higher education is the development of language-communicative competence in the chosen specialty and preparation for independent professional activity in Russian. (Levicheva, 2012, p.107).

It is obvious that the process of teaching RAFL, focused on the learning by students of the above competencies, is impossible without the use of modern IT tools. The use of these tools, among other things, leads the learning process in one line with the current level of technological development of society, as well as allows us to synchronize the study of RAFL with teaching professional disciplines. In this regard, we consider it expedient to speak not only about the use of ICT in teaching Russian as a foreign language, and more specifically the integration of ICT in teaching foreign students the language of their specialty (as in the case of a specialization in economics).

2. The algorithm of using ICT in the process of teaching the Russian language for special purposes

These are the following tasks for a teacher at classes of the Russian language for special purposes at an advanced stage of learning (level B2):

- formation of language and speech writing components of professional communication (teaching scientific text's compression, the ability to find supportive keywords in a scientific text, the ability to write theses, title slides, the ability to organize material);

- formation of language and speech for oral professional communication that accompanies a show of presentations (teaching oral commenting of basic presentations, ability to focus a listener on key moments of presentation, ability to answer questions on presentation from the audience, etc.).

As the most effective forms of ICT in the educational process of teaching RAFL, we developed an algorithm for the educational process to teach Russian as a foreign language for specific purposes based on the use of a mixed model of learning (blended learning framework). By mixed model of learning we mean the complex use of the following forms of ICT: electronic presentations in PDF format, video lecture, webinars, and tutorials developed on the electronic platform MOODLE. Often such forms of ICT are used for remote work with students in teaching practice. They are organically woven into the learning process in the classroom and extracurricular self-study in our model.

The proposed algorithm consists of the following successive steps:

- Formation of a professional thesaurus based on teaching materials developed for the electronic platform MOODLE.
- Realization of control and checking activities for the learning of professional terminology by using video lectures on professional topics in Russian.
- Securing collection and analysis skills on professional issues through the creation of presentations.

The development of students' discursive abilities at webinars.

3. Stages in the practical realization of the algorithm of teaching RAFL in a blended learning framework

3.1. The use of teaching aids and resources on the platform MOODLE in teaching RAFL

The electronic platform Moodle enables improvements in the effectiveness of independent work organization of students learning RAFL in the initial stage during the formation of a professional thesaurus and compilation of terminological dictionaries. Tutorials created using the electronic platform Moodle contain study material which consists of a theoretical part of the course (phonetic, lexical, grammatical material), the practical part (microtexts, texts, dialogues, exercises, a glossary in several languages) and final control tests after each topic. The whole system is based on the choice of offered language or speech forms included in the tests. Tests are generated using different types of questions: essays, questions for compliance, multiple choice test, tasks of determining whether the statements are "true / false".

If, in accordance with the curriculum, the students must learn another foreign language besides Russian, a glossary developed using the electronic platform Moodle can provide substantial assistance in this. Equivalents may be found for economic terms in several languages. Therefore, while comparing the lexical units presented in different languages, including the native language of the student, there occurs an intercultural transfer of lexical skills which is conducive to the mastery of lexical units overall, and that contributes to their better memorization (Gural and Sorokin, 2012). For example, students from Turkey and China make a glossary of economic terms, guided by their teachers. Then each student has the opportunity to make his own glossary in accordance with his native language, and then all the terms merge into a common base.

First of all, it is a Russian-Turkish, Russian-Chinese glossary, for example:

Аванс – avans; Аванс - 预付款

Аудиторская деятельность - denetim faaliyeterleri; Аудиторская деятельность - 审计的工作

Then there is a glossary created with the same economic terms, but English-Turkish, English-Chinese:

Prepayment – avans; Prepayment - 预付款

Audit activities - denetim faaliyeterleri; Audit activities - 审计的工作

After mastering the special terminology with the help of the native language, students are offered control tasks to reproduce these terms without the help of the native language, and that significantly increases the effectiveness of teaching as RAFL and other foreign languages.

3.2. Video lecture in teaching RAFL

Video lectures typically involve lecture material outlined by the teacher as a video record, which can be represented to the student in a delayed mode. In addition to compliance with the substantive requirements applicable to the traditional classroom lecture, a video lecture must satisfy the following specifications:

- maximal simplicity and accessibility of the presentation. This requirement stems from the fact that in this case there is no interactive contact between the teacher and the audience. The teacher is not able to detect a lack of listeners' understanding of any part of the presented material, and students cannot tell him about it immediately;
- inclusion of a large number of accompanying (visual) material in the video lectures. Compliance with this requirement to some extent compensates for the lack of interactive contact with the audience and makes maximum use of ICT's potential. In this case, the text of the lecture is fully synchronized with the giving of accompanying material.

