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Formation of the Institute of Distance Learning as a Part of the Ecosystem of Modern Education

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ABSTRACT
The modern model of education involves the use of digital educational technologies, including network ones. The emergence of such technologies caused the rapid development of distance learning and served as a prerequisite for its separation into a special type of modern education. The modernization of education, due to the introduction of distance learning into the educational process, has not yet yielded the expected results. The article examines the process of forming the institutionalization of distance education. The analysis of this process carried out by the authors of the article is important from the point of view of understanding the formation of this area of modern education, which occurs to some extent spontaneously, without effective management by state bodies. Sociological studies show that there are only some positive shifts in the field of creating conditions for the educational process, and practically nothing has changed in the process itself and in its results. In this case, the question of improving distance learning and management of this important area of modern education is natural. The authors believe that management problems can be identified by considering the subject-subject relations of the participants in the educational process. In this regard, surveys were conducted of administrators, trainers, and students from 46 educational organizations of the Russian Federation to determine the problems of distance learning. The surveys revealed two types of problems (organizational and methodological) that hinder effective distance learning. In the future, the results of this study are supposed to be used to solve theoretical and methodological problems and develop methods for the implementation of distance learning, considering Russian specifics, as well as to form a strategy of state educational policy in this area.

Keywords: *distance education, educational ecosystem, e-learning*

1. INTRODUCTION

The modern education model must meet modern technological, social, and environmental challenges. One of its most important qualities is flexible, personalized learning throughout life. Such a model requires new methods of organizing learning, including the transition to digital network platforms, the integration of knowledge and deeper involvement of students in the educational process. The new effective educational environment that is being created will have to be based on the constant interaction of participants in the educational process and offer new ways to expand education through cooperation with family, community, and educational organizations. In fact, such an educational system will be an ecosystem of knowledge, skills, and abilities, where each student will have their own ecological niche and the right to choose.

The education system is studied, as a rule, from the point of view of its institutional characteristics as an object and subject of sociological analysis. It is the basic social institution that determines the level of progress in society. This institution must meet the needs of the time and be capable of advanced development to stimulate this progress. There are three approaches to defining institutionalization, which can be summarized as follows:

1) institutionalization is a collection of organizations and institutions operating in

accordance with their own laws and regulations;

2) institutionalization is a relatively stable and long-term type of interaction and behavior of people;

3) institutionalization is a system of relationships, role functions, norms and rules that arise in the learning process between various subjects of educational process.

Currently, the activity of educational organizations in the implementation of educational programs using distance technologies has increased [1-2]. The term "distance education" has appeared. The need arose to analyze this new type of education. We need to answer a few questions. What is the role and place of distance learning in the system of modern education, its functions, and tasks? What problems and contradictions exist in the field of distance education? What are the ways to resolve them? What are the opportunities for the development of educational systems in connection with the introduction of this new type of education? What are the types of distance learning activities? What is the specificity of interactions between subjects of the distance educational process? Issues related to forecasting and foreseeing possible transformations and changes in distance education are also important.

2. MATERIALS AND METHODS

We have chosen the phenomenon of distance education at this time stage as an object of research. The subject of the research is the process of institutionalization of professional distance education in the Russian Federation, which is considered from three positions: as the formation of a set of educational organizations; as the formation of a new stable type of interaction in the education system; as the formation of a new system of relations, norms, and rules.

The main objectives of the study are the formulation and systematization of the problems of institutionalization of distance education, as well as the identification of trends in its development. The following tasks were set to achieve these goals: to study the experience of using distance learning; conduct surveys of teachers and students of educational organizations to identify problems of distance learning; identify and formulate the most important problems hindering the institutionalization of distance education; analyze existing problems identified based on surveys and studied literary sources.

The sociological analysis carried out is based on the priority provisions of the institutional, systemic, and structural-functional approaches (M. Weber, T. Veblen, E. Durkheim, R. Merton, D. North, T. Parsons, G. Spencer, P. Shtomka). The studied information sources are documented and statistical in nature [3-13]. A significant place among them is occupied by local observations of students, as well as the results of mass and expert surveys of teachers. In addition, the federal laws "On education", "On higher and postgraduate education", "On scientific and technical policy" and other regulatory legal acts were used as information and regulatory sources. Mass questionnaire survey, expert survey, interviews were chosen as methods for collecting empirical information.

