Введение. Метод проектов активно используется как важная форма организации практики обучения в системах образования многих стран мира на протяжении последних ста лет. Этот метод находит всё более широкое применение и в нашей стране. Само понятие «метод проектов» неизменно ассоциируется с именем его автора и популяризатора, крупного американского педагога конца XIX – первой половины XX вв. Уильяма Хёрда Килпатрика (1871-1965). Цель исследования заключается в изучении обстоятельств процесса становления У. Х. Килпатрика как ученого-дидакта и создания им и его единомышленниками метода проектов.

Материалы и методы. Ведущими методами исследования выступают анализ научной историко-педагогической литературы и других источников, биографический и исторический методы, а также аксиологический подход, имеющий целью выявление ценностного содержания изучаемого научного предмета.

Результаты. Прослеживается эволюция взглядов У. Х. Килпатрика, этапы его становления как ученого-дидакта и педагога-практика. Приводятся малоизвестные, ранее не находившие отражения в отечественной историко-педагогической литературе, факты его биографии. Особое внимание уделено раскрытию сущности предложенного им метода проектов, нашедшего широкое применение в педагогике и образовании во многих странах мира. Педагогическая система «экспериментализма» У. Х. Килпатрика основывалась на философии прагматизма и психологии бихевиоризма. Вместо традиционной школы он предлагал построить так называемый «образовательный процесс», который он рассматривал как организацию деятельности детей в социальной среде, ориентированной на обогащение их индивидуального опыта. Обучение согласно методу проектов должно было осуществляться через организацию целевых актов, включавших в себя постановку проблемы, составление плана ее реализации и оценку выполнения. Использование этих проектов, по мнению У. Х. Килпатрика, не только готовило бы ребенка к жизни по окончании школы, но и помогало ему организовать свою жизнь в настоящем. Включены данные о педагоге Э. Коллингсе, который также занимался проблемой разработки метода проектов. Даны классификации проектов по Э. Коллингсу и по У. Х. Килпатрику. Показаны научные связи У. Х. Килпатрика с рядом известных педагогов-современников (Д. Дьюи, Э. Л. Торндайк, Э. Коллингс, Ф. В. Паркер, Ч. ДеГармо и др.).

Заключение. Научная новизна исследования состоит в содержательном анализе взглядов У. Х. Килпатрика. Легитимность самой концепции проектного метода уже давно не вызывает сомнений у серьезных исследователей и практиков образования. В настоящее время проектный метод фактически получил второе рождение в различных сферах общественной и производственной жизни. Основной вывод статьи заключается в том, что дидактическое наследие этого крупного американского учителя представляется значительным. Она содержит ценностный потенциал, требует дальнейшего полноценного изучения и заслуживает активного использования в современном отечественном образовании.

Ключевые слова: Уильям Хёрд Килпатрик, университет Мерсера, Уайт-Плейнс, метод проектов, Эдвард Коллингс, Джон Дьюи, Чарльз ДеГармо, Петер Петерсен

Ссылка для цитирования: Помелов В. Б. Метод проектов Уильяма Хёрда Килпатрика: к 150-летию со дня рождения американского педагога // Перспективы науки и образования. 2021. № 4 (52). С. 436-447. doi: 10.32744/pse.2021.4.29
The William Heard Kilpatrick’s Project Method:
on the 150th anniversary of the American educator

Introduction. The project method has been actively used as an important form of organizing the practice of teaching in the educational systems of many countries around the world over the past hundred years. This method is increasingly being used in our country. The very concept of “project method” is invariably associated with the name of its author and popularizer, a major American educator of the late XIX – first half of the XXth centuries. William Heard Kilpatrick (1871-1965). The purpose of the issue is to study the circumstances of the process of formation of W. H. Kilpatrick as a didactic scientist and the creation of a method of projects by him and his associates.

Materials and methods. The leading research methods are the analysis of scientific historical and pedagogical literature and other sources, biographical and historical methods, as well as an axiological approach aimed at identifying the value content of the studied scientific subject.