Working with video lecture, for example, on the topic "The subject and method of accounting", students must first read all the materials and do all the exercises on this topic. At the same time, students must make a terminological dictionary (glossary) on Wiki-page designed according to instructions. Only after that can students start watching video lectures, during which they must fill in the missing words and phrases in the analogous text of the lecture which they have. It must be noted that in our practice video lectures are not training activities or a checkout task, the purpose of which is to identify the student's ability to perceive by hearing the material covered on the themes of speciality. In this case, we check the amount of material on professional terminology learned by the students, which was presented in the learning process while working with textbooks.

3.3. Using presentations while teaching the Russian language for special purposes

The use of presentations in the study of the Russian language at the main stage of learning allows students to successfully develop the skills needed to work with information in Russian in terms of its analysis and presentation materials on special subjects in accordance with the results of its processing. Electronic presentation in PDF format is usually a set of slides alternating with the possibility of adding sound effects, tables, charts, diagrams, illustrations, video fragments and animation effects. (Inozemtseva, 2012: 195). Learning how to work with presentations is a multi-level methodical process that includes technological, language, speech, and subject components.

For example, in studying the topic "Types of Taxes" by students whose specialization is Economics, the students complete prior work on educational material, in which lexical units (special terminology) were presented as well as grammatical constructions of the scientific style of speech connected with tax issues. Then the students are supposed to prepare a presentation on the topic they have completed. At the same time they should choose one of the types of taxes levied in the Russian Federation, whose analogy exists in the native country of the student, and compare the mechanism of their action. Before starting to prepare a presentation the teacher provides recommendations relating to the work plan, information gathering, processing of the material (including the presence of hyperlinks, tests on the topic), and others on his page.

Then students (in small groups) are engaged in collecting information on the chosen theme, its analysis and processing. If they have difficulties in preparing presentation materials, they can appeal directly to the teacher for advice or ask questions on the workspace forum of his student group for RAFL in the virtual campus of the university or institute. During preparation of electronic presentations it is worth paying particular attention to the process of transforming an ordinary professionally oriented text in Word format into a multi-code one of electronic presentation in Russian.

3.4. Webinars as innovative forms of educative technologies in the practice of teaching RAFL

The last stage of our learning algorithm is the holding of a webinar at the final stage of training as a final event of each semester. Webinars are considered an innovative communicative form of learning at the present stage.

Webinars involve conducting online meetings or presentations via the Internet in real time, during which each participant uses his computer, and a leading person uses a voice signal and slides. Communication between actors is supported via the Internet through a loading from network or installed on the computer of each participant application (Zelenetskaya & Gulyaev, 2013: 146). The advantages of using webinars are:

- the possibility to organize a big audience simultaneously;
- the availability of information via sound and visualization delivery;
- interactive communication with the audience;
- performance of online presentations, training sessions, synchronization and activities of the leading person and the listener.

A distinctive feature of webinars is expressed in the integrative work of students, since their participation in this event involves not only getting information from material provided by peers but also its discussion, analysis and evaluation. For students who presented the prepared material for discussion, it is important that they receive feedback about its quality firstly from the general student audience, and only after that from a teacher. Webinar participants evaluate the work of peers via rate tables that take into account the content, design and performance of presentation material.

Webinars allow students to realize in practice all the knowledge of specialized terminology and working skills with authentic material of professional orientation which they have received earlier, according to the learning algorithm developed by us, at steps of working with tutorials on the electronic platform MOODLE, video lectures and presentations' performance. Especially while participating in webinars we develop discursive competence of students who learn RAFL and give them the opportunity to simulate the situation of foreign language professional communication.

4. Conclusion

Thus, conducted observations in the realization of the algorithm on training grounds in different universities of the country (Moscow State University of Economics, Statistics and Informatics, Lomonosov Moscow State University and National Research Tomsk State University) and the involvement of students with different first languages (Turkish, Chinese, English, etc.) suggest that the use of ICT for teaching foreign students RAFL for special purposes, with the inclusion of these technologies in the educational process, developed according to our algorithm, makes the learning process more effective, increases its creativity and communicative focus, and provides for the growth of activity and independence of students.

Electronic presentations, webinars and video lectures, tutorials, created on the electronic platform MOODLE proved their effectiveness as innovative forms of information and communication technologies in the practice of language education for foreign students of non-language specializations. The most difficult aspect, in our opinion, is to achieve synchronization of language, speech and meaningful (professional) components in the teaching of RAFL to foreign students for special purposes. This synchronization can be successfully achieved in a mixed model of learning when tasks performed using ICT, organically woven into the basic educational process, help to consolidate skills and work in the information environment based on the active use of information and communication technologies, which is very important for the formation of students' future professional competencies. In addition, the integration of ICT in teaching Russian for special purposes introduces students to innovative forms of professional verbal and nonverbal communication, which in turn contributes to rapid adaptation to the world of the future specialization.

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