

UDK 37.013

DOI: <https://doi.org/10.17721/2415-3699.2024.19.11>

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## DEVELOPMENT OF PROJECT-BASED LEARNING TECHNOLOGY ABROAD AND IN UKRAINE

**Background.** This article examines the role and place of project technologies in shaping the professional competencies of higher education graduates. It has been established that the basis for the innovative training of specialists lies in the development of project competence, which in the modern world is considered not only as the ability to carry out project activities manifested through the ability to forecast, plan, execute, and evaluate outcomes but also as a pedagogical technology for implementing innovative activities across various fields. This is seen as a collection of project methods for the innovative transformation of reality.

**Results.** The multifaceted aspects of utilizing project technology have been the focus of works by Budzhak T., Zhilyayeva Yu., Isaeva G. (the project method as technology), and Izbash S. Among international scholars, pedagogical design as an effective means of addressing educational challenges has been studied by Blair R., Dryden G., Dewey J. W., Kilpatrick W., Nadler G., Stevenson J., among others. Many scholars believe that the project method is a pedagogical technology oriented not towards the integration of factual knowledge, but towards its application and the acquisition of new knowledge. Thus, it is possible to consider the project method and project technology from the same scientific perspective.

**Conclusions.** Historically, the process of forming a European project culture is closely linked with the development of the global educational system, the search for new forms and methods of teaching, and the activation of students' creative activities. Officially, the emergence of project technology in the 1920s in the USA (problem method) is recognized, but studies on the ontogenesis of the essence of project technology assert that project technology originated somewhat earlier, in the 16th-18th centuries, and its historical development can be delineated into nine main periods.

**Keywords:** project method, project technology, innovative learning, historical periods of development.

### Background

The goal of modern education is to develop a competent individual who not only possesses a certain amount of knowledge and high moral qualities but is also capable of acting independently, creatively, and unconventionally in various life situations, applying their knowledge and experience and taking responsibility for their own actions. The application of the educational project method offers certain possibilities in addressing these tasks. Ultimately, the ability to create, implement, or participate in projects constitutes a significant life competency of an individual, the foundations of which can ideally be formed and developed within the context of higher education.

The basis for innovative training of specialists involves the development of project competence, which in today's world is regarded not only as the capacity to carry out project activities—manifested in the art of forecasting, planning, executing, and evaluating outcomes—but primarily as a pedagogical technology for implementing innovative activities in various fields, thus constituting a set of project methods for the innovative transformation of reality.

The objective of the research is to analyze the development of the theory and practice of applying project technologies both abroad and in Ukraine.

The groundwork for addressing this identified scientific problem is based on ideas presented in the scholarly works of Vasylevska L., Hutsan L., Dychkivska I., Zhylenko M., Zahrebniuk Yu., Ishchenko V., Plakhotnik O., Khoruzha L. (professional training, innovative provision of the pedagogical process, means to enhance the professional mastery of educators, innovative pedagogical technologies, etc.). The multifaceted aspects of using project technology are dedicated to the works of Budzhak T., Zhilyayeva Yu., Isaeva G. (the project method as technology), and Izbash S. Among foreign scholars, pedagogical design as an effective means of resolving educational challenges is considered by

Blair R., Dryden G., Dewey J. W., Kilpatrick W., Nadler G., Stevenson J., among others.

When analyzing the concept of the "project method", it is important to note the differences in definition and interpretation. For some authors, it represents a pedagogical technology (Sisoyeva S., 2002) or a project technology that reflects the implementation of a person-oriented approach in education (Yermakov I., 2008). Other educators view the project method as a means of organizing the educational process, fundamentally based on the interaction of the educator and the learner with the surrounding environment, merging learning with the active participation of the learner (Vlasyuk, 2008); as a method of planning purposeful activity in real-life circumstances (Isaeva G., 2003); as a targeted educational process aimed at carrying out socially beneficial activities (Osmolovsky & Vasilenko, 2000); as a system of education in which a student acquires knowledge, skills, and abilities through the planning and execution of specific complex tasks—projects (Porokhnya, 2006). Plakhotnik O. analyzes the strategies of designing the educational process in higher education institutions, highlighting the role of information and communication technologies in this process, which is crucial for shaping the modern educational space (Plakhotnik, 2023). When using the project method in training doctoral candidates, Zhylenko M. emphasizes the significance of distance technologies in the context of assistant practice, unveiling opportunities for the development of professional skills directly within the practical environment (Zhylenko, 2023).

