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**TRADITIONS AND INOVATIONS IN MODERN INFORMATION
SPACE: DISTANCE LEARNING TECHNOLOGY**

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Abstract

Transition to an information society is one of the main development characteristics of contemporary education. The intensity of information processes calls for the formation of a new educational policy, aimed not only at obtaining specific knowledge in various branches, but also at providing the conditions for self-development and self-realization of the individual, able to manage the tasks in an ever-changing world in the conditions of rapidly growing information flows. Capacities for searching the information, its processing and further use become the most important features for the career of a future specialist. In this regard, the importance of information and communication technologies for improving the effectiveness of training is emphasized.

Creation of information and communication educational space at the university is considered as one of the most important conditions for self-development of the individual. The distance learning technology is accounted to the main means of its implementation. It is pointed out that the use of distance learning technology is observed mostly for organization of students' independent work and implementation of control and evaluation activities at the university. The above mentioned technology is considered by means of the paradigmatic approach. Traditional and innovative paradigmatic settings are revealed. Conclusions are drawn about the importance of combining the possibilities of traditional and innovative elements of educational paradigms for the effective organization of modern educational and information space at university.

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Keywords: Distance learning technology, educational paradigm, information space, innovative educational paradigm, paradigmatic framework, traditional educational paradigm.



1. Introduction

Development features of modern education are connected to the transition to an information society. It is characterized by an increase in the intensity of information processes, which leads to formation of a new educational policy. Modern education is aimed not only at obtaining specific knowledge in various fields, but also at providing the conditions for self-development and self-realization of the individual, able to adapt in an ever-changing world under conditions of rapidly growing information (Kochetkova, Ostroumova, 2011). Along with the transition to the information society, conditions for implementation of the competence approach imply that the student fulfills the tasks stimulating his/her personal and intellectual activity as well as directing the educational one. The use of information to solve actual problems must be the goal, and the main task of the university teacher is to show the way to achieve this goal successfully (Antoranz et al., 2014). Taking into account the personality of the student is also of great importance. It is carried out through the choice of content and forms of study tasks, as well as the nature of interaction with the student (Keskin, 2016). The ability to operate with different information is of paramount importance in the modern labor market. The success in the career of a future specialist depends first of all on his/her ability for searching, processing and further use of the information (Mamontova, 2010). The importance of information and communication technologies for improving the effectiveness of training is emphasized in the papers of N. Begicevic Redep, B. Divjak, Yu. I. Kapustin, T. A. Kulikova, Yu. V. Meshcherskaya, A. I. Shutenko, T. S. Voronina. They note the important role of students' independent work in the education, including the activities implemented with the use of distance learning technology. In their opinion, this technology contributes to solving the problems of their own education, acquiring the ability to solve problems in various spheres of life and activity (Divjak, Begicevic Redep, 2015), self-organization and self-development in accordance with the individual trajectory of training (Meshcherskaya, 2010). It functions within the framework of innovative educational paradigms – competence, information and personality-centered ones. Also the role of the student as the main component of the educational process with the possibilities of independent choice of ways of organizing his/her work is emphasized (Kapustin, 2007). Creation of information and communication-educational (Kulikova, 2011), as well as information-educational (Shutenko, 2011) environment at the university with the distance learning technology as the main means of its implementation, is considered as a condition for self-development of the individual. It also intensifies an effective information support of students' independent and scientific research work. To a greater extent, the use of distance learning technology is observed for organization of students' independent work and implementation of assessment and evaluation activities at the university. The importance of combining the possibilities of distance and traditional learning is also noted (Voronina, 2010). In this connection, the question of the exclusively innovative nature of distance education technology arises. Further, the authors will consider this technology for the presence therein of both traditional and innovative frameworks.

2. Problem Statement

The question of the belonging of distance educational technology to traditional or innovative educational concepts requires clarification, because understanding the nature of the functioning of the specif-

ic elements of the mentioned above technology will ensure the possibility of its proper use in accordance with the educational goals. This, in turn, can improve the efficiency of both the use of a separate technology and the entire educational process.

3. Purpose of the Study

The purpose of this study is to identify the frameworks of traditional and innovative educational concepts within distance learning technology. This will make it possible to organize the information and educational space at the university in the most rational way, since the mentioned technology is the main means of its organization.

