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Neuropsychological Support of Education and Creative Activity of Primary School Age Children with Special Educational Needs

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Abstract: *It was analyzed that theoretical bases of the realization process of the neuropsychological approach in the correction of the children's development who have difficulties in training based on needed complex diagnostics in the conditions of constant monitoring of a condition in their development, constant improvement of methods and receptions of inclusive training of primary school age pupils.*
It is determined that the application of corrective neuropsychological influence on the damaged development of personality is one of the important areas of correctional pedagogy, which uses the compensatory capabilities of the child's brain. The article describes the content and features of neuropsychological features of developmental correction of primary school age children who have learning difficulties (psychomotor skills, speech, cognitive processes, visual-objective perception, emotional disorders, etc.).
Means of neuropsychological correction are presented, which are represented by two blocks: formation and development of a sensorimotor component of higher mental functions and development and correction of cognitive functions and components that are part of them.
The organizational and pedagogical conditions for the development of junior schoolchildren's creativity with special educational needs have been developed and experimentally tested, in particular: the creation of a creative development environment through the introduction of game teaching methods; intensification of subject to subject interaction of participants of the educational process in the conditions of inclusive education based on partnership pedagogy; maximum enrichment of subjects with creative content to increase the experience of creative self-expression of students in lessons and extracurricular activities successfully tested during the formative stage of the experiment.

Keywords: *developmental correction, neuropsychological approach, mental development, correctional pedagogy, learning difficulties.*

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Introduction

The development of inclusive education in Ukraine requires changes both at the state level and in the practice of modern schools, which consist in neuropsychological support of a child with learning difficulties based on comprehensive diagnostics in terms of constant monitoring of their development, continuous improvement of methods and techniques of inclusive education for children of primary school age (Komogorova et al., 2021; Maksymchuk et al., 2020b; Melnyk et al., 2021; Sheremet et al., 2019).

Scientific and theoretical understanding and substantiation of the stages of application of corrective neuropsychological influence on the damaged development of personality is one of the important areas of correctional pedagogy, which uses the compensatory capabilities of the child's brain. Neuropsychology, as a branch of psychological science and practice that studies the brain mechanisms of mental functions of man, provides answers to the laws of psychomotor, cognitive, emotional development of the child; substantiation of methods used in pedagogical and rehabilitation practice.

Therefore, the purpose of this material is a neuropsychological substantiation of features of correction of development of primary school age children who have difficulties in learning (psychomotor skills, speech, cognitive processes, visual-objective perception, emotional disorders, etc.). Child rehabilitation neuropsychology has made it possible to modernize the understanding of various forms of anomalies in the mental development of children and to outline new ways to compensate for defects.

The basis of neuropsychological support is the child's life in any manifestation, the creation of opportunities and favorable conditions, its full participation (involvement) in typical situations and procedures. It should be emphasized that the development of certain aspects of the child's psyche, above all, depends on whether a sufficiently mature and full of appropriate brain substrate.

For each stage of mental development of the child first of all potential readiness of a complex of certain brain formations for its maintenance is necessary. But, on the other hand, there must be a demand from the outside (from the outside world, from society) to the constant increase in maturity and strength of a psychological factor. If it is absent - there is a distortion and inhibition of psychogenesis in different variants, which causes secondary functional deformities at the level of the brain.

Neuropsychological techniques in pedagogy are bound to succeed in correcting the child's development because the developing psyche and brain

are unusually malleable and ready for the development of basal (basic) neuropsychological factors that are the supporting components for further improvement of cognitive and emotional processes. On them, the complex multilevel construction of individuality of the person is further built and kept. The group of basal factors includes modal-specific; kinesthetic; kinetic; spatial; arbitrary regulation of mental activity; energy supply; interhemispheric interaction, etc. (Shevtsov & Ilina, 2015, p. 352).