Researcher Tsymblyaru A. emphasizes that in pedagogical science, three interpretations of the term "project" are distinguished (Tsymblyaru, 2009). Firstly, as a preliminary, approximate text of the full document (project programs, etc.). Secondly, a project is understood as a specific action, a set of measures that have a common program and involve purposeful activity, organizational form, etc. (publishing project, television project). Thirdly, a project is defined as a completed cycle of productive activity

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(collective, group, individual), as a form of building a joint purposeful activity of people. Such understanding of the project, the researcher notes, led to the identification of certain stages of its development: the design phase, the technological phase (implementation), and the reflective phase (summarization – evaluating the outcome, drawing conclusions). Thus, the researcher concludes that the essence of the concept of "project" is interpreted in two important aspects: firstly, as the result of activity – the obtained product (productive aspect), and secondly, as an innovative form of organizing joint activity aimed at achieving a specific result (activity aspect)–and defines the category "project" as "a system of implementing planned sequential actions aimed at achieving a specific anticipated result". The concept of "designing" is interpreted by the author as "an organized system of interrelated activities aimed at producing a final product"; as "a special type of intellectual activity characterized by forward-looking orientation, practical research orientation, and the process of creating a project – a prototype, an image of an anticipated or possible object, a specially conceptualized and technologically ensured activity to create an image of a desired future system" (Tsymbylaru, 2009).

In our previous publications (13), related to project methodology, the idea of "Learning through Research" is developed, emphasizing the need to activate the scientific research activity of students as a basis for acquiring deep knowledge and developing critical thinking.

### Results

It is noteworthy that the concept of the "project method" was first introduced, scientifically described, and attempted to be classified by the American professor William Kilpatrick. He proclaimed the primary task of education to be the "cultivation of free citizens", which should involve a "system of targeted projects". Specifically, he identified four types of educational projects: the realization of an idea or plan into tangible form; overcoming intellectual challenges; acquiring new knowledge and experience; and deriving aesthetic pleasure (Kilpatrick, 1933).

In Germany, the approach to education is not based on project technologies but on project activity as an element of the educational process. According to Fleitner A., it is crucial to engage the "mind, heart, and hands" ("Lernen mit Kopf, Herz und Hand"), meaning that the comprehension of independently acquired information occurs through the prism of personal attitudes towards it and the evaluation of results in the final product (Kilpatrick, 1951).

Most researchers of the project method indicate that project technology, the project method, and project activity, when considered as an effective innovative addition to education, share several positive aspects in their application:

- The appropriateness of integrating the project method with the educational process in any educational institution without exception;
- The relevance of methods for organizing productive independent activities of learners and their manageability today;
- The effectiveness of approaches to forming learners' cognitive interests, motivation for cognitive activity, and cognitive independence;
- The productivity of each individual's creative self-realization;
- The orientation towards the development of intellectual abilities and physical capabilities of learners, shaping their emotional-volitional sphere;
- The attainability of purposeful cognitive activity, penetrating the essence of the studied processes (phenomena);

- The possibility of fostering the need for independent educational and cognitive activity;
- Establishing rational, pedagogically justified use of ICT;
- Ensuring polylogical communication among participants of project activity;
- Combining individual forms of cognitive activity with group and collective forms of interaction among project participants;
- Adjusting the process of project activity to seek the most effective ways of obtaining a specific (practical) result or creating a particular material (intellectual) product.

Analyzing the essence of the concept of "designing", Isaeva G. notes that designing is a special type of intellectual activity, characterized by a forward-looking orientation towards practically directed research (Isaeva, 2003).

Designing is considered an independent type of activity (Khoruzha, 2006; Ogiyenko, 2011; Tsymbylaru, 2009) that entails several stages of implementation: forecasting (specially organized research aimed at gathering information about the development of the object), planning (defining a plan of action, the realization of which does not anticipate significant changes or discoveries), constructing (creating a real object based on a specific model with a certain level of technological detail in the context of effective performance), and modeling (constructing a future developmental environment, creating a model – the ideal image of a real object).

According to these scholars, the project method is a pedagogical technology oriented not towards the integration of factual knowledge but towards its application and the acquisition of new knowledge (often through self-education), hence we can consider the project method and project technology from the same scientific perspective. Actively involving participants in the educational process in the content of various projects provides an opportunity to assimilate new methods of human activity in the sociocultural environment.

We cannot disagree that the main task of using project technology is not the acquisition of scientific knowledge but to assist learners in navigating the societal whirl of events and phenomena–social, economic, informational–and to master life experience in the community. All this implies not a passive adaptation to society but the development of active creative self-assertion in society for its development and self-improvement (Assaul, 2008).

