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APPLICATION OF PSYCHOCORRECTIONAL RESOURCES OF ART THERAPY IN THE SPACE OF INCLUSIVE EDUCATION: PSYCHOCORRECTING "THE RAIN CHILDREN" AND "THE CHILDREN OF THE SUN"

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The article is devoted to the current problems of inclusive pedagogy. The system of psychocorrection of children with Down syndrome and autistic children is outlined. The system is based on the concept of functional asymmetry of the cerebral hemispheres, the functions of which realize the spatio-temporal organization of the brain, associated with the special differentiation of matter, when the formation of the brain became possible on the basis of the evolution of space and time, and the hemispheres, accordingly, can be considered to be a certain psychophysiological focus of human organism.

It is shown that the psychological correction of "the children of the sun", characterized by the predominant activity of the functions of the right hemisphere of the brain, presupposes the activation of the left-hemispheric mechanisms of the human psyche; and "the rain children", characterized by the predominant activity of the functions of the left hemisphere, are corrected due to the development of their right-hemispheric functions. The process of psychological correction is implemented through the use of some methods/techniques of art therapy, such as finger painting, color therapy, music therapy, dance therapy, drama therapy, sand therapy, etc.

The article, which is of interdisciplinary character, has presupposed using, in addition to the method of theoretical analysis of the problem field of the study, the concept of functional asymmetry of the human brain, as well as the results of the research in the fields of psychocorrectional pedagogy, art pedagogy, psychotherapy, and psychiatry, thus allowing to create an integral psychofractal structure of a person. This structure demonstrates the coherence of such functional axes of a person as the axis of hemispheric interactions (revealing two polar states characteristic of the left and right hemispheres of human brain), the constitutional axis (which reveals two polar constitutional types – schizothymic and cyclothymic), the axis of phase states of the psyche (which demonstrates the space of phase states of the psyche between polar phases – paradoxical and normal ones), the psychopathological axis (extending between schizophrenia and cyclic psychoses), the homeostatic axis (demonstrating two polar homeostases – adaptive and energy ones).

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ВИКОРИСТАННЯ ПСИХОКОРЕКЦІЙНИХ РЕСУРСІВ АРТ-ТЕРАПІЇ У ПРОСТОРІ ІНКЛЮЗИВНОЇ ОСВІТИ: ПСИХОКОРЕКЦІЯ "ДІТЕЙ ДОЩУ" ТА "ДІТЕЙ СОНЦЯ"

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Стаття присвячена актуальним проблемам інклюзивної педагогіки. Окреслюється система психокорекції дітей з синдромом Дауна та дітей-аутистів, що базується на концепції функціональної асиметрії півкуль головного мозку, функції яких реалізують просторово-часову організацію мозку, пов'язану з особливою диференційованістю матерії, коли формування мозку стало можливим на основі еволюції простору та часу, а самі півкулі, відповідно, можна розглядати певним психофізіологічним фокусом людського організму.

Показано, що психологічна корекція "дітей сонця", що характеризуються переважною активністю функцій правої півкулі головного мозку, передбачає активізацію лівопівкульових механізмів психіки людини, а "діти дощу", що характеризуються переважною активністю функцій лівої півкулі, корегується завдяки розвитку у них правопівкульових функцій. Процес психологічної корекції реалізується через використання деяких методів/технік арт-терапії, таких, як пальчикове малювання, кольоротерапія, музикотерапія, танцювальна терапія, драматерапія, пісочна терапія тощо.

У статті, яке має міждисциплінарний характер, використовувалися крім методу теоретичного аналізу проблемного поля дослідження, концепція функціональної асиметрії головного мозку людини, а також результати дослідження у сферах психокорекційної педагогіки, арт-педагогіки, психотерапії, психіатрії, що дозволило побудувати інтегральну психофрактальну структуру людини, яка демонструє узгодженість таких функціональних осей людини, як вісь півкульових взаємодій (що виявляє два полярних стани, характерні для лівої і правої півкуль головного мозку людини), конституційна вісь (виявляє два полярних конституційних типи – шизотимний та циклотимний), вісь фазових станів психіки (демонструє простір фазових станів психіки між полярними фазами – парадоксальний та нормальний), психопатологічна вісь (простирається між шизофренією та циклічними психозами) гомеостазна вісь (демонструє два полярних гомеостазу – адаптаційний та енергетичний).

Ключові слова: маніакально-депресивний психоз, шизофренія, конституціональна вісь, психопатологічна вісь, здоров'я, інклюзивна освіта/педагогіка, корекційно-розвивальні методи, арт-терапія.

Introduction of the issue. Analysis of data from the Ministry of Health of Ukraine suggests that more than 50% of schoolchildren currently have functional abnormalities in the functioning of various body systems; data from the Institute of Pediatrics, Obstetrics and Gynecology has shown that only 7-10% of babies are born healthy; and the Ministry of Education and Science of Ukraine has identified various physical abnormalities in school-age children in approximately 60% of children; abnormalities in the cardiovascular system has been revealed in 30-40%, and neuroses – in 30% of children of school age. The results of sample studies by the mentioned ministry

have shown that 36% of students of the establishments of secondary education in Ukraine have a low level of physical health, 34% – below average, 23% – average, 7% – above average, and only 1% of students have the highest level of physical health.