Results. The author traces the evolution of W. H. Kilpatrick’s views, the stages of his formation as a didactic scientist and a practical teacher. Little-known facts of his biography, which were not previously reflected in the Russian historical and pedagogical literature, are given. Special attention is paid to the disclosure of the essence of the proposed method of projects, which is widely used in pedagogy and education in many countries of the world. The educational system of W. H. Kilpatrick’s "experimentalism" was based on the philosophy of pragmatism and the psychology of behaviorism. Instead of a traditional school, he proposed to build a so-called "educational process", which he considered as the organization of children’s activities in a social environment focused on enriching their individual experience. Training according to the project method was to be carried out through the organization of target acts, which included the formulation of the problem, the preparation of a plan for its implementation and the assessment of implementation. The use of these projects, according to W. H. Kilpatrick, wouldn’t only prepare the child for life after school, but also help him organize his life in the present. Data on the teacher E. Collings, who also worked on the problem of developing the project method, is included. The project classifications are given according to E. Collings and W. H. Kilpatrick. The author shows the scientific relations of W. H. Kilpatrick with a number of well-known teachers-contemporaries (J. Dewey, E. L. Thorndike, E. Collings, F. W. Parker, C. DeGarmo, etc.).

Conclusion. The scientific novelty of the study consists in a meaningful analysis of the views of W. H. Kilpatrick. The legitimacy of the very concept of the project method has long been beyond doubt among serious researchers and practitioners of education. At present, the project method has actually received a rebirth in various spheres of social and industrial life. The main conclusion of the article: the didactic legacy of this major American teacher is significant. It contains a value potential, requires further full-fledged study and deserves active use in modern domestic education.

Keywords: William Heard Kilpatrick, Mercer University, White Plains, project method, Edward Collings, John Dewey, Charles DeGarmo, Peter Petersen.

For Reference:
Pomelov, V. B. (2021). The William Heard Kilpatrick’s Project Method: on the 150th anniversary of the American educator. Perspektivy nauki i obrazovania – Perspectives of Science and Education, 52 (4), 436-447. doi: 10.32744/pse.2021.4.29
Introduction. Relevance of the study

William Heard Kilpatrick is known to Russian pedagogues thanks to articles, although very few, in pedagogical journals [1; 2; 3]. Periodically, materials about this major American teacher of the late XIX – first half of the XXth centuries appear in foreign publications [4]. Scholars from different countries (Japan, India, etc.) are trying to transform Kilpatrick's ideas in modern conditions [5; 6]. All this indicates the importance of Kilpatrick's pedagogical legacy and the enduring popularity of his ideas in modern pedagogical thought [7]. According to the author of this issue, he is one of the hundred great teachers of all times and peoples, as evidenced by his inclusion in the corresponding volume [8]. At the same time, even the most essential facts of his biography remain out of view of researchers, primarily Russian ones. There are still very few publications that would disclose comprehensively and, at the same time, quite popularly the essence of what he had done in the field of theory of didactics and educational practice. And this is despite the fact, that the proposed by him more than one hundred years ago the project method has found wide application in various areas of public life. But we are, first of all, of course, interested in its application in the field of education.

This material is intended to eliminate, to a certain extent, this "white spot". It seems particularly appropriate right now, in 2021, the year of the 150th anniversary of W. H. Kilpatrick. The hypothesis of the study is that the didactic heritage of this major American teacher contains a significant value potential, and it deserves further research and active use in modern education.

The methods and approaches

Working on the article, the author used mainly biographical and comparative-historical methods, as well as a value (axiological) methodological approach, which allows to identify the most valuable composite parts in the studied pedagogical heritage, which can serve nowadays education. In the process of preparation of the article, the author used the content of authoritative Russian and foreign journals. Among them are "Pedagogy" "People's education", "Integration of education", "Prospects of Science and Education" (Russia), "Espacio, Tiempo y Educación", "Teachers' College Record", "European Journal of Contemporary Education", "PROSPECTS: the quarterly review of comparative education", as well as works of leading native (Z. A. Malkova, B. L. Wulfson, etc.) and foreign (E. Collings, W. H. Kilpatrick, etc.) scholars.

The main facts of the biography of W. H. Kilpatrick, the formation of his pedagogical worldview and his practical activity

William Heard Kilpatrick was born on November 20, 1871 in the town of White Plains, Georgia, the USA. He was the son of Reverend pastor, Doctor of Theology James Hines Kilpatrick and his wife Edna Perrin Heard. At that time the family had three other sons and two daughters by father's first wife, who had died earlier.
The mother gave to the future teacher her maiden name as a second name. In the family, she was a kind of antipode of the harsh, humorless husband. She tried to instill in her son "a subtle sensitivity" towards people, especially to those who were considered to be lower in their social status. She taught children to harmonize their needs and, at the same time, she formed their sense of self-esteem and self-confidence. As William later recalled, he was mostly afraid of being esteemed as an egoist in his mother’s eyes.

