MODEL OF PROJECT MANAGEMENT IN THE DIGITAL EDUCATIONAL ENVIRONMENT OF THE UNIVERSITY

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Abstract. The paper considers the main aspects of project management in a digital educational environment. Particular attention is paid to solving the problem of improving the theoretical, methodological and technological foundations of effective management of project activities of students in the digital educational environment of the university. **The purpose of the study** is to develop and theoretically substantiate a model for managing students project activities in the digital educational environment of the university. **Materials and methods.** The solution of this problem in the text of the article was carried out on the basis of a structural analysis of project activities, as a result of which the structural components and functionality were determined, an analysis was carried out for the compliance of the existing system with functional requirements, measures for the effective management of students' project activities were developed and substantiated. Based on the study of the principles of building a digital educational environment, an analysis and modeling of the project management process was carried out. The structure of the digital educational environment of the university is revealed, presented as an open set of information systems designed to provide various tasks of the educational process. In order to ensure effective management of project activities of students, an author's model of project management in the digital educational environment of the university has been developed. The internal structure of the model is provided by theoretical-methodological, perspective-target, content-semantic, organizational-activity and integrative-evaluative blocks. The technology for implementing the model for managing students' project activities in the digital educational environment of the university, developed in the logical unity of content, procedural and organizational characteristics, is presented. **Results.** Based on the analysis of scientific and methodological literature, the practice of higher education, the current state of the problem of management of project activities of students is revealed. The features of the digital educational environment of the university and its possibilities in the development of the project culture of students are determined. A model for managing project activities of students has been developed and substantiated, including methodological foundations, conceptual and categorical apparatus, theoretical basis and content and semantic content. The technology of implementation of the model of management of project activities of students in the digital educational environment of the university is presented. **Conclusion.** The introduction of digital technologies and digital tools, their use in managing an organization, in providing access to digital educational and methodological materials, in expanding the space for creativity contributes to the transition to a model of a personalized organization of the educational process. In turn, the digital educational environment is aimed at improving the quality of education and promoting the educational results of students, controlling them and quickly evaluating them.

Keywords: digital educational environment, digital technologies, project activity, management model

МОДЕЛЬ УПРАВЛЕНИЯ ПРОЕКТНОЙ ДЕЯТЕЛЬНОСТЬЮ В ЦИФРОВОЙ ОБРАЗОВАТЕЛЬНОЙ СРЕДЕ УНИВЕРСИТЕТА

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Аннотация. В работе рассмотрены основные аспекты управления проектной деятельностью в цифровой образовательной среде. Особое значение уделено решению проблемы по совершенствованию теоретико-методологических и технологических основ эффективного управления проектной деятельностью студентов в цифровой образовательной среде университета. **Цель исследования** заключается в разработке и теоретическом обосновании модели управления проектной деятельностью студентов в цифровой образовательной среде университета. **Материалы и методы.** Решение указанной проблемы в тексте статьи проведено на основе структурного анализа проектной деятельности, в результате чего определены структурные компоненты и функциональные возможности, проведен анализ на соответствие сложившейся системы функциональным требованиям, разработаны и обоснованы мероприятия по эффективному управлению проектной деятельностью студентов. На основе исследования принципов построения цифровой образовательной среды проведен анализ и моделирование процесса управления проектной деятельностью. Определена структура цифровой образовательной среды университета, которая включает совокупность информационных систем, направленных на реализацию основных образовательного процесса. С целью обеспечения эффективного управления проектной деятельностью студентов разработана авторская модель управления проектной деятельностью в цифровой образовательной среде университета. Внутреннее строение модели обеспечивают пять основных блоков: теоретико-методологический, перспективно-целевой, содержательно-смысловой, организационно-деятельностный и интегративно-оценочный. Представлена технология реализации модели управления проектной деятельностью студентов в цифровой образовательной среде университета, разработанная в логическом единстве содержательной, процессуальной и организационной характеристик. **Результаты.** На основе анализа научной и методической литературы, практики высшего образования выявлено современное состояние проблемы управления проектной деятельностью студентов. Определены особенности цифровой образовательной среды вуза и её возможности в развитии проектной культуры студентов. Разработана и обоснована модель управления проектной деятельностью студентов, включающая методологические основания, понятийно-категориальный аппарат, теоретический базис и содержательно-смысловое наполнение. Представлена технология реализации модели управления проектной деятельностью студентов в цифровой образовательной среде университета. **Заключение.** Внедрение цифровых технологий и цифровых инструментов, их использование в управлении организацией, в обеспечении доступа к цифровым учебным и методическим материалам, в расширении пространства для творчества содействует переходу к модели персонализированной организации образовательного процесса. В свою очередь цифровая образовательная среда направлена на повышение уровня качества образования и содействие образовательным результатам обучающихся, контролируя их и оперативно оценивая.