Children with learning difficulties may have impaired development of both sensorimotor and cognitive components of educational and cognitive activities. Therefore, the means of neuropsychological correction are very important, which are usually divided into two blocks: the formation and development of a sensorimotor component of higher mental functions (breathing, articulation exercises; the development of fine motor skills; stretching, etc.) and the development and correction of cognitive functions and components that are part of them (specially developed methods "School of attention", "School of multiplication; methods aimed at developing the functions of programming and control; exercises" Coding "; Kogan tables; game forms of correction of programming and control, etc.).

The research highlights the importance of studying and tracking the development of textbooks for children with cognitive development disorders, depending on the reflection of the requirements for implementing a correctional focus of the educational process in its components, which is the main principle of oligophrenopedagogy, to improve the development and socialization of these children (Chepurna, 2020, p. 158).

Thus, methods of neuropsychological correction of delayed or damaged development of psychophysical functions in children are a harmonious and comprehensive program that promotes the comprehensive development of the child through the personal capabilities of the child. As a result, the child will be motivated to actively perform independent cognitive activities, skills will be improved, gradually gaining a sense of independence and confidence in their abilities (Behas, 2019; Melnyk et al., 2019; Maksymchuk et al., 2020a).

For example, scientific research on the problems of attention-deficit / hyperactivity in children, which is one of the most common and controversial conditions, has shown that this aspect of the issue is based on genetic and environmental factors and should be thoroughly covered in neuropsychology. Studies have shown that signs of hyperactivity, manifestations of attention deficit in children were not associated with comorbidities (Castellanos et al., 2002, Martinussen et al., 2005).

Another type of approach in child neuropsychology is based on the concept of A. Luria and L. Vygotsky on historical and cultural development (Luria, 2003; Vygotsky, 2005).

The neuropsychological approach in the correction of the development of children with learning difficulties

The analysis of modernization actualities of the New Ukrainian School gives grounds for the statement: the society needs another school more than ever - open, comfortable, attractive, and safe. One of the fundamental vectors of modernization and renewal of the educational sector is the development and implementation of the Concept of the New Ukrainian School, several innovations in which it is of strategic importance for a future society to support children with special needs who can get education together with other children.

Therefore, the Concept of the New Ukrainian School, today, is one of the largest and most in-depth educational projects in Ukraine, which focuses on the modern graduate, able to quickly and effectively adapt to changing life situations, defining priorities and goals, thinking creatively, justifying position, identifying and formulate problems and look for ways to solve them, cooperate in a team, etc.

One of the ways to solve the fundamental goal of general secondary education is to introduce a playful approach to learning, which will promote the development of emotional intelligence, personality creativity, the formation of driving forces, and providing support for mental development on sensory-emotional cognition of reality. One of the ways to solve the fundamental goal of general secondary education is the organization of the correctional and pedagogical process of education and upbringing of children of primary school age who have disorders of psychophysical development. Extremely relevant today is the problem of rational use of resources of the correctional and educational process in working with children with learning difficulties, not due to the limitations of opportunities, that form in schools the largest group among students with special educational needs.

Therefore, the issue of introducing a playful approach to learning, which will promote the development of emotional intelligence, personality creativity, the formation of driving forces of learning, providing support for mental development on sensory-emotional cognition of reality, starting from primary school.

Thus, the relevance of the topic and the practical significance of the problem led to the choice of the chosen research topic.

The purpose of the article is to substantiate the scientific basis of the problem of neuropsychological support of learning and creative activities of children of primary school age in the educational process of primary school; introduction of game teaching methods as a means of developing the creativity of junior schoolchildren with special educational needs; development and experimental verification of the effectiveness of organizational and pedagogical conditions for the implementation of this process.

Since special educational needs, in particular learning difficulties, are very multifaceted and due to various factors, it is important to understand the patterns of the child's functioning both in terms of regulatory development and adverse conditions of varying severity. Characterizing the development of a child with learning difficulties, it should be noted its compliance with both general and specific patterns of mental development.

General patterns determine the features of development, which are manifested both in terms of normative ontogenesis and development with deviations. These include continuity and irreversibility of the development process; implementation of mental development in the process of various forms of activity; active communication process.