Historically, the process of forming European project culture is closely linked with the development of the global educational system, the search for new forms and methods of teaching, and the activation of students' creative activities.

Officially, the emergence of project technology in the 1920s in the USA (problem method) is recognized, but studying the ontogenesis of the essence of project technology allows us to assert that project technology originated earlier (Table. Developed on the basis of (Ustymenko, 2024; Dewey, 1938)).

1590–1765: The inception phase of project methods and the initiation of project activity in the educational processes of Western European countries. During this period, a significant component of the training of architects and artists in Rome and Paris was the competitions for creating various projects and sketches, in which students could exhibit their creative abilities and demonstrate their level of creativity and mastery. In 1702, one of the first competitions for architectural plans was held at the Royal Academy of Architecture in Paris, where the submissions were referred to as projects.

Table

Chronological stages of development of project technology		
№	Time frame	Characteristics of the educational stage
1	1590–1765	The inception phase of project methods and the initiation of project activity in educational processes in Western Europe
2	1765–1880	Expansion of project methods in vocational schools and technical education, particularly in engineering schools in France, Germany, and Switzerland
	1865	Implementation of project activities at the Massachusetts Institute of Technology, significantly influencing educational practices in the USA
3	1879	Project methods become fundamental in training professionals at the Manual Training School associated with Washington University in St. Louis, demonstrating its institutional acceptance and expansion
	1880–1915	Active application of project methods in professional training, integrating project activity with agricultural needs
	1908	D. Snedden, head of the department of agricultural schools, first used the term "home project"
4	1910	Professor E. Collins proposed the first classification of educational projects, identifying four types: "game projects", "excursion projects", "narrative projects", and "constructive projects"
	1859–1952	Development of the "pragmatic pedagogy" theory by Professor John Dewey, which actively utilized project methodologies
5	1915–1965	Project activity ideas become widely spread in the educational system of Western Europe
	1919	The term "project" was officially sanctioned by the Bureau of Education
6	1965–1986	The third international wave of popularization of project methods and their expanded use in education
7	1987	A new direction in education—productive learning based on project technologies
8	1988–2000	Integration of project technologies into multidisciplinary educational programs, active use of information and communication technologies
9	2000–2024	Contemporary use of project technology combined with other active learning methods at the international level, widespread application in pre-professional and professional training systems

The period from 1765–1880 can be regarded as the establishment of the project method as an educational technology. This method spread to vocational schools and professional-technical education and became an important teaching method in engineering schools in France, Germany, and Switzerland.

From Europe, this method diffused to America: in 1865, William B. Rogers implemented project activities at the Massachusetts Institute of Technology, and by 1879, the project method became fundamental in training professionals at the Manual Training School associated with Washington University in St. Louis. At that time, the educational system in the US was conducive to adopting this teaching technology, as it was not constrained by state centralism, and the American conditions provided ample space for the development of pedagogical initiative. This educational technology met the contemporary requirements for training future professionals: "America does not need dreamers and idealists, America needs practical doers, bold and independent, capable of achieving set goals" (Khoruzha, 2006).

In the 19th century in the USA, projects on specific themes (e.g., "How to shear sheep with scissors") were used for training agricultural workers, during which learners acquired not only theoretical knowledge but also practical skills. Thus, the next period in the development of this technology can be identified as 1880–1915. A main characteristic of this period was the active application of the project method in practical training of professionals, ensuring a close connection between the content of education and the needs of agriculture.

At that time, this method was called the "problem method" or "targeted act method", which was based on the activity and independence of the learners, and oriented the learning process toward a pragmatic practical component. In 1908, D. Snedden, the head of the department of agricultural schools, first used the term "home project", and by 1919, the term "project" was officially sanctioned by the Bureau of Education (Dewey, 1938).

Subsequently, the American school authority published special recommendations "The Project Method in Educational Affairs", after which this method gained official status as a teaching method. The project method began to

be considered as a technology of progressive education, a paradigmatic mechanism of new educational psychology, according to which learners are not merely "vessels" to be filled with knowledge but should also be engaged in independently acquiring knowledge to develop initiative, creativity, and judiciousness (Khoruzha, 2006).

It is notable that, due to the rapid spread of project technology, in 1910 Professor E. Collins proposed the first classification of educational projects: "game projects", "excursion projects", "narrative projects", and "constructive projects", which gained popularity due to its rational combination of theoretical knowledge and its practical application to solve specific problems of the surrounding reality in the joint activity of learners.

