PROFESSIONALS AND THE PROBLEM OF INTRODUCING INNOVATIONS IN THE UNIVERSITY: PROSPECTS FOR THE DEVELOPMENT OF DISTANCE EDUCATION, ADVANTAGES AND DISADVANTAGES

INTRODUCTION

The term “innovation” is similar, in its literal meaning, to that of adjustment, improvement, development, study/pilot project, experiment, or even modernization, reform or renewal. Pedagogical innovation can also be called scholastic innovation, in education or in training. Pedagogical innovation calls for one-off, measured and sustainable positive change.

The development of informative and innovative technologies advanced science and education as a priority and necessary precondition for the evolution of post-industrial society, in which the system of educational services must transmit competence and everyday knowledge to future professionals. At the same time, the higher education system is “the cornerstone of the formation of human capital and bringing it to the level of maximum effective influence on socio-economic processes” (DUDUKALOV, 2015, 7). In this regard, the educational space and the educational environment are presented as a ‘complex systemic object’ with various structural components (IVANOVA, 2020, 108). Innovative development in the field of equipment and technological progress allow the young generation to replenish intellectual capital in a visual form, using various gadgets in education, “tools to increase knowledge and receive bigger experience in comparison with the previous generation” (KARIPBAYEV et al., 2014, 187).

As V. Andrushchenko says “today not only the ability to operate one’s own knowledge is important, but also to be prepared to change and adapt to the new needs of the labor market, operate and manage information, act quickly, make decisions, learn lifelong” (ANDRUSHCHENKO, 2000, 8). Some studies look at instances of successful innovation or the role of leadership in the context of innovation development, whilst others analyse the characteristics of innovation or theoretical models.

In other word, pedagogical technology is the innovative form of teaching, methods and tools help to improving the condition in educational process. To create new pedagogical technology is very difficult. One of the important part of improving teaching is to practice and working hardly. Some scientists consider innovation in three aspects: as the science and art of innovation management; as an activity; as the subject of management. V. Pirus considers innovation to be a new idea or invention that arises and has future that promotes progressive and creative development. Innovation is a source, motivation for development and self-development (PIRUS, 2014).
Research on the pedagogy behind education for sustainable development (ESD) argues that traditional methods of academic instruction, such as lecture-driven delivery, have inadequately equipped students with the required competencies to make the transition from the classroom to real-world problem-solving (SEATTER AND CEULEMANS, 2017; STEINEMANN, 2003). Against this background, innovative pedagogical approaches which aim to bring real-world learning opportunities into the classroom and encourage critical thinking, social critique, and analysis of local contexts, are needed. Commonly used or suggested pedagogical strategies in ESD include (SHEVCHENKO, 2013):

- Role plays and simulations (to gain an in-depth understanding of other people’s perspectives).
- Stimulus activities (e.g. watching videos or looking at photos, poems or newspaper extracts to initiate reflection or discussion).
- Debates (to encourage the development of arguments and counter-arguments on a topic).
- Critical incidents (to consider students’ personal perspectives and actions in relation to a moral or ethical stance – what they would do, could do and should do).
- Case studies (to develop a holistic view on an issue relevant to their context and to devise a solution).
- Reflexive accounts (to understand the effect of an individual’s action on issues/solutions) etc.

Considering different countries on the topic of research, examine for example innovative teaching methods in the Republic of Kazakhstan which are introduced into the educational process at the legislative level. Teaching and learning innovation is an important part of national policy of the Republic of Kazakhstan and its elements are reflected in key regulatory documents. The foundation document driving the education reform in the country is The State Programme of Education Development in the Republic of Kazakhstan (THE STATE PROGRAMME, 2020). In higher education, the main practices being developed are:

1. Student-centred learning and curriculum update – this approach allows building individual learning paths and supports the practice-oriented educational programmes.
2. Capacity building of the pedagogical skills and language proficiency – the World Bank is planning to develop new practice-oriented programmes in pedagogical specialties as well as to attract foreign specialists and strengthen the material and technical base of seven pedagogical universities.
3. IT skills and interdisciplinary programmes – universities started to offer IT-related programmes. Special attention is paid to cyber security expert training and universities across the country are implementing related study programmes.
4. MOOCs and blended-learning – Kazakh universities started to implement massive open online courses (MOOC) with assessment of the compliance of learning outcomes and student competencies.
5. Internalisation of the teaching staff – internalisation of higher education has been supported by the implementation of academic mobility of students as well as the teaching staff. Kazakhstan has been proactively attracting foreign specialists and this contributes to the adaptation of high standards of education in the Kazakh universities.
6. Access to HE and inclusive education – expanding access to higher education is achieved through educational grants and through increase in state orders. Seven resource centres for inclusive education have been developed and compulsory lectures on inclusive education have been developed.

