

# Modern digital technologies in the professional-oriented multicultural education

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**Abstract.** In modern reality, when economic, trade, scientific and cultural ties are rapidly developing in the world, exchanges are being carried out in the scientific and technical fields, knowledge of a foreign language becomes a priority for specialists of almost all levels. The very concept of a "foreign language" is increasingly being replaced by a "language of communication" in various fields of culture, science and technology. There are many different languages in the world, and even more dialects. But the trends are such that for most people knowledge of one common language is enough. And this language does not have to be native to the interlocutors. A common language is able to unite different peoples and cultures, even absolutely opposite, into one common cause. In addition to strengthening cultural ties, the language brings together experts in science and technology. At the same time, the authors acknowledge the lack of research in modern pedagogical science devoted to identifying the potential of information and communication technologies in the process of professional foreign language training of future specialists that meet the requirements of the Russian state and society, imposed on modern specialists of different profiles, reflected in national and international documents.

## 1 Introduction

For economically developed countries of the world, the exchange of technologies is becoming a priority. The export of goods is no longer so profitable, as people become more literate, the proportion of workers decreases, demand for them increases and, accordingly, the cost of their services. Starting production of any kind on its territory is becoming less and less profitable. The country's research potential is the most cost-effective component of the gross national product today. But, nevertheless, even the so-called "superpowers" it is impossible to produce all the technical developments equally well, equally successfully conduct research in many areas of the national economy.

It should be noted that higher education institutions are also involved in the competition and significantly affect the economy of the country and the world. The status of the diploma

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and the position of the university in the world ranking plays a decisive role in choosing a specialty. The better the specialist is trained, the more he is in demand on the labor market, since the company receives greater economic return from a well-trained specialist. Accordingly, the higher the rating of the university [1].

## 2 Results and Discussion

In this situation, new, innovative approaches to teaching are needed [4]. The use of modern educational information and communication technologies gives the lecturer a wide opportunity to deliver educational material simultaneously to different categories of students - with different levels of initial training, with different speed of perception and sometimes with different attitudes towards education at the university. This dramatically reduces the number of underperforming students, motivating them to study, makes learning more effective, raises it to the proper level, and, accordingly, increases the rating of the university. To achieve this goal and optimize the working time of a student and lecturer, the university needs to have a powerful material and technical base, namely Internet platforms of various types, various electronic libraries and interactive courses at various levels. There is a wide opportunity to conduct full-time classes in modern well-equipped classrooms and laboratories using multimedia teaching aids [5].

When learning a foreign language, it is advisable to conduct classes using the electronic course, which is available at any time and in any place where it is possible to use a smartphone, a tablet, a laptop, or a computer [6].

Students should be able to study both independently and in the classroom with the lecturer. A foreign language training course can also be used in off-line (offline) mode, saving the necessary training material on a local computer disk, or simply printing some materials on paper, which expands its capabilities, makes it convenient and comfortable for perception and assimilation.

During the course of a foreign language, we propose to apply the following forms of presentation of the learned educational material:

- traditional form;
- paired and in a small group;
- creating videos;
- electronic resources.

**The traditional form** of demonstrating knowledge can be either oral or written. This form is the oldest and appeared along with the very concept of "education". In principle, this form underlies all other teaching methods, namely, the student answers - the lecturer evaluates.

The verbal answer allows you to present the result of the learned teaching material to the entire audience at once, namely, to analyze the quality of skills and knowledge, discuss the mistakes made and shortcomings, suggest other students to correct them, and thereby check knowledge immediately with a large number of students, etc. This approach saves time, allows you to see "strong" and "weak" students against the background of the entire group, helps to conduct discussion, focus, develops speaking skills in front of an audience.

If the level of knowledge of students in the group is approximately the same, then in this case a similar form of testing knowledge is effective. They understand what is at stake, respectively, the reaction to the information received is equal and the perception of the educational material is of the highest quality. The student is required to focus attention, self-control, internal attitude to the perception of information.

