20(3): S.I (3), 901-906, 2025

# ANALYSIS OF SOME RESEARCH ON THE DEVELOPMENT OF COGNITIVE ACTIVITY OF CHILDREN WITH SPECIAL EDUCATION NEEDS

## Pulatova Paridakhon Mukhitdinovna

PhD, Professor, Tashkent State Pedagogical University,

Tashkent, Uzbekistan

# Sardorkhon Yuldashev

Teacher of the Department of Pedagogy,

Tashkent State Pedagogical University named after Nizami

DOI: 10.63001/tbs. 2025.v20.i03.S.l(3).pp901-906

KEYWORDS

special education, cognition, activity, development, inclusive, pedagogy, methodology, cognitive, specific, psychology, therapy, integration.

Received on:

16-07-2025

Accepted on:

13-08-2025

Published on:

20-09-2025

#### ABSTRACT

The goal defines the expected outcome and outlines the directions for the activities of students with intellectual disabilities and oligophrenopedagogues. Along with the approaches to teaching, the organizational and content structure of the model reflects the content of special corrective education and the results of learning and cognitive activities.

The practical-technological component of education includes the system of teaching methods, forms, and tools aimed at developing the basic knowledge, skills, and competencies of 1st-grade students. The goals of the motivational-diagnostic activities and the stages of reflection are aligned with the cognitive activities of students with intellectual disabilities, corresponding to each defined stage.

The measuring and evaluation components reflect the criteria, levels, and indicators for the formation of basic knowledge, skills, and competencies of 1st-grade students, as well as diagnostic tools, achievement analysis, and results. If necessary, these are reflected in the process of correcting and improving the development process.

In the development of the content and methodology of educational-research experimental work, theoretical, methodological, and practical materials for improving the cognitive knowledge of 1st-grade students with intellectual disabilities were considered. Experimental research results and data from the analysis of the corrective-pedagogical activities of oligophrenopedagogues were taken into account. The study was organized based on the experimental program "Development of Cognitive Activity in Students with Intellectual Disabilities (A

Case Study of 1st Grade)." The program took into account not only the specific educational needs and opportunities of students with intellectual disabilities but also the requirements they should acquire at this age. The program relied on the "Speech Development Program" for 1st-grade students.

The educational-research experiment was conducted at the specialized school No. 52 in Tashkent. In this experiment, participants were divided into experimental and control groups, and children with intellectual disabilities were involved in the trial activities. The distribution of these groups is reflected in the table below.

The objective of the experimental work was to enhance the cognitive processes of children with intellectual disabilities by improving the theoretical and practical activities proposed in the working program, increasing the efficiency of the learning process, and improving corrective and educational efforts. In the process of shaping cognitive activity in 1st-grade students with intellectual disabilities, play activities played an important role. In stimulating the cognitive process of children with intellectual disabilities, creating interest and motivation was of key importance. Thus, the "Visiting Guests" game was used as part of the teaching. In conducting the game, corrective-pedagogical

methods were applied to develop the knowledge, skills, and competencies of children with intellectual disabilities in the learning process.

During the check-up process, a question-and-answer session was conducted to identify the initial knowledge, skills, and competencies of the students on specific topics. These experimental activities provided an opportunity to select methods for preparing learning materials. At the end of the experiments, a final evaluative assessment was conducted, focusing on the following: during the trial, the necessary pedagogical and psychological conditions were created for children with special educational needs to express themselves freely.

In the specialized school, the academic achievement of 1stgrade students with intellectual disabilities was assessed based on responses to questions developed by us.

In the organizational preparation stage, pedagogical experiment trials were conducted to determine the knowledge level of children with intellectual disabilities through a question-and-answer method. We defined the criteria for evaluation as "good," "average," and "low" to assess responses. The data obtained from the question-and-answer sessions were analyzed to determine the initial conscious assimilation, cognitive skills, and assimilation indicators of children with intellectual disabilities.

The results indicated that the knowledge, skills, and competencies of 1st-grade students were insufficient. This is due to the fact that the specialized school caters to children with severe intellectual disabilities. In improving corrective

educational and developmental activities in specialized schools, it is important to stimulate interest in knowledge related to the surrounding environment, living and non-living nature, and cause-and-effect relationships. As mentioned above, this can be achieved through play. Play activities demonstrate that conscious knowledge and the ability to develop skills and competencies are one of today's most pressing tasks. At the initial stage of the research, we explored how knowledge, skills, and competencies can be developed through play activities as a corrective developmental method for children with intellectual disabilities. The theoretical background and practical examples of the work related to the research topic were studied.