Specific - these are the patterns that are inherent in children with learning difficulties due to different types of dysontogenesis, in particular: slowing the pace of age development; difficulties in receiving, processing, storing, and using information; general decrease in mental and cognitive activity; disproportion between directed and spontaneous aspects of development; violation of verbal mediation of behavior and mental activity in general; deformation of the social situation of development.

It should be emphasized: correctional and developmental work, which has a neuropsychological focus, aimed at the formation of basic invariant actions and operations that underlie educational and cognitive activities, and are underdeveloped in primary school children with specific disorders of learning skills.

The use of neuropsychological techniques in working with children with learning difficulties requires consideration of some features of its organization and conduct. This category of primary school students may have disorders in the development of both sensory-motor and cognitive components of educational and cognitive activities.

It is a well-known fact that the basic principle of systems thinking is to consider the object of study in a holistic system, so we will build the author's vision of the problem on a solid theoretical foundation, based on certain categories that form its basis.

With this in mind, we will consider the personality from an ontogenetic perspective, because a person shows an indispensable affiliation to the game activity. The game is inherent not only in every child but also in every adult at any stage of their development. Game-dynamic activity, so this aspect of the study requires a thorough theoretical analysis.

According to the philosophical and psychological concept of S. Rubinstein (1989, p. 248), personality is manifested and formed in interaction with the outside world, in its activities and behavior. In this regard, the opinion of a prominent psychologist that "the mental properties of the individual should be studied in inseparable unity with the mental activity of man, and, conversely, the study of mental activity, patterns of mental processes should take into account their dependence on mental properties of personality.

By this, scientists have a reasonable position that "mental activity - is the "building material" of which are the mental properties and abilities of man."

Thus, it becomes clear that according to S. Rubinstein's theory, personality and its mental properties are both a prerequisite and a result of its activity. Carrying out a psychological analysis of the activity by the concept of an outstanding psychologist, we found that the above concept is considered by the author as a unit of life, as a system that has its structure, and the main characteristic of the activity is objectivity. And objectivity, in turn, extends not only to the characteristics of images but also to the characteristics of needs, emotions, feelings, and so on.

Summing up, we note: the activity approach in learning is based on the psychological principle of unity of activity and consciousness (consciousness is formed in the process of activity, and is manifested in the process of activity and behavior).

In the activity approach, the main attention is paid to the active, versatile, productive, maximally independent educational and cognitive activity of students. For primary school students, such activities can be implemented through game teaching methods. Thanks to the game, the child becomes motivated, actively involved in the educational process, feels comfortable and happy (Zubtsova & Roma, 2020).

Domestic scholars in the field of didactics of primary school link the play activities of primary school students with the formation of the driving forces of learning. As noted by O. Savchenko (2002), in the period of change of leading activities, the child simultaneously gravitates to two of them: play and learning. The peculiarity of this situation is that the underdeveloped cognitive abilities of children of this age are supported by

their strong play motives, the need for emotional contact, and adult support. We can say that the more developed the child's play activities before school, the more pronounced the desire of a young student to establish himself in a new social role - the role of the student. Thus, educational activity matures in the depths of the game and only gradually becomes leading.

Researcher D. Elkonin (1999) proved that weak brain mechanisms should be included in psychological actions aimed at objective and based on the internal motivation of the child. As you know, children's social role-playing games are the most important part of play activities.

Before starting the creation of an interventional program for children with attention deficit disorder, it is necessary not only to consider the types of games but also the level of acquisition of playing activity. A cultural and historical approach, based on periodization of psychological development, normally considers the level of manipulative games, games with toys and objects, simple symbolic games, complex symbolic games, and complex games with social roles (Solovieva & Quintanar, 2019; Veraksa & Veraksa, 2014).

Thus, these considerations allow us to say that the psychological, pedagogical essence, developmental, educational, and other possibilities of the game as a multifaceted phenomenon are embodied in its features: the game is an active form of cognition; each game has a meaningful goal for the child; the game is aimed at developing creativity, ingenuity, initiative, intelligence, imagination, critical thinking, etc.