After graduating from the Mercer University in Macon, Georgia, in 1853, J. H. Kilpatrick settled in the nearby small agricultural town of White Plains. He inherited there from his father a plantation of 1,600 acres and more than 30 slaves [9, p. 470]. He worked at school for one year, and then, until his death (1908), he served as a pastor at the local Baptist church. J. H. Kilpatrick was the most influential person in the district. All residents of the town needed his legal advice and spiritual support. He even mastered the medical profession by himself, and he removed ill teeth dashingly like a real doctor.

The father of the future scholar was strict and pedantic. He instilled in his son the habit of keeping detailed records of every day in order to identify the time spent irrationally. William kept this habit up to the end of his days. His daily diary amounted 45 huge volumes by 1951. In addition, he wrote detailed letters to friends and members of his family throughout his life. The systematic presentation of thoughts on paper formed in him, by his own admission, a clear, scrupulous and well-developed thinking. William took over his father’s desire for daily hard work. Subsequently, Kilpatrick’s colleagues noted his extraordinary diligence in research and teaching. He was so overwhelmed at work that he constantly felt guilty before his family, to which he was forced to devote too little time and attention.

W. H. Kilpatrick wanted to become a political leader in his green years. He sought to follow the example of his father, who wasn’t afraid to express unpopular ideas directly when he thought it was necessary. Father and son often spoke out in defense of those who had been unjustly offended.

In 1888, William entered his father’s alma mater, the University named after its founder and the first president Jesse Mercer (1769-1841). James Hines Kilpatrick wanted his sons to continue his work at the church, but they, including William, showed no interest in theology. At first, William excelled in ancient languages and mathematics, but he didn’t have a clear idea of choosing a definite professional path at the time until he was introduced to the work "The Origin of Species" [10].

He heard from his father a contemptuous description of this scientific work, which "only evil unbelievers will take to heart" [11, p. 13]. This book defined William’s views on the philosophy of education to a large extent and it oriented the young man to work in the field of pedagogy. The more he read the work of Charles Darwin, the more he shared the author’s views, and, in the end, he fully accepted them. This meant a complete rejection of religious education and philosophy. Accepting the theory of the origin of species, William rejected the concept of the immortality of a soul, of life after death, and the dogma of religious rituals associated with the worship of the God [11, p. 13]. He was fascinated by an idea of "the evolution of people", and not in a long historical process, but just now, in ordinary school conditions. What is needed for this "people remaking", William concluded, is a tool that could encourage the most backward students, and perhaps even their parents, to "evolve". This idea was the first impetus for the development of the idea of the future project method.

A great influence on the development of Kilpatrick’s pedagogical thinking was the personality and scientific views of a pioneer of the so-called progressive school movement in the United States of America, Francis Weyland Parker (1837-1902), who believed that
education should ensure the full development of a person, – mental, physical and moral. F. W. Parker studied the works of Pestalozzi, Herbart, and Froebel at the University of Berlin. Kilpatrick attended his lectures in 1892. Parker was able to help Kilpatrick realize the value of practical experience in education. This experience was equally important for both trainees and teachers, especially for those who are engaged in teachers’ training. Kilpatrick considered F. W. Parker "the greatest man" who had taken Pestalozzi's ideas, then he improved and enriched them, and later on he pushed them forward. Parker was, Kilpatrick said, the predecessor of Dewey, but Dewey put forward, according to Kilpatrick, a much more subtle and elaborated theory [11, p. 26].

For some time, Kilpatrick's idol was a major theorist and practitioner of pedagogy, Nobel Peace Prize winner Nicholas Murray Butler (1862-1947), president of the Columbia University for forty-three years (1902-1945). Butler was a prominent member of the Republican Party, a close friend of Theodore Roosevelt, and twice (1920, 1928) was nominated for president of the USA. It would be interesting to imagine what and how could have changed in this country, if then came to power not a protégé of business, an elderly Hollywood "star" or a retired military man, but a prominent figure of education!

