CHAPTER 2
INNOVATIONS IN THE MANAGEMENT OF EDUCATIONAL INSTITUTIONS

THE FEATURES OF DISTANCE LEARNING IN HIGHER EDUCATION SYSTEM

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Abstract. *The article deals the main trends in distance learning in the higher education system. The main innovations in teaching students today are largely associated with the use of interactive methods. The advantages and disadvantages of online learning are outlined. The basic methodological techniques, as well as methods that can be applied by teachers are analysed. The principles of e-learning are presented. The didactic means of distance learning, in which the pedagogically processed content of education is concentrated, are classified. Theoretical comprehension of the basics of distance learning shows that it is inherent for the traditional educational process, and has own didactic teaching methods. The general direction of the innovations has caused the individualisation of the education. The environment of educational communication is characterised by openness, interaction of participants, equality of their arguments, and accumulation of knowledge. The main aim of the research is to reveal the main features of distance learning in higher education system. The internationalisation of society causes its informatisation. The main task of the modern education is the development of students' skills of self-learning. This trend has completely changed the educational methods. Distance education is characterized by a high degree of variation. The main features of e-learning are flexibility, modularity, concurrency, coverage. The main hypothesis of the research is the provision of the internationalisation of the education system in modern society. The role of the distance learning in the educational process is defined.*

Keywords: *distance learning, education internationalisation, higher education, educational process, informatisation.*

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Introduction. Distance learning is a modern form of education that is gaining popularity. The essence of the remote method is the implementation of the educational process at a distance in real time. Such training has become possible due to the development of the Internet technologies, the spread of electronic communications [9, p. 260]. Distance learning differs from the full-time educational process in the methodology of conducting classes.

The process of informatisation, which is currently being carried out, both in our country and abroad [1], forces us to consider the methods and means used in

education from new positions. Within the framework of the informatisation process, an equally important phenomenon can be distinguished− the internationalisation of society, and, as a special case, the internationalisation of education [2,3,4], which contributes to the change in methods and means of teaching, encourages teachers to look for new ways of presenting material, monitoring progress and performing independent work of students [6, p. 863].

One of the main tasks of modern education is the development of students' skills of self-education and the creative use of the knowledge. So it is necessary to find such teaching aids that would contribute to the acquisition of new knowledge after graduation.

Literature review. Recent theories and empirical research on learning have focused on games as tools with which to develop conceptual thinking by interacting with and manipulating complex systems (Gee, 2003; Squire, 2006; Squire & Barab, 2004) and as alternate, virtual environments in which learners outfit themselves with virtual identities or avatars in order to practice ways of knowing within a situated, authentic context (Gee, 2003; Gee & Shaffer, 2010a; Shaffer, 2005; Shaffer & Resnick, 1999; Shaffer, Squire, Halverson, & Gee, 2005)

Unlike other forms of training, instruction, and professional development, distance education is inexorably linked to its mode of delivery (Commonwealth of Learning, 2008). Because of the rapid evolution of delivery modes, distance education experts (Commonwealth of Learning, 2008; Taylor, 1995) often speak of generations of distance education models, such as print, multimedia, and Web-based delivery systems.

There is an interactive approach, because the Internet teacher speaks to students and students respond to the Internet prompts and interact with materials and with one another at the Internet prompting (Gaible & Burns, 2007).

As a model of pre- and in-service distance education exhibits many best practices in professional development that provide demonstrable teaching and learning benefits (Bosch, 1999; Evans & Pier, 2008; Gaible & Burns, 2007): It can help teachers implement active, intellectually engaging instructional practices generally associated with competency-based instruction, while at the same time ensuring that students learn more effectively (Evans & Pier, 2008).

Aims. The aim of the article is to outline the main trends in distance learning in the higher education system.

To achieve the aim, the following tasks were set:

- to identify the advantages and disadvantages of distance learning;
- to describe the main methodological techniques;
- to analyse the technique of e-learning.

Methods. The sources of research are the works of foreign scientists on the development of distance learning strategies who have experience in working with electronic resources. The results of the study about the use of innovative teaching methods online by teachers are presented. The approaches in modern foreign didactics to distance learning of students are analysed. The focus is on pedagogical

innovation. The article uses analytical approaches and summarises the main changes in the higher education system.

Results. Distance education is characterised by a high degree of variation. Such variation includes the types of media or technology (print, radio, computer); the nature of the learning (workshop, seminar, degree program, supplement to traditional classroom, levels of support); institutional settings; topics addressed; and levels of interactivity support (face-to-face, online, blended, none) [7, p. 25].

When supplemented by music, text, games, and resources, the process guides teacher and student through a series of differentiated learning activities and can encourage teachers to adopt more engaging, student-centered teaching strategies to teach specific outcomes and subject areas [9, p. 260].