Creativity has become increasingly important in the twenty-first century as creative and knowledge-based economies demand creative products that bring benefits and happiness to people. People with creative skills are a key resource for the development of these economies (Brady & Edelman, 2012).

The educational system should encourage primary school children to keep on generating original and new ideas that foster their creative-thinking abilities. An expressive peculiarity of stimulating creativity is based on scientific research, which is reflected in creative thinking and creative problem solving (Rotaru, 2020, p. 434).

These competencies – though innate can be developed throughout life, the fact that determined me to make a point by this study, about the impact that, the creativity stimulation methods, techniques, and procedures presented here, have on the divergent thinking, imagination, and the pupils' creative attitudes. It has to be stated, however, that the formative-educative effects of the presented strategies are directly related to the level of

engagement and both individual and collective participation in the learning and development process (Clipa & Iorga, 2013).

The development of a creative idea is a result of simultaneous processes of exploration, imagination, and creative thinking and stimulated by individual emotions and motivations (Tran et al., 2016, p. 1026).

No less relevant is the research position of the domestic student V. Molyaka (2006, p. 25), showing creativity as an ability that reflects the deep ability of people to create original values by making non-standard decisions. He identifies seven signs of creativity: originality, heuristics, imagination, activity, concentration, quality, sensuality.

Globally, the importance of creativity for primary school children is becoming a primary interest of the educational system and generally stems from the need for distinct fields of the actual society to train future people in the work position, who will generate original issues, and to create solutions. These issues solutions will represent a vital part of the global society's future and the importance of creativity for social development is progressively emphasized (Wolska-Długosz, 2015).

The chances that the pupils become creative people increase, by the discovery from the first years of school of the special skills and orient them to additional activity; the use of creativity stimulating methods; the use of creative exercises and games; interdisciplinary and learning by cooperation (Langa, C, 2014).

From this perspective, the pupils must be well prepared, achieve competencies and abilities to help them be creative, active, competitive, therefore performing within educational activities and then, in the society (Cameron & Lively, 2013, pp: 129–134).

In the case of small scholars, it is considered that a product is original, creative if it is new and valuable to him. A creative act can be considered an act that requires the child to think divergently and leads him to novel conclusions, resulted from an individual effort (Clipa, 2017).

In pedagogy, such constructs as "game teaching methods", "game learning technologies" are also used, which provide for such an organization of the educational process, during which learning is carried out in the process of including students in the game.

Examining the problem of implementing game teaching methods in the New Ukrainian School, we concluded that interesting, useful, and effective conceptual provisions are presented in the project "Education Promotion" (launched in 2010, after signing a Memorandum of Understanding between the Ministry of Education and Science of Ukraine and LEGO Foundation).

The project aims to promote the quality of education through the comprehensive development of the child, including the competencies needed for lifelong learning and becoming a facilitator who seeks to move away from the pedagogy of copying, stereotyping, practicing one answer, and imposing his vision on the child. The interaction of adult and child is based on the approach of "learning through play".

The documents emphasize that the "learning through play" approach provides an opportunity to feel the power of game pedagogy - as a system, method, and tool of learning, practically and deeply understand why play is the best tool to prepare children for the challenges of the future.

Playing for children is a way of learning about the world. In the game, children develop important competencies that they will need throughout life. Becoming a part of the game, the child is fully immersed in the process, takes responsibility, becomes purposeful, feels comfortable, happy, and most importantly - has the opportunity to initiate activities and develop their idea, actively interact with other participants, and thus learn. And as a result - children who develop through play experience, have well-developed communication skills, teamwork, the ability to generate new ideas, show initiative, think critically, and operate with information. Learning, studying, and understanding the world around you through play and action on your own experience is much more interesting than just getting theoretical information about it. When children learn through play, they are motivated, confidently try to solve complex problems, experiment, explore, ask questions, think creatively, create something new, and most importantly - are not afraid to make mistakes, because in the game you can always try again and again.

Thus, these considerations allow us to say that the psychological, pedagogical essence, developmental, educational, and other possibilities of the game as a multifaceted phenomenon are embodied in its features: the game is an active form of cognition; each game has a meaningful goal for the child; the game is aimed at developing creativity, ingenuity, initiative, intelligence, imagination, critical thinking, etc.