Ключевые слова: цифровая образовательная среда, цифровые технологии, проектная деятельность, модель управления

Introduction

The development of the economy and society requires universities to implement not a traditional, but a competency-based approach to teaching students. Students must master a variety of complex competencies, learn to independently search for information, analyze it and apply it to solve various problems of their future professional activities. One of the possible tools for the implementation of the competence-based approach is the project method [1, 2].

In modern conditions, digital technologies are used and implemented in almost all major spheres of life. Obtaining new ways of implementing information and digital technologies on the world market leads to the implementation of modern and optimal management mechanisms, which annually increase their influence on the main spheres of the economy, as well as on education and the activities of educational institutions. It is important to note that the educational process in a rapidly changing environment has the properties of continuity, orientation to socially significant aspects, personal certainty, and necessarily takes into account all the needs and personal interests of students. Obviously, in such conditions, optimal management decisions should be based on large amounts of data and promptly processed using modern technologies. In turn, it is advisable for leading educational institutions in the process of their main activities to take into account not only forecast changes, but also to actively implement innovative processes in order to obtain distinctive features and competitive advantages [3–5].

Today, education is mainly in demand for various digital technologies (media platforms, electronic resources, software, etc.), which are more focused on the implementation of high-level educational opportunities, which leads to an increase in the efficiency of the entire educational process, in where teachers and students are at the center of networking. Modern digital technologies are aimed at solving the main tasks of education that are not feasible or cannot be fully solved using traditional educational tools and technologies. First of all, digital technologies in educational processes are aimed at creating conditions for increasing and improving the quality of this process, at purposefully ensuring the optimal functioning of the entire structural organization. These circumstances imply the targeted use of planning systems based on digital tools; the use of electronic document management, which ensures the effectiveness of the development process and management decision-making; creation of optimal conditions for the implementation and management of project activities of students [6; 7].

Statement of the problem

Analysis of the work of the available scientific base for the development of effective management of project activities of students in an educational organization [1–8] and the reflection of their own scientific and pedagogical experience in the digital educational environment of the university made it possible to identify the contradictions that have developed in theory and practice:

– *at the socio-pedagogical level* – between the socially conditioned requirements of society to improve the efficiency of the process of managing the project activities of university students and the insufficient level of manifestation of project competencies of students (project knowledge and skills) in this activity;

– *at the scientific and theoretical level* – between the complex nature of the implementation of interaction in the implementation of the project work of 1st-2nd year students and the insufficient elaboration of scientific and methodological materials and instructions.

– *at the scientific and methodological level* – between the complex nature of the process of managing the project activities of junior students of the university and the undeveloped scientific and methodological support of this process in the digital educational environment of the university.

The problem of research follows from the above contradictions: what are the theoretical, methodological and technological foundations of effective management of project activities of students in the modern digital environment of an educational institution. And the main task is to create and theoretically explain the developed scheme for managing the project work of students in the digital environment of an educational institution.

In accordance with the set goal, the following tasks have been identified:

1. Based on the study of scientific materials, the practice of higher education, to reveal the current state of the problem of management of project activities of students.

2. Determine the features of the modern digital environment of an educational institution and identify its possibilities in the development of the project culture of students.

3. To develop and substantiate a model of management of project activities of students, including methodological foundations, conceptual and categorical apparatus, theoretical basis and content and semantic content.

4. To present the technology of implementation of the model of management of project activities of students in the digital educational environment of the university, which ensures an effective process of development of the project culture of students.

