TENDENCIES OF ORGANIZING INTEGRATED EDUCATION IN HIGHER EDUCATION

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Abstract. *In a number of leading higher education institutions of the world, large-scale scientific research aimed at the development of professional competencies of future specialists using modern information and communication technologies is being conducted. Research on improving alternative technologies to traditional teaching (Face-to-face learning, Distance Education, E-Learning) plays an important role in this. From this point of view, in higher education institutions, in the process of preparing future specialists for professional activity, it is important to widely introduce the practice of forming their professional, including computer modeling, competencies through the effective use of electronic educational tools. In higher education, the creation of electronic educational resources that allow students to develop their ideas about scientific research, the development of their creative thinking, and the use of Blended Learning technology that activates the need for knowledge in teaching will serve to increase the potential of the intellectual resources of our Republic.*

Keywords: *mixed education, blended learning, ICT, distance education, online, "live" communication*

I. Introduction. Today, our country has entered a new stage in the development of the educational sphere. In our independent Uzbekistan, fundamental reforms are being carried out in the higher education system, which, undoubtedly, are giving their result and effect from now on.

Through the recent years, number of important decisions and decrees of President of the Republic of Uzbekistan Sh.A Mirziyoyev on the further development of Higher Education were adopted. In particular, in order to set the priorities for the systematic reform of higher education in the Republic of Uzbekistan, to take the process of training highly qualified personnel with modern knowledge, high moral qualities and ability of independent thinking to a new level in terms of quality, to modernize higher education, to develop social sphere and economic networks based on advanced educational technologies, The decree of the president of the Republic of Uzbekistan No. 08.10.2019 "On approval of the concept of development of the higher education system until 2030 " was approved by the decree of the president of the Republic of Uzbekistan No. 5847. The concept envisages a number of important tasks to be carried out by 2030. [1] In solving the tasks set by this decree and other regulatory legal acts related to higher education, our research work on the topic "technologies for preparing students of a special pedagogical direction for research activities in a mixed educational environment" will serve to a certain extent.

II. MAIN PART. Modern society cannot be imagined without the active use of information and communication technologies (ICT) in all areas of human activity, including education. In several regulatory legal acts of our country, the need for the widespread use of ICT in the educational process is separately noted.

One of the most promising areas of application of ICT tools in education today is "mixed learning". It is a mixed combination of “live” learning and learning through Internet resources called “second generation", allowing teachers and students to carry out the learning process together.

An analysis of pedagogical practice has shown that in most high education institutions in Uzbekistan, a mixed educational model is used, which opens up the possibility of using an electronic methodological complex in the field of educational science, with the help of which information can be broadcast or received this material online.

Mixed education is considered a relatively new and increasingly popular form of modern education, and is a form of teaching based on online learning materials as well as education in an audience under the guidance of a teacher.

The education of the teacher and students can be said to have been mixed only if from 30% to 80% of the total study time is conducted online[2]. Mixed education is similar to distance education, but is differentiated in mixed education by the obligation of students to communicate “live” with the teacher and each other. This allows you to take advantage of traditional and distance learning at the same time.

Thus, it can be assumed that in the future, mixed education will occupy a leading position among the traditional forms of education and will become one of the main advantages of competitive higher education institutions that provide educational services through the use of Internet resources in combination with “live” communication.

Foreign experience. In recent years, there have been various opinions and views on the term" mixed education", clarifying the goals and objectives of this method throughout our research by studying the definitions of this term cited by scientists in the field.

In research literature, the terms "blended learning" (mixed learning), "hybrid learning", "technology-mediated instruction", "Web-enhanced instruction", and "mixed-mode instruction" are often used interchangeably. Although the basic concepts of mixed education appeared in the first 1960s, it was variously described by the end of the 90s. The term was first used in a 1999 magazine called “EPIC Learning in the Atlanta-based Journal of Interdisciplinary Learning Centers for Education”. In 2006, the term was defined by American Scientists C.Bonk and Ch.Graham's first guide on “Blended Learning", more precisely. Ch.Graham emphasized the breadth and ambiguity of the definition of the term, stating that “blended learning systems” are a learning process performed using learning systems that “combine face-to-face learning with computer-mediated learning”. [3].

In his pamphlet "Defining blended learning", the researcher M.Frizn had discovered that the term "mixed education" began to be used as early as 1999. Also, the definition of mixed education on his brochure is defined as "this type of education as a range of opportunities offered by combining the internet and electronic media with forms that require physical participation in a classroom between a teacher and a student".