With a different level of knowledge and this often happens at university, there are students who lose thought at a certain point, perceived information becomes incomprehensible and interest in it disappears. If such students behave calmly, they simply remain silent and do not

interfere with others. Identifying them is quite difficult. To understand that the student did not have time to absorb the information, it is necessary to ask him, either verbally or in writing, and at this time the stages of the course can go far ahead. More active young people, if they do not have time to perceive the information, also distract those whose interest in the topic of the lesson is high. Here we should already talk about the level of discipline in the classroom lesson. Accordingly, it is necessary to repeat something, to explain difficult points in more detail. But in this case, the interest of those who understand the subject more quickly is already lost.

Thus, in the traditional form of an oral demonstration of knowledge, it is necessary to simultaneously analyze the speaker's response and keep the attention of other students in the group, giving them additional instructions and explanations, balance between students with different levels of perception of educational material, and keep their attention.

If it is not possible to keep the attention of students, then the gap between "strong" and "weak" students only widens, and you need to work with the latter separately. Accordingly, when taking a foreign language course, we use the traditional form of presentation of the acquired material in part, or in combination with other forms of work.

Written verification and verification work is inherently very effective. Students take them quite seriously and for the most part are preparing on the eve of such an event. This type of knowledge test does not have special negative factors, if you do not take into account the long period of verification of work, which does not allow you to get the result instantly.

**In a pair and in a small group**, it is easier to demonstrate your knowledge, both emotionally and physically. When working in an academic group, you can always see how students are grouped within it, who communicates and makes friends. Some studied together at school, someone lives in the same dormitory. But there are students who do not communicate with anyone and prefer to work alone. This observation is necessary to create a comfortable working environment within the student community. In a favorable emotional environment, young people can better complete tasks due to the fact that they help, prompt each other, jointly develop a strategy for achieving the goal, and due to this, they remember and absorb information better for longer [8]. Observations showed that students with insufficient initial training in this way better learn the teaching material, quickly bring their knowledge to the required level and not rare cases when even later they help their "strong colleagues".

At a foreign language course, most tasks can be completed in pairs, or in small groups. For example, if one student does not read well in a foreign language, you can invite him to read aloud, while the second student will correct it, pronounce words and phrases correctly. Thus, we test reading skills at once for both students at the same time, but at the same time we also "tighten the weaker" and "train the stronger". Another example would be the preparation of a retelling of a text. Retelling - the formation of human thoughts based on information from the text. You can simply reproduce the information by training your memory, or you can express your attitude to it, involve the interlocutor in the discussion. Here you can draw up a dialogue, play a short sketch, ask and answer questions, etc.

Technical progress has reached such a level that the preparation of joint tasks does not require finding all the participants nearby. Through Internet communications via video, you can discuss and prepare any project, come up with and rehearse a dialogue, hold a discussion and much more [2].

Thus, the presentation form of the learned educational material, such as work in a couple or a small group, can be successfully used both in classroom training and in preparation as homework.

**The creation of videos** is a new direction in the educational process and is currently most likely to be spontaneous. It became possible to create videos relatively recently, when cheap video cameras appeared and spread among users, and computer video editing programs

became available. Nevertheless, a similar type of activity both on the part of students and on the part of representatives has already proved itself from the very best side and gives ample opportunities and positive results.

Work on videos attracts a different number of participants. This may be one student who removes the vlog (video blog) on a given topic, and several students at the same time. Students come up with a plot on a given topic, write a script, compose dialogs, make simple sets and costumes from improvised materials. At the same time, several types of skills are trained, both in a foreign language - writing, speaking (speaking), composing dialogs, as well as general, and sometimes even professional. Students read the history of the creation of machines and assemblies, repeat technological processes, study the biographies of great scientists, broaden their horizons in realities - in everything that is needed in further study, research and work. Co-production of films brings students together. It creates a friendly atmosphere in which other training courses are easy to learn. An important factor is the organization of leisure activities, students have something to do and there is no time for negative social manifestations.

