Modern forms of foreign language distance learning in aquaculture

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Abstract. This article is devoted to a rather relevant topic of the 21st century. The subject of the analysis of the article is distance learning. The object of this article is a comparative analysis of distance learning in different countries. In recent years, the use of modern technical means has become a popular phenomenon in education all over the world. Information educational technologies have been intensively developed and increasingly used in the daily educational process along with traditional forms of education in many countries of the world. In this article, we consider the use of distance education in different countries, which helps to expand access to education and training for everyone. The choice of the topic is due to the relevance and the need to study distance education as an innovative form of education from various points of view. The authors analyze the use of distance learning sampled in various countries. The theoretical significance of the study lies in the fact that the data obtained can contribute to the deepened study of distance learning. The practical significance lies in the fact that the data obtained can be used in the course of modern pedagogy and methodology, in special courses on the problems of modern education.

1 Introduction

Today distance learning is one of the promising areas in education. It allows you to carry out on-the-job training, receive education outside your city or region. To organize distance learning, many educational institutions create educational portals. They are resources that contain educational materials, tasks for self-completion, tests for self-examination and many other materials. All this has become possible thanks to the development of information technology and the Internet. But distance learning was not always at such a high technological level. In order to understand the essence and capabilities of modern technologies better, it is necessary to study the process of formation of this system and its development. To begin with, we shall consider what marked the beginning of distance education in general. Since it began to develop abroad at the initial stages, we will give a brief overview of the main stages [1].

The initial stage of the development of distance education was outlined in the middle of the 19th century in European countries. The United Kingdom and the University of London

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in particular took an active part. Isaac Pitman is considered the founder of distance learning. In 1840, he began teaching shorthand students in the United Kingdom. In those times it was done by sending letters by mail. This very date is considered the year of creation of the first educational course for distance learning. In 1836, the University of London was founded in the United Kingdom. It allowed students from other cities to take exams, provided that they studied at accredited higher education institutions. Thus, the University provided an opportunity to get higher education at a distance. This direction proved to be very demanding and quickly gained popularity. Therefore, in 1858, students from other countries were given the opportunity to take exams. At the same time, it did not matter in which educational institution they received their education. Other educational institutions began to adopt this learning experience. Colleges had been created to provide training by mail, in accordance with the university program [6].

The end of the first decade of the XXI century is marked by the transition to inclusive learning based on Web 2.0 services and the development of telecommunication technologies [3]. So, the purpose of using distance learning technologies in the system of general and especially professional education is to provide students with the opportunity to master educational programs directly at their place of residence or temporary stay (location) [1]. The introduction of distance learning becomes the basis for a system of continuing ongoing education, in which technological advances and information educational technologies make it possible not only to change the methodology for obtaining an increasing amount of knowledge, but also to introduce a detailed assessment of the learning process, to improve the self-educational activity of an individual. The effectiveness of distance learning can be achieved using new information technologies and a modern approach to the creation and functioning of the educational process [10].

