DIGITAL TECHNOLOGIES AS AN EDUCATIONAL PROCESS IN PREPARING FUTURE TEACHERS FOR PROJECT ACTIVITIES

[1]Orishev Jamshid Bahodirovich, [2]Achilov Sohibjon Toljin ugli
[1]Senior teacher, Jizzakh state pedagogical university
[2]Student, Jizzakh state pedagogical university
https://doi.org/10.5281/zenodo.7772979

Abstract. *Organization of educational processes on the basis of digital technologies in higher education institutions, increasing the competencies of future specialists in working with digital technologies during the educational process is an urgent issue. The article describes educational considerations for the preparation of future technological education teachers for design activities based on digital technologies.*

Keywords: *digital Uzbekistan-2030, technological education, digital technology, project problem, design activity.*

The training of competitive modern specialists is of great importance for the socio-economic, spiritual-educational and intellectual renewal of our republic, its full integration into the world community. In this regard, fundamental reforms are being implemented in the higher education system. Because of this, the training of innovative and advanced personnel who can meet the requirements of international standards and reliably operate in the digital society is an important task for the higher education system in our Republic, and solving such an issue has already been raised to the level of state policy.

As stated in the "Concept of the Development of the Higher Education System of the Republic of Uzbekistan until 2030", one of the important tasks of the National Program is "... to introduce methods and technologies aimed at strengthening competences in the educational process, to direct the educational process to the formation of practical skills, in this regard, to introduce advanced pedagogical standards to the educational process based on international educational standards it is necessary to widely introduce technologies, educational programs and teaching-methodical materials.

Digital technologies are information and communication services in educational and production facilities. The term "Digital" refers to the active use of information technologies in all of these areas. If material goods are considered the main resource in the economy, in digital technologies, this means information data that can be processed and transmitted [5].

Digital technology is a modern form of activity, in which a large set of data in digital form and the process of their processing serve as the main facts of production and management.

The development trend of digital technologies in world education shows that higher education institutions of all developed countries have already begun to form it. This process is accelerating in our republic as well.

The following important task of digital technologies is considered urgent: that is, the consistent automation of the current process and the preparation of students for the use of modern technologies. Therefore, in this process, if a lot of information is transferred to a digital format, stored in electronic form, the issues of information security will be solved. Therefore, it is

necessary to pay attention to the organization of educational processes based on digital technologies in pedagogical higher educational institutions, to increase the competences of future specialists in working with digital technologies in the pedagogical process.

Based on our several years of observations, the requirements for the organization of educational processes in the preparation of future teachers of technological education for professional activities on the basis of digital technologies in pedagogical higher education institutions include the technology of this process, that is, the design of each stage of the entire educational process separately, the clarification of the goals and tasks of teachers and students, we think that the correct choice of educational methods, predetermining the expected results of training can ensure the effectiveness of education. In order to implement this prediction, it is emphasized that it is appropriate to pay special attention to the following:

- improvement of teaching forms, educational technologies and methods in cooperation between teachers and students;
- development of teacher's professional-pedagogical knowledge and professional culture,
- to create favorable didactic situations in the educational process based on cooperation;
- development of the teacher's possibilities of designing the pedagogical process in the educational process based on cooperation;
-organization and management of the educational process based on the teacher's design [5].

Future technology education teachers (FTET) Pedagogical-psychological foundations of preparation for design activities are formed in the educational process, and design activities are used as a basis for organizing the educational process. At the same time, in this process, in determining the methodology of comprehensive solutions to professional issues, it is also important that the design stages are provided with digital technologies.

The results of our research in this area suggest that the preparation of future technological education teachers for design activities based on digital technologies should be carried out in the following stages:

- *FTET research-selection stage of preparation for design activity;*
-*FTET construction-technological stage of preparation for design activity;*
- *FTET the stage of introducing the methodology of preparation for design activities.*

We explain the essence of each stage as follows.

FTET research-selection stage of preparation for design activity. This stage is intended for the first academic year of the students of the technological education direction, in which the direction of the project is determined and its problem is analyzed; the topic of the project is chosen; information related to the topic is collected, data is studied, processed and analyzed; the implementation of the project is planned. When choosing the direction and topic of the project, the studied science, students' interest in science, worldview and cognitive abilities are taken into account. The following are included in the project: the goal of the project; its relevance; information sources (mass media, database, electronic data, interviews, questionnaires, etc.); information processing (analysis, generalization, comparison of evidence, proven conclusions), result (article, abstract, report, portfolio, video material, etc.), presentation (publishing, networking, discussions at teleconferences and webinars, etc.).

FTET construction-technological stage of preparation for design activity. At this stage, a convenient solution to the problem set in the project is sought; design requirements are taken into account and construction options are studied; achievements and shortcomings in the

planned direction are analyzed; the work organized under the project and the prepared products are examined, the project technology is developed; intellectual potential is studied; construction and technological documents of the project will be drawn up. At the same time, technological processes are formed, a project implementation plan is drawn up. Planned technological operations are carried out; necessary equipment, materials and equipment are selected; the processes being designed are analyzed. To implement this step, changes can be made to the design and technology to achieve a better result. At this point, it is appropriate to dwell on the following main features of design activity: forecasting, planning, modeling. To predict is to make a prediction about the information that needs to be determined on the basis of certain information (information object). Planning is a comparison of a plan or a project of something, and a plan is "an intention, project, assignment that requires the execution of premeditated actions and measures for the realization of a common goal. Modeling is the study of research objects, their models, and the creation of required models of things and events [3].