Thus, the introduction of game techniques and methods in the educational process of the modern school helps to increase the freedom of the younger student as a subject of learning; acquisition by the child on a creative and activity basis of unique experience; formation of creative personality; improving children's communication skills and abilities, their ability to work in a team; the development of creative abilities, working memory, self-control and mental flexibility, which are essential for learning in school and throughout life.

The new Ukrainian school is a center of inspiration, uniqueness, appreciation, support, and creativity.

According to the priority idea of the authors of the Concept, the New Ukrainian School will work on the principles of partnership pedagogy, taking into account the abilities of each child who can think outside the box, be inquisitive, react quickly to changes, experiment, and more.

Neuropsychological support of a child with learning difficulties in an inclusive educational space

At the same time, it should be borne in mind that the education and upbringing of primary school students with special educational needs should be organically interconnected and complementary, which an inclusive education involves the use of general education and correctional and developmental programs; taking into account the peculiarities of each child's development, individual psychological approach to it; implementation of the correctional and developmental component by the leading deviation in the development of the specialist (typhlopedagogue, deaf pedagogue, correctional teacher, speech therapist) and neuropsychological support of the educational process by specialized teachers.

Given the specific patterns of development of primary school students with special educational needs, teachers should follow these recommendations: give preference to methods that help to gain access to a more complete perception, retain and process educational information - visual and practical; taking into account the high prevalence of speech disorders in children with special educational needs, verbal methods (narration, explanation) should be supported by clarity and demonstration of actions; to direct attention, first of all, to the nearest, concrete purposes of training, formation of the skills necessary for mastering of new material, and only then - to remote correctional, developmental and educational tasks; to promote the consolidation of knowledge and skills of students with special educational needs through repetition, concentric presentation of educational material, their introduction into everyday activities; involve children in group activities and group work, which will overcome communication barriers and difficulties.

It should be emphasized that the early school age is an appropriate stage of mental development of the subject, characterized by significant accelerated personality changes. As a result, learning and upbringing are more important than in past historical periods of personality ontogenesis. It is a question of the pedagogical influence of the personality of the teacher of the initial classes on the child in general, and the creation of certain

conditions for the development of its critical thinking, initiative, emotional intelligence, and also creativity, in particular.

The teacher must make the primary school student a true subject of educational activity, behavior, and communication. In the context of solving the research problem, the subjective approach in the New Ukrainian school involves directing the educational process to the free, individual, creative development of the child, the formation of an active life position, emphasizing the creative and transformative aspect of personal development. Therefore, subjectivity is a fundamental psychological neoplasm of the modern child of primary school age, and also determines the priority dominant changes of the New Ukrainian school through the implementation of the conceptual triad: "personality - choice - freedom".

In our opinion, the prerequisites for the development of students' creativity are the following provisions:

- creating a positive, comfortable environment at school, an atmosphere of kindness and respect, aimed at establishing the dignity of each child, for its self-disclosure;
- optimization of subject-subject interaction as equal partners (teachers and students), through the creation of a creative development environment, which, in turn, will provide the appropriate effect of pedagogical influence;
- organization of a personality-oriented educational process aimed at the acquisition of creative experience by students through play activities.

Demonstration of the subjective position of primary school students, which is directly reflected in the manifestation of a high level of creativity, is impossible without the influence of external mechanisms, where an important component is the organizational and pedagogical conditions for the development of this phenomenon.

If the conditions are understood as a set of circumstances that contribute to the transformation of opportunities into reality, the development of creativity of primary school children with special educational needs through the implementation of game teaching methods should, in our opinion, contribute to external circumstances that will help realize the nature of this process to reveal the pedagogical influence on him. Consider them in more detail.

1. Creating a creative development environment through the introduction of game teaching methods

The process of developing the creativity of younger students through the implementation of game teaching methods, which would be the real subjects of creative activity in the modern school, looks very promising in

the appropriate development environment, which creates conditions for the creative activity of students and at the same time is a set of content components, building creative relationships between participants.