After graduating from the Mercer University, William borrowed $ 500 from his brother to enroll in a graduate school at Johns Hopkins University. Kilpatrick recalled later his initial experience at the University: "Even just breathing in the air, I felt great things were happening around me. I've never been so deeply and emotionally touched. I had a feeling that here is an intellectual center of America, and I can't wait to join this exciting new world; I also wanted to merge with this greedy pursuit of the truth" [9, p.472]. His fascination with the idea of evolution and the pedagogical research he undertook helped him to define the direction to his life that he always followed later on.

His scientific research found its way out in the development of philosophy of education that went far beyond individualism and pseudo-scientific technicism of such well-known American educators of the time as John Franklin Bobbitt, Edward L. Thorndike, W. W. Charters, David Snedden, and some others [12, p. 443]. In the 1920s, E. L. Thorndike and L. M. Thurman stated the need to build a school curriculum on the basis of profiles differentiated by the level of teaching, – tracks, or areas of study. These tracks were supposed, according to these scholars, to be determined by the current level of students' abilities and, at the same time, had to anticipate their potential socio-economic status.

This attitude has become the theoretical basis for the orientation of students to unequal learning profiles, and for forcing dualistic differentiation. All these ideas have met the interests of "those in power". The writer and professor of the Stanford University, "the pioneer" of educational psychology, Lewis Madison Thurman (1877-1956), described the track system as "a true step forward on the path to democracy in education" [13, p. 183]. However, W. H. Kilpatrick didn’t share such aspirations at all. Being a true democrat, in a genuine meaning of the word, he proceeded from the need to establish equal opportunities for all children in receiving education.

After completing his first year at school, Kilpatrick returned to his native Georgia, where he took a position of a teacher of algebra and geometry. He co-founded also the Anderson Elementary School and the Blakely High School. Since William didn’t have a teaching education, he participated as a student in the summer session at "the Normal school" in Rock, Georgia.

Decades later, when being asked what important ideas he had developed in his first year at school, W. H. Kilpatrick replied: "It was trusting the child and involving him in what was
happening around him. I wanted each child feel that I was trying to help him. I didn’t want a separation based on the principle of "the teacher – on the one hand, the children – on the other" [9, p. 473].

Kilpatrick felt an urgent need to involve children in what was particularly meaningful to them. Children in such situations changed for the better very quickly. He therefore committed himself to developing activities that should be based on their interests. This was a step towards the idea of the project method and the so-called event pedagogy. Providing children with meaningful experiences related to their inner interests was not a pedagogical "ploy" of Kilpatrick to encourage them to complete educational tasks. Rather, it was an expression of his pedagogical consciousness for students as autonomous, self-acting individuals. The teacher was aware of the importance of identification, in other words, of spiritual fusion with children and constant care of them. Even in the last years of his life, he could remember almost every one of his first students, and he had almost paternal feelings to many of them.

W. H. Kilpatrick believed that the normal relationship between teachers and children was destroyed by the practice of marking their school success and failures, and sending parents a report card. He managed to convince the superintendent (principal) of the school to make an exception for his elementary school. As a result, report cards in Kilpatrick’s classes were not sent to parents. Parents received notes concerning only absence and lateness of their children at school. In addition, the teacher gave a detailed description of work and behavior of them in the school time, as well as a piece of advice to parents. W. H. Kilpatrick has come to the conclusion that a teacher should not only understand children, but he might also be able to express recognition for their good feelings. A teacher is obliged to conduct his class in such a way that each pupil had an opportunity to show all his best.

Kilpatrick stated on his idea of "getting children on teacher’s side", providing them with meaningful life experiences, and treating them as people who have, or at least want to have, "significant achievements". Hence, he has made an important conclusion about the key role of interest in learning. Kids develop under the guidance of a sensitive, attentive mentor. Interests at the same time play the role of a powerful stimulator of success in teaching. W. H. Kilpatrick recalled: "I treated children with tenderness. I never scolded them, or made harsh remarks or reproaches; I tried to teach them in a way that would make them feel good, and thus allow them to see benefits that would come from it. I trusted the children and appealed to the best in them; I gave them the opportunity to act in accordance with this "best", and then I expressed recognition and approval for such behavior" [9, p. 474]. The scholar attached great importance to the expansion of social experience of children. It should be noted that he didn’t search for "a system" for managing and regulating students’ behavior, that is, what is now named "classroom management"; in other words, he avoided to focus on demand, manipulation and control.