More than 300 teachers at colleges and technical schools from 15 regions of the Russian Federation (Moscow, St. Petersburg, Kaliningrad region, Kirov region, Kostroma region, Krasnoyarsk region, Magadan region, Novosibirsk region, Perm region, Republic of Bashkortostan, Republic of Tatarstan), Sverdlovsk region, Udmurt Republic, Chukotka Autonomous Okrug, Yamalo-Nenets Autonomous Okrug). 70% of respondents are engaged only in teaching, 30% also do administrative work. Age range: up to 35 years old is 26%, over 35 years old is 74% (of them over 50 years old – 18%). 26% of survey participants have less than 5 years of work experience in the system of secondary vocational education, 19% – more than 25 years.

Also, surveys were conducted among college and technical students from the same regions. The contingent consisted of young people between the ages of 16 and 20. Number of respondents is over 400 people.

3. RESULTS

Analysis of domestic literary sources showed that the problems of institutionalization of education in Russia are considered from different points of view [14-18]. According to the authors of the works, the existing regulatory documents do not disclose the systemic, institutional and process role of education, as well as its components. We also note that in modern domestic scientific research, the topic of institutionalization of distance education has not been considered. The Law on Education of the Russian Federation includes articles that made distance learning possible, but the regulatory

framework for distance learning is still not fully developed. This problem was raised by such researchers as E.S. Polat [19-20], I.V. Robert [21], A.V. Smirnov [22]. They also pointed to the lack of distance learning methodology. The situation has not changed over the past decade.

If we consider the institutionalization of distance education at this time stage from the point of view of existing models of distance learning based on educational organizations, then the following situation is observed. Distance learning can be carried out based on specialized educational organizations dealing only with distance learning. In addition, distance learning can take place based on traditional educational organizations, which can provide both blended learning, which involves a combination of traditional education with distance learning, and exclusively distance learning (for example, training during a pandemic, conducting distance training courses, professional retraining, etc.). The third model assumes the conduct of training based on the cooperation of several educational organizations. It provides for distance learning according to programs jointly developed by several educational organizations.

In the case when the institutionalization of distance education is understood as a relatively stable and long-term type of interactions and behavior of the subjects of the educational process, we can distinguish three stable learning modes that have been formed now: synchronous learning, asynchronous learning, and combined learning. Synchronous distance learning is real-time (or online) learning). It differs from traditional education in that the subjects of the educational process are remote from each other and communicate through Internet technologies. Delayed communication (or offline mode) corresponds to asynchronous learning. In this case, the exchange of information is carried out by the participants of the educational process asynchronously (with a delay). Combined training option involves a combination of synchronous and asynchronous forms of training.

The institutionalization of distance education as a system of relations between its subjects, their role functions, norms, and rules that must be adhered to in the learning process cannot be considered complete now. Nevertheless, already now it is possible to identify a certain system of relations between the subjects of the distance educational process, their role functions, norms, and rules governing this activity.

The digital transformation of the education system has contributed to the emergence of special units in educational institutions that provide technical support and management of digitalization processes. These divisions are involved in organizing distance learning, which is an integral part of the digital transformation of educational organizations. The very organization of the learning process in a distance format differs from the traditional one, which required the inclusion of additional specialists in the training process. For example, in some organizations, a methodologist, teacher, tutor (motivator for learners) and a technical specialist are involved in the development and implementation of distance learning. One of the nearest prospects for automating distance learning is the introduction of artificial intelligence technologies that solve the problems of optimizing the learning process (monitoring training, building an individual learning path, collecting statistics, and analyzing it).

Here are the data obtained during our empirical research. They indicated the following among the factors that hinder, in the opinion of teachers, the effective use of distance technologies: insufficient technical support (64% of respondents), insufficient knowledge of information and communication technologies (57%), insufficient methodological support (28%).

64% of respondents answered in the affirmative, 10% gave a negative answer, 26% found it difficult to answer to the question “Do you think that the legal registration of the transition to distance learning was carried out in your educational organization correctly?”.

