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## **DEVELOPMENT OF INNOVATIVE EDUCATIONAL TECHNOLOGIES IN UKRAINE IN TODAY'S CONDITIONS**

### **РОЗВИТОК ІННОВАЦІЙНИХ ОСВІТНІХ ТЕХНОЛОГІЙ В УКРАЇНІ В УМОВАХ СЬОГОДЕННЯ**

Global integration processes are taking place in the modern world, which affect the development of all spheres of activity, including the introduction and development of innovative educational technologies. Global problems that started back in 2019 with the world disease of COVID-19, which are associated with quarantine restrictions and the resolution of the Russian-Ukrainian war in 2022 by the aggressor of the Russian Federation, became the main reasons for the rapid decision-making regarding educational reforms that transform education for a productive branch of the economy. Ensuring the accelerated innovative development of education should take into account modern scientific and technical achievements, the organization of the educational process in today's conditions and updating the content of education, which is the basis of the strategic tasks of "Ukraine of the 21st century" [1; 2].

It is worth emphasizing the development and use of a significant number of learning technologies, namely, traditional and implementation of innovative forms of education. In the process of implementing these technologies in the educational process, contradictions arise between new and old ways of presenting and assimilating educational information. The amount of classroom (learning) time at the university is limited, and the amount of information provided by the teacher is constantly increasing. In addition, constant air alarms and military actions of the aggressor affected the fact that face-to-face training of the educational process became temporarily unavailable and required the adoption of alternative solutions. But despite the crisis in education caused by such factors, new prospects for the development of innovative learning as a self-sufficient educational element have opened up. This necessitated the use of an innovative orientation of the educational process, namely:

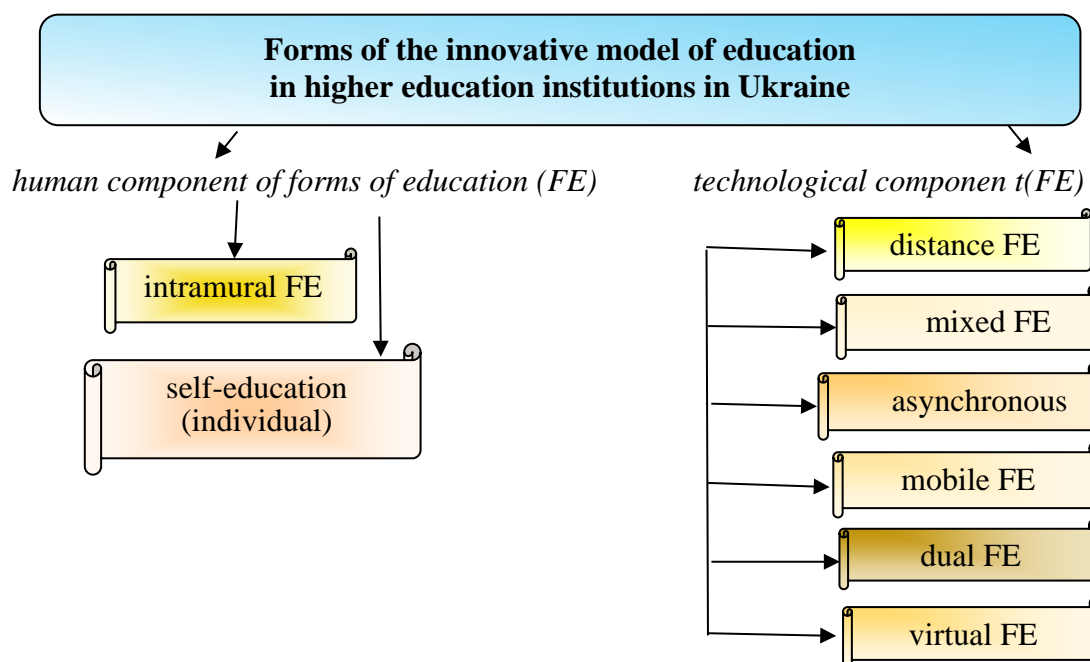
- 1) updating the methodology and technology of the educational process of universities,
- 2) changing the scope and content of educational disciplines and introducing new ones, including the opening of relevant new specialties;
- 3) change in the nature of teaching subjects by scientific and pedagogical workers and readiness for innovations, etc.

Innovative technologies in institutions of higher education, taking into account the modern conditions of our country, undergo certain periods, namely:

- *short-term* (1-2 years), which involves the transformation of learning spaces from traditional face-to-face learning in classrooms to distance, virtual or mixed learning;

- *medium-term* (3-4.5 years), according to which a culture of innovation is formed in the higher education system and the first results of innovative education are obtained;
- *long-term* (over 5.5 years) – a complete rethinking of the work of classical university institutions [3, p. 4]. In today's conditions, only an innovative model can maintain the continuity of the educational process in higher education institutions, which provides for the organization of distance, digital, dual, virtual and other forms of education (Fig. 1).

Considering the difficult conditions in which our country is located, it is necessary to pay attention to the fact that it is innovative learning technologies that have become a potential factor in the modernization of higher education.



**Fig. 1. The modern format of the innovative model of education in higher education institutions in Ukraine in the conditions of military operations**

*Source: author's development based on [5, p. 4-5; 6, p. 47-48; 7 p. 85-90; 8 p. 5-10]*

In addition to the educational process in higher educational institutions, educational activity using innovative technologies is manifested in particular in the scientific research and organizational and educational process in particular.

It should be noted that in the modern system of higher education, innovative learning technologies provide the following competencies: hard-skills, soft-skills, digital skills.

In particular, interactive technologies are focused on the use of active and interactive learning methods, i.e. information and communication technologies that involve the use of video conferences (Zoom, Google Meet, Webex Meet), chats, forums, websites, multimedia, office online applications, Google documents, Google presentations, Google Classroom, etc. In blended learning, an effective method of visualizing thinking and alternative recording is relevant, namely the use of a new technology of knowledge maps – Mind Maps, which also have other names: mental maps, mind mapping, reflection maps, concept maps.

When there are constant hostilities by the Russian aggressor on the territory of our country, and the Ukrainian youth must be continuously trained and nurtured as talented individuals and provide them with high-quality educational services, the higher education institutions must continue to search for new sources and technologies.

Thus, with large volumes of lecture material, cloud technologies have recently been used, namely: Cloud technologies, Sway, Prezi for delivering lectures, electronic

presentations and further storage. Such technologies make it possible to conduct online lecturer-student consultations as well. «Scribe» scribing technology is effectively used for accessibility and simplification of the presentation of educational material. It will be appropriate to conduct online classes using the "Kahoot!" platform. To check the knowledge acquired by students, the use of testing is provided, which can be conducted through a virtual classroom and for self-placed learning. Also, the "Excel Survey" tool is used to survey students regarding the acquired knowledge.

Since 2019, most higher education institutions, including the Kyiv National University of Technology and Design, have been using the Moodle–Modular Object-Oriented Dynamic Learning Environment platform quite actively. This platform provides an opportunity to save and use a wide range of didactic materials, quick access to them and individualization and testing of students' knowledge.

Therefore, the transition of higher education institutions to an innovative model of development, which is based on a continuous and purposeful process of searching for, preparing and implementing innovations that give impetus to the development of ideas, the implementation of scientific and research work, the development of a technological process and material support.

Thus, the active application of the modern format of the innovative model of education in higher education institutions in Ukraine in the conditions of military operations makes it possible to train highly qualified specialists in various fields of activity, which will contribute to the rapid improvement of the economic condition of the economy and the further development of the country as a whole in the war and post-war period.

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