All these ideas became central in Kilpatrick’s philosophy of education and his teaching practice. In 1897, at the end of the school year at the Anderson Elementary School, William planned to go to Europe for summer to improve his mathematics knowledge, but the president of the Mercer University offered him a position of a professor... of mathematics and astronomy. Kilpatrick accepted an offer, and he served in that position until 1906. William was a president of the University in 1903-1905 as well. Kilpatrick conducted weekly pro bono classes with prospective elementary school teachers. Preparing for
these classes, students studied the works of Herbert Spencer, William James, Plato, Rene Descartes, and David Hume, etc. The teacher felt desire for organizing constant, demanding work for students and he believed that such intense learning activity would provide a material basis for their life.

In the summer of 1898, W. H. Kilpatrick attended the lectures of J. Dewey at the pedagogical courses of the University of Chicago. Kilpatrick didn’t rate him very highly as a lecturer. He revered and respected him, but, as he himself later admitted, he didn’t feel Dewey’s leadership in thinking that Kilpatrick, had previously, expected of him. In his opinion, Professor Dewey wasn’t a very good lecturer, and "he didn’t always prepare the ground for a novice to follow him" [9, p. 475].

Kilpatrick's attitude towards Dewey didn’t remain unchanged. After studying and working together with Dewey at Teachers’ college, Kilpatrick said that "working under Dewey changed my philosophy of life and education", and that as a philosopher, J. Dewey was "next after Plato and Aristotle, and above Kant and Hegel" [9, p. 475]. Such a statement on the part of Kilpatrick followed after Dewey’s ideas were positively received in many countries, including the USSR [14].

A big impact on the formation of Kilpatrick's worldview had a prominent admirer of I. F. Herbart's pedagogy, the president of Swarthmore College, Charles DeGarmo (1849-1934), who was named by his contemporaries "the Lord of thoughts". DeGarmo's views were formed during his studies and working at dissertations in European Universities [15].

Kilpatrick and De Garmo first met during a summer course in 1900 at the University of Cornwall. This meeting was even more inspiring for William than his first encounter with Dewey. Kilpatrick wrote about De Garmo's book "Interest and Education: the theory of interest and its specific application" [16]: "This book opened up a whole new world for me like no other book. No other book has ever meant so much to me. I was thrilled and touched. It united all my feelings and aspirations; it showed me that there was no conflict between interests and efforts. They are not divergent forces, but they are inextricably linked; this effort follows interest. In other words, the more a person is interested in something, the more effort he will put into it. Therefore, the starting point in all education, – the essence of the educational process, – is individual interest. And further, the best and most intense type of education begins with this self-moving interest" [9, p. 475].

In the summer of 1906, Kilpatrick taught algebra at the University of Tennessee. He took two courses taught by scholars of the Teachers’ College, Percival R. Cole and Edward L. Thorndike. The latter advised Kilpatrick to apply for a scholarship from the Teachers’ college. Kilpatrick followed this advice and in the fall of 1907 he entered the Teachers' college with a scholarship of $250 a year.

As a student there, Kilpatrick was greatly influenced not only by John Dewey, but also by Thorndike himself, as well as by the famous educational historian Paul Monroe, Professor Frank McMurry, and the Dean James E. Russell. The Teachers' College provided the kind of stimulating, theoretical and practical, diverse environment that William lacked at the Mercer University and even at the Johns Hopkins University. It was the environment that finally shaped Kilpatrick's interests in education. All further professional activity of Professor W. H. Kilpatrick (1909-1938) took place at the Teachers’ College of Columbia University in New York.

He died in New York on February 13, 1965.
W. H. Kilpatrick, a disciple and a follower of J. Dewey, was naturally an adherent of the pragmatic pedagogy. He developed a pedagogical system of "experimentalism", based on the philosophy of pragmatism and the psychology of behaviorism. The school was considered by Kilpatrick as an instrument of democracy in the field of education. Experimentalism rejected speculation and it relied on the study of a child and his behavior. The principle of self-development of an individual was put forward. Kilpatrick believed, following after Dewey, that it was possible to influence the life of every person positively, taking care of his health, recreation and a career of a future citizen of a society and a family man. He considered the study of specific of childhood as a kind of "guide" of the scientific pedagogy, suggesting that a child should be an object of an intensive influence of various factors of formation, – economic, scientific, cultural, ethical, etc. [17, p. 228].

