DOI: https://doi.org/10.37547/mesmj-V5-I5-05 Pages: 33-48

### MENTAL ENLIGHTENMENT SCIENTIFIC – METHODOLOGICAL JOURNAL



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 $\underline{http://mentaljournal\text{-}jspu.uz/index.php/mesmj/index}$ 



### EXTRACURRICULAR ACTIVITIES OF STUDENTS IN PHYSICS AS A FACTOR OF INCREASING THE EFFECTIVENESS OF LEARNING

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#### ABOUT ARTICLE

**Key words:** organization of extracurricular activities, effectiveness of physics teaching, extracurricular activities, educational process.

**Received:** 09.06.24 **Accepted:** 11.06.24 **Published:** 13.06.24

Abstract: In this work, we studied the effectiveness organizing extracurricular activities in physical classes. We assume that in extracurricular activities the conditions for the development of the student's personality are met, taking into account his individual abilities, cognitive activity, moral personality traits, and communication skills are formed, and the foundations are laid for the child's adaptation in a complex world as an intellectual and harmoniously developed member of society. In the course of scientific research, our hypothesis was confirmed that if we develop and implement extracurricular activities together with class activities, this will improve the effectiveness of physics learning for students at school. This hypothesis was confirmed in experimental search work, where selected indicators of motivation and activity at the end of the experiment increased by several percent. Extracurricular activities involve the use of practical methods, research and partially search methods, which actively develop the creative abilities of students and introduce schoolchildren to the elements of scientific research.

#### INTRODUCTION

School education is the basis for further continuous learning and self-education in the face of constantly changing requirements for a person's professional work. Therefore, along with solving a system of typical problems associated with the learning process, school education is

designed to teach students to use knowledge of the method of a creative approach to solving problems of various types of activities. A physics teacher, like teachers of other subjects, has an important goal: not only to give students a certain amount of knowledge, to develop their personality, abilities and skills, but most importantly, to teach how to use the acquired knowledge in practice. Extracurricular activities help the teacher in this like no other. Extracurricular activities deepen and expand students' knowledge acquired during the lesson and increase their interest in the subject. Help students look at subjects from a new perspective. Having become familiar with a particular subject or phenomenon at a club, conference or any other extracurricular event, the student will want to learn more about it, perhaps read additional literature, and perhaps devote his life to it [1].

Extracurricular activities accustom students to independent creative and exploratory work, develop students' initiative, introduce elements of research into the learning process, and contribute to the choice of their future profession. In addition, extracurricular activities are of great educational importance and contribute to the development of the student's personality. They help the teacher get to know children better, determine their individual capabilities, find gifted children and direct their interest in science in the right direction.

The combination of classroom and extracurricular work enriches the lesson, making it more interesting for the student and filling it with new content. Everything that the teacher organizes directly with children should resonate in their souls. In extracurricular activities, this is reflected in the elements of entertainment, which are necessary for a healthy lifestyle and good mood. But there is no need to conduct extracurricular activities based solely on this. It should not amuse students, but contribute to their self-improvement, developing their personality.

#### 1. Features of extracurricular activities

Extracurricular activities are an indispensable part of the educational process in an educational institution. It helps to fully implement the requirements of federal educational standards for general education. Extracurricular work of students combines all types of schoolchildren's activities (except for academic work), in which it is possible and correct to solve the problems of their education and the formation of personality in society. Extracurricular activities are an integral and important part of the educational process, as well as one of the forms of organizing students' personal time. Extracurricular activities are needed to meet the needs of students for meaningful leisure, their time spent in self-government and socially useful work. A properly organized system of extracurricular activities will help to maximally develop or shape the cognitive needs and abilities of each child, which will help

develop a free personality. The upbringing of a child always occurs, at any moment of his activity. But this will be more productive in the student's personal time [1-5]. In extracurricular activities, conditions are met for the development of the student's personality, taking into account his individual abilities, cognitive activity, moral personality traits, and communication skills are formed, and the foundations are laid for the child's adaptation in a complex world as an intellectual and harmoniously developed member of society. In extracurricular activities, a unique emotionally filled environment of interested students and teachers is created.