Analysis of the project activities structure

Project activity is an activity aimed at achieving a predetermined result, creating a certain unique product or service. The concept of "project activity" is based on the concept of "project". Common features that distinguish the project from other activities:

1) focus on achieving specific goals with a specific beginning and end;

2) limited length in terms of time, cost and resources;

3) originality and uniqueness (to a certain extent);

4) complexity – the presence of a large number of factors that directly or indirectly affect the progress and results of the project;

5) legal and organizational support – the creation of a specific organizational structure for the duration of the project [7, 8].

Any project is implemented through a series of phases, has a beginning and end. The project life cycle is a sequence of phases from the beginning to the end of the project, defined according to the needs of the project management. All projects, as a rule, have the following phases within the framework of the international project management standard [4, 5]:

1) initiation: identification of a problem situation, development of a project charter, identification of stakeholders, team building;

2) planning: developing a plan, defining the scope of the project, creating the structure and scope of work, estimating resources, defining the organizational structure and sequence of work, estimating the duration of work, developing a schedule, estimating costs, developing a budget, defining and assessing risks, developing a supply plan, developing quality plan, development of a communications plan;

3) execution: direct work on the project, stakeholder management, development of the project team, formation of an attitude to risks, ensuring quality requirements, selection of suppliers, dissemination of information;

4) management: management of project work, change management, management of the substantive part of the project, management of basic resources (temporary, technical, human, etc.), management of the entire project team, management of the strategic schedule of project activities, management of all cost items for project implementation, management of possible and latent risks, management and preservation of the quality of the educational process, management of the administrative part of the project, management of communication processes, etc.;

5) results: the result of a task or a series of tasks, reflex, formulation of key findings and analysis of the success of the project.

Project activity always has a number of limitations, which include the duration of the project; availability of the project budget; availability of resources for the project; factors related to the health and safety of the project team; the level of acceptable risk in the project; possible consequences of the project in the social sphere; regulatory documents that must be followed when performing work.

Project activity of students is a motivated independent activity focused on solving a certain practically or theoretically significant problem, formalized in the form of a final product. This product (the result of project activities) can be seen, comprehended, applied in real practice. *The main goal* of project activity is the independent acquisition of skills in the process of performing the assigned tasks, the solution of which is possible by combining skills and knowledge from various fields of activity.

The result of such activities is the development of a project culture, which is defined as a social and professional component of professional culture, including such components as: project-oriented self-consciousness, professional and creative thinking, scientific and project skills of students and assuming a fairly high level of implementation of project activities, scientific understanding of the used project means and, as a consequence, the effectiveness of educational, scientific and innovative activities of students (Fig. 1) [3–5].
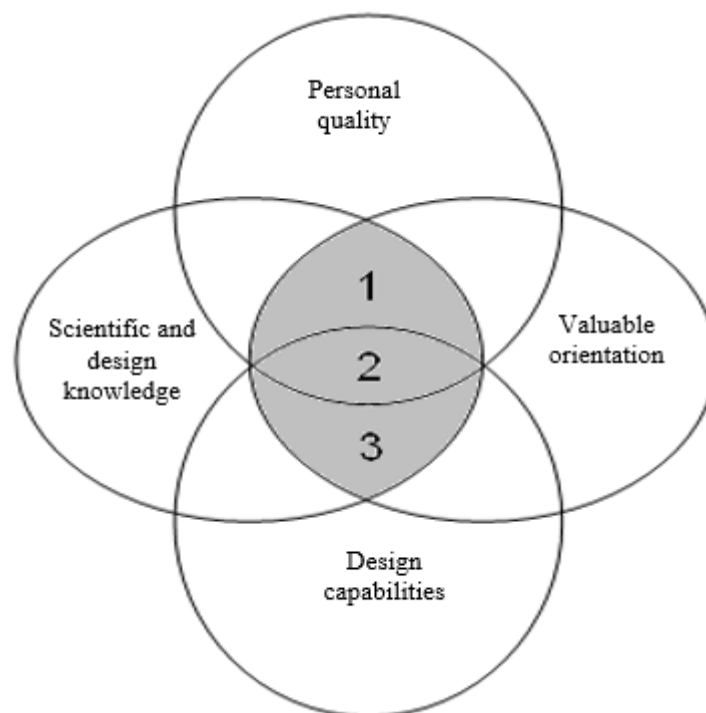
Fig. 1. Structural components of the project culture of students: 1-2-3 – project culture:
1 – project self-awareness; 2 – creative thinking; 3 – scientific and design skills