Distance learning technologies in education involve some changes in the methods:

1. Lecture or presentation of ready-made information: requires a certain level of self-discipline from the student.

2. Independent research (abstract): does not change, since in both cases (full-time education or distance learning), the student provides the teacher with a search or research result, which he performs independently.

3. Practical work: much more difficult. The teacher has to develop detailed step-by-step instructions and in-depth advice on how to do the work. In some cases, the implementation of practical work remotely becomes impossible.

4. Completion of tasks: changes in the form of sending text.

5. Oral interrogation: requires self-discipline from the student, as interrogation at a distance makes it possible to use prompts, cheat sheets and other means not allowed in full-time school education [10, p. 35].

The teacher of the discipline acts as the author of the educational (electronic) course in the discipline and accompanies the learning process. He develops a training schedule, conducts consultations (including remotely), records the results of ongoing monitoring [13, p. 106].

The formed individual line of training allows the student to fulfill the curriculum in the chosen direction (specialty) and provides conditions for the student's self-realisation. Communication of students with each other, with the teacher is carried out both internally and remotely using modern technical IT, such as e-mail, forum, chat, social networks, Skype, mobile applications − depending on the technical support of the distance learning process and the student's capabilities [18, p. 3]. The features of e-learning include flexibility, modularity, concurrency, coverage, and many others.

Distance learning covers the entire set of pedagogical acts of interaction between teachers and students both during contact work in the classroom and during interactive interaction using IT tools. These are the following acts of interaction: information-receptive; reproductive; problematic; heuristic; research [15, p. 21].

Didactic means of distance learning, in which the pedagogically processed content of education is concentrated, should be classified as follows: printed publications (for example, textbooks recommended as additional information);

electronic educational resources; electronic publications; computer training programs; audio and video materials; network databases.

The methodological organisation of the educational material includes the development of the structure of the course with justification of interactive and innovative teaching methods, the plan of the on-line component of the course based on the competencies that the student must acquire based on the learning outcomes using the provisions of pedagogical design, preparation of text materials, presentations, necessary graphic objects, assembly of the on-line component of the course and its placement in the electronic educational environment [17, p. 3]. The materials posted on the virtual campus include: presentations by the lead teacher on the main topics of the lecture course; fragments of video lectures, a workshop for classroom and independent work, tests to see the skills and abilities of undergraduates, reference materials for the course, links to open educational resources, relevant thematic publications in the press [15, p. 21]. The expected scientific and practical result of the work is the presentation of the online component of the course in the form of a website, including educational material in the form of presentations, an electronic workshop, forums for discussing sections of the course, a teacher's blog for publishing relevant scientific information on the subject of the course, Wiki pages for organising joint project activities of the students [5, p. 27].

In these conditions, the orienting function of the lecture comes to the fore, which consists in systematising a large heterogeneous material and teaching the student the ability to navigate in a variety of information resources, as well as the function of reviewing and analysing a wide range of opinions and schools represented in this field of science, which does not allow epistemological monism in the form of the correct points of view or concepts [16, p. 19]. Thus, the goal of the teacher in the process of a lecture is not the direct transfer of information, but the ability to pose problems, indicate discussion points and orient students where it is possible to get information on a particular issue.

The general direction of innovation is the individualisation of the educational areas of students, the activation of their work, an increase in the level of motivation and responsibility for the quality of mastering educational programs [4, p. 18]. The main innovations in teaching students today are largely associated with the use of interactive teaching methods.

Some of the most promising and popular information technologies are multimedia, which allow you to create entire collections of images, texts and data, accompanied by sound, video, animation and other visual effects [2, p.38]. There are many different ways of presenting information using multimedia. The most common set of equipment today is a multimedia projector and a computer [11, p. 38].

The teacher's electronic portfolio is designed to organise productive interaction between the teacher and students in the learning process. It is a means of forming a model of individual pedagogical experience that allows each teacher to develop his own individual learning strategy, his own pedagogical system [13, p. 107].

The electronic portfolio includes materials for conducting classes (presentations, supporting notes, etc.); materials for organising independent work for the students

(descriptions of practical and laboratory work, task cards, handouts, topics of essays, etc.); materials for monitoring learning outcomes (tests, control practical tasks, means of rating knowledge assessment); articles for magazines, reports at educational conferences; materials representing the experience of colleagues.

However, one should not limit the understanding of interactive teaching methods to the use of information and computer technologies [3, p. 112]. A teacher should have broad interpretation of interactive learning as the ability to interact or be in a dialogue mode not only with a computer, but also with a person is quite acceptable.

