knowledge of his subject to the level of the teacher, ie the person who educates, and therefore forms other personalities and opens opportunities for further development and self-improvement.

Maryna Zagorulko
Institute of Pedagogy of the
National Academy of Educational Sciences of Ukraine
Kyyiv, Ukraine
ORCID iD https://orcid.org/0000-0002-9677-2130
e-mail: zagorul_ko@ukr.net

INTRODUCTION OF INNOVATIVE TEACHING TECHNOLOGIES IN THE HIGHER EDUCATIONAL INSTITUTIONS' EDUCATIONAL PROCESS

Abstract. *The article considers innovative forms and methods of individualization of a students' learning, which include: problem lecture, visualization lecture, seminar-dispute, educational discussion, brainstorming, control over the level of knowledge acquisition, portfolio method, problem presentation method, project method, problem-scientific teaching methods, research work of students, problem-based learning, e-course format, application of distance learning technologies. The effectiveness of the process of individualization of educational activities is ensured by the degree of implementation of the principle of dynamism and variability, the principle of stimulating independence and motivational support, the principle of supporting the student's personality and developing his autonomy, the principle of positive perspec-*

tive and self-actualization, the principle of self-development and self-realization.

Key words: individualization of educational activities, educational process, teaching methods, principles of teaching, higher education institutions.

Formulation of the problem. The innovative nature of education is one of the most important tools for transforming education. The development of new modern methods and forms of education is a necessity. Improving the quality, accessibility, efficiency of education, innovation, continuity, mobility, and activity should ensure a high level of education.

The renewal of the higher education system determines the need to study didactic influences that would make it possible to individualize educational activities in higher education and individualize educational activities in particular.

Individualized learning helps students develop their potential, as they can set goals for themselves and achieve them in the learning process. The teacher, in turn, helps students solve their problems in ways that match their learning style.

The relevance of the article follows from the need to activate the individualization of a students' educational activities, to consider innovative forms and methods of teaching used in higher education institutions.

Analysis of recent research and publications on the problem. The analysis of previous research and publications has shown that the problem of introducing innovative forms and methods of teaching was considered in the works of K. Bakhanov, A. Kanarskaya, M. Klarin, V. Liaudis, L. Podimova, V. Slastenin, N. Yusufbekova and others. Now in Ukraine, the activation of the innovation movement contributes to the formation of author's schools of innovative type: M. Guzik, A. Zakharenko, A. Sologub, V. Sukhomlinsky, M. Chumarnaya and others. the analysis of innovative technologies and teaching methods is devoted to the research of A. Alexyuk, S. Goncharenko, R. Gurevich, A. Pavlenko, A. Pekhota, A. Pometun, S. Stetsenko, L. Pirozhenko and others.

The following scientists pay attention to the development and use of interactive training technologies in the process of training future

specialists: I. Dichkovskaya, M. Klarin, V. Kremen, E. Polat, A. Savchenko, L. Pirozhenko, E. Polat, G. Pyatakova, A. Khutorsky and others.

Pedagogical innovation is a theoretically based innovation that is implemented at three levels:

– macro-levels, where innovations determine changes in the entire education system and lead to a paradigm shift. This level from the point of view of structural-level joint-stock analysis in Psychology [3] is considered at the level of goals (in fact, at the level of paradigms, for example, subject-oriented or person-oriented education);

– meso-levels, where innovations lead to changes in regional, specific educational institutions;

– micro-levels, where innovations are aimed at creating new content for both a separate educational discipline and a block of disciplines, at developing new ways to structure the educational process, at developing new technologies, new educational forms and methods.

Innovation of education is a purposeful process of partial changes leading to modification of the purpose, content, methods, forms of teaching, adaptation of the learning process to new requirements [3, p. 403].

Purpose of the article: to identify and justify the forms and methods of individualization of students 'educational activities and to consider the principles that ensure individualization of a students' educational activities.