W. H. Kilpatrick rejected the traditional school completely, as it was based on the transfer of ready-made knowledge to students, out of connection with their real needs. He denied even need of school programs and a class-based system itself.

As a genuine pragmatist, he emphasized the importance of a positive reinforcement effect of an educator on children within the framework of the pragmatic principle of "stimulus – response". Instead of a traditional school he proposed to build the so called educational process which he considered as an organization of children's activities in the social environment, focused on enriching their individual experience [18, p. 365]. In other words, Kilpatrick preached the introduction of something like the Rousseau's "pedagogical robinsonade", only in quite other conditions of another century [8, p. 140]. He described his ideas in detail in books published in many countries, including the USSR, primarily in the book "The Method of projects" (Russian edition. M, 1925), "Fundamentals of the method" (Moscow, 1928), "Education in a changing civilization" (Moscow, 1930).

In order to implement his ideas, W. H. Kilpatrick developed the project method, and, accordingly, he allocated main space in school to project activities. The project method has become a sensation in the American pedagogical world. American pedagogical journals were keenly interested in it, and they devoted numerous publications to it, including critical ones. It should be pointed out, honestly, that the idea of the project-based learning "floated in the air" at the very beginning of the XXth century in the American society regardless of Kilpatrick.

Mass industrialization, rapid development of industry and all types of production brought to the fore the idea of efficiency, which some enterprising innovators from pedagogy sought to extend to the education system. This desire was reflected in the extreme popularity of the idea of pragmatism and American efficiency, which captured the enlightenment in the USA [19, p. 113].

The Columbia University professor C. R. Richards was the first who used the term project-based learning and the phrase constructive learning. This type of training has met the requirements of J. Dewey's pedagogical pragmatism ("A child shouldn’t be stuffed with knowledge like a goose with grain"). Students should be motivated to develop initiative, creativity, participation in diverse types of activity. In short, the teacher should do everything to correspond to canons of progressive pedagogy. Such organization of educational and cognitive activities of schoolchildren, covering academic and extracurricular time, was
initially called the target act method. In 1908, the head of the department of education of agricultural schools, D. Snedden, first used the word project, keeping in mind innovative method. In 1911, the U.S. Bureau of Education legalized the definition project in relation to the educational process. As for W. H. Kilpatrick, he has made an attempt to generalize and theoretically to formulate the project method in an article entitled "The method of projects" (1918), published in the leading American educational journal "Teachers' college reports". The article was an extraordinary success, and, as a result, all the glory of the "discoverer" of the method went to its author.

Kilpatrick developed the idea of training through the organization of "target acts". Children, according to his idea, have a plan of implementation of a specific practical task in the process of learning activity. Despite the fact that the management of the activity was left to the teacher, this method was based on the existing experience of the child, his own way of searching, overcoming difficulties, etc.

W. H. Kilpatrick believed that only such system of education could turn child's life into a continuous restructuring and raise it to a higher level. School would prepare students for conditions of dynamically changing civil situations and it would teach to face now jet unknown problems in the future [20, p. 385].

At the same time, he distinguished four types of projects: creative (productive), consumer (its purpose is consumption in the broad sense of the word, including entertainment), a project for solving problems (intellectual difficulties), and an exercise project [8, p. 141]. As a true pragmatist, he denied traditional academic subjects, which, from his point of view, had no practical value (that is, they didn't have "instrumental life value").

In 1917-1922, the W. H. Kilpatrick's project method was fully implemented in small rural schools in Missouri by Kilpatrick's associate, professor Edward Collings. In his book "The experience of the American school on the project method" [21], E. Collings described in detail the use of the project method, and he gave results of a comparative analysis of experimental and control schools. E. Collings set out to find out whether a rural school course could be made up entirely of the tasks that children set themselves in real life. He believed that the school's project-based program should be a series of experiences linked together in such a way that the information gained from one experience could serve to develop and to enrich other experiences. Only activities that are related to the reality surrounding a child and which are based on actual children's interests can have this property. Hence, he concluded that the state and a teacher can't develop an actual school curriculum in advance; it is created by a teacher and children directly in the learning process, and the content of it is drawn, first of all, from the surrounding reality. With this construction of the educational process, a student finds himself in various life situations; he faces and overcomes difficulties with the help of instincts and habits. Children have to design what they are going to do themselves.

