PROJECT MANAGEMENT IN THE EDUCATION SYSTEM: CONCEPTS, CONTENTS

Abstract. The article describes definitions and contents of the concepts of “management”, “Project” and “Project Management”, “managerial activity” in educational sphere of society activity; Coverage of their aspects in the works of Ukrainian and foreign scholars, analyzes the content of the concept of the project and the project management process in educational institutions; Features and characteristics of the project, management of projects as mechanisms of planning and organization in management activity.

The management activity aims to create such a microclimate in the team and to the attitude to each employee, which will stimulate them to perform the functions necessary for the management of the institution.

The essence of management activity is a deliberate organization of interaction of people during collective work to achieve the main tasks of production. Its
main feature is the fact that the impact is on the subject of the process, people, and human psychology is quite a subtle science, which requires certain skills and knowledge.

The project management process is functionally more complex process than traditional management implemented in Ukraine: The use of project management methods contributes to the most efficient and high-quality solution for the creation and modernization of existing systems and processes of different enterprises and organizations. Therefore, it is often considered the leading mechanism for planning, organizing and managing certain changes in various sectors of society.

**Keywords:** management, project, design management, project management, educational establishments.

**УПРАВЛІННЯ ПРОЕКТАМИ В СИСТЕМІ ОСВІТИ: ПОНЯТТЯ, ЗМІСТ**

**Анотація.** Розглянуто визначення та зміст понять “управління”, “проект”, “управління проектом” та “управлінська діяльність” в освітній сфері діяльності системи освіти. Виведено їх аспекти у працях українських та зарубіжних науковців. Проаналізовано зміст поняття проекту та процесу управління проектом у закладах освіти; особливості та характеристики проекту, управління проектами як механізмів планування та організації в управлінській діяльності.

Управлінська діяльність має на меті створення такого мікроклімату в колективі і відношення до кожного працівника, яке стимулюватиме їх на виконання функцій, необхідних керівництву закладу.

Сутність управлінської діяльності полягає у виведенні організації взаємодії людей під час колективної роботи з метою досягнення основних завдань системи освіти. Головною її особливістю є той факт, що впливати приймає на суб’єкт процесу, на людей, а психологія людини досить тонка наука, що вимагає наявності певних навичок і знань.

Процес управління проектами є функціонально більш складним процесом, ніж традиційне управління, що реалізується в Україні; використання методів проектного менеджменту сприяє найкращій ефективному та якісному розв’язанню завдань щодо створення, модернізації та розвитку діючих систем і процесів різних підприємств та організацій. Тому часто він вважається провідним механізмом планування, організації й управління певними змінами у різних секторах життя системи освіти.

Концепцію управління проектами в загальному можна визначити як набір певних процесів, керують ними і виконують їх люди.

Тобто проекти складаються із системи взаємопов’язаних процесів, що становлять певні в часі дії, які призводять до запланованого результата. Така концепція управління проектами дає можливість зробити процес управління гнучким, надійним і економічним.

**Ключові слова:** управління, проект, проектний менеджмент, управління проектами, заклади освіти.
УПРАВЛЕНИЯ ПРОЕКТАМИ В СИСТЕМЕ ОБРАЗОВАНИЯ:
ПОНЯТИЯ, СУТЬ

Аннотация. Рассмотрено определение и содержание понятий “управление”, “проект”, “управление проектами” и “управленческая деятельность” в образовательной сфере деятельности общества; освещено их аспекты в работах украинских и зарубежных ученых, проанализировано содержание концепции проекта и процесса управления проектами в учебных заведениях; особенности и характеристики проекта, управление проектами как механизмами планирования и организации в управлении.

Управленческая деятельность направлена на создание такого микроклимата в коллективе и на отношение к каждому сотруднику, что будет стимулировать их к выполнению функций, необходимых для управления учреждением.

Суть управленческой деятельности заключается в целенаправленной организации взаимодействия людей в ходе коллективной работы для решения основных задач производства. Его главной особенностью является то, что влияние на тему процесса, людей, а человеческая психология — довольно тонкая наука, которая требует определенных навыков и знаний.

Процесс управления проектами является функционально более сложным процессом, чем традиционное управление, осуществляемое в Украине; использование методов управления проектами способствует наиболее эффективному и качественному решению для создания и модернизации существующих систем и процессов различных предприятий и организаций. Поэтому он часто считается ведущим механизмом планирования, организации и управления определенными изменениями в различных секторах общества.