2 Methods

The methodology of education should include computer forms of learning, knowledge control, individual task, conducting an experiment, analyzing and processing the results of the experiment in distant mode. Foreign universities have a long-term practice of distance learning. Most higher education institutions in Russia are currently developing distance learning technologies. The introduction of distance learning in Russia is progressing every year; that fact implies that the use of modern technologies and scientific achievements in education is an effective and convenient method of teaching, and with the right methodology, it is able to bring the entire system of Russian education to a new, modern level [2]. Russia hasn’t got a full-fledged research so far, but Western experience shows that with high-quality educational content the effectiveness of distance learning in many areas is not lower than the effectiveness of full-time study. Of course, there will always be trainings or training programs that do not fit well into the distant form. However, the development of high-quality educational content is often quite possible. The need for the development of distance learning in Russia is formed by a number of government documents. In 2013, the Federal Law adopted amendments regarding the use of distance learning technologies in all forms and areas of study. The Law on Education of the Russian Federation states the possibility of implementing educational programs using exclusively distance learning technologies. In January 2014 the Ministry of Education and Science of the Russian Federation passed the Order (No. 2 dated 09.01.2014) "On approval of the Procedure for the use of distance learning technologies by organizations engaged in educational activities of e-learning in the implementation of educational programs" [4]. Distance education as a new model of education helps to expand access to education and training for everyone, and also significantly increases the role of deans and teaching staff as a direct carrier of innovative processes. Consecutive annual analyses of distance learning in
the United States with the support of the Sloan Foundation have shown a consistent increase of students in distance learning by about 10-20 percent per year over the past 10 years, which means that approximately one third of all students of higher education institutions in the United States take at least one fully interactive course. More than half of all students have distance learning within the state. Students engaged in distance learning form only are about 13% of the total number of students. However, non-profit organizations rely more on distance students, who make up half of their student body. Less than 10% of students at state universities study exclusively distantly [13]. Distant education is often associated in the US with a diploma factory, or offered by non-profit private institutions such as the University of Phoenix or Kaplan. As it turns out, this fundamental concept is wrong. Almost three-quarters of all students receive distance education at state-funded universities. Less than 10% of the total number study distantly in non-profit private educational institutions. The development of global e-learning in the USA continues to be quite active. On the one hand, it is due to an increase in demand for educational services, and on the other hand - the actual development of information technology, the growth of MBA. Computer literacy has long been a key factor in the modern educational process. Students should be able to use distant programs, e-mail, take part in electronic forums, chat rooms, online quizzes and other network tools, distance learning programs. In its turn, the increase in network bandwidth makes it more relevant using modeling methods, video and videoconferencing. Development should not be considered solely as an additional service for the student client [12]. Educational institutions themselves are interested in this, as well as states that are looking for ways to increase the number of students in order to reduce costs in general. For example, for the development of the USA, distance learning programs are a matter of principle due to the deficit of the joint budget. Public universities and most private ones, which lack sufficient funds for the further development of their campuses, are increasingly transferring parts of their curricula to the Internet. Shall we also consider distance education on the example of the International Daffodil University, which is one of the educational private universities in Bangladesh. It was established in 2002, actively uses the form of distance education on a par with ordinary education. The organizational model and operational methods of distance education, as a rule, are based on the philosophy of education of this university, its economic and political limitations [7]. Most teachers would probably prefer a more personality-oriented model, while politics and economics dictate a more institution-oriented approach with more control and more students. There are three different modes for distance education to function [8]: 1. Full responsibility – when an institution and its administration have distance education as their sole responsibility and purpose, for example, an Open University in the United Kingdom. The administration and teachers are focused on the methods of teaching distance education and the needs of students and are not controlled by other programs and goals. The development of educational and methodological techniques and innovative practices are considered as the main advantages. 2. Mixed mode – when institutions have the form of both distance education and conventional education, such as the University of New England in Australia and most traditional American universities. It can be managed by a single department headed by a responsible university administration, it is also possible that several departments can offer distance learning from each department, guided by their own program, or when a separate unit can offer distance learning in various fields and be fully dedicated exclusively to this goal. A mixed approach may have the advantage of using faculty resources and services, but the disadvantage is that some teachers and supervisors may consider distance education less effective and less important than the campus as the basis of learning. 3. Consortium - a group of institutions or distance education programs dedicated to distance learning as a means of expanding or sharing distance education programs. Students can register at their own institution and use centrally developed study
materials with easily interchangeable credits. It is one of the fastest growing segments of
distance education, but it is also experiencing administrative problems when it comes to
cooperation between universities and conflicts in philosophical differences, educational
resources and joint expenses [2]. In order to succeed any organizational or administrative
structure must have effective communication. Distance learning with its variety of
activities, staff, students and, based on learning programming, requires very effective
communication. According to Verduin and Clark, information should be given in such a
way to involve everyone in common goals, activities and procedures, with possible
appropriate feedback whenever necessary [2]. Kaya and Rumble refer to the problems of
educational institutions in implementing distance learning programs and suggest that the
main problem faced by many universities is to resolve the conflict between distance
education, which often requires management, and the business structure of the enterprise, as
well as traditional academic fields that have a completely different management style.
These differences "often find their expression in the conflict between academic "freedom of
action" and the need to maintain effective production mechanisms" necessary for the
development of distance learning courses and dissemination [8]. The division between
innovation and organization can "converge" as an innovation that moves towards
institutionalization across the border of expansion and conflict resolution. This integration
process is the goal of most distance education programs at traditional universities, but
research shows that there are often institutional barriers to the convergence of distance and
general education. Focusing on technology without considering its role as a catalyst for
change can negatively affect the ability of technology and change. Heinich suggests that we
tend to view all technological innovations in much the same way as technologies such as
television, which can affect the power structure in education, and teachers prefer the power
structure as it is. Power and politics are the main forces in the process of implementation;
and school systems, like other social systems, should be considered from the point of view
of the needs, distribution and use of power [6].