Individualization of educational activities is the process of choosing optimal organizational forms, methods and techniques, the pace of independent learning in the course of professional and philological training based on the principles of harmonious integration, development of activity and independence, taking into account the individual psychological characteristics of the subjects of training.

Presenting main material.The goals of innovation in education are as follows: ensuring a high level of intellectual, personal and spiritual of a students' development; creating conditions for mastering the skills of scientific thinking and the methodology of innovations in professional activity; forming a stable interest in the chosen profession, etc.

The main criterion for innovation is novelty, so for the teacher in the innovation process, it is important to determine what the essence of the new is. To this end, teachers should be included in innovation

activities. Pedagogical innovations in the educational process can be those that relate to the content of educational material, technical means, pedagogical technologies, methods, etc. innovative teaching technologies include interactive technologies, project-based learning technologies, and computer technologies.

The traditional educational process in higher education institutions provides students with knowledge that is mostly unrelated to a specific professional activity, so it is important for students to master professional knowledge. Therefore, the formation of a student as a professional should be at the end of the educational process, that is, its final product.

So, the main task of a higher education institution at the present stage is to train a specialist who is able to respond to changes in a standard, flexible and timely manner. Therefore, innovative forms and methods of teaching in higher education institutions are used to prepare students for professional activities. Let's look at some of them.

Problem lecture involves the problem statement, the problem situation, and the following solutions. The main goal of the problem lecture is to gain knowledge in the process of a students' direct participation. Setting a problem at a lecture will help to activate mental activity, independently search for a solution to the problem or question put forward, and also causes interest in the material being studied, activates students' attention.

Lecture-visualization-provides for compliance with the principle of visibility; first of all, it is information presented in visual form. The video sequence should illustrate oral information and carry meaningful information. It is important for the teacher to observe: visual logic, rhythm of Information Presentation, dosage, communication style.

The discussion seminar provides for a collective discussion of the problem in order to establish ways to solve it. The seminar-dispute is held in the form of dialogical communication of its participants. During its implementation, high mental activity of cadets and students is expected, the formation of skills to conduct polemics, discuss problems, defend their own views, beliefs, and express their own thoughts.

Educational discussion is one of the methods of problem-based learning. It is used when analyzing problem situations when it is necessary to provide a simple and unambiguous answer to a question.

In order to involve everyone present in the discussion, you can use the method of cooperative training. This method is based on mutual learning, in the joint work of students in small groups. Students join forces to achieve a common goal.

«Brainstorming» – involves collecting a Bank of ideas, activates creative thinking, overcoming the usual thinking process when solving a problem. Brainstorming can significantly increase the efficiency of generating new ideas.

Control over the level of knowledge acquisition is carried out in order to successfully assimilate educational material by students and effectively use teaching methods by teachers. Monitoring students ' knowledge allows them to adjust and improve the learning process, implement an individual approach to learning, monitor the level of knowledge acquisition, etc.

The knowledge control system includes the following types of control: operational (current); thematic – after completing the study of the topic; sectional – after completing the study of a section of the course or a group of topics; final – after completing the study of the entire course, discipline.

Assessment of students' knowledge is necessary for the teacher as an indicator of individual success in students' learning, and accounting for current scores for managing the educational process. One of the goals of assessing the level of achievement of a student is motivation, which is aimed at stimulating students' learning activities.

Test control of knowledge is widely used in the educational process, which allows you to create an automated system for accounting and objective assessment of learning results.

The Performance Portfolio or Portfolio Assessment is a modern educational technology based on an authentic assessment of the results of educational and professional activities. According to the types of practical and effective activities in higher education institutions, there is a distinction between academic and professional portfolios.

Problem-based presentation method-a method in which the teacher uses a variety of sources and tools. Before presenting the educational material, a problem is put forward, a cognitive task is formulated, and then the system of evidence is revealed, different points of view, approaches are compared, and ways to solve the problem are illustrated.