The following information was obtained about the influence of the study by trainers of local regulations of a particular educational organization on the quality of distance learning. 26% of respondents indicated that it helped a lot in their work, solving all the problems. 20% of survey participants noted that in general it helped in their work, but organizational problems remained. 19% of the respondents believe that the study of these documents did not affect their work in any way, the same number could not give an unambiguous answer to this question. 16% believe that after reading them, they still have unresolved methodological problems.

Note that only 27% of respondents are familiar with federal documents regulating the use of distance learning, as it was found out because of the survey.

49% of survey participants answered that it got worse to the question "How has the quality of education changed in your educational organization in connection with the transition to distance learning?" Only 9% think it has improved. The opinion of 20% of teachers is that the quality of teaching has not changed. 22% of respondents were unable to answer this question. 38% of the teachers who participated in the survey, consider the impossibility of direct contact with the students, 24% – the lack of motivation among the students; 23% – poor attendance of distance learning, 15% – lack of control over learning as the most urgent problem of distance learning.

Most teachers (89%) believe that the time they spend on preparing for learning increased when switching to distance mode, 7% believe that it has not changed, and 4% say that this time has decreased.

50% of students noted that they did not experience technical problems during distance learning, the other half indicated the following problems: unstable Internet connection (27%), no Internet connection (19%), limited Internet traffic (4%). In the opinion of 50% of the respondents, the study load during the period of distance learning has increased, and 15% indicated that, on the contrary, it has decreased, 35% think it hasn't changed.

During the training in the distance format, the students adapted to the remote format in different ways: 19% of the respondents claim that the adaptation was excellent; 35% – good; 26% – satisfactory; 20% – bad.

The number of those positively disposed towards the distance learning format was 50%, the number of opponents of this format was 31%. The rest were undecided. 85% of students consider asynchronous mode as the preferred format of distance learning.

Among the respondents, there were no one ready to study exclusively in distance form. 35% of students named classes in the traditional form as the preferred forms of organization of the educational process. Traditional lessons, combined with a small number of distance learning lessons, were chosen by 27% of students. One of the reasons for choosing traditional education is live communication with teachers and classmates. In addition, the need for training under the guidance of a qualified teacher – specialist in their field is noted.

The level of motivation for learning in general after distance learning did not change in 42% of respondents, decreased in 35% and increased in 23% of those who took part in the survey.

The results are consistent with those of other researchers [23-25].

4. DISCUSSION

It can be said that the current system of distance learning in Russia based on three different learning models is quite stable and will last for a long time.

At present, the most common educational systems are systems of the "learner – technical means of instruction – teaching" type, or "man – machine – man" type. In this regard, a different (non-traditional) organization of the learning process and new learning technologies appear [26]. The learning process, which is a targeted remote communication carried out through Internet technologies, is changing significantly. The implementation of a combined type of distance learning is promising in this direction. It is becoming obvious that distance learning technologies will gradually be introduced into traditional education, which is associated, first, with the recently emerging trend of open (accessible) education.

The main problem of the institutionalization of distance education at this time stage is the lack of qualified personnel who can effectively teach remotely. The following options for training such specialists are possible:

1) adjustment of existing state educational standards and corresponding changes in educational programs of traditional educational institutions with the aim of graduating teachers trained for distance learning;
2) targeted training of specialists by order of educational organizations;
3) attracting qualified personnel to this educational organization from other educational institutions with experience in the field of distance learning;
4) inclusion of special structures that provide training in the structure of educational organizations;
5) creation of new educational organizations for personnel training.

Since distance learning involves allocation of students in the learning process outside the premises of an educational organization, the legislation of the

Russian Federation provides for responsibility for the correct organization of such training (Sanitary rules and norms SanPiN 1.2.3685-21 "Hygienic standards and requirements for ensuring safety and (or) harmlessness to humans of environmental factors"). Sanitary rules and norms have been developed governing electronic (and, therefore, modern distance learning) (Federal Law "On Education in the Russian Federation" dated December 29, 2012 No. 273-FZ, part 1, article 5, as amended and additions). Thus, the development and consolidation of normative-value attitudes in practice standardizes activities related to distance education and indicates the continuation of its institutionalization.