4. Methods

Distance learning technology will be considered from the standpoint of the paradigmatic approach, which will allow us to see the fullest pattern of the manifestations of traditional and innovative educational concepts within the framework of this technology. The manifestation of elements of traditional and innovative educational paradigms will be considered at the level of means of implementation, communication way, roles of participants in the educational process, goals, motives, values, responsibility norms, modes of study and teaching methods in the field of students' independent work as well as assessment and evaluation activities within the framework of this educational technology.

5. Findings

Supporting system of distance education EDUCON existing at the Industrial University of Tyumen (IUT) is the main implementation means of the distance learning technology. It represents the innovative direction of educational paradigms. Methodical support of the distance courses is represented by both traditional and innovative teaching means. Textbooks, teaching manuals, methodological guidelines, as well as traditional tasks for performing test papers and independent work (practical tasks, test tasks such as "essays"), presented in a non-legible form, are referred to traditional teaching means which represent the traditional educational paradigm. The content of the training material corresponds in this case to the settings of the traditional educational concept. The form of presentation of the educational material corresponds to the settings of the innovative educational direction. Electronic textbooks and training manuals, a virtual laboratory workshop, a system of training exercises (tests) of various levels relate to innovative means of implementing the distance learning technology. The choice in favor of traditional or innovative implementation means depends on the content of the discipline and the availability of the necessary methodological support. Basically, there is a combination of traditional and innovative means of implementation according to the principle of complementation to more effectively acquire the teaching material intended for independent work or assessment of the studied material.

The opportunities of the supporting system of distance learning provide for the communication way in the organization of students' independent work and control. There are electronic messages, chats, forums, announcements of upcoming events in the electronic system. This is an indicator of the innovative educational paradigm which uses the opportunities of information and communication technologies.

It is also possible to obtain information in a traditional way, from a teacher, but such communication way is gradually losing its importance, since the capabilities of the electronic system allow students to be informed more effectively and at the convenient time for them.

Concerning the distribution of the roles of participants in the educational process, it should be noted that the activity of the teacher gives way to the activity of the student in the distance education. It stimulates the self-actualization in terms of work organizing ways to solve their own educational problems (Savitskaya, 2010). Frameworks of an innovative, person-centered educational paradigm are indicated here, as the teacher and student's relations are built on the basis of mutual partnership, and the teacher creates conditions for students' self-study.

In the field of the motives, students are interested in the received knowledge, which is due to a new presentation form of the learning material, a quick (mostly automatic) assessment of the performed tasks, self-regulation of work intensity and monitoring of the improvement results. This can be considered in detail by the example of the training tests in the field of students' independent work. One should especially note that training tests are not compulsory to perform. Their purpose is to facilitate preparation for progress tests. Such organization of students' independent work allows taking into account the individual abilities of students, which is a manifestation of frameworks of innovative educational paradigms, first of all, a personality-centered one.

In the value orientations of training using the distance technology, the determining effect of an innovative, personality-centered educational paradigm is also traced. It contributes to student self-realization due to performance of creative tasks, participating in discussions in the form of chats, forums and webinars, which develops discussion skills and communication culture, and are useful for future personal career.

The defining role of innovative educational paradigms (mainly the personality-oriented one) is also a characteristic of the training goals using the distance learning technology. Orientation of the received education to mastering the basics of human culture, as well as lifelong learning, is traced here. It is displayed in mastering the way of training in general and of the certain rules in various events on distance technology.

Responsibility norms for performance the students' independent work and control activities include an explanation of the role of the control tasks and those for independent work in the electronic system by the teacher. These norms also acquaint the students with the electronic system supporting the educational process by means of which they will pass the obligatory progress, intermediate and final tests. In addition, students get a visual representation of the structure of the entire studied course, as well as the types, methods and requirements for tasks performance. If knowing the requirements for the work performance, the ability to use the methodological support of the electronic course and to navigate the electronic system in relation to the required amount of tasks and terms, students can independently regulate the performance of the independent work, taking responsibility for the learning outcomes. Thus, at the initial training stage, the defining role belongs to the traditional educational paradigm with the responsibility of the teacher for organizing the students' independent work. At the advanced training stage, the determining role in the responsibility for organizing the independent work shifts to a student who is able

to organize this part of the learning process to a certain extent, which is a characteristic of the innovative educational paradigm, in particular, a personality-centered one.

