

## Special Aspects of Distance Learning in Educational System

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**ABSTRACT** The paper presents a detailed analysis of the special aspects of distance learning in the educational system of Kazakhstan. The meaning of the basic concepts and categories are revealed, the characteristics of distance learning in the educational system of the Republic of Kazakhstan, as well as issues of further improvement are given. The originality of the research is in the obtained scientific results, where the conceptual apparatus of research is formed; the essence, significance and role of distance education are shown. Distance learning is a method of instruction delivered while the instructor and student are separated by distance and/or time. These aims are to provide mass education and/or training to interested students and employees from varied and numerous cultural backgrounds. Since the concept of distance learning was introduced, methods for delivering instruction have rapidly changed as its technology continued to develop.

### INTRODUCTION

Introduction of innovations becomes an important way of improving the efficiency of education. Aspiration to use innovation in education becomes widespread. On the one hand, innovations are changing the methods of work of a teacher, the interaction itself, and the relationship of a teacher and student, on the other hand innovations change the way of thinking of a teacher. It becomes the practical philosophy both of a teacher and students.

Innovative teaching methods are learning methods that bring new ways of interaction between "teacher - student", a definite innovation in practice in mastering the learning material.

Teaching methods are a mechanism for the implementation of plans that allows the realization of goals, objectives, content and learning principles in practice. At the same time, teaching methods are defined as a driving force the learning process; and it should correspond to the modern requirements of the society, the trends in educational development.

Through the introduction of new methods and techniques of training, real teaching process and education in general are reformed, which can be implemented by any teacher on a particular lesson. Teaching methods set the pace of development of didactic system - training is progressing as quickly. As the methods used advances. Foreign research shows an effect or advantage of distance learning is cost saving. The interest in mobile learning is also being researched (Bertel et al. 2015).

### OBSERVATION AND DISCUSSION

The learning process of a modern person does not end at the school or at the university. It becomes continuous. The system of life-long education is an important need for every person. Therefore, at the present time, there is a need not only in full-time training, but also in remote training, based on modern information technology.

*As the President of the Republic of Kazakhstan Nazarbayev highlighted: 'Education reform - is one of the most important tools to ensure real competitiveness of Kazakhstan. We need a modern system of education relevant to the needs of economic and social modernization. It is necessary to create conditions for learning throughout life (2008).*

The United National Educational, Scientific and Cultural Organization (UNESCO) declared two basic principles of modern education: "education for all" and "education through life". Among the strategic objectives of the development of education of the Republic of Kazakhstan in the short-term is to improve the quality and accessibility of education, as well as establishing a life-long education system. Nazarbayev highlighted one of the priorities facing the state - reforming education. "The main criterion of success in education reform is achieving a level when any citizen of our country, having received an appropriate training and qualifications, can become a specialist in demand in any country of the world. We must ensure high quality educational services throughout the country, these

should be by international standards.” A promising direction in addressing these strategic objectives is the development and introduction of distance education.

The widespread introduction of modern information technologies will change the paradigm of education, as well as effectively realize the potential. In the period of rapid development of information technology in society, it is required that a specialist has to learn almost all his life. Today, the idea of “lifelong learning” leads to the need to find new methods of knowledge transfer and teaching technologies. In terms of today’s realities, a number of problems arose.

First, the geographical location of the settlements with the uneven population density. Most institutions and top-level teachers of the highest qualification are concentrated in Almaty and Astana. Training, including advanced training in another city requires large financial costs, which involves considerable problems.

Second, it is a problem of lack of time for improvement of previously acquired knowledge. The age of high speed technology requires lifelong learning, which is crucial.

Third, the financial (the problem of money). It is increasingly focused on higher education and preparation for it. The chance to get a scholarship is not high, and not everyone can afford to pay the tuition fee.

Distance education helps to solve all these problems. The term “distance learning” means an organization of educational process in which a teacher develops a syllabus, mainly based on self-study. Such a learning environment is characterized as follows: a student is mainly, and often completely, is separated from a teacher in space or/and in time. At the same time, students and teachers have the opportunity to carry out a dialogue by means of telecommunications.

Distance education is a field of education that focuses on the application of educational technology and technology mediation with the aim of delivering teaching, largely often on an individual basis, to learners who are not physically present in a traditional educational setting such as a classroom. It has been described as “a process to create and provide access to learning when the source of information and the learners are separated by time and distance, or both” (Honeyman and Miller 1993).

Distance learning allows for remote residents where there are no other opportunities for train-

ing or receiving quality higher education, where there is no university of the required major or teachers of appropriate skill level to get knowledge.

Since the mid-70s in many countries around the world, institutions of a new type, called “open”, “remote” university; “electronic”, “virtual” college began to appear. They have a original organizational structure, using a unique set of pedagogical methods, economic mechanisms functions.

