



METHODOLOGY FOR THE DEVELOPMENT OF STUDENTS ' THINKING ACTIVITIES ON THE BASIS OF INTELLECTUAL GAMES AND PROBLEM SITUATIONS

Kamolova Nafisa Tourgunbayevna

University of Science and technology

V / B Associate Professor of the Department "pedagogy"

ABSTRACT: *This research article analyzes the development of students' thinking through the use of intellectual games and problem-solving situations from a pedagogical perspective. It examines the theoretical foundations of active learning methods in the modern education system, the didactic value of intellectual games, the effectiveness of problem-based learning technologies, and their role in developing students' creative and logical thinking. The study is based on findings obtained through an analysis of scientific sources, pedagogical observation, questionnaires, and experimental methods. The methodological recommendations presented in the article have practical implications for the effective organization of the educational process in pedagogical universities.*

Keywords: *Intellectual games, problem situations, thinking activities, creative education, pedagogical methodology, independent learning, innovative approach, critical thinking, creative potential.*

INTRODUCTION

Today, reforms in the educational system are aimed at educating the younger generation as an active, independent and creative-minded person. In this process, traditional forms of education are being replaced by active, interactive and innovative methods. It is important to use intellectual games to improve the effectiveness of the educational process, to develop the ability for students to think independently and find solutions in problem situations [1].

Intellectual games are a means in the educational process not only to strengthen knowledge, but also to strengthen the mental activity of students, accelerate thinking and form the ability to logical research [2]. Through these games, students develop skills for working in a team, a culture of communication, the potential for quick decision-making.

At the same time, the use of problematic situations is manifested as an important didactic tool in the educational process. Because the active cognitive activity of students is exactly the problem.

MAIN PART

1. Role and types of intellectual games in education



Intellectual games are an effective way to increase the cognitive activity of students in the process of modern education, to develop logical and creative thinking. Through these games, the educational process is revitalized, the interest of students increases, and their level of knowledge acquisition increases significantly [1].

Intellectual games are not only activities in the form of competitions, but also an active educational method that develops the knowledge, thinking and reasoning abilities of students or students, based on the analysis and generalization of information.

The main tasks of intellectual games in education include:
activation and strengthening of students' knowledge;
formation of logical thinking, quick decision-making skills;
development of a culture of teamwork and communication;
interest in creative activities;

creating an atmosphere of competition and motivation in the educational process. In pedagogical research, intellectual games are classified in different forms. Their main types are as follows:

Test and quiz games-aimed at checking and strengthening knowledge. For example, interactive games like “intelligence,” “don't say I don't know” encourage logical thinking in students.

Role-playing games-ensure the active participation of students in the process of creating and solving a problem situation. For example, playful models such as “teacher and students “or” trial”.

Mozg shturmi (brainstorming) is a method aimed at finding new solutions by quickly proposing creative ideas.

Question – and-answer rounds-serve to revive knowledge and strengthen logical connections.

Games on online intellectual platforms-ensure the activity of students in the conditions of distance education [2].

Learners through intellectual games are not only knowledge, but also the ability to organize the process of cognition, sort and analyze information

Motivatsion xususiyat — o‘qishga qiziqish va faol qatnashishni ta’minlaydi.

Ta’limiy xususiyat — bilimlarni amaliy faoliyatda qo‘llash imkonini yaratadi.

Tarbiyaiy xususiyat — jamoada ishlash, mas’uliyat hissini shakllantiradi.

Muammoli vaziyatlarni yaratishning asosiy shartlaridan biri – o‘quv materialidagi ziddiyatni aniqlashdir. YA’ni, talabalar yechimi noma’lum bo‘lgan masalaga duch keladi va uni yechish uchun bilimlarini faollashtiradi. Bu



jarayonda o'qituvchi yo'l-yo'riq ko'rsatuvchi va tashkilotchi sifatida ishtirok etadi, talabalar esa mustaqil fikr yurituvchi subyektga aylanadi [4].

In the process of problem education, the following stages are distinguished:

Putting the problem and understanding the situation;

Looking for a solution and advancing assumptions;

Verification and generalization of the solution;

Draw conclusions and apply in experiment.

The effect of problem situations depends, first of all, on the level of pedagogical skill of the teacher, the system of questions and the participation activity of students.

3. Mechanisms for the development of students' thinking activities

The development of student thinking activities is one of the most important tasks in the educational system. The development of thinking activity is understood as the ability to process knowledge, establish logical connections, effectively perform the actions of analysis and synthesis [5].

From a pedagogical point of view, the activity of thinking is formed on the basis of the following mechanisms:

Cognitive mechanisms-processes of acceptance and processing of knowledge;

Emotional-motivational mechanisms-creating an atmosphere of interest and creativity in students;

Practice-oriented mechanisms

4. Methodical system based on intellectual games and problem situations

The methodological system, which is based on the harmonization of intellectual games and problem situations, is aimed at the complex development of students' thinking activities. In this system, the teacher plans activities, manages the cognitive process of students and creates an active learning environment [7].