FTET the stage of introducing the methodology of preparation for design activities.

This stage is a crucial stage of the research, so no mistakes can be made. In this case, the effectiveness of research should be reflected in concrete results. For this purpose, it is necessary to have the skills and abilities to use computer systems based on digital technology and automated design systems in the course of BTTO's activity. In this case, training conducted on the basis of automated design systems and computer-aided systems based on digital technologies provides an opportunity to convey a large amount of information to students in a short period of time. Students will have the opportunity to get quality and meaningful information, to use inter-subject (interdisciplinary) integrated, simulated, visualized, virtualized resources. Video-audio techniques and modern computers are used during training. Depending on the result of the training, students will be given additional information on the topic, some corrections will be made. This ensures that the research objective has been achieved.

The results of our research provided us with the basis for the formation of methodological conclusions. The development of digital technologies is an urgent issue of social importance, which includes the following factors:

• expressing the stages of designing training sessions in the specialty subjects in the preparation of future technological education teachers in a continuous sequence;

• formation of digital technologies of professional training of future teachers of technological education and development of pedagogical bases of its introduction;

• the methodology of using digital technologies in practice, conducting their initial examination and editing (making corrections) when deemed necessary;

• preparation of guidelines and instructions for users of digital technologies, their reproduction, distribution and regular monitoring of the practicality of software tools.

In conclusion, it can be noted that it would be appropriate to express the main ideas and directions of training future technological education teachers on the basis of digital technologies as follows:

• it is necessary to implement the main components of digital technologies and their dynamic development in accordance with the development of society;

• scientific-methodical justification of the main principles of training future teachers of technological education on the basis of digital technologies;

• to clarify the laws of interrelationship of the blocks of subjects in the curriculum for the professional training of future teachers of technological education on the basis of digital technologies;

• development of theoretical and methodological bases of training of future teachers of technological education on the basis of digital technologies;

• to enable the creation of educational-programmatic and educational-informational supplies, reflected in practical developments, which methodological approaches ensure the improvement of the educational process of higher educational institutions, in particular, the training of future technological education teachers;

• work on optimal options for improving the training of future teachers of technological education on the basis of digital technologies in higher educational institutions.

Therefore, the positive results achieved in the training of future technological education teachers on the basis of digital technologies, the conditions and opportunities created for the quality of education directly require the effective use of advanced methodologies to prepare them for design activities.

REFERENCES

1. "Concept of developing the higher education system of the Republic of Uzbekistan until 2030" //Collection of normative documents of higher education. Tashkent. Shark 2019
2. National Encyclopedia of Uzbekistan. Tashkent. State scientific publication. 2006. Vol. 3.
3. Khasanboev J, Turakulov H., Khaidarov M.E., Khasanbayeva O.U. Annotated dictionary of pedagogy. Tashkent-2006
4. Muslimov N.A., Urazova M.B., Eshpulatova Sh.N. Bўlazhak ўқituvchining loyiҳalash faoliati. ққққўllanma. Samarkand.2011.
5. Turdiev U. Organization of physical education and sports processes on the basis of digital technologies in higher education institutions of pedagogy // People's education. Scientific methods magazine. 2020 No. 6,
6. Torakulov X.A., Torakulov O.Kh., Orozboev S.E. Preparation of future teachers for intellectual activity on the basis of intellectualized teaching systems. Monograph. Tashkent. 2020.
7. Turakulov H.A., Orishev Zh. // Social and humanitarian sciences in the educational system. Scientific service journals. Tashkent, No. 3-4, 2011 B.38-41
8. Turakulov Kh.A., Orishev Zh.B. The main principles of project-based education // Educational problems. Scientific service journal. Tashkent, No. 3, 2012 B. 36-38
9. Torakulov O.Kh., Akhmedov J.R. Improving the preparation of future vocational education teachers for innovative activities in the informational educational environment. Monograph. Tashkent. 2019. 200 p
10. .Orishev, Jamshid (2021) "Project for training professional skills for future teachers of technological education," *Mental Enlightenment Scientific-Methodological Journal*: Vol. 2021 : Iss. 2 , Article 16.
11. Kh. Torakulov, J. Orishev OPPORTUNITIES OF DIGITAL TECHNOLOGIES IN ORGANIZING THE EDUCATIONAL PROCESS // SAI. 2022. No. B8.

12. Torakulov Kh, O. J. (2011). Project-based education is a pledge of educational effectiveness. Social and humanitarian sciences in the educational system. Scientific-methodological journal. Tashkent, 3-4.
13. Orishev, J. (2020). ЎҚУВ ЖАРАЁНИНИ ТАШКИЛ ЭТИШДА ЛОЙИҲАЛИ ТАЪЛИМДАН ФОЙДАЛАНИШ. *Физико-технологического образование*, *1*(1)