Students' independent work and assessment of the mastered learning material by means of distance technology are organized in the form of tasks in the electronic courses in studied disciplines. The defining role of innovative educational paradigms indicates here. It manifests itself in the individual organization of the student's independent work on the studied disciplines and involves tasks performing at the convenient time and place for student, varying the order of the performed tasks, the possibility of teacher's advice regardless of the time and student's location via electronic messages provided by the supporting system of distance learning, the ability to immediately obtain an assessment result, if the task is evaluated automatically. The complementary role of values of the traditional, cognitive educational paradigm, which is used mainly for evaluation and control, is manifested in the capabilities of the electronic system, providing for the time limitation and the establishment of an exact time period for the performance of certain tasks, limiting the number of attempts for the task performing and in restricted access to the electronic course, which seems necessary due to the features of the studied subjects or specific topics.

Both methods of traditional educational paradigm, namely the information and receptive as well as reproductive ones and methods of innovative educational paradigms such as problem-based, research and project-based methods are used as teaching methods according to distance technology. The choice in favor of the traditional or innovative direction is determined by the specifics of the content of the discipline or a particular studied topic.

The control and evaluation of the acquired material are carried out, basically, automatically, if the task types allow this. Certain task types can be evaluated collectively, by a students' group together with a teacher, in the form of chat, webinar, virtual conference, etc. in accordance with the frameworks of innovative educational paradigms. When task types such as "essays" or "practical tasks" are included in the course, control and evaluation are carried out by the teacher. It reflects the frameworks of the traditional educational paradigm. The difference from the traditional form of control is here only in the communication way, as the student gets the task through the electronic system, the teacher leaves comments and evaluates also with the help of electronic system tools. As a rule, tasks involving automatic control and evaluation, produced by the teacher, do not compete with but complement each other, depending on the studied material.

6. Discussion

The manifestation of the traditional, cognitive educational paradigm and innovative educational paradigms – personality-centered, competence and informational ones can be observed in the students' independent work, as well as control and evaluation activities within the framework of distance learning technology. It indicates in the field of means of realization, communication way, roles of participants in the educational process, goals, motives, values, norms of responsibility, modes of study and teaching methods.

Elements of distance learning technology, representing the innovative educational paradigms, are the following:

- the electronic system of supporting the distance learning, presentation of educational and methodological learning complexes for disciplines in the electronic form, electronic textbooks and manuals, virtual laboratory workshop as well as the system of training exercises as a means of implementation of the distance learning technology;
- electronic messages, chats, forums, announcements of upcoming events, receiving tasks via the electronic system as a communication way;
- automatic control and evaluation of the acquired material, if this is provided by the task type, the receiving of the tasks, comments and assessments of the teacher via the electronic system in accordance with the information paradigm of education in the field of control and evaluation activities;
- use of the problem-based, research and project-based methods;
- creating the conditions for students' independent training, the gradual shift of the teacher's role to the tutor's one in the distribution of the roles of participants in the educational process;
- the determining role of the student in organizing the independent work in the field of norms of responsibility for learning outcomes;
- students' interest in the acquired knowledge due to independent regulation of the work intensity and tracking the results of improvement in the field of motivation;
- individual organization of students' independent work (performance of the tasks in time and location convenient for student, varying the order of tasks performance, the possibility of consulting with a teacher, regardless of the time and the location of the student) in the field of organization the modes of study in accordance with the personal-centered educational paradigm;
- promotion of the students' self-realization when performing the creative tasks, participating in discussions (chats, forums, webinars), which develops discussion skills, communication culture and will be useful for their future personal career in the field of learning values;
- orientation of the received education to mastering the basics of human culture, in this case, the information one, as well as lifelong learning (mastering the training way on distance technology in general, and the rules of participation in various distance activities) in the field of learning goals;
- collective and group assessment together with the teacher in the form of a chat, a webinar and a virtual conference, in accordance with the settings of a competence educational paradigm.