The scientific and methodological foundation for the dissemination of the project approach, not only in education but also beyond its boundaries, was the work of John Dewey (1859–1952), the founder of the theory of "pragmatic pedagogy" and a professor at Columbia University. His works emphasized the core principle of learning – 'learning through action', meaning the continuous, real implementation of something new. This concept is based on the idea that the project method, which is rooted in personal experience, is an effective mechanism for developing thinking that becomes activated in specific problematic situations and strives to find optimal solutions (Dewey, 1938).

Consequently, learning should be built on an active foundation through the purposeful activity of the learner, taking into account their personal interest and knowledge. The interest in acquiring new knowledge depends on the awareness of the areas of their practical application in future life. Therefore, for better knowledge acquisition, students should be tasked with solving a significant real-world problem for them, applying both existing knowledge and skills and those yet to be acquired, and achieving tangible results. In this case, the problem-solving process is realized specifically through project activity.

The next time span is 1915–1965, a period of new thought regarding project technology and its spread into post-war Europe. During this period, project activity ideas became widely disseminated in the educational system of Western Europe. For example, in Germany, the project method 'Vorhaben' ('conception') was laid as the foundation

of the general education concept as a means of linking theory with practice, as the best method capable of elevating society to a higher cultural level, and as the methodological core of self-education; in France and Belgium, several model lyceums (pilot lyceums) and professional schools were established that utilized the ideas of the project method (Ustyenko, 2024).

1965–1986 marks a stage of rediscovery of the project method and the third wave of its international recognition and dissemination. For instance, in the early 1970s in England, experimental 'open schools' were created, where, according to the project approach, there was no fixed class schedule or traditional curriculum. Instead, significant attention was given to developing the creative abilities of learners based on their interests (Syssoyeva, 2012).

In 1987, a new direction in education emerged – productive learning based on project technology, which encouraged educators in many Western European countries and the USA to use it in their pedagogical practice.

The chronological boundaries of the next period (which can be called the Final Period) range from 1988 to today.

In examining project technology from a historical perspective, it is essential to highlight notable moments from the viewpoint of the second direction – the history of project management theory's evolution.

Researcher V. Trofimova asserts that the inception of project management as an independent discipline began in the 1930s, linking this development to the creation of specialized methods for coordinating large-scale engineering projects in the USA, including aviation projects at US Air Corporation and oil and gas projects at the well-known Exxon company. These were among the first and most organized mechanisms to achieve integration during the management of complex and substantial projects. This integration led to the establishment of certain project management practices: defining necessary outcomes, meticulous advance planning to prevent future plan modifications, and appointing a manager responsible for the project's development and execution (Prodius, 2016).

Gantt H. is considered the founder of project management, known as the father of planning and control techniques. He is famous for using the Gantt chart as a project management tool. Henri Fayol is also regarded as a founder of project management due to his creation of the five management functions that form the main principles of project and program management. Gantt H. and Fayol A. were proponents of Frederick Winslow Taylor's theories of scientific management, whose scholarly works on the decomposition of tasks and resource distribution were precursors to contemporary project management tools (Khoruzha, 2006).

It should be noted that modern project management methods trace their origins back to the 1950s. Nearly simultaneously, two project teams introduced methods for managing complex work sets: Du Pont and Remington Rand proposed a methodology named the "Critical Path Method" (CPM).

Thus, in 1956, DuPont de Nemours formed a group to develop project management methods and tools. In 1957, the UNIVAC research center and Remington Rand joined these efforts. By the end of 1957, under the leadership of J. Kelly and R. Walker, the critical path method (CPM) was developed with software implementation on an EOM UNIVAC, which was successfully tested during the planning of a synthetic fiber plant construction in Louisville, Kentucky, USA. This effort led to the first publications on project management. Following CPM, the Program Evaluation and

Review Technique (PERT) was completed and tested for the Polaris program (US Navy) by the firm Buz, Allen, and Hamilton during 1957-1958 (Prodius, 2016).

During this time, as planning models and cost estimation techniques were being developed, groundbreaking works by Hans Lange and others led to project management areas such as cost management and engineering economics.

In 1956, the first practitioners of project management and related specialists in calendar planning (project control), cost estimation, and control formed the American Association of Cost Engineers, now known as the Association for the Advancement of Cost Engineering (AACE International). AACE continued its research and in 2006 introduced the first integrated process for portfolio, program, and project management – the Total Cost Management Framework (Kilpatrick, 1951).