# 2. Results and effects of students' extracurricular activities. Advantages and disadvantages

For the greatest effectiveness in organizing extracurricular activities for students, the ability to understand and distinguish between the results and effects of this activity is of great importance. The result is understood as what was the immediate result of the student's participation in the activity. For example, a student, participating in a tourist route, not only moved in space from one geographical point to another, overcame the difficulties of the path (the actual result), but also acquired some knowledge about himself and others, experienced something new and felt something as a value, acquired the experience of independent action (educational result). So, the educational result of extracurricular activities is the direct spiritual and moral acquisition of the child thanks to his participation in one or another type of activity. The educational effect of extracurricular activities is the influence of one or another spiritual and moral appropriation on the process of personality development in a child, in other words, a consequence of the result [6]. Extracurricular work provides each student with an individual educational work plan, which is developed by the class teacher and given to the student in writing. The model for organizing extracurricular activities most fully determines the capabilities of an educational institution, determines the need to attract specialists from the system of additional education, culture and sports. It helps to distribute hours of extracurricular activities, figure out what programs of extracurricular activities need to be introduced and developed in an educational institution.

The introduction of the newest educational standard has split people into two opposing camps. Supporters are happy about the change in the established education system, while enemies say that the innovations are far-fetched. Officially, this is a completely new course - not on knowledge, but on the ability to acquire knowledge without the help of others. What is important is not how much knowledge a student has acquired, but whether he is able, even after graduating from school, to expand his own horizons, learn, and gain something new without the help of others. A person who can think logically, understand, will always be well

versed in the sea of knowledge with which the current world is overflowing, will become wary of something new, have his own point of view, and thirst for knowledge. How can we help a student become independent? For this purpose, an innovative approach to classes was invented, and a mandatory component was introduced - extracurricular work - training in a non-standard form [7]. The main goal of these classes is to form the student's personality and strengthen the knowledge acquired in the lessons. For this purpose, an innovative approach to classes has been developed, and a mandatory component has been introduced - extracurricular activities - training in a non-traditional form. The main goal of these classes is to develop the student's personality and deepen the knowledge gained in the lessons. Advantages of extracurricular activities:

- horizons expand;
- useful skills;
- organized leisure time for the child;
- rallying the class team;
- balanced diet:
- free mugs;
- equipment purchased additionally for classes is universal; it can also be used in lessons.

It must be remembered that extracurricular work helps a child develop his creative potential and makes him more independent in choosing how to spend his leisure time. From elementary school, children begin to understand that it is much better to spend their free time usefully, doing interesting and useful things, expanding their horizons, strengthening their health, and, most importantly, acquiring new skills that will definitely be useful to them in life [7, 8].

#### 3. Interaction between classroom and extracurricular activities of students

The education system in our country is at a new stage of its development. This can be explained by the socio-economic changes taking place in our country, which in turn determine the main directions of state educational policy. The modification of the public and municipal order to the education system has also found its reflection in the state educational standards of the new generation, which imply the important independence of the educational institution in organizing the educational process, understanding and recognition of the own absolute value of the student's developing personality, the values of a suitable education, the priority of the semantic educational paradigm, the implementation creative, research component of the activities of teachers and administration. At the early stages of education, the task is set to form ideas about the phenomena and laws of the surrounding world that schoolchildren encounter

in everyday life. Initial ideas about the scientific method of cognition are formed, research abilities are developed, students learn to observe, plan and conduct experiments. The program includes a large number of experimental tasks and laboratory work. Students will learn how to measure physical quantities using measuring instruments - they will learn to use a beaker, thermometer, lever scale, dynamometer, ammeter and voltmeter. The program provides work that develops mental activity, requiring students to be able to reason, analyze, and draw conclusions.