Students in this process become witnesses and accomplices of scientific research.

Taking into account the fact that now considerable attention in the educational process is paid to independent of a students' training, the actual problem is the use of the project method, a way to achieve a didactic goal through the detailed development of a problem (technology), which should be completed with a real practical result, designed in a certain way [7, P. 66].

This technology includes a set of research, search, and problem-based methods that are inherently creative.

So, the project method is a learning system in which students gain knowledge, skills and abilities during the planning and execution of tasks – projects that are gradually becoming more complex.

Problem-based scientific teaching methods are implemented in the process of partial search or research activities of students, carried out and solved in problem situations.

Research work of students, which is included in the educational process. Such work is carried out in accordance with the curriculum and curriculum of disciplines. The results of all types of research activities of students are subject to monitoring and evaluation by teachers.

Problem-Based Learning is a technology aimed at arousing interest. Training consists in creating problem situations, in solving these situations during joint activities of students and teachers, provided that students are optimally independent; is an active developing learning based on the organization of a students' search activities, on the implementation and resolution of real life or educational contradictions. Problem-based learning is based on putting forward and justifying the problem.

The use of ICT in the educational process has prompted the development and use of electronic and online courses as various formats of a single high-quality modern education. The electronic course format is an addition to full-time education that provides teacher support. An electronic course is an adapted text of a high-quality textbook that can contain multimedia materials: video examples, video tasks, color illustrations, etc.; hypertext: glossaries, a selection of external links, etc.

Distance learning technologies are also widely used. Distance learning technologies consist of innovative pedagogical and information and communication technologies for distance learning; innovative

pedagogical technologies of distance learning are technologies of indirect active communication of teachers with students, students between themselves using telecommunications and the methodology of individual work of students with structured educational material, which is submitted in electronic form and stored on a special educational portal, taking into account the competence and personality-oriented approach, project method and cooperation pedagogy.

Information and communication technologies of distance learning are technologies for creating, processing, transmitting and storing educational materials, organizing and supporting the educational process through telecommunications, in particular electronic local, regional and global networks and related services.

Combining traditional and non-traditional types of learning helps to optimize resources and time, students have the opportunity to learn how to manage their activities and feel different types. Combined learning is a purposeful process of acquiring and forming a certain amount of knowledge, skills and abilities in the context of integration of classroom and extracurricular educational activities of subjects of the educational process on the basis of the use and mutual addition of technologies of traditional, electronic, distance and mobile learning and self-control [1, p. 49].

Together with combined training, scientists identify a virtual learning environment that contributes to the emergence and development of information and educational interaction processes between students, the teacher and the means of new information technologies, as well as the formation of a students' cognitive activity, provided that the components of the environment are filled with the subject content of a certain training course. The advantages of a virtual learning environment include the following: building learning around the student (virtual shell provides students with the ability to learn at any time, in any place, according to their individual learning style, interests, schedule); compliance with the realities of the surrounding world (virtual environment allows you to learn directly in real time); cooperation (provided that such tools and tools as electronic discussions (forums), e-mail, conferences, virtual environment encourages interaction, cooperation, teamwork) [5, 10].

In the context of the study, we will highlight the following approaches to the study of professionally-oriented disciplines:

1) the practice-oriented approach provides for the orientation of the projected practical tasks for students to develop and form general professional and professional competencies; self-assessment by the student at each stage of training; professional orientation of training, which requires the presentation of the content of classes in the form of a system of professional tasks, to solve which the student is preparing within the framework of the topic under study; organization of professional orientation events in extracurricular time;

2) the activity approach ensures the development of the content of the discipline by the students themselves, the presentation of the result of its development through practical activities and solving educational problems; the implementation of projects and research works; solving pedagogical problems based on the problems of the student group, faculty; delegating the function of the teacher to the students themselves; involving students in the discussion of the most effective means used in classes from the cycle of professionally oriented disciplines; collective planning and analysis of the course study, topics;

3) the technological approach involves the use of modern technologies that can be used in further professional activities; identification and formation of active students who are able to conduct classes in junior years, participate in research activities, study in Master's and postgraduate studies;

4) the subject approach changes the understanding of the essence of training. This approach is closely related to activity: to become a subject of a certain activity means to master this activity, to be capable of its implementation and creative modification [6].

