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IMPLEMENTATION OF INNOVATIONS IN INSTITUTIONS OF HIGHER EDUCATION: EXPERIENCE, PROBLEMS, PROSPECTS

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Abstract

The article is devoted to the problem of implementation of innovations in institutions of higher education. Its general tendencies are defined. These are: reforming the system of professional training of specialists, innovative orientation of professional training of teachers. The state of the problem was analyzed, foreign experience was studied, and ways of its use were outlined. It is noted that the reform processes in education aimed at acquiring knowledge, skills and abilities by future professionals, their transformation into competence, which will ensure the success of their professional and personal development, readiness to respond mobil to the challenges of time, implementation of socially important tasks - lifelong learning.

Keywords: innovations, professional training, competencies, tendencies, modernization.

One of the general trends in the development of higher education in Ukraine and in the countries of the European educational space is its development on the basis of modernization and the introduction of innovations. It is the educational sphere that determines the progressive movement of the economy of each state.

The term "innovation" has a multidimensional meaning, as it consists of two forms: the actual idea and the process of its practical implementation [6].

Analysis of literary sources, the subject of which is the introduction of innovative technologies into the educational environment of a modern educational institution, taking into consideration the positive European experience in modern Ukraine, shows the significant interest of scientists in these issues. Thus, researching the mechanisms of state regulation of the system of modern higher education, O.E. Kuzmin, M. Yastrubskyi, (2017) [1] note that in modern higher education, the role of the state in regulating the educational activities of higher education dominates.

The main normative document, in which provisions on state regulation of higher education activities are established, is the Law of Ukraine "On Higher Education", which stipulates that "the state policy in the field of higher education is determined by the Verkhovna Rada of Ukraine, and implemented by the Cabinet of Ministers of Ukraine and the central body of the executive authorities in the field of education and science". According to the researchers, higher education institutions can work successfully in the presence of appropriate support from the state and the development of the concept of development, both of the state economy in general and of its leading component -

higher education [2; 3].

The place and role of which must correspond to those declared in the Law "On Higher Education".

O. A. Dubaseniuk (2011) notes that innovations in pedagogy are connected with general processes in society, globalization and integration processes. As a systemic entity, innovation is characterized by integral qualities: innovation process, innovation activity, innovation potential, innovation environment [4].

The opinion of H. P. Klimova that the specificity of innovations in higher education is connected with the fact that they, according to first, they always contain a new solution to an actual problem in the field of higher education schools; secondly, their use leads to qualitatively new results educational activities, thirdly, their implementation causes qualitative changes in others components of the unified system of higher education [5].

So, innovation in education is a process of creation, introduction and dissemination adoption of new ideas, pedagogical and managerial tools in educational practice technologies, as a result of which indicators (levels) of achievements increase structural components of education, there is a transition of the system to a qualitatively different condition [8].

Evaluating the prospects for the introduction and development of innovations in the system of Ukrainian higher pedagogical education, he emphasizes that the evaluation of key studies and publications in Ukrainian pedagogical literature proves the relevance of the topic related to innovations. in pedagogical education.

Many new ideas of foreign researchers are focused on identifying the main trends in the transformation of

higher education. They are [7]:

1. The concept of systems thinking. It is often part of the curriculum in most leadership and business classes, but it is starting to gain popularity in education as well. Some institutions, such as the Massachusetts Global University and its School of Education, offer doctoral degrees in organizational leadership, but this is not a concept that addresses innovation in education. This is changing across the higher education landscape with an industry-wide call to action to rethink quality in terms of learning outcomes and a fully connected curriculum [7]. As Jaime P. Merisotis points out, "the institutional focus-the idea that decisions, funding, and policies must meet the needs of colleges and universities-must be replaced by a focus on meeting the needs of students, and therefore the needs of students, society." This is in line with the need for higher education to focus on learning outcomes as a true measure of quality.

An integrated approach comes into play when administrators and faculty recognize the need for a student-centered approach. Merisotis emphasizes the need to take the following steps:

- Harmonization of assessment and certification at different levels of education, to avoid duplication and timely completion of programs.
- Creating and improving financial aid programs and funding models that drive real results: paying students and institutions for what they actually learn, not for the time it takes to complete assignments.
- Clear definition of career ladders and paths for students.
- Reassuring employers that graduates will have the knowledge and skills they need to succeed in the workplace.

2. Man vs machine.

The amount of knowledge that can be gained is nearly endless, but the educational space now faces a different challenge-keeping up with the same digital advances that man has created. The main problem that needs to be solved is how to balance man and machine.

3. Creating sustainable communities.

A third trend focuses on creating economically sustainable cities through higher education. Harvard professor and economist Edward Glaser found a direct link between prosperous cities and higher education. His research shows that when the share of the population with higher education increases by 10 percent, gross output per capita in the capital increases by 22 percent. In light of these significant statistics, the Lumina Foundation has launched a new initiative that brings together educational and community leaders to create sustainable solutions for America's communities.

4. Combination of traditional and non-traditional education.

Blended learning (in English-language literature-blended or hybrid learning is the integration of online learning with traditional classroom learning. Such combined learning involves the use of two or more different learning methods, such as alternating face-to-face classes with online learning.

The use of elements of mixed learning allows to

involve communities in this type of activity and to diversify its organization, attracting students from all over the country and all over the world. The use of blended learning technologies is a new organization of the educational process, which posed many questions to teachers and administration of higher education institutions that should be urgently resolved, namely:

- selection of tools for work;
- organization of distance learning;
- assessment of students and control over their educational and cognitive activities;
- development or selection of a blended learning model;
- establishment of effective interaction of all participants in the educational process;
- ensuring the quality of education.

