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EFFECTIVENESS OF FORMING THE COGNITIVE ACTIVITIES OF STUDENTS OF GRADES I–IV IN THE PROCESS OF PHYSICAL EDUCATION LESSONS

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ABOUT ARTICLE

Keywords: cognitive motives (desire to acquire new knowledge), duty, responsibility, initiative, organization, striving for success, creative thinking, technology, scientific outlook, strategy.

Kalit so‘zlar: kognitiv motivlar (yangi bilimlarni egallash istagi), burch, mas'uliyat, tashabbuskorlik, tashkilotchilik, muvaffaqiyatga intilish, ijodiy fikrlash, texnologiya, ilmiy dunyoqarash, strategiya.

Ключевые слова: познавательные мотивы (желание приобретать новые знания), долг, ответственность, инициатива, организованность, стремление к успеху, творческое мышление, технологии, научный подход, стратегия.

Abstract. a person's cognitive experience is a collection of the system of knowledge about nature, society, thinking, techniques, and methods of activity. This is the main component. Because knowledge is the basis of personality formation. Knowledge is defined as the result of knowing the laws of development of existence, nature, society, and thinking. Therefore, the main functions of knowledge are to create a general picture of the world, to provide knowledge and practical activities, to create a unified scientific outlookю This article examines the implementation of strategies aimed at maximizing the development of learning inclinations and abilities, as well as the cognitive and creative capacities of students in grades 1–4, and at fostering a culture of learning grounded in collaboration between families and schools.

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Annotatsiya: Insonning kognitiv tajribasi tabiat, jamiyat, tafakkur, texnologiya va faoliyat usullari haqidagi bilimlar tizimining yig'indisini ifodalaydi. Bu asosiy komponent hisoblanadi. Bilim shaxs rivojlanishining asosidir. Bilim mavjudlik, tabiat, jamiyat va tafakkurning rivojlanish qonuniyatlarini tushunish natijasi sifatida belgilanadi. Binobarin, bilimning asosiy funktsiyalari dunyoning umumiy manzarasini yaratish, bilim va amaliy faoliyatni osonlashtirish va yagona ilmiy dunyoqarashni shakllantirishdan iborat. Ushbu maqolada 1-4-sinf o'quvchilarining akademik moyilliklari va qobiliyatlarini, shuningdek, kognitiv va ijodiy qobiliyatlarini rivojlantirishni maksimal darajada oshirishga, shuningdek, uy va maktab o'rtasidagi hamkorlikka asoslangan o'quv madaniyatini shakllantirishga qaratilgan strategiyalarni amalga oshirish ko'rib chiqiladi.

Аннотация: познавательный опыт человека представляет собой совокупность системы знаний о природе, обществе, мышлении, технике и методах деятельности. Это основная составляющая. Потому что знания являются основой формирования личности. Знание определяется как результат познания законов развития существования, природы, общества

и мышления. Следовательно, основные функции знаний заключаются в создании общей картины мира, обеспечении знаний и практической деятельности, формировании единого научного мировоззрения. В данной статье рассматривается реализация стратегий, направленных на максимальное развитие учебных склонностей и способностей, а также познавательных и творческих способностей учащихся 1–4 классов, и на формирование культуры обучения, основанной на сотрудничестве между семьей и школой.

INTRODUCTION

President Sh.M. Mirziyoyev noted that in the last seven years, our country has experienced a "great leap forward" in supporting young people and realizing their talents and potential, and proudly stated that this year more than 14 thousand students graduated from schools with **gold** and **silver medals**, 1 million young people who need special attention have started playing sports, and in the summer, 2 million young people were covered by sports and patriotic events under the **"Patriotic Youth of New Uzbekistan"** program, and in team sports, the district, regional khokims' and ministers' cups are being held in chess, table tennis, badminton, individual wrestling, and swimming [1].

Because today's school is increasingly striving to be "student-oriented" in order to create the best conditions for students to realize their desires and aspirations for education now and in the future. Because the rapid development of modern technology and equipment is leading to huge improvements in human activity and social consciousness, which is changing perceptions of the world and the place of man in life, new ways of thinking and understanding the world are being formed, and the opportunities for using new means and methods of spiritual and practical mastery are increasing [5,9].

That is why, many scientific studies are being conducted in leading educational and research institutions around the world to introduce strategies related to the development of students' cognitive and creative potential and to form a reading culture based on family and school cooperation [4].