In 2003, researcher K.Procter describes mixed learning in his academic work as "an effective combination of different teaching methods, teaching models, and teaching styles”. According to the scientific theory of Chu, Jones, and Turner, "mixed education continuities two problematic directions in itself: education and educational technology".

Ch.Graeme's definition is far more perfect, and he says that" mixed education systems are combined with face-to-face reading as well as Computer-Mediated training". The concept defines

the use of two methods in teaching and a mixture of some combinations of these two methods. At the time Graham proposed this definition, Computer-Mediated Communication was seen as largely asynchronous and text-based.

Since teleconferencing communication applications have now become commonplace, M.Frizn proposed to redefine "face to face" as "collaborative work" (co-present). M.Frizn ranks "mixed education" among the opportunities offered by combining Internet and digital media with classroom lessons, requiring teacher and student's participation in the course process.

Focusing on these definitions and guidelines, it is argued that tasks should be given online, that is, the traditional face-to-face course that students propose to use the internet for research is not suitable for mixed education. The phrase "verified brick-and-mortar location" means that the "face-to-face" teaching element does not have to be in a traditional classroom. Watson and Murin Staker provide an expanded version of the definition proposed by other researchers: "mixed education is a formal education program with elements of Student time, space and self — control over the road, as well as the process of providing educational integration through traditional education (Brick and Mortar Education) in Maskan, away from home, and the experience of each student's learning methods within".

According to Krasnova from Russian researchers, mixed education is a teaching style that combines the most effective methods of teaching with face-to-face and online interactive interaction, which is a system that works in constant interdependence and forms a whole.

Researcher A.S.Fomina notes: "mixed education is the combination of online education with anaanawi education, the integration of traditional forms with electronic technologies". A.S.Fomina believes that the main elements of mixed education are: "top - down" construction (that is, regulated); discretion; technological implementation through the LMS (Learning Management System-Education Management System), which embodies the didactic and organizational functions of the educational process; specially organized support and management; Organization of independent work of students in an electronic environment.

V.A.According to Fandey " "...mixed education is a combination of traditional and distance learning elements, one of which is fundamental depending on the preferred model". This view is held by A.M.Close to Evseyeva's position, it is a "mixed education"... is a rational combination of traditional and electronic forms of Education, allowing them to use their strengths and minimize their weaknesses" [4].

I.Stacey and P.Consider a number of definitions of the term Gerbic and, according to their definitions, advance from a scientific point of view the understanding that mixed education involves at least a "combination of virtual and physical environments". Launer, on the other hand, defines mixed education as "a combination of technology-supported independent study or distance learning and face-to-face communication".

"In improving the effectiveness of reading and teaching, pre-prepared online classes and face-to-face (face - to-face) in the study room are mixed education-a learning process that forms a fusion of traditional taught classes". The online elements used in the learning process do not require as an addition, but rather the integration of the most effective methods of both virtual and face-to-face teaching in mixed learning.

Researching many definitions of mixed learning, we have observed that in all of them, mixed learning is emphasized as a learning strategy that combines different models of traditional and distance learning and uses several forms of technology. Mixed education is defined as a

program that uses several methods to exchange information with the aim of activating learning outcomes through the interaction of students and teachers.

In 2006, the term was first given in Bonk and Graham's guide "on mixed education", a clear classification of mixed education and its main characteristics: mixed education is an educational system based on a combination of face-to-face teaching and computer-aided teaching[4].

Y.The definition cited by Banados concerns more the higher education system: "mixed education is a combination of technologies and joint audience work that change for specific tasks. This approach recognizes the benefits of computer-aided knowledge presentation, training, and education measurement, but other tools can also be used to create a complete, balanced program that improves outcomes or reduces costs".

Heather Steyker and Michael Horn, in their book "Blended Learning" (researchers at the Clayton Christensen Institute), propose two main approaches that are successfully used in teaching:

1. Adapted educational approach.

With this approach, each student has the opportunity to act in the learning process in their own way, at their own pace, following their interests. An adapted approach assumes that students can gain experience in both small study group projects and individual learning when needed. In this concept, the teacher is an advisor to the student in the learning environment, helping him to understand the essence of the process and teaching him to reflect within the framework of the subject.

2. Competency-based education.

Students must be well versed in the subject, be able to apply or have acquired knowledge, skills, qualifications before moving on to the next level. The student must study each subject in a row, strengthening his knowledge of the subject. Competency-based education encourages the student to be persistent and patient in successfully solving existing problems [5].