Понятие управления проектами в целом можно определить как набор определенных процессов, управляют ими и выполняют их люди.

То есть проекты состоят из системы взаимосвязанных процессов, представляющих определенные по времени действия, которые приводят к запланированному результату. Эта концепция управления проектами позволяет сделать процесс управления гибким, надежным и экономичным.

Ключевые слова: управление, проект, проектный менеджмент, управление проектами, образовательные учреждения.

Formulation of the problem. Successful development and results are achieved by companies whose managers have specific methods and tools of project management in their arsenal; ignoring the latter can lead to significant financial problems, loss of market position. Therefore, leading universities in different countries preparing specialists in the field of management include project management courses in their curricula. They are also an integral part of the training of future leaders in any field of activity, and are a sign of the level of general management culture of administration. The set of principles,
methods, tools and forms of management — management — management
The basis of management is the process of achieving a certain result in any area of the human activity [1–9].

Management is often seen as a type of professional activity. From this point of view, to understand the essence of management, it is important to know who these managers are and how their activities differ from those of other categories of workers.

Director, group leader, boss, head, etc. — all these words denote positions. People who hold these positions can be united by the general concept of “manager”, as it is possible to identify the following common features of their activities: the manager has at least one subordinate; the manager manages part or all of the organization in which he works; the manager receives certain powers and makes decisions within them that will have consequences for other employees of the organization.

Applied aspects and uniqueness of the project management process and tools attract the attention of the managers, specialists and scientists, whose field of activity is the management and organization of business activities and innovation and technological progress, regional and territorial development.

However, the issues and problems of project activities in the educational institutions are rarely considered, usually stereotyping and standardization.

The conditions in which the educational organizations operate and develop are the conditions of market relations. It is the Ukrainian realities that determine the changing priorities of the social life of the younger generation in the modern society, require a scientific approach to new, effective management mechanisms in the education system in general and educational institutions in particular, which would promote effective life.

**Analysis of scientific researches and publications.** A new scientific discipline — project management — a section of the theory of management of socio-economic systems, studies the methods, forms, means of the most effective and rational change management. The growing complexity of the public projects and the experience of their administration have revealed the need to create a theory and practice of project management.

Important project management issues include materials from international financial organizations, such as the World Bank, the European Bank for Reconstruction and Development, etc., as well as professional organizations: International Project Management Association, professional national project management associations of different countries, etc. The works of such specialists as P. Martin, K. Tate, D. Herd, A. Tovb, G. Tsynes, V. Shapiro, S. Bushuyev, N. Bushuyeva, I. Babayev, V. Yakovenko S. Dzyuba and others contain the greatest elaboration of projecting and management topics.

The scientific teams of most institutions of higher education in Ukraine study and research this issue, develop textbooks, manuals, methodological developments within the curriculum of the discipline of the educational qualification level master in the field of management, economics; presented in the structure of the basic elements of project management, namely the basic concepts, functions, methods, sub-
systems of project management. The training and methodical manuals contain examples of educational and applied character, tasks for independent work and questions of self-control; recommended for students, graduate students, practitioners involved in the development and implementation of projects in various fields of the society. It should be noted that insufficient attention is paid to the management of educational projects or attention is focused only on certain aspects of this process, which determined the purpose of writing a number of articles.

The purpose of this article is to analyze the definition of “administration”, “management”, “management activity”, “project” and “project management”; their place and development in the works of scientists; research of the content of the project content and the project management process in the educational institutions.

Research methods: to achieve the defined goal and objectives we used the theoretical method of analysis of scientific literature, synthesis, generalization, systematization, comparison, classification, structural modeling of the process to outline the conceptual apparatus, justification of the main aspects of the problem under study.

Presentation of the main material. Administration is a conscious action of the head, aimed at a particular system as a whole or its individual parts (spheres of social life, industries, enterprises, teams), which ensures their development and optimal functioning through the use of objective patterns of development inherent in the society. Administration will be wherever there is life, activities of individuals and/or communities.

The main link in the administration system is considered to be the administrator, the head, his duty to create a positive and productive atmosphere in the team. He chooses a model of behaviour, of administration activity, which can be distinguished as an authoritarian, democratic or liberal position of the head. An authoritarian approach allows the head to feel like an undisputed leader, and it is forbidden to challenge his word. Liberalism allows employees to work at their own discretion, without prior consultation with the head. Democratically minded is the most productive, as it supports joint decision-making that fully satisfies both parties.

