must be able to monitor the professional qualifications in demand on the labor market and know how to establish and maintain relations with the state employment service and social partners.

References

1. Концепції Державної цільової соціальної програми розвитку професійної (професійно-технічної) освіти на 2022–2027 роки : розпорядження КМУ від 09 грудня 2021 р. № 1619-р. URL: https://zakon./rada.gov.ua/laws/show/1619-2021-p#Text.

2. Пригодій М. А. Методичні основи розроблення SMART-комплексів для підготовки кваліфікованих робітників аграрної, будівельної та машинобудівної галузей. *Вісник Національної академії педагогічних наук України*. 2021. Т. 3. № 1. С. 1–8. URL: https://doi.org/10.37472/2707-305X-2021-3-1-2-8.

3. Гуржій А. М., Радкевич В. О., Пригодій М. А. Забезпечення якості підготовки кваліфікованих робітників з використанням SMART-комплексів навчальних дисциплін. *Сучасні інформаційні технології та інноваційні методики навчання у підготовці фахівців*: *методологія, теорія, досвід, проблеми* : зб. наук. пр. Вінниця : ТОВ «Друк плюс», 2021. Вип. 60. С. 30–39. URL: DOI: 10.31652/2412-1142-2021-60-30-39.

4. Kryvorot T., Pryhodii M. Training of pedagogical workers for the use of digital internet technologies in the educational process. *Professional Pedagogics*. 2022. Issue: 1. № 24. P. 33-41. URL: https://doi.org/10.32835/2707-3092.2022.24.33-41.

5. Pryhodii, M. Analysis of the state of pedagogical workers training to use smart technologies in the educational process. *Professional Pedagogics*. 2019. № 18. P. 137-142. URL: https://doi.org/10.32835/2223-5752.2019.18.137-142.

DEVELOPMENT OF A CREATIVE ENVIRONMENT IN EDUCATIONAL INSTITUTIONS

Nataliya V. Bakhmat
Kamianets-Podilskyi National Ivan Ohiienko University, 32301
Kamianets-Podilskyi, Ogienko St., 61, E-mail: bahger.teacher@gmail.com

The process of learning in the creative educational environment of general secondary education/higher education is represented by sets of its components: educational means, teaching methods, etc., which determine the

substantive and procedural components of the educational environment forming the creative activity of future graduates.

Taking into account the given above we want to offer for the design of the creative environment of the educational institution in the digital space the use of such techniques as: Web-quest, Digital Twins, Post-session, The World Cafe, Walt Disney Technique, mobile educational applications. Let's briefly analyze each of them.

The method of Web-quest (from the English *web* – the World Wide Web and *quest* – search, adventure) is a type of activity that focuses on the request of information by students through the Internet. Such queries can be created using various programs, including a simple document for word processing or a reference to websites [1].

Digital Twin – The Technology of Digital Twins (DT technology). The concept of Digital Twin is the convergence of the physical and virtual worlds, where each object receives its own dynamic digital representation (imprint). The DT toolkit includes powerful components such as big data, the Internet of Things, machine learning, and artificial intelligence, which are widely used in industry. Wide access and use of these tools have made DT more cost-effective and accessible to the business world, including, in our view, the education sector [4].

The ***"Post-session" method*** is a poster presentation at a conference / class with academic or professional orientation and is a presentation of the research information in the form of a paper / digital poster that can be viewed by conference / class participants [1].

The ***World Cafe*** is a method that allows you to organize a lively discussion using digital technologies, focusing on informal discussion. This technique is a valuable helper when it is necessary to gather information in a group of people, to exchange knowledge, experience, freely share ideas and opinions, to hear what others think about issues relevant to the community. The World Cafe method allows to involve each participant in the conversation, creating a comfortable atmosphere of openness, ease and psychological security [4].

Walt Disney's method is a method of creativity, which is carried out in the form of a role play, in which participants consider the task from three points of view: creative, realistic and critical. It is named after the American animator Walt Disney. The author of the methodology is Robert B. Dilts [3].

GeoGebra mobile application is a freely distributed dynamic geometric environment that allows you to create "living drawings" when teaching the disciplines of the mathematical cycle.

The program has a large number of opportunities to work with functions, in particular: plotting, calculating roots, extremums, integrals, etc. Geometric constructions can be controlled by built-in language commands.

The program was developed by Marcus Hohenwarter in Java. It is translated into 39 languages [2].

Regarding the peculiarities of organising a creative educational environment of the New Ukrainian School as a factor in student development, we note that this is due to the use of innovative learning technologies in combination with traditional approaches to learning. We recommend that the features include the use of such teaching methods that would promote the development of their creativity, in particular: brainstorming, mini-research, Web-quest, project method and the use of integrated learning modules.

Brainstorming is a way to stimulate creative thinking when solving a lesson problem. The purpose of brainstorming is to obtain many new ideas and form themes for further analysis of educational material. During the implementation of this method, the teacher determines the topic of "Brainstorming" and asks each student to express their own opinion on the topic. For the qualitative application of this method, it is desirable for the teacher to follow the following rules: to offer students as many ideas as possible to solve the outlined problem; do not reject students' ideas, even if they contradict the general opinion of the class; the teacher can offer as many ideas as he wants or develop students' ideas; it is not possible to criticize the statements of the participants in the brainstorming and evaluate the proposed ideas during the discussion.