5. CONCLUSION

During the study, the following problems were identified, the solution of which will contribute to the institutional formation of distance education. They can be divided into organizational and methodological problems. First, let's list the organizational problems.

The problem of technical equipment. Not all educational organizations are sufficiently equipped to conduct distance learning. Students experience significant difficulties due to the lack of technical opportunities for distance learning at their place of residence.

The problem of compliance with sanitary rules and norms of the organization of distance learning. In modern conditions, educational organizations do not have objective means of monitoring compliance with these rules and regulations during distance learning.

The problem of legal responsibility. In the learning process, students are outside the premises of the educational organization. The question arises as to who and how will bear legal responsibility if during distance learning an accident occurs with a student that provides for such responsibility.

The problem of training teachers for the implementation of distance learning. Many teachers are unable to realize the full potential of distance learning due to their incompetence. One of the main tasks of the heads of educational organizations should be to solve this problem with the help of refresher courses and professional retraining of teachers.

The problem of increasing the teaching load of teachers and students. Teachers note an increase in the preparation time for distance learning compared to the preparation time for traditional lessons. The time spent by learners on distance learning is also longer than the time spent on traditional learning.

Below is a list of methodological problems.

The problem of the lack of distance learning methods. Now, there is no general method of distance learning that would demonstrate a systematic approach to the organization of such training in general. There are also no private methods that could be used to study specific disciplines.

The problem of the formation of professional competencies by means of distance technologies. The problem is related to the specifics of the discipline being studied. If the study of a discipline requires physical interaction of students with elements of the educational environment, then the possibilities of distance learning in this case are significantly limited.

The problem of the relationship between synchronous and asynchronous learning modes. The question of the possibility of using these distance learning modes requires additional research. In general, the following pattern can be assumed: the older the students are, the lower the level of synchronicity of learning is required. The specific way of implementing training should be most adapted to the given academic subject and the specifics of a particular profession or specialty.

The problem of the lack of a perfect system of distance learning control. An effective system for monitoring distance learning is needed, which should consider the individual work of each student, as well as timely identify the problems arising related to learning. In addition, the problem of lack of control includes the problem of academic integrity of students, especially in the case of asynchronous learning.

The problem of the formation of attentiveness, responsibility, and independence. Distance learning requires special care and responsibility from students. The quality of such training largely depends on the self-organization of students. The more freedom a student has in solving educational problems, the greater the level of their responsibility for the quality of education becomes.

The problem of low motivation of students. It is associated with the problem of low motivation in traditional education, but in the case of distance learning, students experience a few additional

psychological difficulties due solely to the specifics of distance learning.

The following conclusion can be drawn. An important place in the organization of distance learning should be given to the methodology of distance learning. Distance learning programs implemented by educational organizations should include the following components:

1) a common component, including the understanding by the participants of the educational process of the management system and the structure of distance learning, as well as knowledge of the main regulatory documents;
2) a technological component, including the development of specific technologies and equipment;
3) a functional component, including mastering job duties and obtaining the necessary knowledge, skills, and abilities.

The scientific novelty of the research lies in the fact that on the basis of the theoretical, methodological and empirical analysis of the process of institutionalization of distance education, a sociological assessment of the main directions of this process was carried out; the place and role of the institute of distance education in the development of the education system are determined (distance education complements the functionality of the institute of education in connection with the changed technological conditions of education); the analysis of the content of the institutionalization of distance education in modern Russia was carried out, which made it possible to identify its features and tendencies.

The scientific and practical significance of the work lies in the fact that its results can be used to solve methodological problems of studying the forms and methods of implementing distance education, taking into account the Russian specifics; for further development of the conceptual apparatus of distance education; to obtain further empirical information about the nature of the institutional formation of distance education; to determine the content, tactics and strategy of state educational policy.

AUTHORS' CONTRIBUTIONS

Oleg Ye. Danilov – conceptualization and research methodology. Oleg Ye. Danilov, Elena V. Korchak, Natalia L. Yugova – software, verification, formal analysis, research, supervision of the obtained data. Oleg Ye. Danilov, Elena V. Korchak, Natalia L. Yugova – preparation of the initial draft, review and editing of the article.

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