In the organizational-methodical phase of pedagogical educational practice, teaching materials were developed for the correctional development of cognitive activity in students with intellectual disabilities through play activities.

Play activities in the development of intellectual disabilities in 1st-grade students aim to enrich the school curriculum, programs, material resources, and new pedagogical technologies. This approach is implemented in a complementary way, focusing on the theme of "Correctional development of cognitive activity in children with special educational needs" and using non-traditional forms, methods, and tools of teaching, particularly in the context of 1st-grade students with intellectual disabilities. Based on these, a special teaching program was created. Pedagogical methods used to develop knowledge and skills in children with intellectual disabilities through play were designed for application in the educational process.

#### Model of Game Conducting Technology

Training time: 2 hours	Number of students: 10	
Training format	1. Practical exercise.	
Training plan	1. Technology of the game.	
Learning objective:	2. Purpose of the game.	
Pedagogical tasks:	3. Rules of the game.	
- To provide an understanding of the difference between fruits and vegetables.	To explain the essence and rules of the game to students with intellectual disabilities, to give an understanding of the methods of the game, to provide knowledge about the purpose of the game and to form their communication skills.	
- To introduce the rules of playing the game as a team.	Results of the educational activity:	
- The purpose and essence of the game are explained.	- They will have a good mood.	
- To gain an understanding of the importance of gastrointestinal function for human health.	- They will have information and knowledge about fruits and vegetables and their use.	
Teaching methods and techniques	- Knowledge, skills and abilities regarding food hygiene, a healthy lifestyle are formed.	
Teaching aids	A culture of maintaining the health of their own body is developed.	
Teaching forms	- They will get acquainted with the requirements for playing the game.	
Teaching conditions	- They will understand the function of the stomach, the characteristics of digestion.	
Monitoring and evaluation	- They will have an understanding of the importance of stomach activity for human health.	

## Technological map of the game

Teaching process time	Activity content		
	Teacher	Educators	
Stage 1. Sign in (10 minutes)	1.1. Announces the topic, its purpose and the expected results of the training session. Announces that the session will be conducted in the form of a discussion and functional analysis.  1.2. Introduces the rules of the game and evaluation criteria.	<ul><li>1.1. Prepare for the game.</li><li>1.2. Familiarize yourself with the rules of the game</li></ul>	
stage 2, main, (15 minutes)	<ul><li>2.1. They participate in the game as a team, following the rules of the game.</li><li>2.2. Oligophrenopedago-supervises. Asks questions if necessary.</li><li>can help children who are struggling in the game.</li></ul>	2.1. Fruits and vegetables identify factors that are beneficial to health. 2.2. They pay attention.	

	- Provides instructions on the rules and sequence of the month of fruits and vegetables;		
		2.3. Divide students into small groups.     2.4. Conduct a question-and-answer session on the importance of fruits and vegetables for human health and dietary hygiene.	<ul><li>2.3. They are divided into small groups.</li><li>2.4. The participants will discuss the training as a team.</li></ul>
	Stage 3. final, (10 minutes)	3.1. Summarizes the activities of all participants and concludes the training.	3.1. They listen, clarify, conclude (with the help of an oligophrenopedagogue)
		3.2. Active students participating in the game are encouraged.	3.2. They evaluate their own and group members' activities. (with the help of the teacher)
		3.3. In the future, they will have the skills to apply the knowledge of health care and food hygiene.	3.3. They pay attention.

In the developed working plan, sections for study were organized into educational and practical activities, such as games on "Understanding the Stomach," "Fruits and Vegetables," and "Turnip.".

To implement the aforementioned plan, an improved educational-methodical complex was developed. The educational-methodical complex includes the following documents:

- 1.A working plan project for teaching the topic "Fruits and Vegetables."  $\,$
- 2.A game scenario on "Play activities as a method of corrective development for children with intellectual disabilities."
- 3.A methodological guide for practical sessions on the topic "Play activities as a method of corrective development for children with intellectual disabilities."

- 4. The technology for conducting theoretical and practical sessions on "Play activities as a method of corrective development for children with intellectual disabilities."
- 5. Questions, evaluation criteria, and indicators.

It should be noted that the development of the program was based on existing documents of the specialized school, considering the requirements for preparation and formatting according to the established rules and procedures followed in the research. For example, models for the teaching session technology, technological maps, and practical session plans were created as part of this process.

Game session development: This section provides an example of one developed game session. The game scenario is provided within the text.