According to scientists from the CIS countries, cognitive activity is achieved through a systematic impact on all components, since the formation of each of them complements, stimulates and affects the development of others. The interconnectedness and mutual influence of a person on various areas is well covered in all textbooks. All means and methods of activating learning activity known in general pedagogy are also directly used in physical education lessons. However, the mechanism of their application in physical education lessons is mainly carried out unsystematically and randomly, in connection with individual elements of the teaching structure [6].

G.R. Abdullaev and S.M. Kamalova separately highlight tools and methods that increase emotional interest and initiative in physical education lessons as the main means of forming cognitive activity in scientific research [2].

In this regard, leading scientists emphasize that the activity of students in physical education lessons is determined primarily by social factors: the content, organization and delivery of the lesson, the system of student assessment, and their satisfaction with physical education lessons, which explains the need to

shape the attitude towards physical education and sports in the family and at school [7].

J. Piaget, D. Kelly and others from the representatives of cognitive theory rely on the features of the intellectual sphere of the individual's psyche [2,8].

In general, a person's cognitive experience is a collection of the system of knowledge about nature, society, thinking, techniques, and methods of activity. This is the main component. Because knowledge is the basis of personality formation. Knowledge is defined as the result of knowing the laws of development of existence, nature, society, and thinking. Therefore, the main functions of knowledge are to create a general picture of the world, to provide knowledge and practical activities, to create a unified scientific outlook [3,10].

The basis of A. Maslow's pyramid of human needs can be seen in:

1. The social needs that are the basis of the student's educational activities, the conditions for the formation and development of their educational motivation: acceptance and recognition in the community, independent success, recognition, the opportunity to realize their "I" and self, etc. ;

2. Teaching motives:

educational and cognitive aspirations, manifested in interest in new knowledge, cognitive need, curiosity, self-development, learning new things, etc.;

direct motivational motives, which include such qualities of knowledge as brightness, novelty, interest, etc.;

prospective-motivational (social) motives, which include the motive of duty, responsibility, motive of good assessment, as well as the motive of working for the benefit of collective activity, ensure success at the beginning of learning, and the student receives productivity from these motives at later stages of his/her development;

personal motives: associated with the desire for well-being and achievement [7].

Based on the above, it is reliably proven that physical education classes with younger schoolchildren help to develop methods for increasing cognitive activity, physical self-improvement, maintaining optimal health, and educating a creative, socially active person. Therefore, research on the problem of forming cognitive activity still requires studying its components and finding and implementing new methods and means of forming it, which today requires intensive scientific research.

MATERIALS AND METHODS

The purpose of the study. It involves identifying the appropriate means and methods for developing the cognitive activities of students in grades 1–4 within the context of physical education lessons.

Research methods: analysis of literature sources, pedagogical control tests, pedagogical observations, experimental work, mathematical statistics methods.

Organization of research work. The experimental work was carried out during physical education classes in secondary schools No. 15 in Gulistan city of Syrdarya region, No. 18 in Kattakurgan district of Samarkand region, No. 4 in Yangiarik district of Khorezm region, No. 14 in Marhamat district of Andijan region, No. 40 in Kuva district of Fergana region, No. 18 in Pskent district of Tashkent region, No. 1 in Zamin district of Jizzakh region, No. 6 in Navoi city of Navoi region, No. 49 in Gijduvan district of Bukhara region, No. 5 in Chartok district of Namangan region, No. 64 in Chirakchi district of Kashkadarya region, No. 2 in Termez district of Surkhandarya region, No. 27 in Mirzo Ulugbek district of Tashkent city, and No. 14 in Nukus city of Karakalpakstan Autonomous Republic. A total of 992 students from grades 1-4 were included in the study. Of these, 1336 were girls and 656 were boys.

RESULT AND DISCUSSION

In the athletics component of the “Physical Education” curriculum for grades 1–4 in general education schools, emphasis is placed on knowledge that reflects mental activity, including concepts such as “monofrontal” and “bifrontal” thinking. The development of such activity primarily involves internal attention and the formation of an internal action plan, which способствует the development of cognitive qualities such as self-criticism, self-esteem, organization, attentiveness, curiosity, initiative, and emotional responsiveness.

