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APPLICATION OF STEM-PROJECT METHOD IN THE PROCESS OF FORMATION OF RESEARCH SKILLS OF FUTURE TEACHERS OF THE PRIMARY SCHOOL

The article is devoted to the methodological substantiation and the didactic potential of the method of STEM-projects in the process of formation of research skills of future teachers of elementary school, which is relevant in the context of the New Ukrainian school and preparation of students for carrying researches using modern tools. To this end, methods of content analysis and generalization of foreign experience have been applied.

The purpose and objectives of the study - to methodologically substantiate and determine the didactic potential of the STEM-projects method in the process of forming the research skills of future primary school teachers. The stated purpose involves the following tasks: to analyze the scientific approaches to discovering the content of research skills of future primary school teachers and the process of their formation; to define the functions and criteria of the STEM-projects method in the process of forming the research skills of students of the specialty "Elementary education" and to analyze the algorithm and requirements for its application; to develop a systematic version of integration of STEM industries necessary for the implementation of the project on the topic "Critical thinking as one of the key skills in the 21st century".

The research skills of future teachers of primary school are identified as one of the components of their professional competence. Formation of research skills of future teachers of primary school is considered as a holistic process, defined by the purpose, tasks, expected results, organized in accordance with the requirements of the State standard of elementary education and other normative documents. An integral part of the successful organization of this process is innovative approach

and application of innovative educational practices, one of which – STEM (sciences, technology, engineering, mathematics).

The essence and didactic value of the method of STEM-projects and the algorithm of its application are revealed. A characteristic feature of this method is a well-defined integrated approach to project implementation. It has been established that in the process of formation of research skills of students of the specialty «Primary Education» the STEM-project method fulfills the following functions: practical oriented, cognitive, communicative, digital, developmental and educational.

It is determined that application of method of STEM-project in the process of formation of research skills of future teachers of primary school should meet the criteria of purposefulness, complexity, professional orientation and requirements, among them: the relevance and research character of the topic of the project; the place and time of its execution are clearly defined in the curriculum; conformity of the research problem with the direction of student training; the goals and objectives of the study of an object, process or phenomenon are based on the integrated approach; ensuring the interconnection of theoretical knowledge with practice.

The system variant of the integration of disciplines on the topic of project «Critical thinking as one of the key skills in the XXI century» is proposed. The necessity of further study of the teaching potential of STEM for its effective application in the process of formation of research skills of future teachers of primary school is emphasized.