Thus, analyzing the problems of innovation in the university, we can clearly say that innovation is necessary. Even at the legislative level, where the main aims of reforming educational programs are to introduce new methods and pedagogical technologies into
teaching. Speaking of pedagogical technologies, there are many definitions of pedagogical technologies - a term that has become quite popular in the last decade, for example: pedagogical technology is a system set and order of functioning all personal, instrumental and methodological means used to achieve pedagogical goals (GUSLOVA, 2013). The innovative technologies encourage learners to interact, to be creative and positive in using the language in a meaningful way and cooperation. Innovative technologies are used as various techniques to involve students in learning. Teaching with technology is difficult action to do well. Using pedagogical technologies in teaching all subjects is the achievement of the guaranteed result by designing for specific goals. Learning technology - is a pedagogical direction that explores and teaches the best ways to achieve educational goals, based on a technological approach to the teaching process (NOORTJE et al., 2019).

Scientists distinguish four main aspects in content-related concept “innovation in education”:

1. the process of implementing a new alternative learning strategy to the traditional one, which is creative (productive), not only of reproductive direction;
2. orientation on the realization of person potential in general;
3. mutual action in the process of intuitive creative thinking;
4. promotion of actualization of all forms of intellectual activity under the condition of leading role of productive creative thinking with regard to unproductive, formal and logic (VASHCHENKO, 2006).

We can’t imagine education without technologies and there are a lot of reasons to create new technologies. Recently, a growth in distance education programs can be seen because of the time and space restriction of face-to-face learning system. It is also economically advantageous and preferable by working students. Distance education makes education attainable for those who are unable to sit in the traditional room. Special attention must be paid to the quality of the education we provide, both in the traditional room and online, and use available technology and innovations to motivate and inspire.

The implementation of information and communications technologies (ICT) in education and training is crucial. Innovations in the use of ICT are seen as important tools for increasing access and enhancing the effectiveness and quality of education. The fact that ICT applications are available for teaching and learning is well established and examples of how ICT can enhance access to quality, next programmes are recommended:

- Distance education is now virtually synonymous with e-Learning or online learning. ICT appliances have great storage, retrieval, transmission and processing capacity. They offer rich virtual environments and their interactive capacities enable student-teacher and student- student interaction and collaborative learning
- Open learning uses methods and technologies of distance education but emphasizes the idea of open access to knowledge that is crucial for a free and open society
- Blended learning combines face-to-face teaching or activity-based learning in different settings (e.g. classroom, community and the workplace) and computer-based or online learning
- Flexible learning enables learners to control where, when and how they should develop their study, according to their needs and circumstances
- Mobile learning is delivered to anywhere that has a mobile signal. The fact that an increasing amount of people have access to mobile devices is changing the way people live and learn (OTERO, 2019).

The main purpose of the article: reveal the problem of introduction of innovations in higher education institutions; development of distance learning, what are the pros and cons of distance learning.
LITERATURE REVIEW

In essence, innovation seems to have two subcomponents. First, there is the idea or item which is novel to a particular individual or group and, second, there is the change which results from the adoption of the object or idea. Thus, innovation requires three major steps: an idea, its implementation, and the outcome that results from the execution of the idea and produces a change. In education, innovation can appear as a new pedagogic theory, methodological approach, teaching technique, instructional tool, learning process, or institutional structure that, when implemented, produces a significant change in teaching and learning, which leads to better student learning. So, innovations in education are intended to raise productivity and efficiency of learning and/or improve learning quality.

