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PECULIARITIES OF INNOVATIVE LEARNING IN A MODERN EDUCATIONAL ENVIRONMENT

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Abstract. The article highlights the main tendencies and trends of innovative learning in the modern educational environment, which include: the activity of innovative educational institutions; strengthening of integration processes; creation and dissemination of innovations based on information and communication technologies; the use of innovative teaching methods and forms. The theoretical overview of innovative pedagogical activity in educational environment has been reflected. The works of national and foreign authors, who studied the issues of innovative learning in the modern educational environment, the provision of educational informatization, the disclosure of organizational aspects of new innovative technologies introduction have been considered. The article states that one of the conditions for innovations introducing into education is acquaintance and training of teachers for the work with innovations, it indicates that the means of the training is the development of methodological materials (programs, textbooks, tools for creating interactive tutorials, video lessons, presentations, lesson development), the creation of elearning support, selection of links to specialized sites. Emphasis is placed on the use of innovative methods of pedagogical activity, which is a necessity for diversification of classes; it motivates the student's cognitive activity, forms the experience of solving non-standard tasks and contributes to extensive learning and sustainable mastering of technology of practical activity. Open form of learning, based on the ideas of independent, personally oriented learning, creativity in the application of knowledge and skills in practice, has been generalized. The analysis of US sources on the problem of studies differentiation has been conducted, it shows that most researchers point to different principles of support on a practical level of differentiated learning in the classroom, described in the article. It is noted that innovative pedagogical technologies in education focus teachers' attention on innovations related to the implementation of information and communication technologies and research methods and technologies.

Keywords: innovations, innovative pedagogical experience, educational environment, open learning, innovative pedagogical activity, reflection, cloud technologies, individual work, independent work, advanced training.

ОСОБЕННОСТИ ИННОВАЦИОННОЙ УЧЕБЫ В СОВРЕМЕННОЙ ОБРАЗОВАТЕЛЬНОЙ СРЕДЕ

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Аннотация. В статье освещаются основные тенденции и направления инновационной учебы в современной образовательной среде, к которым принадлежат: деятельность инновационных учебных заведений; усиление интеграционных процессов; создание и распространение инноваций на основе информационно-коммуникационных технологий; использование методов и форм инновационной учебы. Отображено теоретический обзор инновационной педагогической деятельности в образовательной среде. Рассмотрено труды отечественных и зарубежных авторов, которые изучали в своих работах вопрос инновационной учебы в современной образовательной среде, обеспечения информатизации образования, раскрытия организационных аспектов внедрения новых инновационных технологий. В статье отмечено, что одним из условий внедрения инноваций в образовании есть ознакомление и подготовка учителей к работе с инновациями, указано, что средством этой подготовки является разработка методических материалов (программы, учебники, средства создания интерактивных учебных пособий, видеоуроки, презентации, разработки уроков), создания электронного учебного обеспечения, подборка ссылок на специализированные сайты. Акцентируется внимание на использовании педагогами инновационных методов педагогической деятельности, которые являются необходимостью для создания разнообразия занятий, что лучше мотивирует познавательную деятельность студента, формирует опыт решения нестандартных заданий и будет способствовать углубленной учебе и стойкому усвоению технологии практической деятельности. Обобщенно открытую форму учебы, которая основывается на идее самостоятельной, лично-ориентированной учебы, креативности в применении знаний и умений на практике. Осуществлен анализ американских источников по проблеме дифференциации учебы, который засвидетельствовал, что большинство исследователей указывают на разные принципы поддержки на практике дифференцированной учебы в классе, которые описаны в статье. Замечено, что инновационные педагогические технологии в образовании акцентируют внимание учителей на инновациях, которые связаны с внедрением информационно-коммуникационных технологий и исследовательских методов и технологий.

Ключевые слова: инновации, инновационный педагогический опыт, образовательная среда, открытая учеба, инновационная педагогическая деятельность, рефлексия, облачные технологии, индивидуальная работа, самостоятельная работа, опережающая учеба.

INTRODUCTION

Formulation of the problem. Reformation of the modern education system, integration of Ukraine into the European community are contributing to the introduction of new areas

of pedagogical activity, which will promote to the improvement of national school and higher education. Therefore, it is important to orient society at researching the effectiveness and implementation of innovations in education, which de-

termine the relevance of analysis and consideration of innovative pedagogical experience.

Analysis of recent research and publications. Numerous explorations on introduction of innovations, provision of informatization in education, disclosure of organizational aspects of new innovative technologies introduction, fundamentalisation of education (V. Bykov [1], I. Dychkivska [2], V. Kremin [1], S. Kalinina [3], N. Matiash [4], and others), as well as national normative documents (Laws of Ukraine «On education», «On Higher Education», the National Doctrine of Educational Development, the State National Program «Education. Ukraine of the 21st Century») formed the basis for solving the identified scientific problem. At the same time, the issues of innovative learning in today's educational environment are presented only in separate publications.