In mixed education, digital learning resources are important to develop and practice. The implementation of mixed education requires a higher qualification from the educator, in which:

High ICT competence, effective use of Information Technology Technical and software tools, knowledge of Education Management Systems;

independent development of educational content (content) in science, but any educational resources may also not be suitable for a mixed educational system;

Organization of the educational process taking into account the possibility of each student.

The Clayton Christensen Institute has developed about forty models, experimenting in about two hundred schools taught on a mixed education basis. The institute has published a number of works on mixed education, studying in detail theoretical problems such as the definition of mixed education, models, methods of application in practice.

Charles Graham, a professor at Brigham Young University in the United States, proposed to classify mixed education models according to four dimensions, four degrees and three types. Its four dimensions are simple, such as space (face-to-face/virtual), time (synchronous/asynchronous), the participation of most sensory organs (high, all sensory organs/ low, consisting only of text) and human participation (human dominance, technique / low human factor, mastery of technique). This is due to the idea of mixed education defined by bimodal delivery. The second and completely different classification element is developed taking into account its level: activity, course, program and educational institution. Mixed education differs

from the methods used in individual educational activities in terms of its application throughout the institution.

Charles Graeme pointed to three categories of mixed education that depend on the purpose:

1) Use and flexibility-oriented mixing options;

2) mixing aimed at improving traditional pedagogy;

3) aimed at changing pedagogy and changing mixing.

Graeme believes that students can participate more actively in the formation of their knowledge. There is a well-defined closed hierarchy in which transformation is the optimal solution. Graham therefore went beyond modality methods in typology and took into account both its scope and its pedagogical purpose [6].

He cited six grounds for adopting mixed education:

1.Pedagogical efficiency.

2. Opportunity to gain knowledge.

3. Social contacts.

4. Personal participation.

5. Economic efficiency.

Of these, foundations 1, 2 and 5 were found to be the most popular causes. Initially Chris Procter, as well as Alexei Heinze, argue that mixed education improves access to knowledge for students studying in incomplete correspondence studies. Graham advanced the above scientific theory as a result of an analysis of studies showing improved access to knowledge.

As for economic efficiency, this is a bit controversial. Graeme provides information that investments generate high returns. Rebecca Launer denies that mixed education is cheap because of aspects such as the cost of matching materials, the cost of ICT infrastructure, the need for technical support, and the irrationality of cutting student teaching support. Graeme and Chuck Dzyuban argue that staff reduction in the introduction of mixed education is a major source of financial savings.

The greatest debate concerns pedagogical efficiency. One advantage of mixed learning is that it has the potential to integrate different learning styles. We will take a look at the essence of the problem on the example of the lecture. The role of the lecture in higher education has been controversial for a very long time, although it is still a common way of imparting knowledge. It has come under serious criticism mainly due to its uniformity and inefficiency.

"Lecture recording (Lecture capture)" allows students to view lectures at the time and speed of their choice, and thus ensures that the process is open to everyone, effective. But in research by Moskal et al, "lecture recording" has been described as a less popular alternative to mixed education. It seems that the two advantages required for online technology (its ability to combine time and space) are insufficient for effective and interesting teaching of lectures, such as mixed education. Let's look at another issue. One of the advantages that has been repeatedly highlighted in the online discussion is that it allows reluctant group members to actively participate in the lesson. However, there is also evidence that some students find themselves a little uncomfortable participating in an online discussion. So simply conducting activities online is not enough to ensure pedagogical achievements. Other factors such as lecture style or moderation style should also be important. The results of the study recorded by Graeme and Dzyuban varied in favor of mixed education, but it can be assumed that this was partly due to changes in the course content to make it more accessible for online methods.

III. Conclusion. In place of the conclusion, it should be noted that the conceptual and terminological apparatus of mixed education is built on the basis of a complex system, which includes elements ranging from the correct and appropriate definition of the term to its organization in what way and conditions. Through the extensive use of mixed education in the educational process, in addition to eliminating several problematic situations and shortcomings in the field, positive achievements can be achieved, such as further improving the quality of education, developing independent educational skills in students, as well as switching to a system of functioning in the teacher→consultant system. As such, the use of mixed education in the educational and cognitive process allows the student to form the necessary competencies for further successful professional activities. In the future, mixed education will develop through the introduction of new forms of e-learning and the development of models of interaction between the subjects of the educational process, which will significantly expand and even exceed the possibilities of the educational and educational environment of the University.

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