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FORMATION OF STUDENTS' META-SUBJECT COMPETENCIES BY INVOLVING THEM IN PROJECT ACTIVITIES

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The article presents the results of the conducted research on the problem of the formation of meta-subject competencies of students. The essential features and structural components of students' meta-subject competencies are revealed. The possibilities of the project method for achieving the educational results indicated in the new generation standard are shown. Based on a number of theoretical and empirical methods of pedagogical research, the effectiveness of the formation of meta-subject competencies of students through the application of the project method is substantiated.

Keywords: *project method; meta-subject competencies; universal learning activities; interdisciplinary concepts; cognitive UUD; communicative UUD; regulatory UUD; project activity*

ФОРМИРОВАНИЕ МЕТАПРЕДМЕТНЫХ КОМПЕТЕНЦИЙ ОБУЧАЮЩИХСЯ ПОСРЕДСТВОМ ВОВЛЕЧЕНИЯ ИХ В ПРОЕКТНЫЙ ВИД ДЕЯТЕЛЬНОСТИ

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В статье представлены результаты проведенного исследования по проблеме формирования метапредметных компетенций обучающихся. Раскрываются сущностные особенности и структурные составляю-

щие метапредметных компетенций обучающихся. Показываются возможности метода проектов для достижения обозначенных в стандарте нового поколения образовательных результатов. На основе ряда теоретических и эмпирических методов педагогического исследования обосновывается эффективность формирования метапредметных компетенций обучающихся путем применения метода проектов.

Ключевые слова: метод проектов; метапредметные компетенции; универсальные учебные действия; межпредметные понятия; познавательные УУД; коммуникативные УУД; регулятивные УУД; проектная деятельность

In a rapidly changing society, the development and upbringing of a mobile personality that continuously learns new knowledge and competencies come to the fore in education. The function of a modern school is to form a holistic picture of the world in its pupils, based on an understanding of the breadth of connections of all phenomena and processes taking place in the world. Metasubject competencies, which are the subject of the final assessment of the development of OOP LLC by students, will help students in this.

Project activity is an effective means of forming meta-subject competencies among students, contributing to an increase in their level of activity. The use of the project method makes it possible to individualize the educational process to a greater extent from the standpoint of providing students with the opportunity to exercise independence in planning, organizing and controlling their activities.

The need to form sociable, creative individuals who are able to work in a team, who are able to continuously learn and adapt to changes in the world around them is noted in various state regulatory documents. Meta-subject competencies allow students to master different ways of cognition, which is possible by involving them in a project activity.

General theoretical aspects of the study of meta-subject competencies are presented in the studies of L.F. Kvitova, K.Y. Kolesina, M.R. Leontieva, etc. The works of O.E. Lebedev, P.G. Shchedrovitsky and others were of great importance, in which the essential features of the meta-subject skills of students are revealed. V.N.Shulgin, M.V.Krupen-

ina, B.V.Ignatiev, S.T. Shatsky and others studied the method of project work in Russia. Their research is of great practical and theoretical importance. At the same time, many questions remain open. In particular, the question of the formation of meta-subject competencies of schoolchildren through project activities remains open.

The established practice of school education and the analysis of theoretical works of scientists allows us to state the contradiction between the need for the formation of meta-subject competencies of schoolchildren in accordance with the educational standard of the new generation and the insufficient effectiveness of traditional education. This contradiction makes the problem of the formation of meta-subject competencies of students through project activities quite relevant.

Based on the importance of this problem, its insufficient theoretical and practical development, the topic of our research is determined.

The purpose of the study is to theoretically substantiate the effectiveness of the formation of meta-subject competencies of schoolchildren through the use of the project method.

In accordance with this goal, the following tasks are put forward:

1. To identify the essence of the concepts of “meta-subject competencies” and “project activity”;
2. To reveal the structural components of students’ meta-subject competencies;
3. To define project activity as an effective means of forming meta-subject competencies of schoolchildren.

In the process of preparing the study, theoretical (analysis of literary sources on the problem of the formation of metasubject competencies in students, analysis and comparison of approaches of various researchers to solve the problem of the formation of metasubject competencies through project activities) and empirical (generalization of advanced pedagogical experience) research methods were used.