Distance learning - one of the forms of education, a targeted and methodically organized guide for training and cognitive activity and development of persons who are at a distance from educational organizations, by means of electronic and telecommunications equipment. Education “*at a distance*” is when a teacher and student are separated by space, in other words “interactivity”. The term “interactivity” is widely used both in home and foreign pedagogical literature. In the narrow sense of the word (applicable to a user’s work with software in general), interactive communication - a dialogue with the user and a software, that is, exchange text commands (requests) and response (prompts).

With more advanced means of a dialogue (for example, having an opportunity to ask questions in a free manner, using the “key” words, in the form of a limited set of symbols) a choice of options for the contents of educational material and mode of operation are provided. The more opportunities to manage the program, the more actively a user can participate in a dialogue, the greater interactivity. Broadly, an interactive dialogue interaction involves a dialogue of any subjects with each other using available resources and methods. This assumes an active part in the dialogue of both sides - the exchange of questions and answers, the management of the course of a dialogue, control of the taken decisions’ implementation. Telecommunications environment designed for communication of millions of people with each other, is a priori of an interactive medium. Distance learning subjects in interactive collaboration will serve teachers and students, and the means of implementation of such interaction are e-mail, newsgroup, conversations in real time, and so on. New technologies of representation of educational materials are applied that make distance education cheap and accessible, opening a possibility to communicate over long distances. Development of distance educa-

tion is associated with the latest achievements in the field of learning technologies, media and communications, with the rapid development and wide application of various technical means. This is primarily a satellite communication system; mass connection to information systems; computer and information technology; educational television; dissemination of educational software, video lectures, and so on.

The effective use of technology with proper pedagogy enhances the interactive process between students and instructors or content in online learning (Jain 2011). Interaction is related to the quality of online learning (Han and Johnson 2012), online collaborative learning (Kim and Lee 2012; Rosmalen et al. 2008), low attrition and effectiveness of online learning (Lee 2012; Nandi et al. 2012).

The advantages of distance learning are as follows:

- training without going to the session;
- choice of prime time for classes, you can study at home, at work, on a business trip, so long as you have an access to the Internet;
- the opportunity to learn the way you want to: in the evening, on weekends;
- choice of order, you choose your study subjects within one semester;
- accelerated learning for college graduates.

Distance learning takes an increasingly important role in the modernization of education. In order to implement the State Program of Development of Education in the Republic of Kazakhstan Orders No. 590 dated 29.11.2007, the “*Rules of the organization of educational process of remote educational technologies*”, “*Rules of the organization of learning in distance education institutions in the form of providing higher professional, additional professional education of the Republic of Kazakhstan*” No. 404 dated 19.06.2006 were developed by the Ministry of Education and Science of Kazakhstan. The above rules were designed in accordance with the “*Education Law*”. Since 2009, the State compulsory standards of education of the Republic of Kazakhstan “*Organization of training with the use of distance learning technologies*” entered into force.

The concept of distance education is closely linked with the concept ‘tutor’. Tutor is a teacher-consultant of distance learning, administers the self-study of students, as well as supervises the performance of individual curriculum and

learning acquisition. And here, a quote of Ushinskiy is highly appropriate - “*Learners should learn themselves as much as possible, and a trainer should lead this independent work and provide material for it*”.

Successful tutoring is a difficult task. According to the British distance learning experts, Gibbs and Derbridge: good tutors should possess the following qualities:

- excellent knowledge of the subject;
- good general teaching skills;
- good communication and social skills;
- organization, flexibility, patience;
- ability to motivate / inspire;
- commitment to the program and students.

Tutors should also be erudite and be able to handle the media used in the program (that is, written materials, audio, video equipment, computers). Most institutions that extensively use tutoring, provide many kinds of orientation sessions and printed materials that outline responsibilities and provide guidance on effective tutoring. Good schools closely monitor the work of their tutors, and provide long-term internal professional training.

Moore and Kearsley, in their book, “*Distance education*” reported that tutors interact with students by e-mail, can also use phone, computer networks and even personal meetings (1996). In general, tutoring in distance education courses has much in common with usual teaching. Some programs do not involve tutor with the specific duties, and their main job is to provide mentoring and guidance. Given the difficulties often faced by distance learners, the role of mentoring is more important in distance education programs than in traditional courses (Baltsuk et al. 1989).

Organization of distance learning technologies is carried out by means of virtual (synchronous or asynchronous) interaction. Consultations with a teacher (synchronous and asynchronous) are a prerequisite for the remote educational technology.

Synchronous interaction is communication of a student and teacher in real time. For this chat, systems of distance learning technologies or video conferencing may be used.

Asynchronous communication is used when a student and teacher cannot communicate in real time. In this situation, contact with distance learning technologies is arranged, usually by means of e-mail correspondence, via mailing lists or newsgroups.