The main problem with the learning in education is the process of teaching. In order to enrich the knowledge and experience, to practice with science are very important issue both of teachers and students, that’s why there are a lot of opportunities (YULDASHOVA, 2019). The learning process as teaching and learning has components: purpose and objectives, content, methods, teaching tools, learning forms and results. When planning the lesson, we design these components. This theory is connected with the L. Vygotsky’s theory of educational activity, the theory of developmental learning of L. Zankov, V. DavydoV, I. Lerner, M. Skatkin, Z. Kalmykova and others (VYGOTSKY’S, 2003).

By law, innovations researchers mean the transition to the new organizational and legal form, which is an autonomous educational institution and initiative activities of higher education institutions (HEI) of working out proposals concerning improvement of education legislation (PAVLOVA & CHEN, 2019, p. 81). Unlike technological innovation, the innovation is only pedagogical if it is constructed by pedagogical thinking, in particular in human relations at the will of the personality of the devoted professor. According to Pelletier’s (PELLETIER, 2009) studies, pedagogical innovation is one of the solutions deployed in the face of the pressures placed on universities.

The use of modern pedagogical technologies in the educational process of the university creates completely new opportunities for implementing the didactic principles of individualization and differentiation of teaching (EISNER, 2015), positively influences the development of students' cognitive activity (BOGDAN, 2016), their creative activity, consciousness, and realizes the conditions for the transition from learning to self-studying. It is an intensification of the learning process. A number of authors, analyzing modern pedagogical technologies, came to the conclusion that modern pedagogical technologies are oriented to individualization (EISNER, 2012), distance (Agapova, 2016b) and variability of the educational process (AGAPOVA, 2016a; EISNER, 2012), academic mobility of students, regardless of age and level of education (ZVEREVA, 2015).

Using pedagogical technologies demand a huge attention from teachers. Teachers should develop their innovativeness and be ready to solve professional problems in an innovative way. Incidentally, in developing the student’s skills, it is necessary not only to create free communication, but also to learn key elements of subject that are used in the life-spheres. Of course, all students haven’t same ability to catch each details of topics. At the same time, the professor-teacher must find appropriate way to whole auditorium, it is very common controversial topic for today, the innovative form of teaching, methods and tools helps to improving the condition in educational process, to develop communicate, creativity and advanced educational technologies is active keys of teachers (AKHMEDOVA & YULDASHOVA, 2018). And online education is a mainstream today.

The advent of online education and its rapid growth has forced academic institutions and faculty to question the current styles and techniques for teaching and learning. As developments in educational technology continue to advance, the ways in which we deliver and receive knowledge in both the traditional and online classrooms will further evolve.

The world wide web has made information access and distribution of educational content available to a large fraction of the world’s population and helped to move Distance Education (DE) to the digital era. Distance education is an educational experience where instructors and
learners are separated in time and space (KEEGAN, 2002) which means it can happen away from an academic institution and can lead to a degree or credential.

Today’s version of distance education is online education, which uses computers and the Internet as the delivery mechanism with at least 80% of the course content delivered online. However, distance education has its advantages: constant open access to materials, the ability to learn from anywhere in the world, even in conditions of forced isolation to continue learning, gain new knowledge, change impressions, be mobile and more. Therefore, distance education as one of the innovations in the pedagogical environment is very important and also it needs attention and improvement. Distance education has become a component of innovative education in general. According to philosophers and sociologists’ opinion, innovation education is a purposeful process of education and person innovative study; it should facilitate the development of his creative skills, self-learning skills, that is to form his intellectual capital (NATROSHVILI, 2014).

MATERIALS AND METHODS

The sources of research were the works of Ukrainian, Kazakhstani and foreign scholars on didactics, textbooks on pedagogy, UNESCO recommendations on the development of teaching strategies. Here will be presented both a review of the methodology and the practical implementation and implementation of innovative teaching methods, identifying weaknesses and strengths. As well as the disclosure of the problem of using innovative forms of learning, the issue of their implementation and distance learning as a prerequisite for teaching today.

Changes in education system, in the teaching process are surrounding quite often. At the legislative level, the issues of teaching technology, development of education through innovations and their practical implementation are always reviewed. Therefore, first the analytical and system approaches were used, and the theoretical changes on pedagogical technologies and innovations in the field of education were generalized.