In accordance with the concept of V. I. Kolmakova, meta-subject competencies of students can be considered as “a system of universal educational actions that allow us to productively perform regulatory, cognitive and communicative tasks.” This understanding of meta-subject competencies comes from the essence and content of the compe-

tence approach. A different definition is given by A.V. Greshilova, who understands by meta-subject competencies “the unity of fundamental knowledge, skills, practical experience manifested and used by a person in integrative, interdisciplinary activities” [2].

According to the educational standard, metasubject competencies are defined as measurable methods of action, skills and abilities that ensure an independent, subjective position of a student during his education throughout his life and contribute to his self-realization in a certain field of activity [1].

In the pedagogical literature there are different definitions of the concept of “project activity”, which is related to the position of individual scientists: “independent creative activity (Polevaya N. M.), spiritual and practical activity aimed at an ideal and promising change of the world (I.I. Lyakhov), a way to achieve the goal through a detailed development of the problem (S. G. Redko), within the framework of the project, limited by the deadlines and the results achieved (A. I. Blesman)”. The most common definition of project activity accepted by the majority of modern researchers is its consideration as a historically established, socially and economically conditioned need of people to receive a predictive situation of a material nature in a conditional form for the purpose of directed transformative impact on the surrounding world (N.P. Valkova, V.I. Mikhailenko and others).

Meta-subject competencies are formed through the implementation of a program for the formation of universal educational actions and programs of all academic subjects without exception. One of the important tasks of the modern system of general education is the formation of a set of “universal educational actions” that provide the competence to “teach to learn”, and not only the development of specific subject knowledge and skills by students within individual disciplines.

In accordance with the Federal state educational standard and the approximate OOP of general education, meta-subject results include interdisciplinary concepts mastered by students (used in several subject areas and allow linking knowledge from various academic subjects, training courses, modules into a holistic scientific picture of the world) and universal educational actions (cognitive, communicative, regulatory).

Metasubject results are grouped in three directions and reflect the ability of students to use in practice universal learning activities that make up the ability to master:

- universal educational cognitive actions (involves the ability to use basic logical actions, basic research actions, work with information);
- universal educational communicative actions (ensures the formation of social communication skills, joint activities);
- universal regulatory actions (includes skills of self-organization, self-control, development of emotional intelligence).

As it is noted in the designated normative documents of the school and the analysis of the experience of teachers-practitioners shows, meta-subject competencies, which are based on the ability to learn, associated with the development of UUD in schoolchildren and the need to establish interdisciplinary relationships, can be effectively formed when using the project method.

The educational goals of the project activity are to broaden the horizons and deepen the knowledge of schoolchildren in the field of a certain science, to improve the general academic and special skills of students for this subject, namely:

- cognition and study of the environment, identification of cause-and-effect relationships;
- orientation in Internet resources, statistical materials;
- compliance with the norms of behavior, evaluation of their activities from the point of view of moral and legal norms, aesthetic values;
- comparison of objects, processes and phenomena, their modeling and design.

The development of meta-subject competencies among schoolchildren by involving them in project activities is a necessity for preparing school graduates for changing modern realities and the level of development of technological progress.

The effectiveness of the application of the project method in the formation of meta-subject competencies among students is noted in the publications of practical teachers (on the websites multiurok.ru and infourok.ru). Thus, O.N. Bogdanova, a mathematics teacher, using the project method, discovered that, while engaged in research activities, schoolchildren master analytical, search elements of scientific work, as a result of which they develop an objective self-esteem and develop creative abilities. An interesting approach is presented by L.I. Buravleva,

who, by introducing project activities in technology lessons, raises the image of students (making a project product independently – from idea to implementation into reality) and enhances the usefulness of training (a product or service is created for home, school, etc.). V.A. Tantsura, thanks to the introduction of the project method into the educational process the process provided positive dynamics in the formation of meta-subject results in mathematics lessons and extracurricular activities. Based on the analysis of literature sources on the problem of research and publications of practical teachers, it can be concluded that, firstly, the project method can be used in different academic disciplines, and secondly, the inclusion of schoolchildren in project activities allows, along with the formation of their meta-subject competencies, to develop other competencies in the Federal State Educational Standard. At the same time, it is worth emphasizing that all types of projects at school allow the formation of meta-subject competencies.

Thus, the involvement of students in project activities effectively contributes not only to the formation of meta-subject competencies, but also to the full development of personality, its motivation to cognition and creativity, achieving an increased level of knowledge, skills, and skills.

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