The network planning methods developed in the 1950s significantly propelled the advancement of project management. By 1958, PERT and CPM were widely used for planning work, risk assessment, cost control, and resource management in many large military and civilian projects in the USA. In 1959, the Anderson Committee (NASA) developed a systematic approach to project management at each stage of the life cycle, focusing particularly on pre-project analysis (Kilpatrick, 1951).

In the 1960s, the development of network planning methods began when project management focused exclusively on the methods and techniques of CPM and PERT, expanding cost optimization methods for CPM and PERT (PERT/COST), and resource distribution and planning (RPSM, RAMPS, and others). During this period, IBM developed a software package based on PERT COST as a system for project management. Network project management methods were actively spread in Europe and America. Further organizational integration developed, including a comprehensive system of material and technical supply (1966) and the GERT network planning system (1966), which used a new generation of network models (Kilpatrick, 1951).

As a result, in the USA, criticism emerged because its widespread application led to a reduction in the level of theoretical knowledge among students.

Thus, in the context of an increasingly dynamic business environment, the search for new flexible management methods and organizational project structures began, leading to the active formation of international project management organizations. For instance, the International Project Management Association (IPMA) was founded in Europe in 1967 as a union of several national project management associations. IPMA still maintains a federal structure and consists of member associations on every continent except Antarctica.

IPMA offers a certification program that consists of four levels based on IPMA's core competencies (IPMA Competence Baseline – ICB). The ICB competencies include technical, contextual, and behavioral competencies. In 1969, the Project Management Institute (PMI) was established in the USA. PMI published the "Project Management Body of Knowledge Guide" (PMBOK Guide), which describes project management practices applicable to "most projects, most of the time" (Kozakova, & Kozakov, 2014).

During the 1970s, the systemic approach to project management continued to evolve, and the development and implementation of network planning and management systems continued. Thus, network analysis techniques and their software were first introduced in US educational institutions as mandatory engineering subjects. The

methodologies developed during this period, based on the systems approach and systems theory, were effectively used for problem structuring and function optimization.

Throughout the 1970s, project management formed as a comprehensive system, its development accelerated with the widespread implementation of computerized information processing programs. During this period, methods for managing conflicts (1977), studying the problems of the project manager and project team (1971), and organizational structures for project management (1977–1979) were developed. In 1986, the Project Management Institute published the first edition of PMBOK (PMI, Project Management Institute), which became a revolutionary methodology that would influence future approaches to project management (Kozakova, & Kozakov, 2014).

As previously mentioned, the educational system in Ukraine is testing ideas from Western practitioners. The project method, which held great hope for modernizing Ukrainian education, excited the Ukrainian pedagogical community at the beginning of the last century. John Dewey's ideas of the school of the future, realized by William Kilpatrick, were reconstructed by Soviet pedagogical innovators in the form of the labor learning method.

The project method spread in Ukrainian school pedagogy and practice in the 1920s, during the time of extensive reform of school education. Further development of this method in domestic schools is associated with the names of national educators (Assaul, 2008; Bondarenko, 2012; Buryak, 2011; Budzhak, 2004; Zhilyaeva, 2009; Isaeva, 2003; Ionova, 2007; Kosohova, 2011; Lysenko, 2003; Porokhnya, 2006; Chernilova, 2003). Proponents of the project method declared it the sole means of transforming the school of learning into the school of life. In the 1920s, the project method was actively used in Soviet schools.

In 1932, the project method in Ukraine was condemned and prohibited, closed, and discarded. In the 1930s, the school was completely converted to traditional learning, and it was concluded that this method does not provide deep knowledge of subjects. Since then, no serious attempts have been made to revive the project method in educational practice. The domestic experience acquired during this time of project-based organization of the educational environment was not studied or generalized at the scientific-theoretical level and did not gain widespread practical application.

In Ukrainian pedagogical practice, the phenomenon of the project appeared in the last decade as a result of the activities of international organizations that developed and disseminated educational projects.

The idea of including project activity in the educational process was proposed more than a century ago by the American educator and philosopher John Dewey, and in domestic pedagogy, the relevance of this problem was first investigated by Makarenko A., who concluded that designing personality as a subject of pedagogical work is crucial.

This view was supported and repeatedly expressed by Sukhomlynsky V. (Sukhomlynsky, 1976; 1989), whose multifaceted pedagogical legacy is permeated with the idea of designing a human being. Defining the essence of designing as a pedagogical phenomenon is quite complex, because the system of designing and the pedagogical process itself are extraordinarily complicated and valuable. The very word "project" in translation from Latin means "thrown forward, concept, plan", etc.