The question arises in how teachers relate to innovation, how positively they accept changes in the didactic approach and whether they improve their professional skills. In order to answer such important questions, a questionnaire was created and a survey was conducted among teachers; in the universities where they work, were introduced certain innovations in teaching and conducting classes, including distance learning. The selection of respondents was carried out by random sampling. The following questions were asked in the questionnaire:

1. Do teachers use innovative teaching methods?
2. Do teachers create a phased system of technology implementation? How problematic is it for the teacher to understand the innovative pedagogical methods and does it affect on the educational process?
3. Can distance learning be effective? What conditions have teachers created for students to learn the material even in critical conditions, such as forced isolation?
4. What, in the opinion of teachers, are the advantages of distance education, what are their shortcomings?
5. According to teachers what is the parity of applying traditional and innovative teaching methods? Has the teacher formed a meaningful structure for updating teaching methods - an innovative culture of the teacher?

The results of the survey would help us understand whether there is a process of introducing new pedagogical methods, whether the education system is being updated, and how fast teachers would improve their pedagogical skills and how quickly master innovations and implement these innovations into the educational process; how the distance learning approach takes place and how it affects higher education. In our opinion, the results would show us how acute is the issue of innovations in higher education and their implementation today.
RESULTS AND DISCUSSION

Many scientists study the active implementation of innovations in training (BARTKIV, 2010). Findings show that teachers possess positive attitudes toward innovative teaching methods mostly due to the advantages that technology offers such as distant learning and visualization of the material (ZHUKOVA, 2010). Moreover, the analysis shows that all four factors - confidence, knowledge, gender and age - have the potential to influence and change teachers’ attitudes toward technology. Interestingly, age and gender do not seem to have a direct influence on attitudes, confidence or knowledge. Rather, it is the bias towards age and gender that obstructs the integration of innovative technology and innovative pedagogical technology in universities.

Let us conduct a survey among 73 teachers which are teachers, psychologists and social educators from the National Pedagogical Dragomanov University in Ukraine - whether they use innovative teaching methods, which see the strengths and weaknesses of innovative teaching methods. That survey was conducted in 2020.

In order to answer the first research question (Do teachers use innovative teaching methods?), the researcher ran a frequency distribution analysis. The teachers’ attitudes survey included a series of statements where respondents indicated the extent to which they agreed or disagreed with the statement using a five-point scale (1- definitely yes, 2-yes, 3-rather yes, than no, 4-no, 5- definitely no). The the higher the number, the more positive a teacher was toward innovative teaching methods; the lower the score, the more negative a teacher was toward innovative teaching methods. 91% of the teachers admit that they use innovative teaching methods. In our opinion, this is a high figure.

The teachers recognize the innovative pedagogical methods affect on the educational process: the activity of students in cognition and activity (50%), students’ interest and practical orientation (39%), meaningfulness and strength of the acquired knowledge and competences (37%), the feasibility of fulfilling the tasks of the students (34%), development of creativity (32%), support of interest and direction in depth for strong students (16%) (Figure 1).

**Figure 1.** The innovative pedagogical methods affect on the educational process.

![Chart](image)

**Source:** Search data.
such as forced isolation? the researcher ran an interview with teachers. As a result, distance learning methods of study are therefore potentially attractive to those who face significant work/life pressures and for whom regular attendance at a higher education institution for a traditional form of delivery is neither practicable nor desirable. Distance learning therefore has the potential to address the skills shortage in a range of sectors, through providing targeted flexible training.

Advantages and disadvantages of distance education. Innovative teaching can involve virtual labs: learning activities based on real-life problems; learning environments with equipment, furnishings, materials, and audiovisual resources; and learning guides for students and the teacher. All of these are combined with methodologies that promote the use of active teaching techniques that help teachers develop their students’ learning abilities. The key advices to teachers teaching students from diverse backgrounds are to know and respect their students; offer students flexibility, variety, and choice; make expectations clear; use accessible language; be available and approachable to guide student learning; and be a reflective practitioner.

The parity of applying traditional and innovative teaching methods. On the question of determining the parity of accepting traditional (reproductive) and innovative methods of teaching, teachers responded as follows (Figure 2).

![Figure 2](image)

Source: Search data.

It is gratifying to note that there has been a turn to the need for more innovative methods of teaching to be used by 91% of teachers. To the last question (Has the teacher formed a meaningful structure for updating teaching methods—an innovative culture of the teacher?) 44.9% of teachers answered “Yes”, 38.7% in part, and 14.6% answered “No”. To create such a system requires advanced training courses, daily self-education, exchange of experiences with other teachers, a positive attitude to innovation and improvement of the educational process.