3 Results

Most of the research made so far has focused around the use of new technologies for the
effectiveness of teaching and distance education as a learning environment. In these studies,
questionnaires with a closed set of questions with a set of options determined by the
researcher prevailed [7]. This empirical study is useful because it shows student preferences
and tries to compare different media, but Morgan urged that qualitative research methods
can be used to study distance education in general. There is also an opportunity for regions
where a number of specialties aren’t available as in large cities. Students have the
opportunity of a more flexible approach to the learning process, as well as communicate
with the teacher on necessary issues. All these positive aspects open up many prospects for
the development of distance learning both in our country and in other countries of the
world.

Next, we will look at the means by which the effectiveness of distance learning will
increase improving the quality of learning, which will make life easier for teachers and
students.

Multimedia lesson is a lesson with the use of digital technologies, various programs and
technical means to influence the learner effectively.

Tasks solved with the help of multimedia in foreign language classes include activation
of classroom work; simulation of real communication; provision of information support;
development of cognitive interest and motivation to learn a foreign language [4].

Multimedia lesson is a lesson with the use of various software systems, such as
simulators, test programs, graphic editors, multimedia presentations, online editable
diagrams, table graphs, workshops with the possibility of modeling real processes. As the practice of introducing such tools into the educational process shows, their use effectively affects the learner, who develops the ability to know the world around him, the skills of using knowledge and skills in a real life context; algorithmic thinking; creative thinking; making optimal decisions in a difficult situation; research skills; ability to process information. In addition, students increase their adaptive abilities to the modern learning environment, they form non-stereotypical thinking and objective self-esteem [16].

An electronic textbook and various training programs-simulators can be considered the most accessible multimedia means for the university student audience. Electronic applications to textbooks contain training programs for memorizing words and grammar training, as well as additional practice in listening and writing. Training programs have the opportunity to significantly change the ways of managing educational activities and to carry out purposeful individualization of training, which contributes to improving the quality of training. Working with programs helps students to better perceive new material through graphic images [5].

Multimedia presentations are the next convenient technology to be included in the educational process, to use them a computer and a projector are needed. Presentations can be held both synchronously and asynchronously, i.e. they can be pre-recorded [6].

The forms of including presentations in the lesson depend on the content of the lesson and its goals. Thus, the following are considered effective application goals: the process of illustrating and studying new material; fixing a new topic; checking the material learnt.

A resource that is a source of presentations in various fields is the SlideShare platform, where teachers have the opportunity to use a collection of ready-made presentations created and posted by colleagues, which significantly reduces the time preparing for the lesson. Students can also create presentations on topics to practice presentation skills. With the help of author's presentations, the teacher has the opportunity to present the material in a sequence that is necessary to achieve the goals and objectives of a particular lesson.

Electronic testing is an automated tool for monitoring and assessment by a teacher or a self-monitoring tool that provides visual control of results along with the oral one.

The basic resource should be the resource of the Pan-European Commission for Foreign Language Proficiency (CEFR), which allows you to determine the level of language proficiency according to the scale used within the framework of the Bologna Convention. Also, this resource provides recommendations for learning language to achieve a certain level, based on the test results.

Multimedia Internet resource presents information (text, animation, graphics, sound, video) interactively, visually, entertainingly, with instant feedback [7].

The functioning features of Internet materials include: 1) openness and accessibility for everyone, both for students and teachers; 2) free access and edit ability of any educational materials; 3) the ability to quickly and easily create new digital objects: video and audio fragments, images and texts; 4) accessibility of any materials for people with different levels of knowledge and skills in information technology.

All these materials exist, as a rule, in the original version in a foreign language and, therefore, can be used for foreign language classes to form skills of working with a foreign language as a professional tool.

A training video is a type of Internet resource that allows you to view videos and perform tasks for them, which is used both online and offline. Tasks can be either included in the video or in special workbooks. Among the most popular resources are the following:

1) Khan Academy is an online resource that provides a variety of videos and materials for studying and, mainly, repeating materials on various subjects, preparing for international exams. There is a section "Teachers" on the site, which allows you to add tasks to videos online.
2) TED is an electronic resource, the main content of which consists of video clips of speeches on topics widely discussed in society. The resource also exists in the TED Ed version, which contains not only videos, but also lesson plans, questions for videos, diagrams for drawing up lesson plans. The program also allows you to track the progress of students in studying a certain topic, to which the lesson plan and a certain video were linked. Video lectures in English introduce students to the professional sphere of their education, adding a subject component created by outstanding scientists of the world to the study of a foreign language.