Foreign language videos have already become popular not only among young people at the university itself, but also beyond. They attract the attention of applicants and popularize the university at various levels.

With the development of virtual data storage systems ("cloud drives" and YouTube), instant messengers, social networks and the possibility of organizing training sessions in an electronic environment, electronic resources are gaining more and more popularity in which students can provide completed tasks. A similar method of educational work is suitable for organizing distance learning, for introvert students, i.e. those who prefer to work alone and feel shy to speak in the audience and for people with limited mobility. According to our observations, there are not so many pronounced introverts in training groups, but provoking debts in the presence of useful technical means is not advisable. For full-time students, electronic resources for presenting completed assignments are also very necessary. They give a wide opportunity for successful completion of the course, reduce the percentage of students who are not doing well, due to their accessibility practically anywhere - at home, in public places and directly at the university. A modern training course can be organized in almost any modern virtual environment. It is advisable to use exactly the resource that is currently the most popular among all users. Social networking sites are free, easy to view, have versions for various devices and provide various useful features. Students do not need to once again explain how to use them. They themselves can organize the interface, notifications, ways of storing and transmitting information. Passing the course will become a routine for them, which they do daily. There they can create groups to work together, write and read announcements, share files, consult, etc. In electronic resources, you can present both written work (photographs or scans of tasks performed in a notebook), as well as oral answers recorded on a video camera. Any electronic virtual system allows you to organize the stored material, to provide a quick search by sorting by name, or date of loading. Quickly transfer the completed work to the teacher, and also quickly get the result. Modern systems do not lose data, because they have the functions of their recovery, are protected from computer viruses, so the loss of notebooks in this case will not bring much harm. All student work is systematized and ready for presentation at any time. Electronic resources, as mentioned above, are used to organize distance learning. Using some elements of this type of training allows you to make the work as convenient as possible for students and teachers. For example, if a student is temporarily disabled and cannot attend full-time classes, nevertheless, he can complete tasks on the course, then in this case electronic resources will be of great help. The student will not miss the deadlines for the work, maintain the rhythm and speed of training, and thus will not allow debts.

For the lecturer, electronic resources are also very relevant and convenient. Their use opens up a wide range of possibilities:

- the possibility of organizing the implementation of educational work, in particular, you can lay out the task itself at the rate, or specify a link to a resource on the Internet, determine the completion time, give methodological recommendations, etc.;
- by means of chat, or voice (video) messages, give advice, remove difficult moments, problems that arise, answer questions, and all this can be done at any time outside the schedule, based only on the will of the student to complete the task, to answer the question of the lecturer;
- quick receipt of the work done and the same quick response that will give the student the opportunity to correct inaccuracies, correct errors, modify the answers so to speak “in hot pursuit”, since it is always more difficult to return to the pending cases than to those that were performed just now and information about them is not forgotten;
- the ability to systematize the work of a large number of students as automatically, i.e. through those algorithms that an electronic resource offers, and through settings, creating folders, groups, communities, etc.
- all works are stored in one place and access to them is open from any device connected to the Internet (with modern mobile communications and in accordance with the latest decisions of the Government of the Russian Federation on the abolition of intra-national roaming, Internet connection within our country is not limited);
- promptly conduct a rating of students according to the course, build graphs and charts for each student individually, as well as for the entire group, flow, and even show inter-university competition; graphic display of the rating gives a visual representation of the results and deadlines for completing tasks, stimulates and gives additional motivation to achieve the goal:
- create a friendly atmosphere by conducting chats - students kindly perceive the opportunity to write to the teacher off-topic, simply asking “how are you?”, or advice on the current life situation; Of course, you need to keep some distance, but in general, this factor has a positive effect on all work on the training course;
- to expand the horizons of students and create a general friendly atmosphere of interaction, the lecturer can post posts about various interesting places, phenomena and events, traveling around cities and countries; such activities are of great interest to students; they have many questions that can be used to organize discussions in a foreign language during classroom classes.