2 - table Game activity as a method of improving knowledge and corrective development of mentally retarded children

Nº	Name of department and subjects	Methods	
1	2	3	
1	Types of fruits and vegetables	"Turnip" composition, Brainstorming	
2	Understanding the difference between fruits and vegetables	"Brainstorming", "Question and answer".	
3	The function of the "stomach"	"Brainstorming", "Collaboration"	
4	"Dietary hygiene"	"Turnip" game", "Informative lecture", "Brainstorming", "Ouestion and answer"	

At the final stage of the generalizing experimental work, experimental work was carried out in the selected 1st grade. At the final stage, theoretical and practical training sessions were carried out in the 1st grade according to the newly developed methodology. Based on effective methods and techniques for the formation of cognitive activity of students with intellectual disabilities in the educational process, the growth process of students with intellectual disabilities, the level of formation of knowledge and skills were statistically analyzed.

During the experimental educational-experimental work, the individual characteristics of each student in terms of attention, memory, knowledge and skills were taken into account. In the experiment, the methods of performing mental tasks of an individual approach in correctional educational-educational work on the formation of cognitive activity of students with intellectual disabilities were gradually implemented from simple to complex.

During the experiment, we used the "Sholgam" composite. It was shown how the old man planted a turnip and how it grew and grew based on plot drawings. Then, mentally retarded children were given the task of telling a story. The oligophrenic pedagogue gave directions with questions to the children who could not tell a story. Shy and sluggish children were activated through a separate, individual approach.

During the inspection, a question-and-answer session was conducted to determine the initial knowledge, skills and qualifications of the students on a certain topic. The questions were as follows:

- 1. What did the old man plant?
- 2. Is the turnip a fruit or a vegetable?
- 3. Should we put the turnip in compote or soup?
- 4. Why couldn't the old man pull the turnip?
- 5. Who did the old man call for help? (the old woman)
- 6. Who else? (grandson)
- 7. Who else did they call? (dog)
- 8. Who else did they call? (cat)
- 9. Who else did they call? (mouse)

The oligophrenic teacher explains that strength is in unity, that labor is a source of pleasure, that if everyone in the family works together, and friendly relations are strong, then it will be possible to harvest such a crop and make a delicious soup from turnips for the family to enjoy.

The answers obtained with the help of such questions have a corrective educational and educational effect, and positive human qualities such as friendly relations, solidarity in the family, mutual assistance are formed in mentally retarded children, and are important in forming a healthy lifestyle.

The game is an important activity for students with intellectual disabilities in the 1st grade. It plays an important role in the physical and mental development of mentally retarded students, their formation as individuals, and the formation of a class team. The game brings joy to students with intellectual disabilities, reflects positive feelings and experiences, and impressions from life. The content of the game has a corrective effect on the formation of the personality of students with intellectual disabilities. Therefore, we chose the game "Turnip" in the

pedagogical process and, when conducting a turnip composition with students, played a role-playing game depicting the process of pulling a turnip, pulling a turnip together, helping each other, and then drinking turnip soup as a family.

During the game, students with intellectual disabilities were introduced to fruits and vegetables, cooking compote from fruits, cooking soup from vegetables, hygiene of washing and eating vegetables and fruits, hygiene of eating, the importance of fruits and vegetables for the human body, and the importance of healthy eating. At the same time, it was intended to enrich the knowledge of mentally retarded students about the rules of nutrition, and to instill in them hygienic and moral qualities, friendly relations, attention to their health and habits of following the rules of nutrition.

The peculiarity of the game activities and demonstration methods used by 1st grade students with intellectual disabilities in a specialized school was that demonstration methods were used here not only in the form of movement, but also to activate the thinking activity of mentally retarded children.

For example, in the drawing lesson on the "Turnip" play, showing a model was used at the beginning of the lesson to stimulate memory and imagination, and at the end of the lesson, each student was compared with the model to check whether he had performed his role correctly.

In the pedagogical process, practical and game methods were combined with demonstration methods in order to ensure that children with mental retardation thoroughly mastered knowledge and to activate the educational process. In the "Turnip" composition, students with mental retardation themselves participated with enthusiasm in the roles of "old man", "old woman", "granddaughter", as well as in the roles of animals "puppy", "cat", "mouse". In this, instructions and appropriate instructions were given using the oral method. Game methods, especially the method of didactic games, gave positive results when used with children with mental retardation. When the lesson was conducted especially through didactic games, 1st grade students with intellectual disabilities better understood the learning task, which increased their voluntary attention, activated their activity, increased interest in knowledge, and formed knowledge, skills and qualifications.