O. Bezliudnyi [5], V. Bezliudna [5], I. Shcherban [5], O. Komar [5] emphasis is placed on innovations in the foreign language learning process touch on various aspects of the learning process, including changing the organization of the classroom space, equipping the classroom with modern technical facilities, and the use of new educational technologies both during in-class learning and student self-study.

One form of innovations is open learning, based on the ideas of self-directed, personally-oriented learning, creativity in the application of knowledge and skills in practice on an idea S. Prokhorovska [6].

One form of innovations realisation is to strengthen the fundamentalisation of education, which implies qualitative changes based on the transition from standard to advanced learning, integrity and interaction of its elements. «In the process of learning, it is necessary to teach thinking in integral fundamental theories and acting in accordance with the methods of fundamental knowledge obtaining. The principle of integrity presupposes a set of stable links: intrasubject (structural) and cross-curriculum (the integrity of natural science knowledge)» [7].

The relevance of the study. The modern educational environment requires specialists with competencies at the intersection of different areas of study. Specialists in the field of innovative learning are teachers who use innovative pedagogical activities, characterized by new or improved content, learning and education tools suitable for testing, dissemination and development of information.

METHODOLOGY

Formulation of the goals of the article. The main purpose of the article is to highlight the tendencies and directions of innovations of pedagogical activity that can be used in the process of changes in education, improvement of the modern educational environment.

Goal setting. The following tasks are the basis for the study: to characterize innovative pedagogical activity as a complex; to consider open learning as a form of innovation; to describe the strengthening of the fundamentalisation of education and differentiated learning in innovative pedagogical activities.

The methods, techniques and technologies. The following theoretical research methods were used: analysis of the problem in the scientific and methodological literature and conditions of development and functioning of the concepts of «innovative pedagogical activity» and «open form of teaching»; method of specification for differentiation and refinement of the concepts of «innovation», «information and communication means of education» and «fundamentalisation of education».

RESULTS

Outline of the main research material. In contemporary higher education system, the problem of choosing the most effective innovative methods and technologies remains significant and urgent. The main purpose of introducing innovative methods in education is to develop the teacher's skills to motivate the student, to navigate the information space, to form creative non-standard thinking [7].

First of all, it should be specified that «innovative peda-

gogical activity» is the implementation of pedagogical activity, which relies on new or improved (combined) methods, forms, teaching aids, updated content or changed sequence of presentation of educational material providing a positive result. Such activities are primarily carried out in innovative educational institutions or specialized innovation centres aimed at their development and implementation. But also in typical institutions of general or higher education it is necessary to strengthen the integration processes, to take into account the educational-cognitive interests and individual characteristics of the individual to the maximum extent; creation and dissemination of innovations with the use of communication and information technologies, use of methods and forms of innovative learning. Therefore, innovative pedagogical activity is complex as it involves the creation, assimilation, use and dissemination of innovations characterized by new or improved content, learning and upbringing, suitable for testing, dissemination and development.

Active use of innovative methods in pedagogical activity is a necessity nowadays. The more strategies and methods of training a teacher uses, the more interesting the lesson is, the student's cognitive activity is better motivated, the experience of solving non-standard tasks is formed, deeper learning and sustainable mastering of technology of practical activity is promoted [8].

In pedagogical literature, open learning is based on the use of new information technologies and multimedia systems in the educational process, in addition, it contains modular technology methods, which provide flexible approach to the learning process and maximize the efficiency of vocational training and professional development of economically active population [9, p. 129].

I. Dychkivska defines open learning as «a way of organizing educational work in schools, which implies the rejection of the classroom and assessment system on the basis of set norms, flexible, open organization of educational space, variable composition of educational groups, free choice of types and methods of educational work. Open learning contributes to the formation of positive motivation of children, an emotional atmosphere of teacher-student relationships» [2, p. 335]. Teacher's application of a thorough teaching methods and the ability of students to self-plan and carry out their learning activities are the basic requirements for open learning; it must be independent, active, oriented at problem solving and based on a certain level of self-responsibility.

Considering the need for active participation in the choice of content, forms and methods of training students, one of the effective forms of open education is project-based learning, which has an «active basis, involves an active cognitive process through the acquisition of practical experience and the creation of material products; modern planning and joint implementation of the project; cross-curricular basis, combination of classes with extra-curricular activities; emphasis on the natural interest of children; close connection with life, reality; public usefulness» [10, p. 96]. The project activity contributes to the development of initiative, independence, organizational skills. The project activity during training helps to take a fresh look at their skills and nature of interaction with the environment. New problems that require a non-standard solution; significant, strong-willed and emotional efforts and a high level of self-realization appear. As a result, there are qualitative changes in the psychological structure of the individual, which determine the communication skills mastering – the skills to sets adequate, personally meaningful and socially important life prospects [10, p. 152].

Forms of open learning include the reflection of the activity, which encourages students to express their own opinions, to carry out joint labour activity effectively due to the plans of individual work in academic subjects.

An active social life requires the acquisition of fundamental knowledge; a special type of thinking, the main characteristics of which are the critical attitude to what has been achieved, the ability to offer new skills and the ability to take into account the influences of all external factors; creativ-

ity, the need for innovation, systematicity that guarantees the quality and reliability of innovations. The core of vital competency is the inner motivation to learning, which is enhanced by the cognitive adjustment of the individual, the awareness of his/her own abilities, the positive attitude to his / her own achievements.