Project self-awareness as a structural component of project culture can be considered as the result of an optimal synthesis of the professional qualities of a person, value orientations and scientific-project (professional) knowledge / skills of students. This component can be traced in the process of a student's attitude to the implementation of real project activities and is expressed in such target settings that are aimed at comprehension, introspection and self-assessment of project activities and their results.

Design and creative thinking is an important component of design culture and involves the synthesis of professional and personal qualities of students, professional and value orientations, scientific and design professional knowledge and optimal design abilities. Such thinking is aimed at finding innovative opportunities for the implementation and application of scientific and project knowledge and professional skills in the implementation of the main stages of project activities.

It is expedient to consider scientific and project professional skills as professional and personal education, which is formed with the help of scientific and project knowledge and professional and project abilities, based on value orientations in the field of future professional activity. These skills are necessary for the practical implementation of project activities and assume, on the basis of the scientific principle, to determine and implement meaningful, organizational-methodological and procedural-effective means of project activities.

The development of a project culture is determined by the internal activity of the student's personality, his focus on transforming his views in relation to project activities and involves the restructuring of the value-semantic sphere, the formation of a special system of values, meanings, motives, beliefs and attitudes. In the logic of the idea of "cultural ascent and personal expansion" (L.S. Vygotsky), the development of a project culture is a consistent and phased implementation of students' aspirations for excellence in the implementation of project activities. In other words, the staged nature of the corresponding changes is manifested in the "ascent to the project culture" along the steps of the "hierarchical ladder": "subject project culture" – "specialized project culture" – "perfect project culture".

Principles of building a digital educational environment
Within the framework of the national project "Education", the Federal project "Digital educational environment" is being implemented. The target model of the digital educational environment (DEE) is also noted, the direction of improving the educational system is indicated – the implementation of the educational process in the modern digital environment.

Currently, the concept of "digital educational environment" (DEE) is actively used in the field of education all over the world. Thus, the search engine Yandex gives 4 million results for the query "digital educational environment", and Google – 1 billion 330 thousand for the query "digital learning environment". A brief analysis of the results allows us to see that DSP is mainly understood as "technical solutions to support educational, teaching and scientific activities" (Suhonen) [9, 10], "an open set of information systems designed to provide various tasks of the educational process" [3–5]. Consequently, DEE presupposes the emergence and use in the educational process of various digital technologies and digital educational resources as teaching aids. The digital educational environment provides ample opportunities for the implementation of diverse communicative and effective relationships.

The digital educational environment (DEE) is an open set of information systems designed to provide various tasks of the educational process. Openness means the ability and right of any user to use different information systems as part of a DSP, replace them or add new ones. The environment is fundamentally different from the system in that it includes completely different elements: both coordinated with each other and duplicating, competing and even antagonistic [11, 12].

Organizational principles for building a DEE:

1) the principle of unity is the coordinated use in a single educational and technological logic of various digital technologies that solve various specialized tasks in different parts of the DEE;

2) the principle of openness, i.e. freedom to expand DEE with new technologies, including connecting external systems and interchanging data based on published protocols;

3) the principle of accessibility is the unlimited functionality of both commercial and non-commercial DEE elements in accordance with the licensing terms of each of them for a specific user, as a rule. via the Internet, regardless of the connection method;

4) the principle of competitiveness, i.e. freedom to fully or partially replace DEE with competing technologies;

5) the principle of responsibility is the right, duty and the ability of each subject, at his own discretion, to solve the problems of informatization in his area of responsibility, including to participate in the coordination of tasks for the exchange of data with related information systems;

6) the principle of sufficiency is the compliance of the composition of the information system with the goals, tasks and abilities of the subject, without unnecessary tasks and data schemas that lead to additional costs;

7) the principle of utility, that is, the formation of new opportunities and / or a decrease in user labor costs due to the introduction of DEE.