In a specialized special school, in the pedagogical process, in accordance with the principles of developmental education, the oligophrenopedagogue's control and guidance of the formation of cognitive activity of students with intellectual disabilities and its correct assessment played an important role. Because not only the result of the work is evaluated here, but also the mental activity, independence, and enthusiasm of the mentally disabled children in performing this work are taken into account. As a

result of the pedagogical tactful approach of the oligophrenopedagogue to the assessment of the activities of students with intellectual disabilities, they understood their own achievements and shortcomings. The work performed was analyzed, compared, contrasted, and monitored together with mentally retarded students. This served as an important factor in the formation of skills that are important for children's correctional educational and educational activities. Therefore, 1st grade students with intellectual disabilities were taught to analyze their own work.

Here is the translation of the provided text into English:

The children's ability to listen to each other's speech, follow the educator's instructions, and express the results of their cognitive activities in speech was improved.

For students with intellectual disabilities at school age, the basic types of academic activities are formed based on the acquisition of general skills: observation, listening, verbal expression, and comprehension. Interest in learning is developed. They were also taught to evaluate the work done by their peers. In this process, the following questions were gradually posed:

What benefits do fruits and vegetables have for health? What should be done before consuming fruits and vegetables?

Why are fruits and vegetables important in human life? Why do you think so?

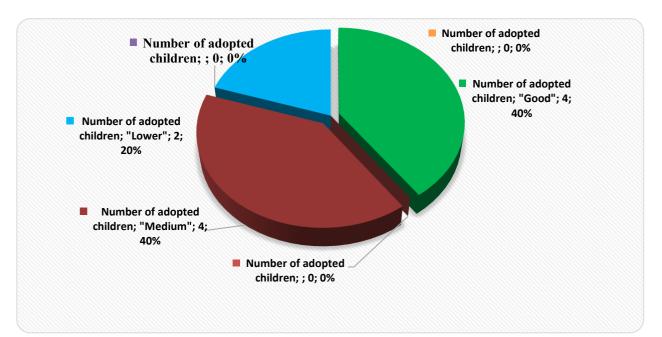
What do you understand by following food hygiene rules? These questions were gradually asked. At the specialized school, first-grade students with intellectual disabilities showed increasing interest and enthusiasm in engaging in activities during the lessons we conducted.

The children with intellectual disabilities acquired skills such as preparing toys for the "Turnip Composition" game, placing the necessary materials correctly, and performing actions in sequence, which also contributed to the development of cognitive labor skills. This played an important role in their conscious assimilation. Such games teach children with intellectual disabilities to be kind, moral, disciplined, clean, orderly, and to follow proper nutrition rules.

The proverb "If you work, you will live and grow strong! If you wish for respect, ask for little, if you wish for health, ask for little" was illustrated in the context of the "Turnip" composition. Children's cognitive activities related to washing and consuming fruits and vegetables in accordance with hygiene rules improved the effectiveness of corrective work. The game activity played a crucial role in improving the education and correctional work with students with intellectual disabilities.

Table 3 Results of the post-experiment question-and-answer session.

Nº	Degree of acquisition	Enrollment	
		number of	Interest calculation
1.	"Good"	1	10
2.	"Medium"	1	10
3.	"Bottom"	3	30
4.		5	50



## CONCLUSION

it can be noted that theoretical and practical teaching processes organized on the basis of modules in the work program created as a result of research had a positive effect on the final mastery of students with intellectual disabilities. It was found that the high level of knowledge and skills formation of students with intellectual disabilities is equal to 63 percent, the middle level is 30 percent, and the lower level is 7 percent. The results of the study noted the formation of knowledge and skills of students with intellectual disabilities.

The results of the research determined the level of improvement of correctional-educational work in the formation of speech activity and cognitive activity of students with intellectual disabilities in the specialized school, and confirmed our hypothesis.

Summary. It is a pedagogical process aimed at providing a comprehensive comprehensive approach to the formation of cognitive activities of students with intellectual disabilities in a specialized school.

According to the obtained data, the successful implementation of correctional educational work depends on the correct organization of correctional educational work, pedagogical process, and each type of activity in the formation of knowledge of students with intellectual disabilities in a specialized special school.

Education plays an important role in the pedagogical process of improving correctional-educational work in the formation of the cognitive activity of 1st-grade students with intellectual disabilities in a specialized school, and it is carried out in everyday life, play, work, through various activities and lesson processes. Corrective-educational, corrective-educational tasks related to knowledge are solved during the lesson.