With the evolution of designing technology, it began to be considered and scientifically substantiated as a system of parameters for a future object or a qualitatively new state

of an existing project, a prototype of an anticipated or possible object state or process. Therefore, designing technology has become a special type of intellectual activity, distinguished by its forward-looking orientation and practically directed research.

### Discussion and conclusions

Summarizing the above, it can be concluded that the use of project technology, based on the best global practices, enables enhanced efficiency in project management and can avoid most of the described problems with proper implementation and usage. The relevant future perspectives for utilizing project technology should include: the popularization and development of current methods and educational concepts; planning and management, organizational tools for project management; the development and promotion of domestic software products based on foreign prototypes considering local economic specifics; the creation of a comprehensive national standard in project management; the formation of public structures interested in the development of national project management schools; and active participation in international cooperation in project management to study leading practices, critically reassess them, and creatively implement them in domestic realities.

**Authors' contribution:** Yevhenii Spitsyn – conceptualization, methodology; writing (revision and editing); Mykhailo Rozbytskyi – formal analysis; data validation; writing (original draft).

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Отримано редакцією журналу / Received: 21.05.24  
Прорецензовано / Revised: 27.06.24  
Схвалено до друку / Accepted: 28.10.24

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## РОЗВИТОК ПРОЄКТНОЇ ТЕХНОЛОГІЇ НАВЧАННЯ ЗА КОРДОНОМ І В УКРАЇНІ

**Вступ.** Досліджено роль і місце проектних технологій у формуванні професійних компетентностей випускників закладів вищої освіти. Установлено, що основою інноваційної підготовки фахівців є розвиток проектної компетентності, яку в сучасному світі розглядають не лише як здатність здійснювати проектну діяльність – виявлену через здатність прогнозувати, планувати, виконувати й оцінювати результати – але і як педагогічну технологію для впровадження інноваційної діяльності в різних галузях. Це розглядається як сукупність проектних методів для інноваційного перетворення реальності.

**Результати.** Багатоаспектні аспекти використання проектної технології були у центрі уваги робіт Буджака Т., Жиляєвої Ю., Ісаєвої Г. (проектний метод як технологія) та Ізбаха С. Серед міжнародних дослідників, педагогічний дизайн як ефективний засіб розв'язання освітніх завдань вивчали Блер Р., Драйден Г., Дьюї Дж. В., Кілпатрік В., Надлер Г., Стівенсон Дж. та інші. Багато вчених вважають, що проектний метод є педагогічною технологією, орієнтованою не на інтеграцію фактичних знань, а на їхнє застосування та набуття нових знань. Отже, можна розглядати проектний метод і проектну технологію з однієї наукової перспективи.

**Висновки.** Процес формування європейської проектної культури є складним і багатограним явищем, яке тісно пов'язане з розвитком глобальної освітньої системи. Цей процес включає постійний пошук нових форм і методів навчання, а також активізацію творчої діяльності студентів, що стає ключовим елементом у процесі навчання. Офіційно вважають, що проектна технологія виникла у 1920-х рр. у США, де вона була представлена через проблемний метод, який сприяв розвитку критичного мислення та практичних навичок учнів. Проте детальніші дослідження свідчать, що основи проектної технології заклали ще в XVI–XVIII ст. Вказаний період охоплює ранні експерименти з навчання, які передбачали інтеграцію теоретичних знань із практичними завданнями, що згодом стали основою сучасного проектного підходу. Історичний розвиток проектної технології можна умовно поділити на дев'ять основних періодів, кожен з яких має характерні риси та підходи до навчання. Ці етапи демонструють, як змінювалися освітні практики в контексті соціальних, економічних і культурних змін та як адаптувалися до нових вимог суспільства. В результаті проектна технологія стала невід'ємною частиною сучасного навчального процесу, сприяючи розвитку творчого мислення й інноваційних навичок у студентів.

**Ключові слова:** метод проектів, проектна технологія, інноваційне навчання, історичні періоди розвитку, європейська проектна культура, освітня система, активізація творчої діяльності, критичне мислення.

Автори заявляють про відсутність конфлікту інтересів. Спонсори не брали участі в розробленні дослідження; у зборі, аналізі чи інтерпретації даних; у написанні рукопису; в рішенні про публікацію результатів.

The authors declare no conflicts of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; in the decision to publish the results.