Description of the project management model in the digital educational environment. In order to ensure effective management of students' project activities, an author's model has been developed (Fig. 2). The presented model is built into the digital educational environment that has developed in the university and is focused on the development of project self-awareness, creative thinking and scientific and project skills of students. The internal structure of the model is provided by theoretical-methodological, perspective-target, content-semantic, organizational-activity and integrative-evaluative blocks. Let us give a brief description of the indicated blocks of the model.

The theoretical and methodological block reveals the initial theoretical provisions and the author's conceptual position in terms of constructing an integral process of managing the project activities of junior university students. It is formed by two main elements: a) methodological approaches, b) project theories, concepts, standards.

Methodological approaches reflect ontological ideas about the nature and specifics of the process under study. The peculiarity of the choice of a set of methodological approaches lies in the fact that they allow one to discover the essential side of the process of managing project activities of junior university students (axiological, acmeological and anthropological approaches) and procedural (institutional, personality-activity, system-synergetic approaches) planes.

Project theories, concepts and standards capture the prevailing scientific views and requirements for the project management process. This includes: theories of project activity and its development in the educational environment; theories of professional and personal development and self-development; the concept of personal and professional development of students in the educational process; research in the field of organizing design, innovation, scientific and design activities in an educational institution; project management standards (ISO 10006–97; PRINCE 2, etc.).
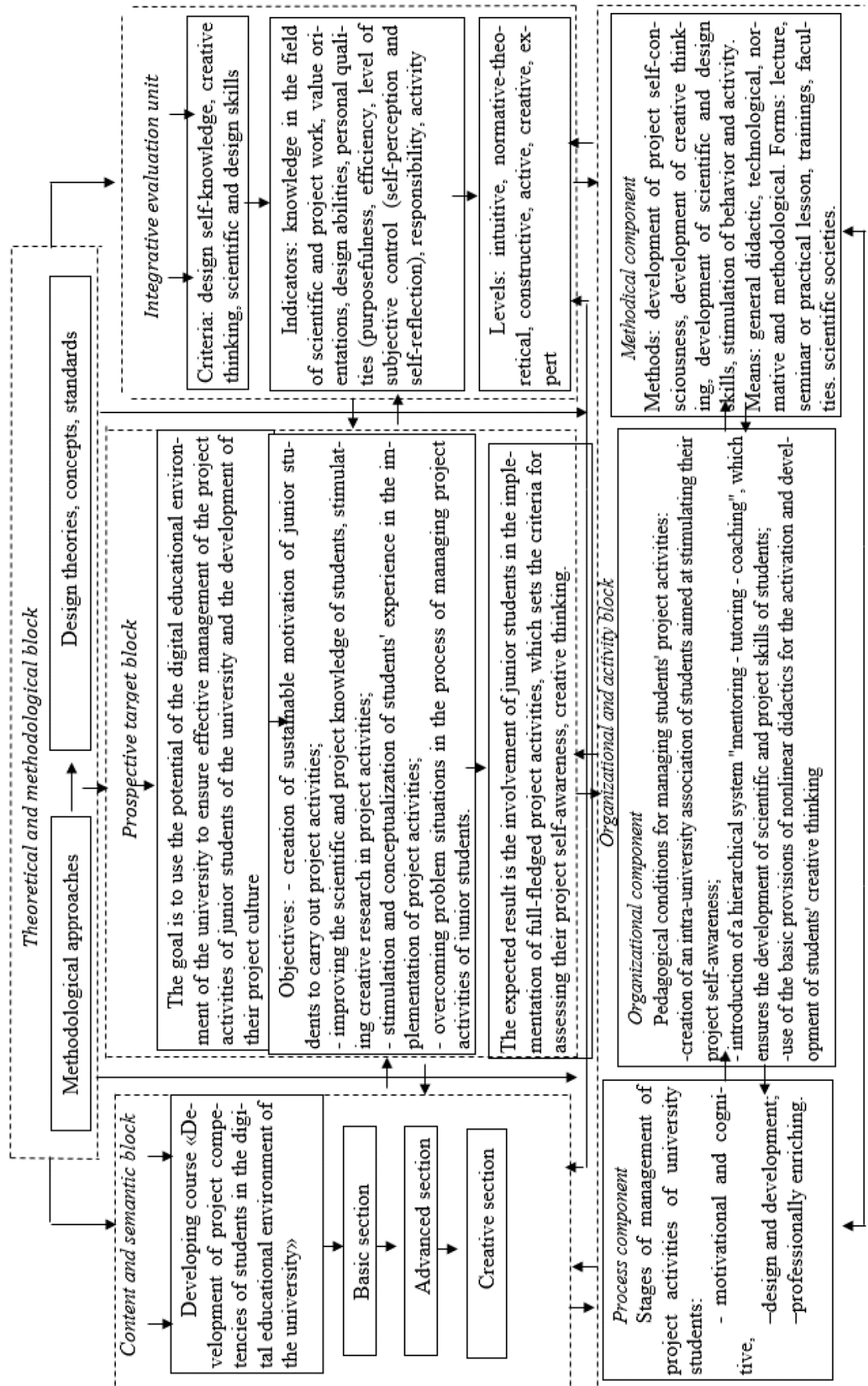
Fig. 2. Model of student project management

