WHY PROJECT-BASED LEARNING, WHAT IS ITS ESSENCE?

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Abstract. This article presents research, research and definitions of project, design, project-based learning, which are modern approaches to education. Also, the common features and differences of these concepts are compared and analyzed based on the author's attitude.
Keywords: PBL, project, definition, analysis, comparison, active learning.

Introduction. The sharp changes in the world civilization, the transition from the market economy to the creative economy based on intellectual property is explained by the existence of effective approaches, technologies, methods of educational development and their efficient use in practice. Because the approaches that fail to show their effectiveness in today's educational practice, without a doubt, are turning into studies that remain in the texts, and the level of importance of those that are reflected in real life is known to everyone in the scientific community as a result of the fact that they are introduced into practice in a wide range. Project-Based learning is one of such approaches that is successfully used in the teaching methodology of foreign countries.

Elucidation of the true nature of each concept accelerates the understanding of its place and content in science, consequently, the expansion of the scope of its application in practice and the increase of its importance in a certain sense. In order to clarify our research views, explain certain concepts, define meaningful boundaries between the concepts of project, design and project-based learning, we found that it is necessary to dwell on their general and unique aspects, to study and comment on their theoretical aspects.

Literature analysis. The concepts used in education under the names of project, design method, project technology, design, project-based learning methodology have gained special scientific and practical importance as a research object in national pedagogy after 2000 years, and in many cases understanding of this concept as a method or technology has become popular.

In terms of the actual meaning of the word, in the "Explanatory Dictionary of the Uzbek Language" project - 1) documents prepared for the construction or restoration of a building, structure, machine, etc. (drawing, calculation, template, copy, set and etc.); 2) decision, decree, law, etc. preliminary draft text of documents. Designing includes such content as drawing up and drawing projects of intended objects (tools and equipment, buildings and structures, various machines and devices, clothing and furniture) in order to build and create new types and models [6: p. 505] . This expression is in line with the main interpretations used in our national pedagogy today.

In the Pedagogical encyclopedia, "a project is a plan, a goal, an idea. Pedagogical activity design is a plan, a target idea of the teacher's use of innovations in the field of education. Each project should be created with deep thought...", "the design method is a teaching method in which the pedagogue designs the practical assignments given to the students in the course of education based on a pragmatic approach and ensures that the students demonstrate their knowledge and skills in the process of their implementation" [3: p. 217].

The researcher-scientist U.Tolipov, who has become a source of many studies with his scientific and methodological work on designing, defines "the design of the pedagogical process is the creation of a project that serves to fully express the general essence of the pedagogical activity, which is organized on the basis of the tripartite project + content + activity" [4: p. 106]. In the views put forward by the researcher A.Hamroev, design is described as a type of professional-pedagogical activity that includes design, organization and analysis of the technological process of education [7: p. 22]. According to Sh.Boltaeva, design is the result of solving certain pedagogical technological tasks, it involves the creation, construction and implementation of a specific idea to a useful result in practice [1].

The scientist B.Mamurov, who worked on the system of development of design skills, reflected more in his views on the lesson project and the technology of its design. In his opinion, "on the basis of the project, the teacher organizes and directs the actions of himself and his students" [2: p. 98]. In another study, the concept of "project" is understood as an idea, practical development of thought-out plans, a holistic image of the pedagogical process in the future, or organizational and practical work in the preparation of a product. In which it is stated that everything that is related to the future in design and above all it is a high level of uncertainty and predictability [5: p. 23]. Also, the research of a number of pedagogues-scientists of our republic on the issues of creating educational process projects and designing the educational process made an incomparable contribution to the popularization of these concepts as an educational technology.

As a result of our research, we have witnessed that the project, and especially the leadership in the design, is planned by the teacher and by predicting the outcome, the behavior paths are predetermined, or the teacher is guided by the technology, which is implemented in a certain lesson period, almost at a precise time, often in a short period of time. This creates the impression that self-planning is essentially designed for the period from the beginning to the end of a certain lesson. Therefore, concepts such as project, design method, project technology, design, and project-based learning methodology have been studied in the national pedagogy in the context of the design of the educational process, classes, and lessons within one subject and served as the basis for scientific-research works.

A question arises. So, what is project-based learning (Project-Based learning - PBL) and why is interest in this type of teaching increasing today?

Project-based learning is a dynamic classroom-lesson approach that is designed around real-life, real-world problems, guaranteed to gain deep knowledge through active learning [10]. According to Yasseri Dar, Finley, Patrick M., Mayfield, Blayne E., Davis, David W. and others, PBL is active learning and inquiry, as opposed to relying on paper, memorization, teacher-led instructions, which present concrete evidence or show a fluid way to acquire knowledge by asking questions, posing problems, suggesting their scenarios is built on the basis of the method of teaching [12].