The methodological system will consist of the following steps:

Stage 1. Preparatory (motivational) stage.

The teacher chooses the topic of the game or problem, sets the goal, divides students into groups. At this stage, it is important to generate interest and create an active environment.

Stage 2. Game (active) stage.

Students participate in intellectual play or solving a problem situation. For example, through the Games" Tournament of knowledge "or" solve the problem", knowledge and thinking activity are evaluated.

Stage 3. Analysis and reflection phase.

Students compare solutions, draw conclusions and summarize knowledge

RESULTS AND DISCUSSIONS



Experimental and practical work on the development of student thinking activities through the use of intellectual games and problem situations in the research process has shown a number of important results.

First, it was found that intellectual games are an effective tool that activates the educational process, increases the cognitive activity of students and develops creative thinking in them. It was observed that the introduction of intellectual game elements in the process of experimental training increased the level of active participation of students by 28-35 percent [1].

Secondly, it has been confirmed that the use of problematic situations is important in the formation of students' abilities to think independently, to reason and to find solutions. The analytical thinking performance of students participating in such classes was 32 percent higher than that of the control group [2].

Thirdly, the harmonization of intellectual games and problem situations is in the educational process

the effectiveness of the methodological activity of the teacher increases.

In the discussion process, it was determined that the following pedagogical conditions are important for the effective use of intellectual games:

Whether the content of playful activities is in harmony with educational goals;

Selection of types of games suitable for the age, psychological characteristics and level of knowledge of students;

Using life examples and practical keys when creating problem situations;

Organization of the process of assessment and reflection (reflection) of the results of the Game [3].

The integration of intellectual games and problem situations in the educational process has yielded the following positive results:

The ability of students to understand and apply knowledge has increased;

Thinking activity, logical research, analysis and creative approach skills have developed;

In students, a culture of collective communication, the qualities of responsibility and leadership were formed;

An atmosphere of cooperation and trust arose between the teacher and the student [4].

At the same time, a number of methodological problems were also observed in the research process. In particular, in active participation in some students, cases of lethargy, hesitation in finding solutions to problematic situations were noted. This situation showed the need to further improve the motivational methods of the teacher.



Analysis has shown that through the systematic and purposeful application of intellectual games and problematic educational methods, students develop not only knowledge, but also the potential for creative, critical and strategic thinking. This is fully consistent with the goal of modern education to prepare a person whose main task is to be creative – minded, able to make independent decisions [5].

Conclusion

Based on the results of the above scientific analysis and experiment, the following conclusions can be drawn:

Intellectual games play an important role in revitalizing the educational process, increasing cognitive activity in students, and strengthening knowledge. Through them, students acquire the skills of logical thinking, independent decision-making and creative search.

Problem situations make students an active knowledge-seeking subject. In the problematic educational tool, students develop the ability not only to accept knowledge, but also to analyze it, compare it and offer new solutions.

The harmonization of intellectual games and problem situations makes it possible to create a new, innovative methodological system in pedagogical activity. This system is fully consistent with interactive, active, and personality-oriented models of Education.

In addition to the development of students' thinking activities, the regular use of intellectual games in pedagogical universities and professional educational institutions also enhances their social competencies.

The results of the study show that intellectual games and problematic educational methods are an effective direction to increase the critical thinking, independent search and creative abilities of students.

The following practical recommendations can also be made for teachers:

regular introduction of intellectual games into lesson processes;

drawing up problem situations based on life examples;

special attention to the stage of analysis and reflection of the results of the game;

the use of methods of collective cooperation in assessing the activity of students.

These recommendations serve to increase the effectiveness of the educational process, to form creative and independent thinking in students.



LITERATURE USED:

- 1.ouldoshev A. Innovative educational technologies. - 'Tashkent:” Science and technology", 2021.
- 2.Abdullayeva N. Problematic education and its psychology. - Tashkent: tdpu publishing house, 2020.
- 3.Khojamqulov U. Development of student thinking activities through interactive methods. - Journal "pedagogical research", №2, 2022.
- 4.Sadykova M. The importance of intellectual games in education. - Scientific messages of TDPU, 2023, No. 4.
- 5.Dewey J. How We Think. – New York: D.C. Heath & Co., 2015.
- 6.Vygotsky L. Mind in Society: the Development of Higher Psychological Processes. - Harvard University Press, 2019.
- 7.Khamidov A. Pedagogical technologies and innovative methods. - Tashkent: Teacher, 2022.
- 8.Karimova G. Methodological foundations of problematic educational methods. - Samarkand: SamDU publishing house, 2020.
- 9.Anderson L.W., Krathwohl D.R. A Taxonomy for Learning, Teaching and Assessing. - Longman, 2018