Accordingly, the content and instructional methods employed to stimulate learning activities are characterized by their focus on enhancing students’ cognitive development through self-analysis, creative thinking, problem-solving, and the use of game-based and competitive tasks.

Taking into account the above, we present an analysis of the results of our scientific research on the development of cognitive activity components in physical education lessons with students in grades 1-4 of secondary schools (Table 1).

1st table

Methodological structure of the formation of cognitive activity

Components of cognitive activity								
1	2	3	4	5	6	7	8	9
Self-analysis	Self-esteem	Organization	Validity	Education	Curiosity	Initiative	Emotional interest	Creative thinking
Methodological ways to develop cognitive activity								
1,2,3,4,5,6	1,2,3,4,6	1,2,4,5,6	1,2,5,6	1,3,4,5	3,4,5	3,4,5,6	4,5,6	2,3,4,6
Lesson types								
II,VII	IV,V,VII	II,VII	I,II	II,III,IV,VI	II,III,IV,VI	IV,V,VI	II,IV,V,VI	IV,V,VI

The degree of impact on the components of cognitive activity			
I - class	II – class	III - class	IV - class
1,2,5,6	1,2,3,4,6	1,2,4,7	1,2,3,4,7

Note: Methodological ways to activate learning activities: 1. Self-analysis tasks; 2. Creative tasks; 3. Tasks aimed at increasing the level of knowledge; 4. Tasks with a problematic content; 5. Tasks of a game and competitive nature; 6. Tasks aimed at changing the content and methods of implementation.

Lesson types: I – education; II - development of physical qualities; III -

intellectual development; IV - targeted development; V - sustainable development and formation of interest in lessons; VI - strengthening of health; VII - formation of management mechanisms.

The basis of this table is the technological model of the formation of components of cognitive activity, which reveals the mechanism of planning the educational process, provides more clarity regarding the amount of educational resources and the distribution of educational time during the year. The table is presented in 9 parts, each of them includes a list of lesson types and methods aimed at developing a specific component of cognitive activity and strengthening educational activity. The types of lessons (along with traditional lessons (learning, healing, control) include the development of physical qualities, intellectual development, purposeful development, sustainable development and formation of interest in lessons, strengthening of health and formation of management mechanisms).

In the course of the conducted research, we can observe that the cognitive activities of the 1st grade students are mainly developed through the intensive formation of the components of cognitive activity such as self-critical attitude, self-esteem, knowledge, curiosity, emotional interest, and creative thinking. In the 2nd grade - self-critical attitude, self-esteem, organization, attentiveness, emotional interest, creative thinking, in the 3rd grade - self-critical attitude, self-esteem, organization, prudence, initiative and creative thinking, and in the 4th grade - self-critical attitude, self-esteem, organization, attentiveness, knowledge, curiosity, initiative, sensitivity and creative thinking degrees of formation of cognitive knowledge were observed.

In this, cognitive activity related to the composition of the pedagogical effect was determined by the correct organization of the educational process in accordance with the goals and tasks of the physical education lesson.

Therefore, for the purposeful development of each component of cognitive activity, we used methods aimed at activating the educational process, namely: focusing on changing the content and methods of implementation, self-analysis, creative and problematic situations, competitive and game-like issues, as well as tasks aimed at increasing the level of knowledge.

Younger students experience all the changes at the initial stage of education, and in this regard, the development of cognitive activity components and their manifestation in the process of physical education were analyzed in experimental studies.

According to the results of the questionnaire conducted with the students of 1-4 grades, it was possible to evaluate the experimental tests based on the level of visibility of the components of cognitive activity and the degree of interdependence of their physical quality indicators (Table 2).