It should be emphasized that the fundamental figure of such an environment is a creative, talented personality of a primary school teacher, who through a system of game teaching methods can create such conditions that children become part of the game, fully immersed in it, take responsibility, feels comfortable, happy, have the opportunity to initiate activities, develop their creative ideas, actively interact with other participants, respond quickly to challenges, agree, think logically, observe, analyze, make decisions, substantiate their opinions, summarize, draw conclusions, etc.

An important factor in the methodological support of the game will be the emotionality of the teacher, which is the sensory-spiritual sphere of man. After all, the internal condition for the development of emotions is that they potentially contain aspirations, desires, directed to or from the object. With this in mind, we came to the conclusion that the emotions transformed as a result of teacher-student interaction are emotions transformed into feelings (ie, those that have acquired stability, content orientation), and feelings are an important unit of moral and spiritual development. This combination will lead to a close emotional connection and contact between the participants in the educational process.

2. Activation of subject-subject interaction of participants of educational process in the conditions of inclusive training based on a pedagogy of partnership

The productivity of the development of creativity of junior schoolchildren through the implementation of game teaching methods, first of all, depends on the strategy of interaction in communication, determining the success of learning the latter as a whole.

Numerous studies on the interaction of subjects in the educational process show that pedagogical dialogue is considered as a subject-subject interaction and acts primarily as an interaction of the moral and value positions of the interlocutors expressed in words. It is worth noting that to achieve creative and developmental results, the interpersonal dialogic interaction of the teacher and the child must be mutually active, and a productive dialogue would give each of its participants deep satisfaction.

Such an educational dialogue will gradually be transformed into certain value-semantic formations, turning into a stable internal position (system of personal values).

From our point of view, the organization of game activity in various forms has not only great educational value but also developmental. The

result of the intensification of subject-subject interaction of participants in the educational process based on partnership pedagogy will be that each student will respect others and themselves, their thoughts, interests, positions, as well as the interests, opinions, and positions of their classmates, adults, even if they contradict her own; the student's behavior will be determined by the desire for self-realization with a personal focus on the principles of humanity; such a child is friendly, open to contact with the team, shows a certain responsibility, faith in their strengths, abilities, and capabilities.

In search of a solution to the problem, we concluded that these characteristics are designed to form the content of spiritual and cultural communication between the participants of the interaction, which will be the basis for the development of creativity of primary school students.

3. Maximum enrichment of subjects with creative content to increase the experience of creative self-expression of students with special educational needs in lessons and extracurricular activities

An important role in the implementation of the third organizational and pedagogical condition will be played by strengthening the focus on the amplification of elements of the educational process with creative content through play and non-traditional interactive-reflective teaching methods. The functioning of such a model of learning should lay the foundation for the development of creative self-expression and self-development of students.

The priority dominants in the organization of such an educational process are two provisions: the first is to take into account the uniqueness and uniqueness of each student; second - productive creative forms of organization of creatively oriented learning will promote the development of their skills to imagine and think creatively, fantasize, experiment, generate original ideas; compare, analyze, summarize; classify, highlight the main thing; work in teams; logically substantiate their point of view; look for a common solution, defend their ideas, complement each other; critically analyze information, evaluate it; argue their attitude to the problem; awareness of their own activity, their own game experience; development of initiative; ability to be aware of one's own mistakes, etc.

It should be noted that the result of creatively oriented learning will be a persistent need for primary school students with special educational needs in their free activity, self-knowledge, self-analysis, and self-evaluation.

Thus, the choice of the proposed organizational and pedagogical conditions for the development of creativity of primary school students through the implementation of game teaching methods is justified by the

fact that their practical implementation contributes to the subject-subject educational interaction of participants, disclosure of creative potential students, acceptance of each other as unique and valuable individuals, creative self-development of each child.