The prospective-target block determines the strategic plan for the implementation of the author's model and the general direction of the process of managing the project activities of students, which allows you to get an idea of the initial foundations for designing the expected results. The goal of implementing the model is formulated as using the potential of the digital educational environment of the university to ensure effective management of the project activities of junior university students and the development of their project activities.

The content-semantic block reflects the subject of activity that underlies the process of managing the project activities of students, and the corresponding semantic content of the main directions of project activities in the digital educational environment of the university. It represents the unity of theoretical concepts and effective ways of implementing the design, innovation and scientific activities of students.

The organizational and activity block is characterized by the understanding that the management of students' project activities is an extremely complex and phased process. At each of the stages in the student's personal sphere, quite specific psychological neoplasms appear, indicating his progress towards his "acme". In accordance with this, the organizational and activity block is represented by several components: procedural, organizational and methodological. The procedural component reflects the proliferation of the process of managing the project activities of junior university students and captures three stages: motivational-cognitive, project-developing, professional-enriching. The organizational component defines practice-oriented conditions that form a "comfortable" environment for the effective management of students' project activities and the development of their project culture. Practice-oriented conditions reveal the strategy of students' ascent to the optimal level of project culture. The methodological component provides an activity-based implementation of the project management of students and is represented by the forms, methods and means of the digital educational environment of the university, in accordance with the specifics and characteristics of junior students.

The integrative evaluation block allows you to assess the degree of correspondence of the obtained results to the desired ones, and ensures the establishment of feedback. The corresponding grade is set on the basis of the current / intermediate and final results of project activities, the justification of which can be using the appropriate criteria and indicators that determine the level and process of development of students' project culture. Among the main criteria it is possible to choose: a deep understanding of projects, creativity, the ability to apply scientific knowledge in design. The key indicators will determine the optimal and effective combinations based on such indicators as: awareness of aspects of project work, orientation on value attitudes, effective management abilities, digital knowledge and skills, such personality qualities of students as: purposefulness, performance, self-control, confidence, efficiency.

The main levels of the implementation of student project culture are correlated with the project-personal characteristics: creative, activity-based, scientifically grounded, normative, professional and are determined taking into account the formation of the project culture through the manifestation of project self-awareness, creative thinking, scientific and project skills.

Technology for project management in a digital educational environment

The technology for implementing the author's model for managing student project activities in the digital educational environment of the university is developed in the logical unity of the content, procedural and organizational characteristics of the process of developing the project culture of students, presented as the goal and content of the process under study, participatory teaching methods and practice-oriented conditions [12–14].

The content characteristic is a set of goals and content of the development process of student project culture, which are selected on the basis of the identified patterns and principles of the digital educational environment of the university.

Goal setting is a mechanism that brings together the results of a person's understanding of basic values, key motives, future professional qualities with alternative goals of professional development. Therefore, the goal-setting process has a tiered nature and involves three main levels of goals: 1st level – customers (the designer of the project task is the state and the business community), 2nd level – performers (project group of students, project curators) and the third level – consumers (participants in the knowledge economy market).