The educational process, based on the use of interactive teaching methods (work in small groups (teams), project technology, analysis of specific situations (case study), problem learning, role-playing and business games), is organised taking into account the involvement of all students in the learning process [10 p. 56]. Joint activity means that everyone makes their own special individual contribution, in the course of work there is an exchange of knowledge, ideas, methods of activity. Individual, pair and group work is organised, project work, role-playing games are used, work with documents and various sources of information is carried out.

Interactive methods are based on the principles of interaction, the activity of trainees, reliance on group experience, and mandatory feedback. The environment of educational communication is created, which is characterised by openness, interaction of participants, equality of their arguments, accumulation of joint knowledge, the possibility of mutual assessment and control [8, p. 76].

In the context of a change in educational paradigms, fixing the transition from mass-reproductive forms and teaching methods to individual-creative ones, there is a need to improve and search for effective forms to ensure self-realisation and the formation of students' self-development and self-education skills [15, p. 25].

The widespread use of distance education is explained by the significant advantages of distance learning:

- possibility of organizing lessons in hard-to-reach areas for disabled and often ill children, the possibility of studying in foreign universities;
- possibility of full-fledged distance learning of students in universities;
- possibility of training during epidemics or in difficult weather conditions;
- an individual approach to teaching each student;
- loyal approach to learning time;
- possibility of self-study, acquisition of a second specialty, additional knowledge;
- reduced training costs;
- self-discipline and student responsibility;
- universal accessibility of education (any age, level of education, professional training, anywhere in the world where there is a communication link) [7, p. 115].

The experimental implementation of distance learning confirms the reduction in the cost of the educational process by an average of 40%. The only drawback of distance technologies is the lack of live communication, without which the formation of a full-fledged personality is impossible [6, p. 864].

Online conferences are also economically and pedagogically attractive because of their "anytime, anyplace" characteristics and low production and participation costs [5, p. 76].

Correctly selected course materials, based on the goals and objectives of learning and the characteristics of the educational process in the online environment, will provide students with an educational result, and the teacher −a positive feedback [4, p. 28].

This approach implies that online learning is primarily a cognitive and social process, and not just a process of transferring information via the Internet.

Just like face-to-face training, online training requires social support for students. In full-time education, this role is played by the material resources of the university and the teachers involved in the educational process [8, p. 32].

Online learning is impossible without an IT infrastructure, which requires significant investments, including an internal or external online learning platform as well as high-quality online courses that provide effective training and support for learners in an online environment.

Discussions. In the current situation, when the transition to online learning is carried out as soon as possible, all these conditions must be created in advance, and teachers must have experience in using online learning tools and student support services.

Effective teaching demands more time from both online instructors and learners [10, p. 92].

Teachers interact with students via chat and Web cameras. They are developing online labs for physics, chemistry, and biology that will be broadcast online [11, p. 24].

However computer-based assessment has weaknesses. For instance, the ease of finding information online also makes it easier for examinees to cheat. Despite our wishes to the contrary, younger users of the Internet report that they are likely to cheat, plagiarize, and copy and paste from the World Wide Web without attribution [9, p. 260]

The Internet is still used predominantly in one of three ways: as a tool for research (searching for information), as a communication/collaboration tool, and as a creation tool. A form of instructional design helps teachers use the Internet to design and carry out Internet-based activities with students [13, p. 107].

The benefits of these activities increase when teachers are also engaged in structured teacher training and/or professional development programmes [7, p 83].

Awareness of the potential of immersive environments as student learning tools is growing. The students access virtual contexts, such as graphically represented buildings, simultaneously; interact with digital artifacts and tools, such as digitized images and virtual microscopes; represent themselves through avatars; communicate with other participants and with "agents" (personalities simulated by a computer); and participate in various types of collaborative learning activities [5, p. 27].

The instructional method must be worked out. They can be even more beneficial to learning than individual tutoring [6, p. 863].

Conclusions. E-learning is a convenient option for organisations in certain situations (e.g. when there is a need to reach many geographically dispersed learners). In a self-paced e-learning course, learners can study course materials at any time they wish. This requires that learners have access to a set of interactive and self-contained materials [5, p. 24]. Facilitated or instructor-led e-learning takes place at a specific time and usually integrates self-study with collaborative activities such as discussions or group work. This learning uses communication tools which allow learners to communicate with facilitators and other participants [11, p. 36]. The tools can be asynchronous, such as e-mail or discussion groups, as well as synchronous, such as chat and audio conference. Both facilitated and self-paced e-learning activities and content should conform to a set of quality standards to ensure the effectiveness of the learning programme [11, p. 37]. In a blended approach, e-learning sessions can be integrated with face-to-face traditional activities using a variety of other approaches.

Finally, in some cases Web-based learning alone can be as effective as face-to-face opportunities for the professional development [3, p. 112].

The prospects for the further research are related to identifying the result of distance learning based on the analysis of student academic performance.

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