In a special school for children with special educational needs, in the pedagogical process aimed at improving correctional and educational work on the formation of cognitive activity in students with intellectual disabilities, students with intellectual disabilities acquire knowledge, skills and abilities related to the surrounding nature and phenomena, the laws of cause and effect, develop speech, They acquire the simplest ideas and knowledge, a system of skills and abilities, interacting with labor and mathematics, physical education, visual arts, and music classes.

Correctional work on the formation of cognitive activity in 1st grade students with intellectual disabilities in a special school for children with special educational needs -We are convinced that the educational content will be appropriate if the pedagogical process aimed at improving educational work is carried out on the basis of didactic principles, taking into account the age and individual characteristics of mentally

retarded students, and in a consistent manner, adhering to the principle of a continuously differentiated approach.

The results of our study allowed us to conclude that when implementing properly organized developmental, correctional educational and correctional educational work on knowledge for students with intellectual disabilities in specialized schools, taking into account their specific characteristics and arousing interest in knowledge is of great importance and will be the basis for knowledge. Special education It has been proven that one of the ways to improve correctional and educational work is to arouse interest in knowledge among first-grade students of a special school with special needs so that they consciously understand and understand what they are learning.

The activity of the game in students with intellectual disabilities in school 1st grade students ensured the need for cognitive processes. In this it is activated, such as emotion, memory, attention), basic mental skills and mental operations (perception, comparison, analysis, etc.). Generalization, characterization, etc.) found content. All this made it possible to improve the educational process as much as possible, to expand its functions.

Sensory education in the development of cognitive activity in students with intellectual developmental disabilities is the basis of cognition, intuition, followed by perception is a direct way of knowing the environment. Without intuition, a person cannot know anything about anything, about the types of movement. Even in students with intellectual developmental disabilities, intuition and perception have a special place in the process of cognition, like healthy students, and remain throughout their lives. Hence, children with a defect in their intelligence play an important role as intuition in rnivojlating the process of knowing their knowledge in the formation of the first step and concepts.

Therefore, it can be concluded that in students with intellectual developmental disabilities, it is advisable to train, teach, with the development of cognitive activity affecting all their sensory organs, all their analyzers.

We came to the conclusion that if the activities carried out in a specialized school, lesson processes are organized using the activities of the game, pedagogical technologies, knowledge in students with intellectual developmental disabilities will allow to solve the tasks of further improvement of processes and skills and skills will be formed.

Methodological recommendations. Taking into account their age characteristics in the correctional development of cognitive activity of children with special educational needs; taking into account the individual characteristics of each student in the development of cognitive activity of children with special educational needs; organizing education with influence on all analyzers in the correctional development of cognitive activity of children with special educational needs; separately following

the principle of; education of children with special educational needs, relying on their life experiences in the correctional development of cognitive activity; achieving the effectiveness of play activities, exercises, repetitions, strengthening in the correctional development of cognitive activity of children with special educational needs; conducting games related to the preparation of children with special educational needs for social life together with their parents and adults; it will be advisable to teach children who need special education to bring to life the knowledge gained in the development of cognitive activity.

#### REFERENCES

- Constitution Of The Republic Of Uzbekistan T.: "Uzbekistan", 1992
- The education law of the Republic of Uzbekistan T.: (new taxriri), September 23, 2021y.
- $\bullet~$  8.Aitmetova S.Sh.psychic characteristics of auxiliary schoolchildren.- "Teacher" -1988.
- Vygotsky L.S. The problem of studying mental development, Moscow: Prosveshchenie, 1989
- Vygotsky L.S. The development of higher mental functions.M.: Prosveshchenie-2004.
- Eremenko K.D. Fundamentals of oligophrenopedagogy K.:-2000

- Mastyukova E.M. They are waiting for our help-Moscow, 2000
- Makhmutov M.I. The organization of problem-based learning-M.: "Enlightenment" 2005.
- Steelova P.M. -If you say that you will be the most polite child!.- T.: RTM.-2000
- Steelova P.M.- Special pedagogy (Oligofrenopedagogy) -T.: "G'.Ghulam". -2005
- Steelova P.M. and others special pedagogy-T.: "Science and technology". -2014
- Steelova P.M.Oligofrenopedagogica-T.: "Tdpu" publishing house. -2023.
- Rachmanova V.S.. Fundamentals of defectology-T.:- "Teacher" -2004
- Rachmanoff.S. Special pedagogy.- T.: "Ghulam" 2004
- Shoumarov G. B. Mamedov K.X. Psychic characteristics of mentally retarded students.- "Teacher" -1994.
- Strebeleva E.A. A systematic approach to working with the problems of correctional and developmental education of children with intellectual disabilities\\Defktologiya 1999 № 6.