In our opinion, teaching successfully with technology requires continually creating, maintaining and re-establishing. Changing the shape and size of the educational material, the process of adapting the reader or the students, it also relates to educational technology. Pedagogical technology is the objective aim of education and training, based on the diagnostic goals, the development and improvement of the content, methods and tools of teaching and learning, which is a teaching process that incorporates innovations in science and technology.
CONCLUSIONS
Changes in pedagogy and didactics, in the teaching process in the 21st century are innovative. On the one hand, globalization, high technology, rapid and dynamic development of the Internet resources, using of remote communication. On the other hand, new pedagogical technologies in education, teachers adaptation to the introduction of innovations in the universities, personal attitude and motivation or negative attitudes to changes.

To foster innovative teaching, educational process need to undergo a skillful and thorough development, where teacher can adopt different innovative teaching strategies according to the diverse needs of the students. Important tasks that provide innovative direction of HEI are:

- scale computerization and activation of scientific and technological activities of higher education institutions, creating innovative structures in their system; reforming of the education system to meet the requirements of European standards and the preservation of national cultural and intellectual traditions;
- increasing the effectiveness of university sector in research and working out in order to strengthen its role in providing innovative development of the national economy;
- concentration of resources in priority areas of science and technology development and innovation activity; stimulating lifelong learning, education of culture of innovative thinking.

The effective implementation of the innovation activities of the teacher depends on a number of conditions. It includes the assigned communication of the teacher, the unselfish attitude to reflected thoughts, the real willingness to recognize the rational situation in different situations.

That is, the application or nonuse of innovative methods depends on the personality of the teacher, his methodological competence, pedagogical skills. The task of the teacher training system is to actualize such a need, to form methodological competence. And the innovative strategies need to be implemented and should be modified according to the students’ needs.

REFERENCES
AGAPOVA, T.V. Role of interactive methods of teaching foreign language in modern educational process. Problems of modern agrarian science: materials of the international correspondence scientific conference, 2016a, 154-155. Available at: http://www.kgau.ru/new/all/konferenc/konferenc/2016/g1.pdf. Access: May. 15, 2021.

AGAPOVA, T.V. The use of computer technologies in a distance education. Problems of modern agrarian science: materials of the international correspondence scientific conference, 2016b, 155-157.

AKHMEDOVA Z.; YULDASHOVA U. Study of foreign language as a significant element of professional training of students. Znanstvena misel journal, Slovenia, 2018, 14, 16-18. Available at: http://www.znanstvena-journal.com/wp-content/uploads/2018/. Access: May 15, 2021.

ANDRUSHCHENKO, V.P. Priorities of the education development of XXI century. Current philosophical and culturological problems of the present, 2000, 3-11. Znannya Ukrayiny, Kyiv. (in Ukrainian)

BARTKIV, O. Readiness of the teacher to innovate professional activity /O. Bartkiv / / Problems of training a modern teacher (Training problems of modern teacher), 2010, 1, 52-58. (in Ukr.)

Bogdan, O.V. Enhancing students’ creativity / O.V. Bogdan, T.V. Agapova, Problems of modern agrarian science: materials of the international correspondence scientific conference, 2016, 165-169.
DUDUKALOV, E.V.; LAPTANDER, A.B. Obrazovanie i nauka: kak prodolzhat’ modernizacziyu v usloviyakh reczessii? [Education and science: how to continue modernization in a recession?]. Nauka i obrazovanie: khozjajstvo i e`konomika; predpribinimatel’stvo; pravo i upravlenie [Science and education: agriculture and economics; entrepreneurship; law and management], 2015, 1(56): 7-13. Available at: https://www.elibrary.icu/download/elibrary_22749604_42692239.pdf. Access: May. 15, 2021. (in Russian)

EISNER, L.YU. Application of innovative teaching methods for the implementation of the competence approach in the vocational education system / L.Yu. Eisner, Bershadskaya, S.V. Problems of modern agrarian science: materials of the international correspondence scientific conference. Krasnoyarsk, 2015, 244-246.

GUSLOVA, M.N. Innovative pedagogical technologies: A manual for students of institutions environments. prof. education. M.: IC Academy, 2013, 288 p.