Administration activity, like any system, includes certain components:

1) definition of the purposes, the goal, tasks by the head and the proved report of the personnel, development of the plan of actions, etc.;

2) structure of measures to create motivators and levers of influence on subordinates;

3) definition of a number of tasks that need to be implemented by employees, distribution of responsibilities, functional instructions;

4) analysis, synthesis, delegation and control over the results of the collective/team;

5) reflection, feedback.

After analyzing the work of any institution, establishment can be divided into two main activities: current, recurring processes (operations) and projects that operate in parallel. Planning and control will be important for practical activities, because they require resources and are performed by
people. Projects are aimed at achieving unique goals in a certain period of time, and the processes are cyclical, which is what significantly distinguishes them.

Previously, only a documented plan of a building or structure was considered a project. There are a number of definitions of the term “project”, each of which has a right to exist. Project managers use the ones that are best suited for the task at hand.

In its most general form, a project is something that is conceived or planned, such as a large enterprise.

The project is an enterprise (intention), which is largely characterized by the uniqueness of the conditions in their entirety, for example: setting goals and objectives; temporary, financial, human and other restrictions; separation from other intentions; the project has a specific organization and implementation.

Projects have certain common features:

1) definition and purpose to achieve a specific goal;

2) practical implementation, coordination, implementation of interdependent and mutually important actions;

3) termination of length in time, beginning and end;

4) a certain unrepeatability and uniqueness [2].

Projects are usually aimed at implementing certain changes within the organization or in the external environment. Examples of internal changes in our case can be a certain process of change that occurs in the educational organization and is characterized by the use of fundamentally new innovative technologies in both educational and managerial activities, ensures the success of this organization [3, p. 6]. It should be noted that the innovative development of an educational organization is based on a certain targeted activity of the educational process, which differs from the established practice and aims to create and implement a set of innovations to ensure the quality of the educational services and competitiveness of the educational institutions (middle school). It requires clear step-by-step planning of the actions of the subjects of the educational process and the administration of the institution, in particular. In their content, methods and forms of implementation, these actions are justified, systematic and those that provide the planned result. This is expressed as technologies that can be implemented in the project:

• focus on the development of cognitive skills, key competencies;

• focus on the development of knowledge, skills and abilities of independent creation and implementation of an individual plan of professional self-development (to construct oneself as a specialist);

• effective orientation in the information space;

• skills of analysis, synthesis and integration of acquired knowledge from different sources in the process of theoretical and applied practical training in practice.

The researches conducted both in Ukraine and abroad has confirmed that most modern leaders in politics, business, art, and sports are people who have a project-based mindset, successfully using project management technology. Confirmation of static data: project management takes place in 74%
of organizations and 37% of ongoing workflows.

The project activity of the modern society is meaningfully connected with all spheres of functioning of the enterprise or organization: marketing — design of marketing research, advertising campaigns, the emergence of new products on the market, the creation or change as a result of active or passive competition in new markets; research and development sphere — process design, planning and control of the results of creation of new products, goods, technologies; production — projects that in their content are aimed at the development of new products, technical re-equipment, introduction of new technologies. In the context of entering enterprises in the market sphere, complex projects of their restructuring with a number of subprojects on change in sales become relevant — projects of construction of trade and sales network profile, specialization, organizational and production restructuring, introduction of financial management, controlling, etc.

An important aspect is the uniqueness to the extent that it is associated with increased competition, the development of the information economy. A sign of the information contained in the project process is the dynamics and constant changes. Therefore, flexibility, that can be (or not) a valuable factor, and project management — the key to achieving this flexibility [2].

Project management is the process of managing the team, project resources using special methods and techniques to successfully achieve the goal.

The project environment is important because it is necessary to determine the environment in which the project appears, exists and ends [3]. The created active functional environment can take into account internal and external components that carry the content load: economic, political, social, technical, regulatory, cultural, etc.

The project is always focused on the result and achievement of clear goals, which can actually be achieved in a specific subject area. The project is implemented by a group or team: manager, project team and other project participants [5].

Project management can be called the methodology of the organization, which makes it possible to identify the factors of planning, management, coordination of human, intangible and material resources during the life of the project cycle; aimed at the effective achievement of its goals through the use of a holistic and structured system of modern methods, techniques and management technologies. All this will allow to achieve the results defined in the project in terms of content and structure of works, estimates, timing and quality [3, p. 7].