Innovative forms and methods of teaching in higher education institutions allow us to change the role of a teacher who is not only a carrier of knowledge, but also a mentor who initiates creative searches of students. The scientific basis of teaching is the foundation without which it is impossible to imagine modern education, which increases the personal and in the future professional self-esteem of a graduate of a higher education institution.

The results of high-quality higher education are not just literacy, which is unlimited for the future profession, but the opportunity to form the ability to think independently and professionally, and then work independently, study, retrain, and improve your own skills.

In this way, the improvement of education provides innovations that integrate education, science and production. So, innovation is the main tool for improving the quality of Education.

Conclusions from the study and prospects for further exploration. Innovative forms and methods of teaching are considered, which include: problem lecture, visualization lecture, seminar-dispute, educational discussion, brainstorming, control over the level of knowledge acquisition, portfolio method, problem presentation method, project method, problem-scientific teaching methods, unauthentic research work of students, problem-based learning, e-course format, application of distance learning technologies. The effectiveness of the process of individualization of educational activities is ensured by the degree of implementation of the principle of dynamism and variability, the principle of stimulating independence and motivational support, the principle of supporting the student's personality and developing his autonomy, the principle of positive perspective and self-actualization, the principle of self-development and self-realization.

We can say that the research goal has been achieved and the tasks have been completed.

Promising are the areas of scientific research related to the further study of the features of individualization of a students' educational activities using innovative learning technologies in the context of the COVID-19 pandemic.

СПИСОК ВИКОРИСТАНИХ ДЖЕРЕЛ

1. Андреев А. А. Дидактические основы дистанционного обучения в высших учебных заведениях: дис. … д-ра пед. наук: 13.00.02. Москва. 1999. 289 с.

2. Бурлакова Т. В. Принципы индивидуализации профессиональной подготовки будущих учителей. Педагогика. 2008. № 4 (7). С. 40-44.

3. Волкова П. Педагогіка : посібник. К. : Вид. Центр «Академія». 2001. 403 с.

4. Кирсанов А. А. Индивидуализация учебной деятельности как педагогическая проблема. Казань : Изд-во Казанского ун-та. 1982. 224 с.

5. Козяр М. М., Зачко О. Б., Рак Т. Є. Віртуальний університет: навч.-метод. посіб. Львів: Львівський державний університет безпеки життєдіяльності. 2009. 168 с.

6. Малоіван М. В. Дидактичні умови індивідуалізації самостійної навчальної діяльності студентів філологічних спеціальностей засобами інформаційних технологій: дис. ... канд. пед. наук: 13.00.09. Кривий Ріг. 2016. 222 с.

7. Новые педагогические и информационные технологии в системе образования : учеб. пособ. М. Ю. Бухаркина, М. В. Моисеева, А. Е. Петров, Е. С. Полат; под ред. Е. С. Полат. 2-е изд., стер. Москва : Изд. центр «Академия». 2005. 272 с.

8. Носаченко І. М. Інтерактивні технології у професійному навчанні. Інформаційно-телекомунікаційні технології в сучасній освіті: досвід, проблеми, перспективи : збірник наук. праць. Частина 2. За ред. М. М. Козяра та Н. Г. Ничкало. Львів: ЛДУ БЖД. 2009. С.93-96.

9. Пометун О. Сучасний урок. Інтерактивні технології навчання: наук. посібник. Київ: А.С.К. 2005. 192 с.