The content of the technology is reflected in the developmental course "Development of project competencies of students in the digital educational envi-ronment of the university", a distinctive feature

of which is differentiation, i.e. three independent sections (basic, advanced and creative) have been developed in accordance with the students' level of project culture. The sections are built on a modular basis, taking into account the experience of project activities, project competencies and individual characteristics of students.

The transformative characteristic includes a number of technologies, approaches and forms of development of the project culture of students. When implementing the author's model for managing student project activities, it is advisable to use participatory teaching methods, which are represented by five structural groups: a) methods of developing project self-awareness (situational role projects, mutual learning, mutual observation, mutual reflection of project activity); b) methods of developing design skills (game design, mutual compromise design, group consulting design); c) methods for the development of creative thinking (situational analysis, project method, methods of psychological activation – brainstorming, reverse brainstorming, synectics); d) methods of stimulating project activities (feedback, rating, generalization of best practices in project activities); e) control methods (tests, project simulator, portfolio, mutual control and evaluation of project activities).

The coordination characteristic reveals the essence and features of practice-oriented conditions, which are developed on the basis of necessary and sufficient measures, and are designed to form an effective environment and an optimal environment for the high-quality implementation of the author's model of student project management. A separate highlighted condition is purposefully directed at the development of a certain component from the structure of the student's project activity. These conditions are implemented in accordance with the levels (steps) of ascent to the project culture and presuppose the allocation of the subject, specialized and perfect level.

The first condition is an association of students, which is created within a certain university, and stimulates the development of students' self-awareness in the process of project activities. This condition presupposes the process of the formation of self-awareness, which takes place on the basis of the use of various combinations of stimuli and fixes the dynamic changes that appear with the use of various methods and techniques of project activity: exchange of experience in project activities; contests for the best author's projects or developments; ratings of student projects; contests, for example, "project erudite", "guru-researcher", etc.; evaluation of design work, originality and effectiveness of projects, etc. novelty and effectiveness of projects, etc. The described activities realize the ability to assess the achievements of students, depending on their results of project work.

The second condition is the development and implementation of a hierarchical system "mentoring – tutoring – coaching", which ensures the development of students' project skills, which are classified as: analytical-informational, constructive-predictive, creative-activity, evaluative-reflexive and organizational-regulatory.

The third condition is the use of the principles of the development of students' creative thinking. Based on the provisions of the nonlinear didactics of German teachers (S. Greif, L. Günter, M. Herold, H.-J. Kurtz, P. Koch, B. Landherr, H.W. Roth), the basic principles of the development of students' creative thinking in project activities are highlighted: 1) the principle of simplicity of basic samples and self-similarity of design activities; 2) the principle of self-organization and orientation towards the goals of project activities; 3) the principle of self-optimization and the dynamics of project activities.

The substantive, procedural and organizational characteristics of the technology of the author's model of student project management are implemented in the digital educational environment of the university. The digital environment of an educational organization presupposes certain ICT tools that are systematized and meet the requirements of the Federal State Educational Standard, which is aimed at more effective achievement of the results of student project management.

The digital environment should become a common field of interaction for all participants in this process, an effective tool for managing the quality of project activities of university students. The substantive, procedural and organizational characteristics of the technology of the author's model of student project management are implemented in the digital educational environment of the university.

It is important to note that the digital environment of any educational organization is based on the use of ICT tools that meet the requirements of the Federal State Educational Standard, imply dynamic changes in the internal environment of the organization and are selected taking into account the possible effective achievement of positive results of project activities. The digital environment should become a common field of interaction for all participants in this process, an effective tool for managing

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the quality of project activities of university students. Consequently, the openness of this environment, which is based on ensuring the ability to use information systems by participants in the education process, and also involves the direct replacement or adjustment of the composition of the components that make up the content of the digital educational environment, should be attributed to the main principles of the development of project activities of students in modern conditions.