The main difference between blended learning and the usual system is the active use of IT technologies to prepare students for practical and seminar classes, independent work and independent cognitive activities. Thus, technologies become a full-fledged part of the educational process.

When using blended learning, the following changes occur:

- students calculate their own time, which increases learning efficiency;
- teachers focus on non-cognitive skills (communication, self-identification, teamwork, etc.) and formation of students' outlook;
- one day a week, students work independently and teachers conduct short 10-minute individual checks for each student.
- The organization of distance learning involves the use of electronic platforms.
- Assessment of students and control over their educational and cognitive activities takes place at the expense of both direct communication between students and the teacher and the use of electronic technologies, which significantly speeds up the process of checking tasks for independent educational and cognitive activities of students.
- The blended learning model includes alternating online and offline parts according to a certain schedule or teacher's recommendations. These parts may include work in subgroups or as a whole group, group projects, presentations, individual work with the teacher and written assignments.
- Establishment of effective interaction of all participants in the educational process.
- Makes it possible to ensure the quality of higher education.

• A promising direction for the development of blended learning is the development of an in-depth virtual model, according to which students independently divide courses into online and offline parts. Such a model of "independent mixing" assumes a high level of self-organization skills and activity of students, which activates their independent cognitive activity. The advantage of such a model is the flexibility of the schedule and distribution of loads.

The mixed education model involves the organization of in-depth classes that do not require additional premises and laboratories, which is an advantage for

higher education institutions.

5. Assessment of competence.

A competency assessment is an assessment of someone's abilities against the job requirements. These requirements are defined in the competency model. To be valuable, competency models should include only those tasks and skills that are critical to job success, not all of the activities that people perform in their jobs (as implied by traditional job task analysis). Assessment is done for specific tasks and skills, for which a rating is selected based on how well students complete the task, which determines their level of proficiency. In other words, competency assessment measures how (behavior) someone does what (task or skill). The individual's selected skill level is then compared to the target level, identifying skill or skill gaps for each task and skill [9].

The idea of connecting education systems with the needs of the labor market is not new. But today the issue of promoting innovation and competition in the field of education is becoming more relevant. At the same time, there is the issue of providing high-quality academic programs at affordable prices in order to increase the accessibility of education.

One of the outcomes of this call to action is the idea of competency-based learning. Dr. Charles Bullcock notes that this platform is "focused on students mastering competencies in the classroom or the workplace, not on how many hours, semesters, or years a student spends in college."

Data and assessment are the foundation of competency education. Students can set their own learning pace and often accelerate the time to graduation.

Competency-based assessment provides more detailed information that facilitates more focused teaching and learning for all parties involved.

Conclusions. The analysis of the problem of introducing innovations in institutions of higher education allows us to draw a conclusion about the relevance of this topic. It also shows attention to the problem of the world's leading countries, which indicates its complexity and multifacetedness.

The implementation of modern technologies in education creates new opportunities for the implementation of this task, activates the independent cognitive activity of students, and ensures the quality of higher education. That is why blended learning (BL) is considered one of the promising areas of higher education development.

Implementation of blended learning technology in the educational process, ensuring the quality of higher education. Therefore, blended learning is one of the promising areas of higher education development in Ukraine.

The use of mixed learning technologies is a new organization of the educational process, which cnfdbnm many questions to the teachers and administration of higher education institutions:

- selection of tools for work;
- organization of distance learning;
- assessment of students and control over their educational and cognitive activities;
- development or selection of a blended learning

model;

- establishment of effective interaction of all participants in the educational process;
- providing the quality of education.

A promising direction of blended learning is the integration of online learning with traditional learning.

The main tool for working in conditions of mixed learning is the active use of IT technologies for the organization of students' independent cognitive activities.

References:

1. Кузьмін О.Є., Яструбський М.Я. Державне регулювання діяльності ВНЗ, його значення у забезпеченні поступального розвитку вищої освіти. // Економічний журнал Одеського політехнічного університету №1(1), 2017.
2. Про вищу освіту: Закон України від 01.07.2014 № 1556-VII.
3. Про утворення Національного агентства із забезпечення якості вищої освіти: Постанова Кабінету Міністрів України від 15.04.2015 № 244.
4. Дубасенюк О. А. Упровадження освітніх інновацій в системі вищої освіти // Інновації у вищій освіті: проблеми, досвід, перспективи: монографія / за ред. П. Ю. Сауха. – Житомир: Вид-во ЖДУ ім. Івана Франка, 2011. – 444 с.
5. Інноваційний розвиток вищої освіти України: методологічний аспект аналізу / Г. П. Климова. // Право та інноваційне суспільство. - 2013. - № 1. - Режим доступу: <http://nbuv.gov.ua/UJRN/HYPERLINK> "http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILE=&2_S21STR=pric_2013_1_10"pricHYPERLINK "http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILE=&2_S21STR=pric_2013_1_10"2013_1_10
6. Енциклопедія освіти / Акад. пед. наук України; гол. ред. В. Г. Кремень. – К.: Юрінком Інтер, 2008. – С. 338-340
7. Innovative higher education trends // <https://www.umassglobal.edu/news-and-events/blog/5-innovative-higher-education-trends/>
8. Сисоєва С.О. Формування психолого-педагогічної компетентності студентів вищих навчальних закладів непедагогічного профілю // Проблеми освіти у Польщі та в Україні в контексті процесів глобалізації та євро інтеграції: 36. Матеріалів Міжн. науково-практичної конференції. – 22-24 квітня, 2009 р. Київ – Житомир / За ред. В. Кременя, Т. Левовицького, С. Сисоєвої. – К.: КІМ, 2009. – С.193.
9. Chery Lasse. A Competency Assessment Compares an Individual's Skills to Requirements <https://www.td.org/insights/what-is-a-competency-assessment>.

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