The creativity of junior schoolchildren with special educational needs in the context of the implementation of game methods in the conditions of inclusive education

The study of the state of development of creativity of junior schoolchildren with special educational needs through the implementation of game methods in inclusive education was carried out at the ascertaining stage of the pedagogical experiment, which covered 79 students of 3-4 grades school of I-III degrees "of Vasylivka district council of Zaporizhia region. The experimental group (EG) consisted of 41 students, the control (CG) - 38 people.

The purpose of the ascertaining stage of the pedagogical experiment was to diagnose the state and levels of creativity of junior schoolchildren with special educational needs through the implementation of game methods in inclusive education according to our criteria: motivational-target, operational-activity, reflexive.

Note that the teaching of primary school students in experimental groups was carried out based on the author's methodology, in control groups - according to the traditional scheme. The objects of the study were compared both before and after the experiment. This made it possible to compare the initial and final characteristics of the development of creativity of junior students through the implementation of game teaching methods and, thus, to prove the effectiveness and efficiency of the introduction of organizational and pedagogical conditions of the research process.

Diagnosis of the motivational-target criterion of the study required several such indicators: meta motivation; awakening interest in creativity; formation of interest in creative activity; stimulating creative activity; active position in creative activity.

Diagnosis of the operational-activity criterion required the study of such indicators as the productivity of divergent thinking; ability to compare facts, phenomena, find logical connections; ability to observe, generalize, compare, associate; see different approaches to solving the problem in non-standard ways.

Diagnosis of the reflexive criterion required the study of several indicators such as the completeness of the manifestation of creative activity; adequate self-assessment of creative activity and behavior.

According to the results of the arithmetic mean of all indicators, the value of three criteria was calculated.

To obtain the results of the study according to certain criteria for the identified indicators, the diagnosis was carried out by testing, surveys, questionnaires, interviews; recording facts; processing, and generalization of the obtained results. In each of the areas of research, the results obtained were supplemented by pedagogical observations in everyday life and specially organized situations of creative and moral, and value choice.

The obtained data were differentiated by levels (high, medium, and low).

The high level of development of creativity of primary school students is characterized by the presence of a personally significant goal; active-positive attitude to creative activity; productivity of divergent thinking; ability to compare facts, phenomena, find logical connections, different approaches to solving the problem in non-standard ways; ability to express themselves, full of determination and focused on high results.

The average level of creativity is inherent in students who have insufficient motivation for creative activity; developed signs of creativity, but do not make full use of them; this level is characterized by the absence of a personally significant goal; episodic expression of independence in solving creative search tasks, but without showing the appropriate persistence in case of difficulties; it is easier for such a group of students to work according to a certain pattern than to compare facts, phenomena, to find logical connections.

The low level of development of creativity of junior schoolchildren belongs to children who seldom show themselves creatively; there is no motivation for creative self-expression; they do not interact with other participants in group work; do not know how to observe, generalize, compare, associate; do not show initiative, do not fantasize; prone to apathy; perform mainly reproductive tasks; introspection is completely absent; the habit of doing everything for the sake of assessment dominates, which, in turn, generates passivity towards learning in general.

Thus, the systematic approach reflected in the level analysis allowed us to consider in more depth the process of developing the creativity of junior students with special educational needs through the implementation of game teaching methods. Generalized numerical values are shown in Table 1.

Table 1 . *Levels of development of creativity of junior schoolchildren with special educational needs according to the ascertaining stage of experiment,%*
Source: Authors' own conception

№ s/n	Criteria	Levels		
		high	medium	low
1	Motivational-target	18,75	37,28	43,97
2	Operating activities	17,64	32,48	49,88
3	Reflexive	21,36	37,09	41,55
4	The total result is	19,25	35,62	45,13

Thus, the generalization of the research results showed: a high level of creativity of junior schoolchildren with special educational needs was found in 19.25%, medium - in 35.62% of students, low - in 45.13% of participants in the statement stage of the pedagogical experiment.

Summing up, we note that the results of the ascertaining stage of the pedagogical experiment showed a low level of creativity of junior students with learning difficulties.

The above results of the study allow us to talk about the need for experimental testing of the system of activities, which provides targeted pedagogical impact on the development of creativity of primary school children with special educational needs through the implementation of game teaching methods in the educational process of primary school. pedagogical conditions of the studied phenomenon.