IVANOVA, N.; SOROKINA, T. “The relationship between the categories “Educational environment” and “Educational space” in Russian psychological and pedagogical science”. Revista Inclusiones, 2020, 7 (Esp.): 100-118.

KARIPBAYEV, B.I. et al. Social Capital in the Conditions of Social and Economic Transformation of Modern Kazakhstan Society. World Appl. Sci. J., 2014, 31 (2): 185-189.

KEEGAN, D. The Future of Learning: From eLearning to mLearning. Fern Univ., Hagen (Germany). Inst. for Research into Distance Education, 2002, 173 p. Available at: https://files.eric.ed.gov/fulltext/ED472435.pdf. Access: May. 15, 2021.

KOZULIN, A.; GINDIS, B.; AGEYEV, V.; MILLER, S. (Eds.). Vygotsky’s educational theory in cultural contexto. Cambridge, England: Cambridge University Press, 2003, 494 p. Available at: https://ebookppsunp.files.wordpress.com/2016/06/.pdf. Access: May. 15, 2021.

NATROSHVILI, S.H. Organization of innovative activity of institutions of higher education. Ekonomika i upravlinnya, 2014, 1, 21-25. (in Ukrainian)

OTERO, J.P.G. Innovation in TVET: new opportunities and challenges. Trends mapping. / UNESCO-UNEVOC, 2019. Available at: https://unevoc.unesco.org/pub/tm_innovation.pdf. Access: May. 15, 2021.

PAVLOVA, M., & CHEN, C. S. Facilitating the development of students’ generic green skills in TVET: An ESD pedagogical model. TVET@Asia, 2019, 12. Available at: http://www.tvet-online.asia/12/issues/issue12. Access: May. 15, 2021.

PELLETIER, P. L’enseignement supérieur : un milieu sous influences? In Bédard, D. & Béchard, J.-P., Innovating in Higher education, Paris: PUF, 2009.

PIRUS, V.O. Formation of innovational development of the educational institution: theoretical aspects. Bulletin of Khmelnytsky National University, 2014, 3, 13-16. (in Ukrainian) Available at: http://elar.khnu.km.ua/jspui/bitstream/123456789/1904/1/PIRUS.pdf. Access: May. 15, 2021.
SEATTER, C.S., & CEULEMANS, K. Teaching sustainability in higher education: Pedagogical styles that make a difference. *Canadian Journal of Higher Education*, 2017, 47(2), 47-70. Available at: [https://www.researchgate.net/publication/322553955](https://www.researchgate.net/publication/322553955). Access: May. 15, 2021.

SHEVCHENKO, L.S. Typologization of innovation activity and innovation in the educational sphere. *Pravo ta innovatsiyi*, 2013, 4, 78-91. (in Ukrainian). Available at: [http://irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe.pdf](http://irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe.pdf). Access: May. 15, 2021.

STEINEMANN, A. Implementing sustainable development through problem-based learning: Pedagogy and practice. *Journal of Professional Issues in Engineering Education and Practice*, 2003, 129(4), 216-224. Available at: [https://doi.org/10.1061/(ASCE)1052-3928(2003)129:4(216)](https://doi.org/10.1061/(ASCE)1052-3928(2003)129:4(216)). Access: May. 15, 2021.

THE STATE PROGRAMME OF EDUCATION DEVELOPMENT IN THE REPUBLIC OF KAZAKHSTAN. *Independent agency for quality assurance in education*, 2020. Available at: [https://iqaa.kz/en/normative-legal-documents/state-programs](https://iqaa.kz/en/normative-legal-documents/state-programs). Access: May. 15, 2021.

VASHCHENKO, V.P. Innovative education: conditionality and essence. Al’manakh «Nauka. Innovatsii. Obrazovanie» RIEPP, M.: Izd. d. «PARAD», 2006.

YULDAHOVA, U.B. The role of pedagogical technologies in teaching. *Journal Problems of modern science and education*, 2019, 55-58 Available at: [https://cyberleninka.ru/article/n/the-role-of-pedagogical-technologies-in-teaching/pdf](https://cyberleninka.ru/article/n/the-role-of-pedagogical-technologies-in-teaching/pdf). Access: Oct. 13, 2020.