At the same time, the number of children with special educational needs is increasing. 18.5% of American children under age 18 are special needs children. That doesn't mean that they aren't smart, talented or capable since they have specific challenges that a "normal" student would not face [18].

Current state of the issue. Therefore, the relevance of correctional and

developmental work with various categories of children is significantly increasing, various aspects of which are presented in the studies of Ukrainian scientists: B.V. Zasenkov, I.G. Eremenko, N.L. Kolomyisky, O.V. Romanenko, V.M. Synev, T.V. Skrypnyk, E.F. Sobotovich, V.V. Tarasun, V.V. Tyshchenko, M.K. Sheremet and others.

The works of foreign researchers, which contain data on the peculiarities of correctional and psychotherapeutic practice [5; 6; 11], concerning the children with special needs [21], are very important.

In this regard, attempts are being made to build a system of correctional pedagogy that would integrate a set of psychocorrectional techniques in a holistic form [2; 3].

In this context, the conceptualization of the psychocorrection system for children with *Down syndrome* and *autistic children*, which is based on the author's *integral psychofractal structure of a person*, which, in turn, implements the concept of functional asymmetry of the human brain (FAHB) and involves the use of art therapy resources, becomes relevant [1; 4].

Aim of the research. The purpose of the study is to conceptualize the system of psychocorrection for children with special needs, in particular "children of the sun" and "the rain children", which is based on the author's integral psychofractal structure of a person and involves the use of art therapy resources.

Research methods. The article, which is of an interdisciplinary character, presupposed using, in addition to the method of theoretical analysis of the problem field of the study, the concept of functional asymmetry of the human brain, as well as some research results in the fields of psychocorrectional pedagogy, art pedagogy, psychotherapy, psychiatry, and post-nonclassical psychology enabling to build an integral psychofractal model of a person being the basis for creating the system of psychocorrection of children with special needs, in particular "the children of the sun" and "the rain children".

Results and discussion. The main aspects of the FAHB can be presented in some cornerstone provisions.

It has been experimentally confirmed that the hemispheres, on the one hand, being antagonistic entities, functionally inhibit, and on the other hand, – complement each other, revealing partial independence, when parallel functioning of the hemispheres at intermediate stages of information processing is possible.

As relevant studies have shown, the hemispheres (revealing the fact that the spatio-temporal organization of human brain is associated with the special differentiation of the matter, when the formation of the brain became possible due to the evolution of space and time) can be considered the psychophysiological focus of human organism, since their functions are directly or indirectly related to such major aspects of the human being, as: 1) the mechanisms of goal-setting and searching the ways of their achieving, 2) the energy and information regulation of human behavior, 3) empathy (the ability to sympathize with other people) and reflection (the ability to distance oneself from other people and life circumstances), 4) extroversion and introversion, 5) voluntary and involuntary mechanisms of mental activity, 6) the first and second signaling systems, 7) the strength and weakness of nervous processes, 8) their lability and inertia, 9) excitation and inhibition of nervous processes, 10) "I" and not-"I" aspects of organization of human personality, 11) organism's trophotropic and ergotropic functions, 12) the sympathetic and parasympathetic branches of autonomic nervous system, 13) the conscious and subconscious aspects of higher mental functions, 14) passive and volitional lifestyles, 15) past and future life perspectives, 16) perception of cold or hot colors, 17) giving preference to rhythm or melody, 18) giving preference to direct or reverse visual perspective, thus nearing or distancing the objects to the observer, 19) verbal and imaginative aspects of information, etc. [19; 20].

Automatic involuntary actions are included in the right-hemispheric domain of psychic activity, and non-automatic, voluntary actions are included in the left-hemisphere sphere of psychic functioning.

In general, the right-hemispheric strategy of perception, thinking and mastering the world presupposes an emotional-figurative, concrete-expressive, holistic-syncretic worldview molding a polysemantic linguistic and motivational-semantic context of reflecting reality. The left-hemispheric strategy, on the contrary, is an abstract-logical, conceptual-verbal, discrete worldview revealing an unambiguous linguistic and motivational-semantic context of reflecting the surrounding world.

It should be noted that in the onto- and phylogenesis of human beings, a gradual increase in hemispheric asymmetry is observed, the greatest expression of which is achieved in adulthood. Then the hemispheric asymmetry is gradually leveled – a state of functional synthesis of the hemispheres is revealed, when an elderly person as a personality, enriched by various life experiences, turns into a child with its plastic psyche and immediacy of perception of the world. In the chronological plan an elderly person gradually starts to turn to the past time, when the asymmetry of the past and the future, acquired in the initial ontogenesis, reaches its maximum in adulthood and is leveled up in the late age of a person.