Digital Classroom – among the online resources that help create multimedia lesson plans and deserve to be mentioned and implemented in students' independent and classroom work, Google Docs or Google Docs can be singled out. This is a free-of-charge application that simulates MS Office online and includes a text editor, a table editor, a service for creating presentations, as well as a cloud file service. The advantage of the program is also that it does not need to be downloaded and installed. Its application provides communication between the teacher and the student in synchronous and asynchronous mode, allowing you instantly correct existing mistakes, misunderstandings; create individual and collective projects independently or under the supervision of the teacher; increase the volume of tasks solved with the teacher [8].

Another online resource is Google Glass, which offers free tools for working with email, electronic documents and cloud storage. This service has been developed in close collaboration with teachers to save more time so that they can communicate effectively with students. Its advantages are 1) convenient addition of students to the course system; 2) joining students to courses using code and working with several courses at the same time; 3) creating ads; 4) importing assignments; 4) co-teaching with a large number of colleagues; 5) creating templates thus reducing time spent on creating tasks; 6) integrating additional materials (GoogleForms, PDF files, PPT files, and others) from Google Drive. It is also important that this program has a mobile application which optimizes the work of students. It allows you to highlight the text in the attached files and tables, add your own notes and comments to them, that is, in fact, an online discussion with teachers [14]. This system also has a number of purely methodological advantages for a teacher, it develops students' self-organization skills. The Google Class program has such task settings options as 'preliminary preparation', 'quick questionnaire', 'tracking assignments for students', 'individual assignments', using which teachers publish assignments for individual students or the entire course with deadlines, change the grading system, track verified assignments, transfer final grades in Google Spreadsheets or a CSV file and further sent to students, print, etc. [7].

The Padlet service is convenient for materials organization and storage, joint work with students. Its unique feature is the similarity of the principles of its work with the principles of well-known social networks - you can share your page or various materials stored on it, save it as an electronic document, send it by e-mail, insert it on your page or blog using html code; the service is ideal for working online in classroom mode, as students can use their electronic devices to send images and texts to the common Padlet board and review and discuss them among themselves and with the teacher. Students and teacher have the opportunity to a) take notes together, discuss pressing problems and issues during the lecture online; b) plan events – real or simulated for effective learning of a foreign language – all information about the excursion, quest, etc. can be placed on the Padlet board.; c) place additional materials on the topic of the lesson - everyone can add to the general discussion board the results found by him in the course of research work d) repeat the studied material at the beginning of the lesson or at the end of the academic period [15].

The WeVideo resource is interesting because in this video editor it is possible for students to work together with each other and with the teacher. It creates a video with
various visual and audio effects, which can also be posted online, processed by other participants of the educational project.

On an online resource like Zunal (http://zunal.com /), it is possible to create web quests, which can be quite an effective form of organizing students' activities in the classroom, as well as a form of checking the acquired knowledge.

Among the electronic simulators, one can distinguish the Letter Generator simulator for training writing skills of personal and business letters with step-by-step recommendations; the EssayMap simulator is for writing essays training according to a ready-made scheme with step-by-step instructions; the service LearningApps.org supports the learning process with a whole set of publicly available interactive applications for training specific tasks in different subject areas; TOEIC Listening is an listening skills simulator representing a collection of audio files and exercises for listening and pronunciation training; Useful English is a collection of exercises for the use of codified English in oral and written form [8].

Here is the table of the most frequent used educational platforms in distance education

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<tr>
<th>Educational platforms</th>
<th>free</th>
<th>fee-paid</th>
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<td>Moodle</td>
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<td>iSpring Learn</td>
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<td>Edmodo</td>
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<td>Google Classroom</td>
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### 4 Discussions

Further on we shall look at digital platforms and applications that can be used for teaching foreign languages in higher education. It is necessary to take into account their advantages and disadvantages in various types of educational activities and extracurricular activities for students.

Digital applications (websites that allow you to create various types of graphic and text content for educational purposes) for the development of students' self-organization skills, one of the most relevant soft skills today:

1) EasyBib – this resource can be used in writing research papers in both foreign languages and Russian. It allows you to automatically compile bibliographic lists for scientific papers using citation styles like MLA, APA and Chicago/Turabian.

2) Remember the Milk is a free resource that allows you to create an online schedule with an indication of the deadlines by which you need to perform certain tasks, make schedules, etc. It can be used on various platforms, such as Gmail, Twitter, iPad, iPhone, Android.

3) SurveyMonkey is an online resource used by both students and teachers to create all kinds of tests, questionnaires, quizzes. It can be used both to perform various tasks when using task-based learning and content-language integrated learning technologies, and to receive feedback from students or a teacher. A resource called Classmarker is similar to it.