The purpose of the formative stage of the pedagogical experiment, which was carried out taking into account the results of the statement stage, was to introduce organizational and pedagogical conditions for the development of creativity of primary school children with special educational needs through the implementation of game teaching methods in primary school.

The implementation of certain organizational and pedagogical conditions took place through a system of activities: a series of integrated lessons (creative tasks, exercises, problem solving lessons through a system of problems, formulating conclusions, definitions, solutions, modeling (graphic, symbolic, etc.) learned content), problem solving situations,

introduction to the course of classes, sections of such techniques as role-playing and simulation games, exchange of ideas, solving practical situations of a creative nature; assembly of syncveins, diamond, "word clouds", "timelines", "decision trees", "generation of ideas"; making laptops; use of game techniques in lessons, introducing situations with game motivation "Zoo", "Supermarket", "Forest Tale", "School"; organization of intellectual games, performing several cognitive tasks, cryptograms, crossword puzzles.

During the formative stage of the experimental study, we also used the method of competence training "Six bricks" as an effective tool that allows you to implement game teaching methods in primary school (exercises "Artists", "Skilled fishermen", "Non-existent animal", "Create-draw", "Color tasks", etc.). Each game task is an open system that stimulates students to observe, explore new phenomena, hypothesize, prove and substantiate their ideas, developing working memory, creative abilities, emotional intelligence, respond quickly to challenges, cooperate in a team, experiment, show initiative, etc.

It should also be noted that common in school practice game forms of organization of extracurricular developmental and creative work are plot-cognitively complexes, organized like creative games on an imaginary plot: "Brain Ring", "Festival of Ideas", "Wheel of Fortune", "Fabulous Mathematics", "Forum" and others. Also the organization and carrying out of quizzes, competitions, tournaments, holidays, competitions directed on increase of efficiency of development and education of the child as the unique creative person. It should be emphasized that special journals of observation and accounting for creative growth allow the teacher to analyze the results of creative activities and determine the level of the creative potential of primary school students.

Conclusions

Summing up, we note that this work was built on the principles of human-centric pedagogy: intellectual co-creation is facilitated only by a pleasant atmosphere of interpersonal relationships, spiritual comfort, and openness.

At the control stage of the experiment, the results of the study were processed, compared with the tasks and the corresponding analysis.

As a result of the experimental formative influence in EG, there were positive changes in the levels of creativity of junior schoolchildren with special educational needs through the implementation of game teaching methods in the educational process of primary school according to three

criteria. The results of the experimental work, shown in table 2, show that during the control phase of the pedagogical experiment, the levels of development of this phenomenon in EG students underwent significant changes in contrast to students of CG education, where they were insignificant. The dynamics of the levels of creativity of junior students are shown in table 2 (at the ascertaining and control stages of the pedagogical experiment).

Table 2. *Dynamics of levels of creativity development of junior schoolchildren with special educational needs,%*

Source: Authors' own conception

Levels	The ascertaining stage of the experiment (79 people)	Control stage of the experiment	
		KG	EG
		38	41
High	19,25	21,63	37,05
Average	35,62	36,19	54,81
Low	45,13	42,18	8,14

Thus, developed and scientifically substantiated organizational and pedagogical conditions for the development of creativity of primary school children with special educational needs through the implementation of game teaching methods, in particular: creating a creative development environment through the introduction of game teaching methods; intensification of subject-subject interaction of participants of the educational process in the conditions of inclusive education based on partnership pedagogy; maximum enrichment of subjects with creative content to increase the experience of creative self-expression of students in lessons and extracurricular activities successfully tested during the formative stage of the experiment. As a result of the experimental formative influence in EG, there were positive changes in the levels of creativity of primary school children with special educational needs through the implementation of game teaching methods in the educational process of primary school according to three criteria. Qualitative and quantitative analysis of the obtained results confirmed the effectiveness of the introduced organizational and pedagogical conditions for the development of creativity of junior schoolchildren with learning difficulties.

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