The goals of studying the propaedeutic physics course - the "Entertaining Physics" club are:

- 1. development and increase in the interest and creative abilities of younger adolescents when they master the method of scientific knowledge at the phenomenological level;
- 2. students' acquisition of knowledge and sensory experience to understand natural phenomena;
- 3. the formation of ideas about the variability and knowability of the world in which we live.

Achieving these goals is ensured by solving the following tasks:

- 1. familiarity with the method of scientific knowledge and methods of studying objects and natural phenomena (observation, experience, identifying patterns, modeling phenomena, formulating hypotheses and setting tasks to test them, searching for solutions to problems, summing up and formulating conclusions);
- 2. students' acquisition of knowledge about mechanical phenomena and physical quantities characterizing these phenomena.
- 3. developing in students knowledge about physical quantities path, speed, time, force, mass, density as a way of describing the patterns of physical phenomena and the properties of physical bodies;
- 4. developing in students the ability to observe and describe the phenomena of the surrounding world in their relationship with other phenomena, to identify the main thing, to discover patterns in the occurrence of phenomena and to qualitatively explain the most common and significant natural phenomena for humans;
- 5. mastery of general scientific concepts: natural phenomenon, empirically established fact, problem, hypothesis, theoretical conclusion, result of experimental testing;
- 6. understanding the difference between scientific data and unverified information, the value of science for satisfying every day, industrial and cultural human needs.

The form of control is project protection. The format is a circle.

effort.

The main teaching methods are: explanatory-illustrative, partially search, research: analysis of information, setting up an experiment, conducting research. These methods ensure the development of cognitive interests, intellectual and creative abilities to the greatest extent. The role of the teacher in teaching is changing: he acts as an organizer, consultant, expert in the process of student activity and its results. Forms of organizing classes: conversation, explanation, story, simple demonstration experiments and experiments, excursions, independent research work, practical classes [9]. To effectively master the training program, a student needs not only to know a lot, but also to think consistently, guess, and show mental

ISSN: 2181-1547 (E) / 2181-6131 (P)

# 4. Goals and objectives of students' extracurricular activities in the process of teaching physics.

Creating a unified interaction between classroom and extracurricular work on a subject is one of the main ways to grow the teaching and educational process in physics, since the study of any program topic can be continued in extracurricular work [10]. When planning and implementing extracurricular work, physics teachers must choose those forms of work that, on the one hand, help in solving practical, educational and educational problems, and on the other hand, are time-efficient, meet the interests of the children's team and are combined with the entire educational system. process.

The goals of extracurricular work in physics are:

- development of cognitive interest of schoolchildren in physics.
- consolidation of acquired knowledge;
- acquisition of new knowledge;
- deepening independent work skills;
- summing up the work of teaching schoolchildren;
- children obtaining further goals (including career guidance);
- development of intelligence, ingenuity, flexibility and innovative thinking
- stimulating students' interest in studying the subject;
- comprehensive development of personality.

To achieve the goal of extracurricular work, you need to complete the following tasks:

- identify interests, abilities, priorities of students
- help schoolchildren find "their self";
- create conditions for the comfortable existence of each child in the chosen area of extracurricular activities

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- form and systematize accumulated knowledge in the chosen area of extracurricular activities
  - develop the student's creative work experience
  - provide conditions for the implementation of acquired knowledge
  - develop the experience of informal communication between teacher and student.

It is also necessary to pay attention to the fact that in the process of organizing extracurricular work in physics, it is necessary to take into account both the psychological characteristics of the individual and the psychological characteristics of the team. Such as: the level of its development, the degree of organizational, psychological, intellectual and emotional unity, the focus of the team's work on the relationships between its members, the emotional state of the class while performing extracurricular tasks. Knowledge of the psychological characteristics of students is an integral part of the successful selection of appropriate forms of extracurricular work, determining the content of these forms, organizing and conducting extracurricular activities with students [11, 12].

