

THE METHOD OF THE PROJECT AND ITS ESSENCE, WHICH IS USED IN TEACHING THE MODULE “BIOCHEMISTRY AND MOLECULAR BIOLOGY” IN HIGHER EDUCATIONAL INSTITUTIONS

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ANNOTATION

Today, along with all spheres of public life, attention is paid to the development of the educational system at the level of Public Policy.

The issue of technologizing the improvement of the higher education system with educational processes that are clearly, scientifically based, compiled from separate technological projects, algorithmic, guaranteeing a certain result, diagnostic orientation to the goals set is of urgent importance.

Keywords: innovative technology, project methodology, research, evaluation, independent thinking, independent decision making, presentation, project passport, technological map, project expertise.

In the conditions of modernization of education, the transition from theory to practice requires preparation from educators for activities of a separate type. Such activity is design, the main conceptual component of which is the project.

In biochemistry and Molecular Biology, the technology of the “project”, its didactic capabilities, the procedure for using the project method in training sessions, theoretical materials on the content of the project, a lecture on the organization of the teaching of the module “Biochemistry and Molecular Biology”, samples of training keys intended for practical classes, non-standard tests, as well as independent educational topics were

The method of "project" is the implementation of Planning, Organization and evaluation of results by educators for a specified period of time in individual or groups, on a given task. The project took place in the Italian architectural workshops in the 16th century.

At a higher level, educators are more involved in planning, organization, control, analysis and evaluation of the results of the task than in the use of other teaching methods. The method of educational projects helps and quickly manages the problem, hypothesis, tasks of the educator to the educators. Training in projects is valuable not only the results, but also the process itself. The project can be interdisciplinary, a science or outside of science. Design is carried out in two ways - on a personal and group basis. Both directions have positive and advantage characteristics. The design of the module of Biochemistry and Molecular Biology increases the quality and effectiveness of education; students carry out their activities for a specific purpose based on the project plan when

working on the project. As a result, the realization in the participants of the concept that the implementation of the project depends on its activities creates a high sense of responsibility; in the process of completing all stages of the project, students gain experience from the birth of thought to the final reflection; the formation of the most important teaching skills and abilities (research, assessment, independent thinking, independent decision-making, presentation) in students becomes a fully controlled process.

The methodological passport of the educational project is a brief description of the purpose, place in the educational program, which is expected from the content and essence of the educational project. The methodological passport of the educational project reflects the following: topics in the curriculum of the subject of the subject, educational, educational, developmental goals of the subject, educational and pedagogical tasks, the educational project assignment based on the characteristics of the age of students, the term of implementation of the project and the mode of operation of the educational project. The passport of the research project is filled out by the authors and the project leader, which reflects the name of the educational project, the goals and objectives of the project, the author of the project, the project leader and consultants, the type of project. In educational project activities, covering research, creative, game, Information research activities in students, social need interests are taken into account, a clear focus is placed on the result.

In practical training, the technology of the lesson session, which is carried out on the basis of the project method, is analyzed.

Technological map of the training session in which the project method was applied

stages and content of work	Activity	
	<i>Teacher</i>	<i>pupils</i>
Preparation	Determines project topics and purpose. Introduces educators to the essence of the design approach. Offers a number of topics, provides information about the content of the project, forms their framework, lists the types of work, their results and evaluation criteria	They unite in a group, choose and discuss the topic of the project. They will receive additional information as needed. Determine the goal, discuss the results of work on the project
Stage 1 Planning	Offers ideas, tells suggestions. Recommends the source of information and its collection methods and analysis. Criteria for evaluating the order of work and intermediate stages and determines the process as a whole	They choose an action plan: they formulate tasks, determine the direction and stages of execution, they determine the order, distribute tasks among the members of the group. They approve the method of analyzing the results (report form) with the educator
Stage – 2 Research	Monitors, advises, helps to look for a source of information, is itself a source of information	They do the research. They collect information, solve intermediate tasks,
3-stage Information analysis. Formation of conclusions.	Controls the whole process, holds the reversible connection	They analyze the information received, form conclusions
Stage – 4 Report	Hears, is a simple participant, asks, energizes and encourages goal-oriented questions	They will give an account. Results of work: oral report with demonstration of oral reporting materials, presented in written reporting forms in the form of a project
Stage 5 Evaluation of the process and results.	Assesses the full level of problem solving, group Action Strategy, the power of educators, the quality of resource use, the creative approach, the possibility of continuing work, the quality of reporting, etc	Through collective discussion they defend, evaluate the results of the work and its progress, including the degree of completeness and strategy of action of solving the problem

Stages of implementation of design activities are analyzed in the form of:

Stage of preparation:

a) having chosen the topic of the project, a problem is formulated, the relevance of which must be solved.

b) the purpose, subject, object and objectives of the project are taken into consideration.

c) the types of design activities and tasks to be solved are prepared and the methods and means of their solution are selected.

g) get acquainted with the literature and information sources on the topic of the project.

Stage of planning educational activities.

a) the sequence of achieving the goal is developed.

b) a work plan is drawn up (a period is established for the development, drawing up a project, preparing it for a presentation, distributing tasks for drawing up a report among the participants, bringing them to completion and readiness).

