

Суханик Ольга Анатольевна, Студент,
ФГАОУ ВО «Севастопольский государственный университет»
г. Севастополь
Olga Anatolievna Sukhanik, Student,
"Universidad Estatal de Sebastopol"

**ИССЛЕДОВАТЕЛЬСКАЯ ДЕЯТЕЛЬНОСТЬ,
В РАМКАХ РЕАЛИЗАЦИИ УЧЕБНОГО ПРЕДМЕТА «МАТЕМАТИКА»
RESEARCH ACTIVITIES WITHIN THE FRAMEWORK
OF THE IMPLEMENTATION OF THE ACADEMIC SUBJECT "MATHEMATICS"**

Аннотация: у современного школьника слабо развито критическое мышление, умение самостоятельно находить необходимую информацию, умение строить гипотезы и делать определённые выводы, в связи с чем возникают проблемы доказательств при решении задач геометрии. Заметим, что умения формируются в 5-6 классах, поэтому педагогу следует применять на уроках математики исследовательский метод обучения.

Abstract: the modern student has poorly developed critical thinking, the ability to independently find the necessary information, the ability to build hypotheses and draw certain conclusions, which causes problems of proof when solving geometry problems. Note that skills are formed in grades 5-6, so the teacher should apply the research method of teaching in mathematics lessons.

Ключевые слова: исследование, исследовательская деятельность, критическое мышление.

Keywords: research, research activity, critical thinking.

The modern education system determines the direction of pedagogical potential for the development of the abilities of secondary school students, paying special attention to the application of an activity-based approach in teaching, among the forms of implementation is educational and research activities.

It is necessary to include active teaching methods in the educational program, which is research that allows you to show individuality, the ability to analyze the results of the work done and adequately assess your own achievements. The following situations have an activating effect in the lessons: defending one's own point of view; participating in discussions and discussions; the ability to ask questions and give answers [1]. It follows from the above that the development of research skills contributes to the development of creative thinking, in modern society it is this quality that is of great value.

There is a close connection between research activities and the process of mastering mathematical knowledge. The basis of educational and research activities is the solution by students of problematic tasks formulated by the teacher. Research, as a pedagogical technique, performs the following functions: developing, developing intellectual thinking, forming creative thinking. In mathematics lessons, the performance of these functions is the main direction of development and learning, Ruzina L.A. gives an example of the method of mathematical induction, founded by the French philosopher B. Pascal, who forms the skills of educational and research activities. The method is based on inductive and deductive justifications of certain statements. The task of the teacher is to direct students towards correct reasoning, thereby forming the student's interest in the subject and, importantly, developing his research abilities [3].

The form of implementation of educational research is problem-based learning, used in the course of solving applied mathematical problems. Practice-oriented tasks involve the use of research in the search for an answer to an educational and creative task, in addition, the tasks are aimed at



mastering the methods of scientific cognition, emphasized in the Federal State Educational Standard. The stages of solving such tasks are similar to the stages of educational and research activities:

1. Problem statement;
2. Search for hypotheses;
3. Ways to get the desired result;
4. Solving the problem;
5. Conclusion [2].

Research activity makes it possible to activate the participation of schoolchildren at various stages of the lesson – the study of a new topic, consolidation, generalization or repetition of the studied material, during which the student becomes the subject of the cognitive process.

The great importance of educational and research activities also lies in the formation of students' motivation to learn. N.V. Shinkareva, exploring methods of increasing motivation and creativity of thinking in mathematics lessons, emphasized the effectiveness of the research method of teaching. This technique is applicable for all age opportunities and the level of training of students, educational research can be applied in three directions:

- Enabling search elements;
- Proof of a statement revealing cognitive interest;
- Organization of independent holistic research by students, under the supervision of a teacher.

For the effectiveness of the approach, it is necessary to use the following forms of involvement:

- Non-traditional lessons, with elements of research;
- Research tasks;
- A little research in the form of homework;
- Participation in competitions and events;
- Participation in the development of a research paper or project [4].

Список литературы:

1. Кондакова, И. Ф. Формирование мотивации и познавательной активности на уроках математики через исследовательскую деятельность / И. Ф. Кондакова // Вестник науки и образования. – 2020. – С. 56-60
2. Павленко, С. А. Особенности организации исследовательской деятельности на уроках математики / С. А. Павленко // Образование. Наука. Карьера. – 2016. – С. 71-73
3. Рузина, Л. А. Учебно-исследовательская деятельность учащихся на уроках математики / Л. А. Рузина // Актуальные направления научных исследований XXI века: теория и практика. – 2015. – С. 346-351
4. Шинкарева, Н. В. Повышение мотивации и креативности мышления обучающихся на уроках математики через использование элементов исследовательской деятельности / Н. В. Шинкарева // Матрица научного познания. – 2019. – С. 123-129