ZHUKOVA, O.V. Gotovnist majbutnogo fahivcja ta viklada cha do innovacijnoi navchalnoi’ dijalnosti [Readiness of the future specialist and teacher to the innovative educational activity]. *Herald of Lviv University. Series: Pedagogy*, 2010, 26, 29–33. (in Ukrainian). Available at: [http://dl.franko.lviv.ua/Pedagogika/periodic/visnyk/26/04_zhukova.pdf](http://dl.franko.lviv.ua/Pedagogika/periodic/visnyk/26/04_zhukova.pdf). Access: Oct. 13, 2020.

ZVEREVA, N.A. Application of modern pedagogical technologies in secondary vocational education. *Innovatsionnyye pedagogicheskiye tekhnologii: materialy II Mezhdunar. nauch. konf. (g. Kazan’, may 2015 g.). = Innovative pedagogical technologies: materials of the II Intern. scientific conf. (Kazan, May 2015)*, Kazan: Beech, 2015, 161-164. Available at: [https://moluch.ru/conf/ped/archive/150/8083/](https://moluch.ru/conf/ped/archive/150/8083/). Access: Oct. 13, 2020.
Professionals and the problem of introducing innovations in the university: prospects for the development of distance education, advantages and disadvantages

Resumo
O objetivo deste trabalho é identificar e comprovar os problemas de introdução de inovações na universidade. Para efeitos do estudo, utiliza-se a análise sistemática da literatura científica filosófica, pedagógica e psicológica, pesquisando e resumindo a experiência educativa; a pesquisa. A educação precisa muito de inovações eficazes de escala que possam ajudar a resultados de aprendizagem de alta qualidade em todo o sistema. O foco principal das inovações educacionais deve ser a teoria e a prática do ensino e da aprendizagem, bem como a prontidão do professor para a atividade inovadora. A análise da aceitação dos professores às inovações demonstra que a implementação de inovações pedagógicas acompanha certos problemas da atividade futura do professor durante a formação na universidade. Os principais fatores e razões que determinam a resistência à inovação dos professores podem ser levados em conta ao prepará-los para uma atividade inovadora como fator crucial para a modernização do sistema educacional do país.

Palavras-chave: Métodos de ensino inovadores. Inovação pedagógica. Ensino superior. Inovação educacional. Educação a distância.

Abstract
The purpose of this work is to identify and substantiate the problems of introducing innovations in the university. For the purpose of the study the following methods are used systematic analysis of philosophical, pedagogical and psychological scientific literature, researching and summarizing of educating experience; the survey. Education badly needs effective innovations of scale that can help high-quality learning outcomes across the system. The primary focus of educational innovations should be on teaching and learning theory and practice, as well as on the teacher readiness to innovative activity. The analysis of the teachers accepts to innovations demonstrate that the implementation of pedagogical innovations accompanies certain problems of future teacher activity during training at the university. Main factors and reasons determining the teachers’ innovation resistance could be considered when preparing them for innovative activity as a crucial factor for modernizing the country’s education system.

Keywords: Innovative teaching methods. Pedagogical innovation. Higher education. Educational innovation. Distance education.

Resumen
El propósito de este trabajo es identificar y fundamentar los problemas de introducción de innovaciones en la universidad. Para el propósito del estudio se utilizan los siguientes métodos de análisis sistemático de la literatura científica filosófica, pedagógica y psicológica, investigando y resumiendo la experiencia educacional; la encuesta. La educación necesita urgentemente innovaciones efectivas de escala que puedan ayudar a resultados de aprendizaje de alta calidad en todo el sistema. El enfoque principal de las innovaciones educativas debe estar en la teoría y la práctica de la enseñanza y el aprendizaje, así como en la preparación del maestro para la actividad innovadora. El análisis de la aceptación de los docentes a las innovaciones demuestra que la implementación de innovaciones pedagógicas acompaña ciertos problemas de la futura actividad docente durante la formación en la universidad. Los principales factores y razones que determinan la resistencia a la innovación de los docentes podrían tenerse en cuenta al prepararlos para una actividad innovadora como un factor crucial para modernizar el sistema educativo del país.

Palabras-clave: Métodos de enseñanza innovadores. Innovación pedagógica. Enseñanza superior. Innovación educativa. Educación a distancia.