In particular, the actual components of student project management in the digital educational environment of the university are:

– information services for project training;

– partner's personal account;

– service for constructing an individual trajectory of a student;

– a service for choosing a project by a student (with a selection aid system, based on the student's chosen development path);

– service of interaction of student teams;

– point-rating system for assessing the project activities of students, etc.

It should be noted that in accordance with modern trends in the modernization of higher professional education, the dynamic development of the digital educational environment of the university is taking place. The primary task of such an environment is the optimal and efficient provision of modern information and communication services, as well as basic digital tools to all participants in the ongoing educational process. Taking into account this aspect, each educational organization has a goal and main task to improve and modernize the information and educational university environment, which should be as convenient and comfortable as possible for interaction and effective cooperation of all participants in the educational process. To achieve this goal and solve the main problems, the educational organization should be equipped with modern infrared technology and up-to-date software as much as possible. Undoubtedly, this circumstance presupposes taking into account the existing level of competence of all university employees, which allows the effective use of modern software tools in the educational process [15].

Therefore, it is advisable to consider the university digital environment from the standpoint of the effectiveness of the system of information and educational technologies and software resources, which are designed to form a sustainable digital environment and ensure the effective implementation of the process of managing educational activities at the university. In addition, for optimal and effective management of the project activities of university students, the main participants in the educational process need to navigate at a sufficient level in a wide variety of modern software products and information and communication tools of education. Therefore, when choosing the optimal digital educational tools and applications, it is necessary to take into account their main focus, which involves such key aspects as:

– the formation of professional tasks of project activities of students, their classification, implementation and obtaining specific results;

– development of measures to provide opportunities for targeted feedback of all project participants and the project manager;

– focus on the optimal creation and effective sharing of digital products in the implementation of project activities;

– systematizing the process of monitoring and evaluating the results of project activities, obtaining a visual representation of the designed product, analyzing opportunities for further implementation of project activities;

– the formation and improvement of the activities of virtual associations, within the framework of which the effectiveness of project activities is analyzed as a whole for the entire association and for each participant separately;

– implementation of electronic document management in project activities and organization of the process of rapid exchange of information on project documentation based on electronic service facilities.

We also need to point out the process of formation of a modern and effectively functioning digital educational environment of the university, such criteria as: 1) the level of digital competence of teachers in the implementation of project activities; 2) requirements and restrictions on the use of digital resources in the process of managing students' project activities; 3) modern access to the use of digital

technologies by students in project activities; 4) equipment and provision of the university with modern electronic and digital resources; 5) project-oriented conditions for the use of digital tools by participants in the project management process; 6) unlimited and uninterrupted access to digital resources, local network and global Internet; 7) timely development and improvement of the information and technical infrastructure of the digital educational environment of the university.

Conclusion

Based on the study of the principles of building a digital educational environment, an analysis and modeling of the process of managing students' project activities was carried out. The structure of the digital educational environment of the university is revealed, presented as an open set of information systems designed to provide various tasks of the educational process. In order to ensure effective management of project activities of students, an author's model of project management in the digital educational environment of the university has been developed. The internal structure of the model is provided by theoretical-methodological, perspective-target, content-semantic, organizational-activity and integrative-evaluative blocks.

It is substantiated that the digital educational environment of the university helps in solving the following management tasks:

− informational and methodological support of the educational process;
− rational planning of the educational process, optimization and its material and technical support;
− effective monitoring of the educational process;
− organization of work with information flows;
− optimization of the interaction of all subjects of the educational process;
− remote interaction with partner organizations;
− increasing the prestige of the educational organization.

With this approach to the digitalization of project activities, the functioning of an educational organization becomes a significant indicator that confirms the effective development, competitiveness and demand in the educational services market. In this context, the digital educational environment of the university plays the role of the main criterion for assessing the quality of education and the effectiveness of management of educational activities.

It should be noted that digitalization of the process of management of project activities of students does not replace traditional and proven project methods and management technologies, but acts as an important and modern addition to obtaining the necessary information, providing visibility and optimal choice to achieve the set indicators and positive results. The model for managing project activities of students in the specific conditions of the digital educational environment of the university is designed to provide the ability to systematically and efficiently identify problems in the process of managing project activities, as well as promptly making optimal management decisions.

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