Elements of the traditional educational paradigm within the framework of distance learning technology are the following:

- traditional textbooks, teaching manuals and methodological instructions for practical exercises, performance of independent work and tests used for the training;
- information and receptive as well as reproductive teaching methods with the corresponding traditional task types for performance of the control activities and independent work, presented in the supporting system of distance learning, such as practical tasks and essays;
- responsibility of the teacher for the organization of students' independent work at the initial stage of training;

- the time limit for all students and the establishment of an exact time-frame for certain tasks, the limitation of the number of attempts for the task performance, the access restriction to the electronic course, which is necessary because of the features of the studied subjects or individual themes in the field of organizational forms of training;
- assessment by teacher of the certain types of tasks, such as "essays" or "practical tasks".

Table 01. Manifestation of the frameworks of traditional and innovative educational paradigms within the distance learning technology

Innovative educational paradigms	Traditional educational paradigms
Means of implementation	
electronic textbooks and training manuals, virtual laboratory workshop, a system of training exercises	traditional textbooks, training manuals and methodical guidelines
Training methods	
problem-based method, research method, project-based method	information and receptive as well as reproductive teaching methods
Responsibility norms	
creation by the teacher the conditions for students' independent training, the shift of the role of the teacher to the role of tutor, the determining role of the student in organizing the independent work	responsibility of the teacher for the learning outcomes in the students' independent work at the initial stage of training
Organization of students' independent work	
individual organization of students' independent work	the limit of time for certain tasks, the number of attempts, access to the distance course
Evaluation and control	
automatic, collective, with the group, in the form of chat, webinar and virtual conference	assessment by teacher the tasks such as "essays" or "practical tasks"
Communication way	
electronic messages, chats, forums, announcements, receiving tasks via electronic system	by teacher (is gradually losing its importance)
Motives	
students' interest in the received knowledge	-
Goals	
orientation of the education to mastery of the basics of human culture, to lifelong learning	-

Thus, distance learning technology is a new opportunity for combining the different educational concepts in order to most effectively organize the students' independent work as well as control and evaluation activities, where the purposeful, controlled, intensive independent work is a basis of the educational process (Rychkova, 2010). The mentioned above information allows one to state the following.

In the field of implementation means, training methods, control and evaluation, as well as responsibility norms, there is a combination of frameworks of traditional and innovative educational paradigm, depending on the stage of training and the studied material.

In the field of communication way, distribution of participants' roles, motives, values, goals, forms of students' independent work, the defining role of settings of innovative educational paradigms is traced, more personal-centered one, with the complementary role of the traditional educational paradigm (Nordman, 2016).

Elements of distance education technology are present in all components of the students' independent work and the implementation of control and evaluation activities at the university. This is due, on the one hand, to the development and integration into all branches of society the achievements of scientific and technological progress, in this case, information technologies. On the other hand, this is connect-

ed with new requirements for education and training specialists, as well as with the search and introduction of innovative, more flexible and personality-centered educational technologies, effectively complementing the traditional one.

7. Conclusion

Organization of students' independent work by means of distance learning technology allows:

- taking into account the students' individual opportunities (in the field of time and places of tasks performance, as well as selection of tasks for training tests);
- tracing the students' individual achievements in the field of mastering the studied material due to the use of possibilities for revision and assessment the studied material;
- improving the students' self-discipline, self-organization and the degree of responsibility for the performed work due to awareness with the courses structure, methodological support of courses as well as requirements and schedule of independent work;
- increasing in the students' motivation for mastering the disciplines due to obtaining an immediate result of the assessment of the performed work, the tasks choice for revision, the possibility of self-organization of work;
- formation and development the general cultural and information competences among the students due to use of information resources.

Organization of control and evaluation activities at the university by means of distance learning technology allows:

- saving time for teachers to assess the tests;
- simplifying the analysis of the assessment results;
- increasing in the students' motivation to master the disciplines due to obtaining an immediate assessment result of the performed work;
- formation and development of the general cultural and information competence among the students due to participation in online-activities for control and evaluation as well as for the use of the information resources.

Preservation of the components of the traditional educational paradigm with the general innovative orientation of distance education technology is necessary for the purpose of the most effective organization of the training process, taking into account the specifics of the studied subjects, specific topics, insufficient self-discipline and self-control among students at the initial stage of education, and insufficient provision of the training process with modern teaching means (Rybakova, Nordman, 2016).

Taking into account the above-mentioned factors, it is possible to organize the information and educational space more effectively for successfully performance of the students' independent work as well as control and evaluation of activities at the university.

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