It should be noted that one of the conditions for the introduction of innovations in education is to familiarize teachers with their features, focusing attention on innovations related to the introduction of information and communication technologies, active and research methods and technologies (e.g., project-based learning technologies), to create various forms of support for mastering such means, methods of individualization and differentiation of education through information and communication technologies; to use the local history component in training. The purpose is to research and develop methodological materials (programs, textbooks, tools for creating interactive tutorials, video lessons, presentations, e-learning support, selecting links to specialized sites, material for applied orientation, creating inter-school research projects.

Another area of innovative pedagogical activity is the introduction of methods, forms, tools and technologies of innovative learning, such as problem and laboratory methods based on the principles of «learning in practice» through gaining practical experience.

Such interactive methods as cooperative learning, methods of group puzzles, case method, implementation of quizzes, competitions, projects, role-playing games, discussions, clubs, etc., enable students to receive positive emotions, to be proud of their findings.

M. Topuzov considers it as «a complex structured socio-technological and information-management system, which consists of people (subjects of management and participants of the educational process), as well as technical and technological objects, different by purpose and features of the structure» [10, p. 29].

COLUMNS

Conclusions of the study. Therefore, a significant feature of nowadays is the transition to innovative models of educational development, the formation and development of information educational environment. The multi-vector of the information space development in modern society implies a potential opportunity of introduction a wide range of different technologies in higher and general education, taking into account their specificity.

Prospects for further research in the area. Summarizing, we should note that the features of innovative learning in the modern educational environment include: competency-oriented active methods and technologies of learning, first of all project teaching, research and interactive methods; increasing attention to student reflection, in particular through the practice of subject diaries; strengthening the influence of information and communication technologies (development and implementation of cloud technologies in education, systematization of educational content on the sites of special centres); enhancing the role of integration cooperation between teachers and scientists-practitioners through the cooperation of schools and higher education institutions, organization and implementation of international projects. Consideration of peculiarities of innovative learning in the modern educational environment and the introduction of some of its elements, taking into account the specifics, tendencies and needs of the national education system will help to overcome the existing problems.

REFERENCES:

1. Kremen V. G., Bykov V. Yu. Categories «Space» and «Environment»: features of model representation and educational application. *The theory and practice of managing social systems*. 2013. № 2. P. 3–16.
2. Dichkivska I. M. *Innovative pedagogical technologies: textbook*. Kyiv, 2004. 352 p.
3. Kalinina L. M. *Models of managerial activity of the school headmaster. Pedagogical innovations: ideas, realities, perspectives*. Kyiv: Logos, 2000. Pp. 35–42.
4. Matiash N. Yu. *Fundamentalisation of school biological education as the basis of formation of subject competency of the student*. *Ukrainian*

Pedagogical Journal. 2017. № 1. P. 54–60.

5. Bezliudnyi O. I., Bezliudna V. V., Shcherban I. Y., Komar O. S. Experience of blended learning using at English lessons in pedagogical higher education institutions. *Information technologies and learning tools*. 2019. Vol. 73. № 5. P. 87. DOI: <https://doi.org/10.33407/ilt.v73i5.2669>

6. Prokhorovska S. The role of innovative forms of training in the development of labour potential. *Regional aspects of development of productive forces of Ukraine*. Ternopil, 2014. Vol. 19. P. 127–130.

7. Grinshkun V. V., Levchenko I. V. Features of the fundamentalisation of education at the present stage of its development. URL: <http://imp.rounds.ru/vestnik> (accessed: 02/02/2020).

8. Kalinina L. M. Modern functions of the headmaster: materials of the 2nd All-Ukrainian Research Practice Conference (October 20–21, 1998, Sumy), 1998. Pp. 111–113.

9. National report on the state and prospects of development of education in Ukraine / NAPS of Ukraine; [ed. V. G. Kremen]; Kyiv: Pedagogical Thought, 2016. 448 p.

10. Topuzov M. O. Information support of higher educational institution as a means of activation and intensification of effective management of the educational process. *Bulletin of the Kiev National University of Technology and Design*. Kyiv, 2011. No. 5 (61). P. 205–207.

11. Mynbayeva A., Sadvakassova Z., Akshalova B. *Pedagogy of the Twenty-First Century: Innovative Teaching Methods*. 2018. 10.5772/intechopen.72341.

12. Kalinina L. M., Noskova M. V. *Google-services for the teacher. Beginner's First Steps: Learn tool*. Lviv, ZUCC, 2013. 182 p.

13. Rozhi I. G., Braslavska O. V. The project method as one of the structural components of pedagogical design in geography. *Materials of the 2nd International Research Practice Conference (5–6 October 2017, Uman)*. Uman, 2017. Pp. 150–153.

14. Topuzov M. O. Designing of educational environment of educational institutions in modern society. *Ukrainian Pedagogical Journal*. 2017. № 1. P. 26–36.