Special attention was paid to the choice of activities through which knowledge was acquired. The curriculum was considered as a set of interrelated experiences. The material for training was taken from everyday life. Students themselves chose the content of educational work; a teacher only assisted them in the execution of their plans [8, p. 141]. In the course of the experimental work, professor E. Collings proposed his classification of educational projects, which differed from the classification of W. H. Kilpatrick.

E. Collings's classification included four types of projects. The first type is game projects, that is, children's activities, the direct purpose of which is participation of kids in various kinds of group activities (games, folk dances, dramatizations, various kinds of
entertainment, etc.). The second type of projects is *sightseeing, excursions*. This type involves the appropriate study of problems related to the surrounding nature and social life. In the process of developing and implementing of *narrative projects* (the third type), children should have to enjoy the story in a variety of forms: oral, written, vocal (song), artistic (painting), musical (playing the piano), etc. Finally, *constructive projects* are aimed to create a specific, useful product, for example, making a rabbit trap, making cocoa for school breakfast, building a stage for the school theater, etc. In the experimental school, which worked under the guidance of E. Collings, using exclusively the project method, only in the first year of work, 58 excursion projects, 54 game projects, 92 constructive projects, and 396 narrative projects were conceived, worked out and completed by children themselves.

Summing up the results of his experiment, Collings concluded that the curriculum could be completely composed of tasks set by children from a real life. Subsequently, the project method, like other ideas of W. H. Kilpatrick and his associates, was used in practice in many countries around the world.

In particular, the author of this article had the opportunity to observe the implementation of W. H. Kilpatrick's ideas "on European soil" in a number of German and Czech schools in the cities of Weimar, Jena and Podebrady, using "the Jena-plan-schule" model of Peter Petersen (1884-1952) [22].

This concept is actually a variant of Kilpatrick's developments. The ideas of W. H. Kilpatrick and P. Petersen are popularized nowadays by the Thuringian Institute for Advanced Training of Teachers, Improvement of Curricula and Mass Media (Thüringer Institut für Lehrerfortbildung, Lehrplanentwicklung und Medien) in Arnstadt (Germany) and its creative workshop for the dissemination of advanced pedagogical experience in Jena. They are organizers of international meetings of scientists from different countries who are interested in putting into practice ideas of W. H. Kilpatrick and his German associate P. Petersen [23].

**Discussion**

The project method was widely adopted in many countries of Europe and North America in the shortest possible time, and it didn’t require any serious administrative efforts to implement it.

The ideas of W. H. Kilpatrick were developed in our country as well. In the 1920ies in the USSR, the People’s Commissariat of Education of the RSFSR (PCE) intensively planted the so-called *comprehensive plans* at schools. The class-and-lesson system, which had successfully existed for three centuries, was rejected in one fell swoop by people, none of whom had a pedagogical education and serious pedagogical experience [24, p. 9]. All academic subjects, including mathematics and Russian, were offered to be studied casually, during the consideration of the so-called complex topics. The offered topics were as follows: "Spring in the village", "Red October", etc. In the 1st grade, for example, the topic "Monitoring the patient's condition in the family" was studied [25, p. 99].

Many teachers, including teachers in Soviet Russia in the 1920s and 1930s, were attracted by obvious advantages of the method, such as promoting the development of children's self-education skills in the process of organizing the educational process "according to Kilpatrick". They quickly developed an idea of the need for personal self-control in the course of completing the received tasks-projects. Educational research, although, of course,
quasi-scientific, led to the development of students' cognitive abilities, and group work contributed to the formation of a friendly children's team.

At the same time, in the process of using the project method, some of its shortcomings were revealed. First of all, we note the obvious fact that the use of this method led to a large load on the teacher. First, teachers had to adapt to completely new methodological guidelines, and this required considerable time and effort. But many teachers, forced in accordance with the guidelines of the PCE to "introduce" the project method, the team-laboratory method, or the Dalton plan, acted "in their own way". Namely, they conducted lessons in the old way, as before. But, for example, in case of a sudden check on the part of their management, they also prepared a "backup version", i.e. they also had a lesson plan "for Kilpatrick" [24, p. 25]. It seems clear that the introduction of the ideas of Kilpatrick and his associates in such a crude way by poorly educated "figures from the PCE", – A. S. Makarenko named them "pedagogical areopagus", "pedagogical Olympus", – compromised the very idea of the project method.