It is important for the education sector that the system should be well-structured for effective project management. The essence of structuring (decomposition) is that the project and its management system are divided into:

- phases of the life cycle of the educational project, tasks, single work processes, stages of work;
- distribution of powers in general, certain specific works of the participants in the educational process, which are interconnected in the structure of work on the project;
• organizational structure of employees on the project, submission of orders, creation of personalized tasks;
• creation of a matrix of distribution of responsibilities and duties of employees when performing work on the project, which will contain its structure;
• subsystems by areas of project management, namely the level of government and organizational control, which operate during almost all phases of the project management;
• general system functions that are implemented in the structure of all subsystems during the existence of all phases of the project implementation.

An important structural unit that unites, guides and motivates the project participants is the project team (if we take into account the educational project, the team may consist of different combinations of participants in the educational process: students, parents, teachers and administration). This is a special group (not always strictly selected), which can be an independent object and/or part of one of these participants, and manages (in its entirety) the investment process within the project.

An organizational form that carries a certain structure and can significantly influence the project may contain the following structures:
• functional structure; and/or a divisional form of management organization may be used, as a variety formed on regional, product or technological grounds;
• project structure;
• matrix structure, where there are three varieties: weak matrix, when the project coordinator is responsible for coordinating the tasks of the project, but has limited power over resources; balanced matrix, when the project manager coordinates all work and shares responsibility for achieving the goal with the heads of the functional units; rigid matrix, when the project manager has maximum authority, but also bears full responsibility for the implementation of the project tasks.

The project life cycle (the period of time between the moment of appearance, origin of the project and the moment of its liquidation, completion) is the initial concept for research of the problems of financing of works on the project and acceptance of the corresponding decisions. Importantly, the full cycle of operation of any project can be divided into three main semantic phases: pre-investment, investment and operational. Sometimes the division into phases significantly depends on the specifics of the project.

Thus, an example of the life cycle may include:
• conceptual phase, namely the formulation of goals, analysis of investment opportunities, justification of the possibility of implementation (feasibility study) and project planning;
• project development phase, which involves determining the structure, sequence, importance, priority of work and contractors, construction of timetable schedules, financial and budgetary issues of the project, development of budget documentation, location, organization, negotiation and contracting with subcontractors and/or individual suppliers;
• project implementation phase: a phased project implementation process, which may include a variety of
combinations from the mix of construction, marketing, selection and training of the staff;
• project completion phase, which includes, in the general case, acceptance, quality testing, pilot pre-operation and commissioning of the project;
• operational phase, including: acceptance and launch, replacement of equipment, expansion, modernization, innovation.

The functional part of the project management includes: planning, control, analysis, decision-making, preparation and maintenance of the project budget, organization of implementation, monitoring, evaluation, reporting, examination, verification and acceptance, accounting, administration.

Conclusions and prospects for further exploration. In today’s turbulent conditions, the leading skills can be considered the organization of life as a project: to determine the long and near future perspective; work with the necessary resources, outline an action plan and evaluate the result of achieving the goals and objectives. A project in the general sense is a set of interrelated activities to create new products or services. Novelty and uniqueness are essential features, but quality comes to the fore. Quality determines the ability to meet customer requirements or even exceed them. Accordingly, one of the dominant functions of the project manager is quality management, which must be permanently carried out throughout all phases of the project life cycle using modern approaches and methods.

In summary, we can conclude that the project is an activity in which material, financial and human resources are organized in an innovative way to perform unique work with limited time and costs to achieve positive changes defined by quantitative and qualitative parameters [1, p. 10].

The concept of project management is the process of managing a team and project resources using specific methods, through which the project is completed successfully and achieves its goal. Although in practice project management is a more complex process and function than traditional management, which is common in Ukraine today, project management allows you to most effectively and efficiently solve many problems of creating new, modernizing and developing existing systems and processes of various enterprises and organizations. Promising in our further study is the disclosure of the content of the project management subsystems, their place, purpose, impact on the positive dynamics of the project in the educational institution, namely: content and volume management, project time management, information flow and communication process management, project duration and urgency, cost and quality management, procurement and supply management, management of existing resources, including human, their stocks and possible risks, integration management, functional management.

REFERENCES

mi [Project management]. (2nd ed.). Moscow: Omega-L [in Russian].