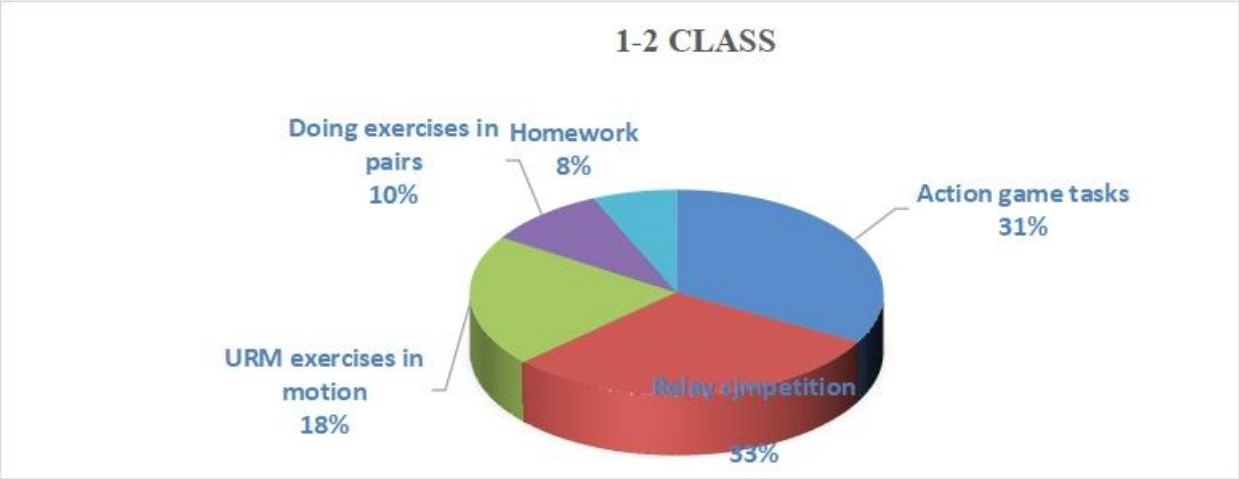
2nd table

The criteria for distributing exercises for the targeted development of physical qualities of students in grades 1-4

T/r	Physical qualities				
	Speed	Agility	Strength	Endurance	Flexibility
1- class	37%	19%	6%	10%	18%
2- class	33%	20%	7%	11%	17%
3- class	28%	18%	9%	13%	19%
4- class	21%	19%	11%	14%	21%

That is, in this case, it was determined that physical education classes would be appropriate if they were organized based on the tasks set for them in the purposeful development of physical qualities of students. For this, a comprehensive approach is taken to the purposeful development of the physical qualities of students. The indicators of speed, agility, strength, endurance, flexibility and balance were divided according to age and gender, physical capabilities and volume and intensity of physical loads.

For this, it is known that it is appropriate to use effective methods and tools (number of repetitions, order of execution) of training students' high-level abilities in lessons, relays in competitive conditions and on the instructions of the teacher (applause, whistles, voice signals, etc.) it happened In addition, using a set of general developing exercises performed in movement and exercises performed in pairs, organizing them in the form of homework assignments, and choosing exercises, students of this age were divided by giving physical loads of different volume and intensity depending on the size, age and gender of the students (1 - diagram).



1. Diagram. Model of formation of cognitive activities in 1st grade students

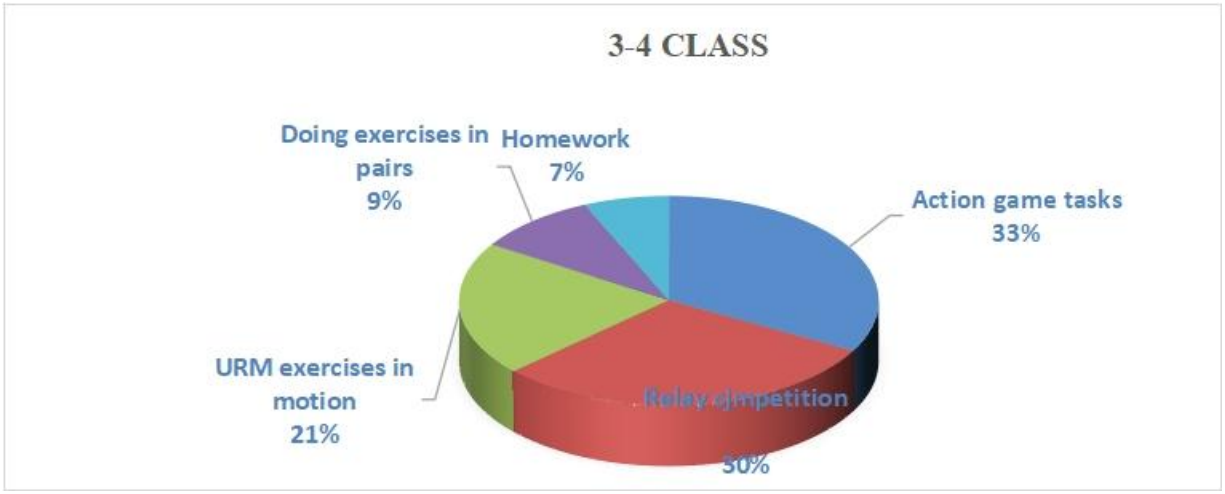
We have shown the correlation between the level of cognitive activity and physical fitness of young school students that there is a correlation between 0.867 and 0.983 correlation coefficients between school activity and physical fitness levels.