#### 5. The main types of extracurricular activities in the process of teaching physics

The development of schoolchildren's interest in the subject is determined primarily by the work of the teacher himself. He may, at his discretion, introduce those topics into extracurricular activities that, in his opinion, are poorly reflected in the main physics education program. To improve the quality of students' knowledge, one must try to develop students' cognitive interest in the subject being studied. This can be achieved by influencing the emotional sphere of their personality. To achieve this, unusual and fascinating questions and tasks are needed that surprise students, prompt them to think, and most importantly, attract everyone's attention and improve their understanding of physical laws and phenomena. Experience confirms that the presence of interest in the subject being studied increases attention to the issues under consideration and, therefore, contributes to the acquisition of more reliable knowledge. It is impossible and, most likely, not necessary to develop deep cognitive interests in physics in all students. It is important to interest schoolchildren not only in class, but also in the hours allocated for extracurricular activities. Then, for many of them, their primary interest in the subject will develop into a strong and lasting interest in the science of physics. In this regard, a special place belongs to such an effective pedagogical tool as entertainment. The teacher, using the properties of objects and phenomena, evokes a sense of surprise in students, sharpens their attention and helps create in them an optimistic mood for learning and a readiness for active mental work, regardless of their knowledge, abilities and interests. It is necessary to distinguish between two sides of entertainment: the possibilities of the content of the subject itself and certain methodological techniques. The place of entertainment in the lesson can be different. Consequently, it is possible to intensify the cognitive activity of schoolchildren in physics lessons in different ways, but we must remember that this activation should not be reduced to a simple increase in the number of independent works performed by schoolchildren. The method of including the latter in the educational process is important - the work should develop the mental activity of children to the maximum extent [12].

Extracurricular activities have the ability to broaden a student's horizons as part of the compulsory school curriculum. Establishing the relationship between classroom and extracurricular activities can be considered using the example of performing production tasks related to the practical application of theoretical knowledge acquired in class. The organization of extracurricular activities is planned directly at the workplace, which has a positive effect on the vocational guidance and labor education of students. It should be noted that this way of establishing interaction between activities in the classroom and outside it at the first stage of teaching physics is not always appropriate and not always possible, since students who begin studying physics do not have the necessary stock of knowledge and practical skills to work in production. The relationship under consideration can be brought into effect through specific work assignments within the school. Examples of tasks could be repairing instruments, making visual aids, etc. Some researchers see the solution to the problem of establishing relationships in the organization of work with reference literature, in students performing experimental and practical work outside the lesson related to the educational topics covered in the lesson. Let's consider some forms of organizing extracurricular activities in physics.

#### 1. Conducting excursions

The main goal of the school is to educate truly creative individuals. For schoolchildren, this means thinking about the vital need for knowledge and personal acquaintance with modern scientific achievements. The cognitive interest of students will only have a solid basis when the connection between the content of educational material and its purpose in life has a permanent place in the system of physics lessons. This, of course, can be achieved in the classroom with the help of a demonstration experiment, the use of videos, posters, models, tables. However, no matter how well all types of visual aids are used, students do not receive a complete understanding of real objects and phenomena without direct acquaintance with them in person - on excursions. The excursion is one of the particles in the general system of educational work in physics; it is closely related to the content of previous and subsequent lessons. An excursion, as a form of organizing the educational process, is close to a lesson; with