Thus, the method of Brainstorming" promotes the creativity of students and motivates them to acquire new knowledge.

The next effective method of developing students' creative abilities in NUS is a method aimed at organizing and conducting mini-research by the teacher.

The method of conducting a mini-study involves determining the purpose of the study by students, collecting, processing and analyzing the information obtained, evaluation of results. In particular, in primary school it is desirable to use one source for a mini-study, the results should be presented in a simple form, for example, in the form of a table or short text.

This technique can be used in lessons on the subject "I explore the world", "Mathematics". Thus, while studying mathematics, students can be asked to explore mathematical indicators in everyday life. This can be a project "Numbers in human life", in particular in the kitchen, and when studying the subject "I explore the world" students can do research on "Primroses", or "Seven Wonders of Ukraine".

The organization of such research promotes the development of mathematical, social and civic competence of students, the ability to learn throughout life and ensure the implementation of cross-cutting lines, which are determined by the implementation of the Concept of the new Ukrainian school.

Web-quest is a technique that allows you to use the space of the Internet in class. The modern digital generation enjoys performing a variety of tasks using mobile applications and participating in science fiction digital quests and games. Also, the Web-quest can be organized as a problem-solving task with elements of a role-playing game, for which students need to use information resources.

When implementing this method, students develop information competence, creative imagination and creative thinking. Using the Web-quest technology, you can conduct an integrated lesson in mathematics and the subject "I explore the worlds" on the topic of "Solving inequalities. Birds" where students are asked to study the structure of birds by solving simple inequalities.

The project method and the use of integrated learning modules in NUS will help to develop students' skills to construct their knowledge, develop self-organization skills, promote skills to work with information, develop skills to present results, develop creative and research skills and motivate students to acquire new knowledge.

The above techniques can be used in the study of all subjects outlined in NUS programs that allow for the implementation of integrated modules, posted on the website of the Ministry of Education and Science of Ukraine (https://mon.gov.ua/ua/osvita/zagalna-serednya-osvita/navchalni-programi/navchal ni-programi-dlya-pochatkovoyi-shkoli).

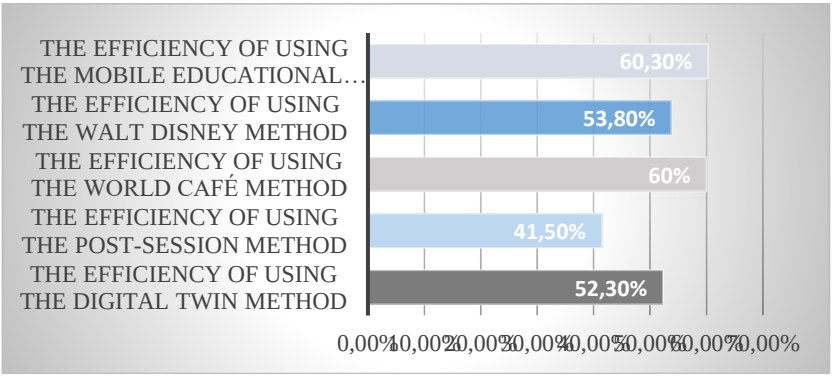

Fig. 1. The results of the study to determine effective methods that create a quality creative educational environment in the educational institution, in %

To achieve the goal of our study, we conducted a survey of teachers to identify effective methods that allow you to create a quality creative educational environment in the educational institution. The study involved

65 teachers of educational institutions of Ukraine. The survey was conducted using Google Forms. The results of the survey are presented in Figure 1.

According to the results of the study, we found that teachers in designing a creative educational environment prefer digital learning technologies, including the use of mobile educational applications and methods of "World Café" (The World Cafe).

Thus, analyzing the theoretical and practical scientific achievements on the research problem, the "creative educational environment", which is an environment that helps education seeker to identify and reveal their own creative abilities without imposing knowledge by the teacher; helps the teacher to diversify the forms of the work organization with students that promote their creative development; ensures openness and accessibility of the educational process. In a creative educational environment, the interaction of subjects is characterized by the reliance on positive stimulation, the formation of a sense of success, self-confidence, lack of external coercion, the prevalence of cooperative relations. At the same time, it is important to reduce the subjectivity and bias of the assessment, to ensure its validity.

References

1. Dubinina O. V., Burlaenko T. I. 2021. Implementation of the research and cognitive approach in working with gifted youth. Electronic resource. Available at: https://pi.iod.gov.ua/images/pdf/2021_2/52-59.pdf

2. "GeoGebra": Mobile application, 2021. Electronic resource. Available at: https://www.geogebra.org/calculator

3. Industry 4.0 and the digital twin Manufacturing meets its match (2017), Available at: https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/cip/deloitte-cn-cip-industry-4-0-digital-twin-technology-en-171215./pdf. Accessed 17 Aug 2020

4. Kartashova L., Gurzhiy A., Zaychuk V. Digital twin educational institution as a need for distance learning: innovative solutions 2020. Electronic resource. Available at: http://surl.li/csfcx

5. Lytvyn I., 2021. Facilitation method: "World Cafe"" (The World Cafe, world cafe). Electronic resource. Available at: https://newrealgoal.com.ua/fasilitacionnyj-metod.html

ІМІДЖОЛОГІЯ ЯК КОМПОНЕНТА ЯКОСТІ ОСВІТНЬОГО ПРОЦЕСУ У ЗАКЛАДАХ ВИЩОЇ ОСВІТИ