John Larmer, John Mergendoller and Suzie Boss say that project-based learning is a powerful teaching approach that, during its implementation, has:

- encourages students to learn;

- prepares pupils and students for higher education, profession, setting points of professional growth (planning individual professional trajectory), socially active citizenship;

- helps pupils and students to perform well the tasks that require the demonstration of deep knowledge and thinking abilities (in our opinion, to fulfill the social order for the teacher);

- enables teachers to teach more satisfactorily;\

- provides educational organizations with new ways to communicate and connect not only with parents, other communities, but also with the whole world [8].

Thomas Markham said that, "PBL integrates knowing and doing, students acquire basic knowledge, skills and competencies from the studied curriculum, as a result, they apply what they know to solve real-life problems and achieve important results. PBL focuses learning on the student rather than the curriculum, uses digital tools to produce collaborative high-quality products, and rewards students with intangible assets such as global development, creativity, emotional stability, resilience, and empathy that are demanded in today's world. Of course, these cannot be taught outside of textbooks, but must be activated through experience," he describes [9].

Analysis and results Therefore, project-based learning provides a number of opportunities aimed at activating through experience as above, aspects of the development of the learning participant. At this point, it is possible to enumerate the common features of the concepts of project, design and project-based learning (PBL) that can complement each other or represent the same framework.

General aspects of the concepts of project, design and project-based learning
implements person-based learning, mainly based on collective, cooperative, sometimes individual and differentiated learning	successful completion of educational standards, effective results are aimed	finding, identifying and solving problems in achieving the specified didactic goal, using modern technologies, unconventionality

Figure 1. General aspects of the concepts of project, design and project-based learning

In general, there are types of project-based learning that appear at the sub-project level, distracting the teacher, the researcher and the learner from a deeper, more serious look at it. In order to analyze the definitions of the above concepts and the comparative table published by Amy Mayer on TeachThought University, an organization dedicated to innovation in education through the development of famous teachers [11], in order to express the author's attitude towards them, the common and different aspects of project and project-based learning are researched. was done (Table 1).

Table 1.

Analytical table on project and project-based learning (PBL)

Projects	Project-based learning
Content	
Prepared by teachers	The goal is taken from practice, real life
It is detailed in a single paper by the teacher and is often based on "last year's" or several years' work.	It is based on questions that identify the need to know, covering all aspects of learning by the teacher and students

Often, new scenarios do not include scientific advances and are based on already solved events and problems	The need for action and the problems to be solved are important, because if the scenario and simulation are realistic, then project-based learning will be clear, interesting and, of course, relevant to the present time.
The content is almost never used in real life	A lot of real life events are taken
Plans are not related to students' lives and practical experience	It is related to the life of students and their future plans
Implementation	
It is not necessary to make changes to the educational process, programs, and lesson forms	It requires making changes to the educational process, programs, and forms of lessons, especially the flexibility of the program to changes.
Only one project will focus on a specific outcome that is predicted	It incorporates several projects and focuses on the process of execution along with the result
Based on pre-defined common criteria and guidelines for projects	It is based on a clear objective and research
Sometimes it can be done independently by the student at home without the teacher's guidance.	It requires teamwork and teacher's guidance in the process
A clearly defined sequence of actions planned, conceived and performed by the teacher in advance	In the course of education, it is carried out consistently based on the vital goals to be achieved
It is performed based on the tasks given in the example	The problem that arises in the process is based on the experience and capabilities of the student
It is used annually, within a certain period, at the time specified in the project, and the focus is on the product	Long-term or temporary, complex and involving many processes and requiring long-term planning by highly qualified teachers
During the project, students do not have the opportunity to choose or make changes to the project	Students will make several choices during the project within pre-established guidelines, and often these choices will work well and surprise the teacher.
Existing, tested options can be used to solve problems	Although they cannot fully implement the project, they can provide new solutions to problems
The teacher's work will increase after the completion of the project	The main task of the teacher is before the project starts
Attitude	
The listeners and audience are school teachers	The audience is real life and people who meet in the lives of their listeners

A student, then, is a person who does not have experience, that is, a student	A learner is a reliable person who gains experience and acts on it
Evaluation	
It is predicted and diagnosed in advance	Diagnoses are made during training and necessary changes are made
The achieved result is evaluated	In addition to the result, the creative approach to the process and the implemented behavior is important
The results are evaluated by the teacher, often individually by the participating student	The control department specially created for the project evaluates, and the cooperation work as a team is evaluated separately

Conclusion. In conclusion, it can be said that project-based learning (PBL) is an educational approach that has been formed, developed, and improved over the years of project, design, and project-based learning. Actions, methods, means, and conclusions carried out in the direction determined in the process go from induction to deduction, and sometimes require to go from deduction to induction. And in general, as a result of the study of foreign sources and research, it became clear that successful and high-quality PBL is not an imaginary plan or just a theory, as it may seem to a person only during the period of newcomers to this approach. Educators who have taken this approach effectively know where to focus to support the success of process-accelerating, transformative learners.

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