The survey conducted among students of 1-4 grades made it possible to assess the characteristics of the dynamics of the level of development and indicators of the visibility of the components of cognitive activity. The basis of the diagram was the technological model of the formation of the constituent parts of cognitive activity, the planning of the educational process and its mechanism revealed the ratio of the amount of educational resources and the distribution of educational time during the year.

It should be emphasized that each task in the diagram to one degree or another solves the problems of personal development and ensures the formation of theoretical knowledge, tools and skills considered in the program component.

Therefore, in the "Light Athletics" section of the physical education curriculum of junior school students, it was possible to connect the pedagogical influence with the internal direction, because the structure of cognitive activity in this section has a positive effect on the development of such components. The orientation of the pedagogical influence on the value is related to the theoretical component of the program, it is an integral part of each part of the curriculum, and it has a special effect on the formation of cognitive activities such as interest and knowledge in students.

The effectiveness of the developed methodology for the formation of cognitive activity was carried out based on the analysis of the stages of the experimental tests. As a result, during the academic year, it is characterized by a statistically significant increase in the level of cognitive activity ($P<0.05$) and physical fitness ($P<0.05$) in the growth rates of educational activity and physical fitness (compared to the control classes).



2. Diagram. Model of formation of cognitive activities in 4th grade students

During the study, a comparison of indicators reflecting the percentage of students with different levels of cognitive activity (high, average, low) showed that as a result of the targeted effect of this methodology, significant changes occurred in the indicators of grades 1-1 and 2 of the study group during the experimental period aimed at forming cognitive activity. In grades 1-3 and 4 of the control groups, no statistically significant changes (P<0.05) were observed (Diagram 2).

When comparing the growth of educational activity and indicators during the study period, it was found that the improvement of the quality of educational activity in the experimental groups of 1-2 grades is related to the increase in the number of high-level students. In the 3rd and 4th grades - due to the increase in the number of students with a high and average level of physical fitness and a decrease in the number of students with a low level, it was observed that the mastery indicators of students increased significantly.

It was found that the characteristics of the level of development of cognitive activity among students in the experimental group (EG) were higher than those in the control group (CG). This ratio was, respectively, (P<0.05).

As a result of the study, 1st grade students - 7 out of 9 indicators and 4 (EG) - self-analysis, self-esteem, organization, initiative, emotional interest, knowledge, creative thinking; (CG) - self-analysis, organization, curiosity, creative thinking), 2nd grade - 5 out of 9 indicators and 3 (EG) - self-analysis, organization, attentiveness, initiative, emotional interest; (NG) - self-analysis, self-esteem and creative thinking); 3 out of 9 indicators in each group in 3rd grade - 3 (EG) - self-analysis, organization and attentiveness; (CG) - self-esteem, organization and knowledge). In the 4th grade, 7 out of 9 indicators were identified, and 3 (EG) - self-analysis, self-esteem, organization, initiative, emotional interest, knowledge, creative thinking; (CG) - self-analysis, organization, curiosity).

During the experiment, significant changes occurred in the level of physical fitness of students of 1-4 grades. In general, in the research group, 29 out of 48 cases of all indicators had significant differences, while in the control group, only 13 cases were noted with P < 0.05.

So, in the course of physical education classes conducted with students of junior school age, the effect of cognitive activity style tools in teaching the technique of athletics and developing physical qualities has been proven in a purposeful and systematic way. All of these, in turn, have a direct impact on the growth of cognitive activity, physical development and physical fitness of 1-4th grade students.

CONCLUSION

In conclusion, the learning motivation of students in grades 1–4 is characterized by the emergence of cognitive motives (the pursuit of new knowledge), social motives (a sense of duty and responsibility), and personal motives (the desire for well-being and success) within educational activities. When these motives are appropriately supported, they contribute positively to students' learning development. However, if personal motives fail to develop adequately at this stage, negative tendencies may arise, leading to the formation of avoidance-oriented motives, such as fear of difficulties and failure.

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