4) Bubbl.us – An online resource for creating so-called mind maps online. Such "memory cards" help to organize the necessary information to study, memorize and repeat.
In classroom practice, they can be used at the beginning of the lesson by both students and teachers to repeat what they have studied and create an interesting introduction to a new topic.

5) Create-a-Graph – this resource allows you to create various graphical forms of information representation, such as graphs, tables, diagrams, etc.

6) Platforms like Microsoft Teams and British Council. Microsoft Teams is a corporate platform that combines video conferences, chat, meetings, notes and attachments in the workspace. This platform allows students to present prepared multimedia material or start streaming; share system video/audio material on a computer. It is important for teachers that information can be presented in a virtual classroom with the current view of the screen of the teaching device or as an interactive whiteboard. This resource supports immersive reading and helps to improve learning processes of students with various capabilities. The Microsoft Teams platform offers such ideas for classes as: virtual classroom support for broadcast speeches and two-way conversations, file sharing, setting individual tasks, receiving and checking exercises made by students in a single browser window on any device. The advantages of the platform include the availability of access to cloud storage, where all projects and documents can be automatically saved. In addition, there are functions for checking tasks and assigning deadlines in the calendar, allowing you to easily export marks in the form of tables. But there are also disadvantages of this resource: extensive functionality requires a lot of time to master, it is also unable to maintain all files and tables [17].

The self-learning skill is also very close to the skill of self-organization, for the development of which there are also websites identified in the process of studying multimedia resources. One of the most popular among them, full of working forms offered is the Quizlet web resource, as well as Native English (grammar reference, tests, dictionary of idioms), BBC Learning English (BBC resource with podcasts, grammatical and lexical exercises, news, broadcasts on professional topics), Learn English, British Council (resource on the study of General English, Business English, English for Specific Purposes), BBC Language at Work (business communication course in the company)[6].

5 Conclusions

The question of choosing methods of conducting training sessions comes up every day, since specific learning situations are very diverse. Cognition technologies, including information and communication and digital technologies, are tools that help students develop memory, problem solving skills, thus being applied they change the nature of knowledge and skills acquired by students, opening up new opportunities for rethinking the content of learning and the effectiveness of methods of its transmission and organization.

Digital technologies with teaching, controlling, demonstration purposes are integrated into the teaching of various university disciplines, including a foreign language. However, the specifics of the course, the approaches used by the teacher, the level of requirements imposed on the real contingent of students should be taken into account; the form of training – classroom or distant, synchronous or asynchronous [16].

To create a high-quality demonstration material, the teacher must follow some rules for electronic resources different from those that work with paper materials. Thus, too much multimedia information on the studied structural unit overloads the recipient.

The use of digital technologies in the classroom creates unlimited opportunities for the teacher and students. Working with virtual models, video, animation, sound, graphics attract attention to the topic. But just as it is impossible to replace a teacher with a textbook, so it is impossible to replace it with digital materials, since digital technologies accompany
the course of the lesson in accordance with the lesson plan, but cannot take most of the lesson. They add elements that cannot be put into practice: gif images as a means of evaluating online work, online test works for a front work with the audience, video clips to simulate the language environment in the audience, holographic image objects. In its turn, the memory of the hand mechanics is proven to be more long-term than visual. Therefore, it is better to do tasks, make proposals, answer questions in practice, in writing, orally and in some cases – using the kinesthetic type of presentation or perception of information [8].

However, the greatest efficiency is obtained if, during the learning process, students themselves create tasks using digital technologies, demonstrating their knowledge, involving other students. Therefore, as part of the educational process, students should be given the opportunity to work with text, graphics, video and sound in an individual mode. In this case the student himself becomes an author, he develops creative and critical thinking, while the teacher contributes to the structuring of the student's thinking process.

As a result of the present research, we can conclude that the use of various services mentioned in this paper is an effective tool for creating presentations, podcasts, videos with hyperlinks and has a great impact on the content of the lesson, helps students to perceive the studied material with interest. The use of digital technologies opens up new opportunities for both teachers and students.

Presentations, podcasts, various tools that help to insert as much information as possible in different graphic forms make each lesson on various lexical, grammatical, conversational, professional topics more vivid, diverse and memorizing [13].

Today, the ways of teaching foreign languages are changing every day around the world due to technical and methodological changes, sometimes forced, in the learning process. The practical development of digital tools and materials by teachers and students represent both the reality and the prospect of their successful use in modern education.

Digital learning technologies have a huge learning potential. It is necessary to test in a real educational context their ability to stimulate various types of speech activity and the ability to organize the contact and non-contact learning process in a new way [11].

References