Distance learning can be carried out by availability of the following: material and technical conditions for the implementation of information and communication technologies and distance learning; content of educational programs by a major on an electronic media; personnel, trained to the virtual interaction of educational process. Consultations in distance learning can be conducted by telephone, e-mail, chat, and using teleconferencing.

Distance learning can be carried out in three main technologies: network technology (standalone network or virtual courses of the department, universities using the Internet); distance learning based on case-based technologies; distance learning-based TV technology (Evreinov and Kaimin 1998).

According to the DL regulations in Kazakhstan, a prerequisite for the organization of educational process in distance learning is the availability at the University of the following: educational Internet portal with pages containing teaching methods and teaching and administrative information for students; equipment having access to the telecommunications network (Internet, satellite); different terminals: multimedia classrooms, electronic reading rooms; network learning management systems; learning content management systems, and others.

Distance Education (DE) today in the Al-Farabi Kazakh National University is built on the basis of information and communication technology and network information and educational environments. Service for Information Technology designs, develops and maintains operating software, information and technical means of distance learning. Television learning tools include video lectures for collective or individual use with a cable or satellite TV, as well as television classes online. The university has its own system of distance education. In the future, TV technology can be used, as it has its broadcasting capabilities.

Distance education should have a flexible structure, easy to rebuild after the change of information and communication technologies and ensure accelerated development of education in the new information society.

Organization of distance learning in the Al-Farabi Kazakh National University withstands criteria of “*providing good distance learning*”, recommended by the Western experts, Barker and

Dickson, as follows (Markhel and Hovakimian 1987):

- To provide assistance in planning training and installation of equipment, support staff must be involved in work or service of this equipment (Department of Distance Education);
- A room for the teaching staff development is arranged to provide a place for testing and acquiring practical skills in working with technology. In the department of distance education, a teacher or student in case of problems in the learning process through the Internet, can log into distance education and get answer to the questions clearly with the assistance of a specialist of distance education.
- Administrative support in distance education is provided. The administration of the Al-Farabi Kazakh National University creates conditions for the establishment and development of teaching materials. Currently, equipments for recording video lectures are being updated, which will improve the quality of video materials.
- The needs of teachers for motivation and recognition of distance education are taken into account.
- Training for teachers not only of using of the equipment, but also in presentation skills and teamwork is provided.
- By introduction of distance learning management system, Moodle faculty members and enrolled students were trained using distance education technologies.

The main objectives of the educational process with the use of distance learning are: individualization of instruction; education effectiveness (quality) increase; the provision of educational services to people for whom traditional forms of education are unacceptable (Mashbits 1988).

DE can be applied to the following categories of students:

- a) Reduced educational programs on the basis of technical and vocational education, post-secondary and higher education;
- b) People with disabilities;
- c) Being outside of the state by student exchange program, except for scholarship “Bolashak”;
- d) Called on military service, correspondence training.

Students enrolled in the Al-Farabi Kazakh National University make individual curriculum, which is coordinated and approved by the head of distance learning in the due manner.

For students on distance learning as an internship, provided by the curriculum, work at specialized enterprises, institutions or other organizations can be credited in the amount of hours provided by the state educational standards.

The university organizes the system of current, interim and final evaluation of students, an objective assessment of their knowledge and skills and is protected against forgery, fraud through the use of electronic methods of access restrictions, independent evaluation methods, public defense works in the regional certification commissions.

Final state certification of graduates (State Examination, diploma course, projects) is produced by traditional methods.

Since 2008, the Al-Farabi Kazakh National University has been actively implementing management system of distance learning Moodle, which is open and the most common solution for organizing the process of distance learning worldwide (Simonov 1997).

Receiving Distance Education is mobile and very effective in further education or training.

A Chinese proverb says - "Tell me and I will forget. Show me, and maybe I'll remember. Make me a part, and I will understand". The authors agree with mentioned the above researchers (Bertel et al. 2015) on the issue that distance learning demands time, and this confirmed our research.

### CONCLUSION

The aspiration of the Al-Farabi Kazakh National University is to combine achievements of the education system with the latest information technology driven by the desire to form in Kazakhstan, an open educational space available for the general public. For this reason, DE experts develop and implement remote or open learning into practice. Management of these systems is based on the use of information technology. The educational process is organized on the basis of a working distance learning curriculum. Working curriculum is drawn up on the basis of model curricula in accordance with the requirements of the state educational standards. The Al-Farabi Kazakh National University uses those kinds of

training sessions in the educational process that match the distance learning technologies.

### RECOMMENDATIONS

Summarizing the paper, we would like to highlight that recent decade computer and internet technology acquired such a dynamics that became massive, comparatively low-cost and accessible to any user. They are encountered at every field, including education. Nowadays, to receive knowledge by distance learning is an inevitable stage of development of the education system. The authors analyzed and made a conclusion that distance learning is an objective necessity and researchers should study the effect of this scope of education thoroughly.

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