REFERENCES

1. Andreev, A.A. 1999. *Dydaktycheskye osnovы dystantsyonnoho obuchenyia v vysshykh uchebnykh zavedenyiakh: dys. ... d-ra ped. nauk: 13.00.02.* [Didactic bases of distance learning in higher educational institutions: dis. ... Dr. ped. sciences]. Moskva. 289 p.

2. Burlakova, T.V. 2008. *Pryntsypy yndyvydualyzatsyy professyonaloi podhotovky budushchykh uchytelei. Pedahohyka* [Principles of individualization of professional training of future teachers. Pedagogy]. № 4 (7). pp. 40-44.

3. Volkova P. 2001. *Pedahohika: Posibnyk* [Pedagogy: textbook]. Kyyiv. 403 s.

4. Kyrsanov, A.A. 1982. *Yndyvydualyzatsyia uchebnoi deiatelnosty kak pedahohycheskaia problema* [Individualization of educational activity as a pedagogical problem]. Kazan. 224 p.

5. Koziar, M.M., Zachko, O.V., Rak, T.Ye. 2009. *Virtualnyi universytet: navch.-metod. posib.* [Virtual University: ttextbook]. Lviv. 168 s.

6. Maloivan, M.V. 2016. *Dydaktychni umovy indyvidualizatsii samostiinoi navchalnoi diialnosti studentiv filolohichnykh spetsialnostei zasobamy informatsiinykh tekhnolohii: dys. ... kand. ped. nauk: 13.00.09.* [Didactic conditions of individualization of independent educational activity of students of philological specialties by means of information technologies: dis. ... PhD. ped. sciences]. Kryvyi Rih. 222 s.

7. Polat, E.S. Bukharkyna, M.Yu., Moyseeva, M.V. Petrov, A.E.; pod red. Polat, E.S. 2005. *Novye pedahohycheskye y ynformatsyonnye tekhnolohyy v systeme obrazovanyia: ucheb. posobye dlia stud. ped. vuzov y systemy povysh. kvalyf. ped. kadrov. 2-e yzd., ster.* [New pedagogical and information technologies in the education system: textbook. manual for students. ped. universities and higher education systems. qual. ped. frames]. Moskva. 272 s.

8. Nosachenko, I.M. 2009. *Interaktyvni tekhnolohii u profesiinomu navchanni. Informatsiino-telekomunikatsiini tekhnolohii v suchasnii osviti: dosvid, problemy, perspektyvy: Zbirnyk naukovykh prats. Chastyna 2. Za red. Koziara, M.M. ta Nychkalo, N.H.* [Interactive technologies in vocational training. Information and telecommunication technologies in modern education: experience, problems, prospects: Collection of scientific works]. Lviv. S.93-96.

9. Pometun, O. 2005. *Suchasnyi urok. Interaktyvni tekhnolohii navchannia: Nauk. Posibnyk* [Modern lesson. Interactive learning technologies: Science Manual]. Kyyiv. 192 s.

Марина Загорулько

УПРОВАДЖЕННЯ ІННОВАЦІЙНИХ ТЕХНОЛОГІЙ НАВЧАННЯ В ЗАКЛАДАХ ВИЩОЇ ОСВІТИ

Анотація. *У статті розглянуто інноваційні форми та методи індивідуалізації навчання студентів, до яких відносимо: проблемну лекцію, лекцію-візуалізацію, семінар-диспут, навчальну дискусію, мозковий штурм, контроль за рівнем засвоєння знань, метод портфоліо, метод проблемного викладу, метод проєктів, проблемно-наукові методи навчання, науково-дослідну роботу студентів, проблемне навчання, формат електронного курсу, застосування дистанційних технологій навчання. Ефективність процесу індивідуалізації навчальної діяльності забезпечується ступенем реалізації принципу динамічності та варіативності, принципу стимулю-*

вання самостійності та мотиваційного забезпечення, принципу підтримки індивідуальності студента та розвитку його автономності, принципу позитивної перспективи та самоактуалізації, принципу саморозвитку та самореалізації.