Stage of project execution.

a) the necessary information is collected, brought to the system and analyzed.

B) the process of formalizing the results of the study (brought to readiness).

C) in accordance with the instructions, a report on project activities is prepared

The future pedagogue will formulate a plan for the implementation of the project in a practical lesson as follows.

Work plan for the implementation of the project

• 2 Participants' F.I.Sh.	Assignment	Type of activity	The appearance of the finished product	Fulfillment term
*	Identifying the participants within the project, defining the task of each participant	A list of participants is drawn up, depending on the capabilities of the participants, the items in the accounting policy of the enterprise in the field of activity chosen for the project are distributed among themselves.	A project implementation plan is formed	**
	Forming a bank of information on the subject of the project	A database reflecting the specific features of the selected Project topic will be created	project passport	
	Formalization of the project	Collection of project work results	The project is ready	
	Preparation of a report on the results of design activities and project presentation	To justify the relevance of the topic and the problem, to indicate the goals and tasks of the project, etc	Report	
	Preparing a project presentation in MS Power Point	General formalization of the presentation and double-checking its content, adding new slides, etc	Presentation	

Note: * 2 participants in each group and F.I.S. of the participants based on the existing situation are determined;

** ☒ deadlines are determined on a case-by-case basis, depending on the selected project direction and the situation in the group.

- Preparing the project for presentation.

a) Preparing a project presentation using the guide for preparing presentations in MS Power Point.

b) during the oral presentation of the project, tasks are defined among the group members.

c) public presentation, project defense and assessment

In order to prepare a report on project work, it is recommended that the student organize his activities based on the following guidelines:

a) expression of conclusions (on the basis of text no more than 1 page) proving the implementation of the proposed and recommended project.

b) based on the problem you want to solve (in 5-6 words).

c) the purpose of the project: why it is created, what the final product will be and who it is aimed at (through 1-3 proposals) are indicated.

g) the tasks of the project are expressed (short and unambiguous).

d) the work plan of the project is described.

e) the results of the solution of the task and the work performed in the project are shown.

j) conclusions confirming the possibility of implementing the proposed project product are formed.

z) the list of resources used for the completed work is displayed.

The precise system of project expertise not only determines the winner objectively, but also creates an objective assessment of the quality of the project and monitoring of elements of work on the project. In the process of evaluating the results of the completed educational project, attention is paid to the quality of the project, the process of working on the project, the effectiveness of the work, difficulties and ways to overcome them. The following option of preparing a report on a project completed in a practical session together with a science teacher is analyzed:

Evaluation of the report on the completed project

	Evaluation criteria	Evaluation indicators
1.	Formal compliance with the instructions for preparing the report	Compliance of the report structure with the guidelines - max. 1 point
2.	The basis and relevance of the chosen topic	Display of the relevance of the selected topic - max. 1 point
3.	The solution is based on the problem being solved	Evidence-based problem - max. 1 point
4.	Description of tasks and activities of project participants	Tasks and activity types of project participants are clearly defined - max. 1 point
5.	Determination of project tasks	Accuracy of project tasks - max. 1 point
6.	Development of the work plan of the project	Compliance with the work plan developed approaches - max. 1 point
7.	Bringing the results of the project according to tasks	The results of the project work on the tasks are presented clearly and clearly, indicating the participants - max. 1 point
8.	Expression of conclusions	In the summary, it is stated that the proposal and proof of the importance of the implementation of the proposed project - max. 1 point
9.	Compilation of the list of used sources	The composition of the list of used literature and sources according to the completed tasks - max. 1 point
10.	Self-evaluation of project activity	Critical assessment: product quality, work on the project: the effectiveness of each participant's work, the challenge and overcoming it, the availability of project work materials - max. 1 point
Total: 10 points		

At the end of the practical training, the project portfolio - students prepare a report summarizing the documents, data, visual aids collected during the implementation of the project and place them in the project portfolio.

At the end of the practical training, the subject of the next practical training and independent tasks for its preparation will be given.

Therefore, the "Project Method" is an innovative pedagogical technology that responds to the current reforms in the field of education and plays an important role in improving the quality of education.

The project originated in Italian architectural workshops in the 16th century. Its development history is divided into five periods.

☐ Currently, the project method is used in the educational process of many developed countries as a humane and developing educational technology. In our republic, the project method is finding its place in the scientific, creative and information fields. It is a flexible model and training system with subjective and objective innovations that gain practical importance for the organization of the educational process aimed at the full use of the individual's abilities through the development of opportunities, independent work and creative abilities. 6. The project method is not a universal method designed to solve any complex didactic task at once. It is a whole didactic system and is an element of organization of person-oriented education.

The use of the project method in educational activities requires students to have a number of intellectual skills such as analysis, comparison, synthesis (checking the correlation of phenomena, research, preliminary assessment, searching for information, evaluating it, etc. requires

"Project method" is effective not only in higher education, but also in all stages of continuous education. It is necessary to apply this method in practice in the educational process;

The practical application of the project method requires a lot of preparation from the teacher. The teacher must have mastered the innovative methods of conducting training sessions, have a strong speech culture, and must have accumulated extensive experience in the practical application of interactive teaching technologies;

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