some approximation, one can even consider that an excursion is a lesson taking place not in the usual classroom environment, but in the slightly unusual conditions of an excursion object. On excursions, objects are studied not specifically selected for the lesson and brought into the classroom, but existing independently of the curriculum. Field trips are a continuation and deepening of class work. This is a special type of lesson, conducted not in the classroom, but in production, in transport, in a museum, at an exhibition. Excursions should be organically connected with the physics course, and conducted in close connection with the educational material covered in class. Timely excursions increase students' interest in the material being studied. Usually, an excursion is carried out when the theoretical material justifying the content of the excursion has been studied. If the excursion is carried out, overtaking the material of the educational topic, then in subsequent lessons the teacher must return to the results of observations obtained on the excursion, using them in the form of examples, material for solving problems, for posing a problem, etc. Excursions as a teaching method are of great pedagogical importance. They provide a vivid and concrete perception of objects and phenomena of the surrounding world, specific production processes, instruments and machines. Not even the most talented teacher's story about production can replace the strength and vividness of the impressions of an excursion to this production. Teachers who have repeatedly conducted excursions to nature, museums and production sites notice that many complex topics and sections of the curriculum are learned much easier when students observe the phenomena being studied not only in the classroom, office, but also in production, in nature, in real life situations. Therefore, a physics teacher must connect the classroom laboratory with the "laboratory of nature" or the "workshop of life," the living practice of people. Despite the great importance of excursions in education, one should not overestimate them and assume, as is sometimes done, that studying physics or its individual sections can only be done on excursions; educational excursions in physics are one of the methods used in teaching. They occupy their specific place in the learning process and combine well with other methods teacher explanations in class, conversation, laboratory exercises, problem solving in class, etc., but in no case replace these methods. After the excursion, students understand the theoretical issues studied in class much better; the role of physics as a science within the modern picture of the world becomes clearer to them. Students see physics where it "came" from in the textbook [13].

The main purpose of excursions conducted when studying new material is to enrich students in the field of knowledge of laws, phenomena, and concepts. In addition, teach to

recognize the patterns being studied in their natural manifestation, be able to isolate them, divide them into simpler ones and, thus, better remember, understand, and assimilate them.

The main idea of such excursions is repetition, consolidation, generalization of the material being studied, confirmation of independent conclusions obtained by students. Final excursions can be held at the end of the topic or section being studied in order to familiarize students with the application of the studied phenomena and laws in technology or their manifestation in nature.

There are excursions around the site in nature, in the museum, and in production.

Any of these excursions contribute to the achievement of didactic learning goals and increase the overall level of student competence.

#### 2. Holding exhibitions

Organizing school physics exhibitions is one of the most rarely used forms of extracurricular activities. At the same time, a large number of schoolchildren always take an active part in their preparation. Most often, the exhibition covers a wide range of issues, this allows its organizers and excursionists to learn a lot of new and interesting things, repeat material already covered, systematize knowledge and provides the opportunity to apply knowledge in an unusual situation. A visit to an interesting exhibition increases students' cognitive interest, enhances their motivation to learn and, consequently, increases their competence.

School exhibitions can be divided into two groups:

- Exhibitions dedicated to specific topics of the school physics course;
- Exhibitions covering a number of sections of the school curriculum, interesting for students due to the very presentation of the topic.

These could be such exhibitions as "Physics at home", "Physics and technical progress", "Physics and sports" and so on. Expositions are arranged in an assembly hall or a large classroom on separate tables placed along the walls [14]. Preparations for the exhibition must be carried out within three to four weeks. It is more expedient to attract students in grades 9-11 to hold the exhibition, but younger students can also take part in its preparation. It's no secret that science and art show the same real world, but use different means. Science reflects reality in concepts, laws, theories, and art - in images, which is closer and more understandable to students. Both of these methods can complement and mutually enrich each other. The exhibition "Physics and Art" can prove this.

#### 3. Physical circles

One of the effective means of extracurricular activities for students is a physical circle. A circle is the main form of organizing creativity for schoolchildren in physics outside of class time. This is a voluntary association of students who have a special interest in one or another specific area of physics and technology and strive to engage in practical activities in this area.

With a wide variety of forms of work, students' activities are most often built either on a theoretical basis (subject group) - preparing reports, writing abstracts, solving problems in physics, etc., or practical (physics and technology club) - making models, instruments and visual aids. benefits, etc. Features of circle work in physics that increase its effectiveness are the possibility of greater individualization of work with students than in a lesson, providing each student with the opportunity to choose classes according to his interests, work at a pace that matches his desires and capabilities. Of great importance is the fact that this activity is not established by the conditions for the mandatory achievement of any given results, and with the right approach of the leader, it is sure to be successful for the student. The content of the work of a physical circle can be structured in different ways. In this case, circle classes organized in accordance with the teacher's plan will become a logical continuation of the educational ones. Based on the acquired knowledge, students expand and deepen it. Such classes are easier to organize than any other, since the students already have knowledge of the issues being discussed.