### **3 Conclusion**

Let us dwell in more detail on the electronic modular course developed on the basis of the Ural Federal University.

The proposed course consists of a number of sections containing the necessary grammatical material, texts for classroom and extracurricular reading, scientific and popular science authentic articles from various sources, electronic dictionaries and methodological recommendations. Individual modules of control measures for students per semester are formed from modules and sections. This allows to create training material for different specialties and forms of training according to the curriculum, as well as take into account various options to reduce the number of charges and make the learning process more personalized and effective.

Individual schedules allow students to see the entire volume of assignments for the semester, the final goal of the course, allocate time for each section of the course and use hyperlinks to quickly access the following sections:

- Introductory reading (texts and reference information for the preparation of conversational topics and dialogues);
- Grammar (theoretical material and practical tasks);
- Educational reading;
- Technical reading.

**Introductory reading** includes adapted and authentic texts and articles, the information of which can later be used to compose monologues, dialogs, play scenes on a specific topic, or produce short live-action video films.

The purpose of this section of the course is to be able to extract the necessary information from the source, interpret it in the language being studied and reproduce the learned material in oral speech, thereby training speaking skills. Having recorded the students' speech on video, you can later apply it as an illustration to textual information, work on typical mistakes, use it as some useful entertainment (short breaks during classroom and independent studies), as well as popularizing the university - holding contests, festivals, attracting applicants, etc.

Working with texts involves the use of both classroom classes, where it is possible to explain difficult moments to students, answer their questions and set tasks for successful assignments, as well as self-study - reading training, working with sound dictionaries, translating, searching for additional sources, etc.

**The grammar section** is a professionally oriented theoretical material in the form of notes, charts and tables, etc. Given the fact that all students have an initial language training, there is no need for a detailed study of the theory. With the help of a brief summary, it is enough to recall previously acquired knowledge and practice certain skills. For an optimal and quick course in the grammar section, only that material is offered that must be used in the professional field. For example, students of technical areas do not need to study direct speech. However, if necessary, there is always the possibility of attracting sources with more detailed information.

Grammar exercises are offered in writing. The main factors in writing are concentration, the use of various sources of perception of information - visual, tactile, etc., as well as the best perception of educational material. Reproduction of the written text and concentration on it is one of the most effective ways of mastering the educational material.

**Educational reading** is a section where texts with certain information (explanation of the meaning of terms, phraseological phrases, etc.) and with those grammatical phenomena that are described in theoretical material are collected. Comprehensive training of acquired skills along with obtaining useful information is carried out both in the perception of the text, understanding its essence, and through special tasks. For example, find a certain form of the verb and give the correct translation of the sentence, write an annotation to the text, express your attitude to the information, etc. Given the fact that students use electronic translators when working with texts, which is an undesirable factor, through text exercises you can adjust the work and achieve the desired results. Work with this section of the course takes place both in the audience with the teacher, and there independently. Information of texts can be used in the study of special subjects of a chosen direction, writing essays and term papers. Technical reading is, in fact, a completely independent work. Each student has an individual task; therefore, a general (collective) work is not expected. Nevertheless, if questions arise, or students encounter certain difficulties, then there is the opportunity to give classroom consultation. As a task, students are invited to read and understand a scientific or popular science authentic article. The content of the article should correspond to the chosen field of study, or specialty. The result of the work is writing an annotation (required in writing by hand) and a short presentation on the information received. Technical reading is a professionally oriented work. Information from articles can be used to write essays, term papers and dissertations. Based on the results of our work with authentic articles, we can

determine the level of proficiency in a foreign language; check the conformity of acquired skills with the state educational standard.

All sections of the course are organized and accessible on any devices that work with Internet browsers, and this is almost any computer platform - Windows, Linux, Android, IOS, etc. With the development of mobile Internet, it became possible to have access to tasks at home, on the street, in a train, in private and public Internet networks.

Thus, the availability of foreign language teaching aids plays an important role in the learning process at a university. This saves time, makes the learning process more effective, which ultimately affects the quality of education and the rating of the university.

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