The use of the project method also revealed such a drawback as the problem of communication between students and the teacher, who was no longer so much a teacher in the usual sense of the word, but a kind of a consultant; this, of course, somewhat reduced his authority in the eyes of students. Further, according to the results of the project activity, the teacher had to make a mark, and this was now a considerable difficulty for him. In fact, how to assess the contribution of each child to the collective (group) work, if only one of them reports for the entire team?

The project method was also actively used in higher educational institutions of the USSR. The teacher gave a task, the implementation of which implied group work. At the end of the class, the most advanced student usually reported for the entire team. The others kept quiet, but also received a positive mark. The exams and tests were ... voted on. The teacher asked the assembled students of the group: "Who is for the fact that Ivanov knows the material very commendably?". "He knows, he knows, of course, he knows!" – the students answered in chorus [26, p.34]. In 1931-1932, the well-known resolutions of the Central Committee of the Communist Party and the PCE on general and higher education were issued, according to which the subject system of education was restored in the USSR.

Even today, the project method has gained a "second wind". Universities are even introducing the positions of vice-rector for project activities.

**Conclusions**

The legitimacy of the concept of the project method itself has long been beyond any doubt among serious researchers and practitioners of education. The task of modern users is mainly to fill with proper content the form, which was once proposed by the great American educator William Heard Kilpatrick. At present, the project method has actually received a rebirth in various areas of social and industrial life, in the fields of culture, sports, and, of course, in the sphere of education [27].

The hypothesis of the study is confirmed; the main conclusion is the article shows that the didactic heritage of this major American teacher seems to be very extensive. It contains significant value potential, and it requires further full-fledged study and deserves active use in the modern domestic education.
REFERENCES

1. Kornetov G. B. Ascent to the method of projects of William Kilpatrick. People’s education, 2020, no. 5, pp. 137-147 (in Russian).

2. Penkovskikh E. A. Method of projects in domestic and foreign pedagogical theory and practice, Education issues, 2010, no. 4, pp. 314-318 (in Russian).

3. Polat E. S. Method of projects. 1998. Available at: https://refdb.ru/look/2917205.html (accessed 1 May 2021) (in Russian).

4. Knoll Michael. I had made a mistake: William H. Kilpatrick and the project method, Katholische Universität Eichstätt-Ingolstadt. Teachers’ College Record, February, 2012, pp. 1-45.

5. Isozaki T. Laboratory work as a teaching method: A historical case study of the institutionalization of laboratory science in Japan. Espacio, Tiempo y Educación, 2017, no. 4, pp. 101-120.

6. injections R., Muntri A., Singh G. The influence of the inverted approach on the motivation of students in the study of the discipline "Digital electronics". Integration of education, 2020, no. 3, pp. 453-464 (in Russian).

7. Ipek I., Ziatdinov R. New Approaches and Trends in the Philosophy of Educational Technology for Learning and Teaching Environments. European Journal of Contemporary Education, 2017, no. 6(3), pp. 381-389.

8. Pomelov V. B. 100 great teachers, Moscow, Veche Publ., 2018, 416 p. (in Russian).

9. Darwin Ch. On the origin of species by means of natural selection, New York. Appleton. 1887.

10. Tenenbaum Samuel. William Heard Kilpatrick: trail blazer in education. New York, Harper &Brothers Publishers, 1951, 250 p.

11. Yaroshevsky M. G. Thorndike Lee Edward, Russian pedagogical encyclopedia: in 2 vols., vol. 2, ed. by V. V. Davydov, Moscow, Bolshaya rossiyskaya enciklopediya Publ., 1999, 672 p. (in Russian).

12. Bourgeois pedagogy at the present stage. Critical analysis, ed. by Z. A. Malkova, B. L. Wulfson, 1984, 256 p. (in Russian).

13. Pomelov V. B. USA: formation of the ideal of pragmatism and efficiency. Pedagogy, 2015, no. 8, pp. 112-121 (in Russian).

14. History of pedagogy and education. From the origin of education in primitive society to the end of the XX century, ed. by A. I. Piskunov, 2001, 512 p. (in Russian).

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