The second way is to choose for the study group those questions that interest the children and are suggested by them themselves. In our opinion, it is the most effective for attracting high school students to extracurricular educational activities within the circle. This path helps to broaden one's horizons, increase interest in physics, broadly develop students' creative capabilities, independence and self-government. However, this creates the danger of avoiding consideration of educationally important problems of disruption of the continuity of classroom and extracurricular activities. To avoid this danger, the teacher must convey to the children the basic idea of studying physical material in the circle classes, but give them the right to choose specific physical content that reflects this idea.

#### 6. Results of monitoring extracurricular activities of students in physics

Observation of the result is a vision of how well or poorly the progress towards goals is going; it is necessary to systematically check indicators, observe and study work according to certain criteria. This process is necessary in order to notice problems in time and make amendments to the content and work methods to eliminate these deviations [9-15]. In order to track goals, it is necessary to define criteria and indicators. We can distinguish 2 groups of

criteria for assessing the effectiveness of the interaction between classroom and extracurricular work:

- compliance of achievable results with established work goals;
- compliance of the program implementation process with objective requirements for its content.

Today it is obvious that the implementation of goals will depend on many factors. The teacher should be aware of how extracurricular activities influence the process of teaching physics. If we compare this process with a system, we can distinguish at least four of its parts goals, content, organization, result. Here you can see: in order to go from goal to result, you need to provide the necessary and adequate content, forms and conditions for organizing work.

Extracurricular activities should be fairly well described by a set of specific indicators that can be divided into 3 groups.

- 1 quantitative characteristics, which include the enrollment of children, the safety of the contingent, the movement of graduates, the merits of children and teachers, the duration of training, as well as quantitative indicators of resource provision and other indicators.
- 2 indicators characterizing the compliance of activities with standards or declared programs. These include the following: compliance of the results with the requirements of the Federal State Educational Standard of general education and the basic educational program, fulfillment of workload standards, compliance with sanitary standards and rules, etc.
- 3 qualitative characteristics, which can include, as an option, satisfaction of children and parents with learning conditions, etc.

To monitor the results of extracurricular work, technologies based on general scientific research methods and specific methods of pedagogical diagnostics can be used. It should be noted that a student's personality develops not in parts, but holistically, therefore, to track the results of his development in the process of extracurricular activities, it is best to use complex technologies.

When monitoring the results of extracurricular activities, it is allowed to use general scientific methods of study - observation, oral and written questioning, experiment, testing, document analysis. There are traditional ways of monitoring the results of additional education that can be used when tracking the results of extracurricular activities: an exhibition, a test, a competition of creative works, a creative report, a student's creative book and others.

#### 7. Organization and results of experimental search work

The work was done to identify the effectiveness of the impact of students' extracurricular activities on physics learning. To achieve the goal, the following methods were used:

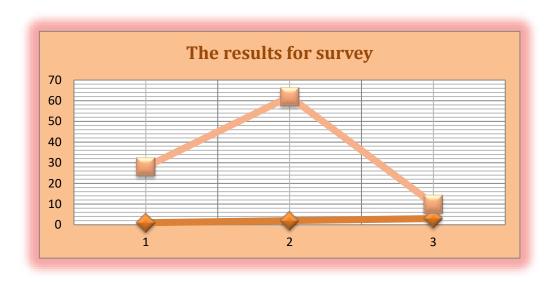
- 1) survey
- 2) conversation
- 3) survey
- 4) observation

The materials were collected on the basis of literary sources on conducting physical education classes in primary schools, on the relevance of folk Tatar games in the education and development of junior schoolchildren, as well as a study conducted in the form of a questionnaire survey and observation. At the Municipal Budgetary Educational Institution of School No. 18 in the city of Jizzakh, a survey was conducted among primary schoolchildren regarding their knowledge of virtual laboratories and their feasibility of using them in the school curriculum. 50 students of grades 3a and 3b took part in the study. A theoretical review of the literature, conversations with children, observations of them during physics classes and a questionnaire survey. Before the lesson, the children were asked several questions. During the survey, it was necessary to find out whether or not extracurricular activities are conducted with students, how they are conducted, how much students like them, how they affect their effectiveness in teaching physics, etc. When working with students, a conversation was used on the topic "My attitude towards extracurricular activities", it turned out that 28% of 100% answered without hesitation that they like physics lessons, the same number answered negatively, for 62% the attitude towards the lesson depends on their mood, and for 10% it depends on the topic of the lesson.

ISSN: 2181-1547 (E) / 2181-6131 (P)

Table 1. Questionnaire results, %.

Questions	Yes, I really like	No, I don't like	Difficult to answer
№	1	2	3
Answers	28	62	10



#### Fig. 1. Questionnaire results

Students answer the question "What exactly do you like or dislike in extracurricular lessons?" answered that they did not like the subject itself (55%), another 35% gave different answers: "I don't understand", "boring", "it can be difficult", "very difficult", some (10%) said that "I like everything", "We understand everything."

Table 2. Questionnaire results, %.

Questions	Yes, I really like	No, I don't like	Difficult to answer
No	1	2	3
Answers	55	35	10

ISSN: 2181-1547 (E) / 2181-6131 (P)

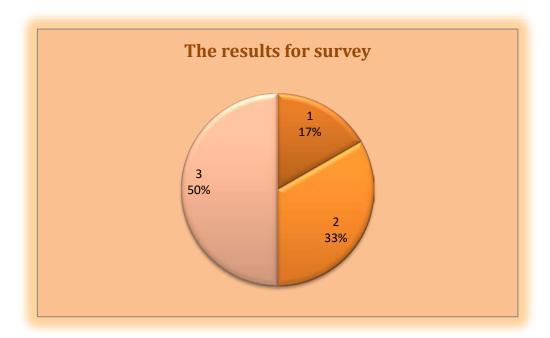


Fig. 2. Questionnaire results

The most important method of studying the level of interest of students was observation, which is combined with a pedagogical experiment in those cases when the task is precisely calculated, when observation is aimed at identifying and capturing all the conditions, techniques, factors, processes associated specifically with this particular task. Observation of the ongoing process of student activity, either in a lesson, in natural or experimental conditions, provides convincing material about the formation and characteristic features of cognitive interest.

For observation, it is necessary to keep in mind the indicators by which one can determine the manifestation of cognitive interest. An observation was carried out to identify students' interest in the lesson and their cognitive activity during 1 hour of physics. The same students

participated in the observation. During the observation itself, the following was monitored: students' readiness for the lesson; result - 65% were ready for the lesson, students were active in the theoretical part of the lesson, did everyone write down new material, enter into a discussion of the topic, ask the teacher questions and answer his questions; result - 55% of students were very active when learning new material. Interest in completing a practical task, at what speed the work is carried out, distractibility from work, additional questions to the teacher about work; result - 55% showed interest in completing the practical task, were emotionally excited, worked diligently and purposefully, did not verbally express satisfaction with the work being done, 55% of students completed the work in accordance with the instructions. The initial results of the experiment showed that students realize the value of acquiring knowledge, its necessity in the future, and place the importance of theoretical knowledge on an equal basis with practical skills. Also, at the first stage, through conversation with the teacher and students, it was noticed that extracurricular activities in physics in 8th grade are at a low level, practically absent. At the search stage, the work had to independently organize extracurricular activities, while harmoniously combining them with class activities.

#### **CONCLUSION**

In this work, we studied the effectiveness of organizing students' extracurricular activities in physical classes. During the study, our hypothesis was confirmed that if we develop and implement extracurricular activities together with class activities, this will improve the effectiveness of physics learning for students at school. It was confirmed in experimental search work, where selected indicators of motivation and activity at the end of the experiment increased by several percent. Extracurricular activities involve the use of practical methods, research and partially search methods, which actively develop the creative abilities of students and introduce schoolchildren to the elements of scientific research.

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