We can note one more important fact: the right hemisphere functions in the present tense with an orientation toward *the past*, and the left – in the present tense with an orientation toward *the future*. Taking into account this fact we can come to a conclusion that human development naturally goes from the past to the future, and from it to the synthesis of the past and the future, when the spatio-temporal dichotomy of human life is leveled and human being is freed from the eternally dominating "*curse of Kronos*". *This evolutionary paradigm is universal*, because it expresses the general principle of movement as a form of existence of matter, which is realized as a process of

interchanging the states of discreteness and continuity in the development of objects and phenomena of the Universe. **So, the hemispheric asymmetry expresses the general asymmetry of space and time in our Universe.**

In general, it can be stated that human development goes from the right-hemispheric aspect of the psyche to the left-hemispheric aspect, and from it – to the hemispheric synthesis. As evidenced by encephalographic studies, **the hemispheres are functionally synchronized in a meditative and creative state** being the highest level/stage of the development of the human psyche [17].

In the sciences about human being, the hemispheric dualism is reflected in a phenomenon called the "*constitutional axis*", the poles of which are the opposites of E. Kretschmer's *constitutional types* – schizothymic and cyclothymic (asthenic and hypersthenic). It is interesting that the very name "cyclothymic" implies the belonging of this type of person to the sphere of cyclic determinism (compare with cyclic psychoses), while the concept of "schizothymic" revealing "split states" gives us a hint at the connection of this type of people to the sphere of classical linear (discrete) causality.

These correlations in psychiatry are embodied in the concept of "*psychopathological axis*" [10; 13], which coordinates the relationship between two polar types of mental pathologies – *schizophrenia* and *cyclic psychoses* (bipolar disorders), related to the functions of the hemispheres [18].

Schizophrenia, as L.S. Vygotsky believed, can be characterized by emotional dullness and coldness of affective life of a person, when the schizophrenic way of thinking is often called symbolic, meaning that it does not take anything literally, but everything is perceived in an allegorical sense [12]. In this regard, we can talk about the autism of schizoids, which stems from their lack of "affective resonance" concerning other people's experiences and feelings.

We can say that a schizophrenic is characterized by a multiple, split, left-

hemispheric abstract-logical worldview in its extreme pathological expression, which is manifested in the desire of such a person to classify, schematize, and atomize everything.

The second type of pathology is characterized by an extreme expression of a holistic, objective-figurative, sensory-expressive right-hemispheric worldview, which manifests itself in the tendency to "totalize" everything, to crystallize it in the form of an overvalued total representation or idea.

Thus, we have 1) a split discrete-multiple ("material", linear-causal) left-hemispheric and 2) holistic continuous-synthetic ("field", cyclo-causal, that is, holistic-causal) right-hemispheric reflection of the world in their extreme, pathological expression.

At the same time, as L.S. Vygotsky wrote, the splitting can be considered as a function that is equally inherent in morbid and normal consciousness, therefore being a function psychological in nature, a function that turns out to be just as necessary in abstraction, in voluntary attention, in the formation of

concepts, as in the emergence of a clinical picture of the schizophrenic process [12].

Similarly, for the right-hemispheric, holistic-continuous, empathic reflection of the world, various mental "levels" (norm, accentuation, pathology) are characteristic, which in their essence have a common psychophysiological basis. Thus, P.B. Gannushkin, characterizing the features of constitutionally depressive individuals, wrote that behind their "gloomy shell" usually glimmers great kindness, responsiveness and the ability to understand the emotional movements of other persons; in a close circle of loved ones, surrounded by an atmosphere of sympathy and love, they become light, cheerful, friendly, talkative, even jesters and humorists; but having barely seen off their guests or having left the cheerful company, they again begin to painfully dig into their emotional wounds [10; 13].

The conducted analysis enables to present a psychofractal coherence of the axes reflecting different aspects of human being, revealing major elements of its integral psychofractal structure (Table 1).

Table 1

Psychofractal coherence of axes reflecting different aspects of human being

Axis of hemispheric interactions		
Left hemisphere	Hemispheric synthesis	Right hemisphere
Constitutional axis (Ernst Kretschmer)		
Schizothymic type	Viscose type	Cyclothymic type
Axis of phase states of the psyche		
Paradoxical phase	Equalization phase	Normal phase
Psychopathological axis (N.B. Gannushkin)		
Schizophrenia	Mental norm	Cyclic psychoses
Homeostasis axis (V.M. Dilman)		
Adaptive homeostasis	Regulatory homeostasis	Energy homeostasis

The considered phenomena of functional asymmetry of the hemispheres, as well as the psychopathological and constitutional axes are an important methodological basis for understanding the relationship between *autistic disorders* (left-hemispheric phenomenon) and *Down syndrome* (right-hemispheric phenomenon), as well as the ways of their compensatory correction and even therapy, since current research indicates

that in ontogenesis the development of various functions of the organism is realized not only in "bottom-up", but also in "top-down" way, when the development of higher functions of human organism stimulates the restructuring (and harmonization) of the basal functions.

Accordingly, *Down syndrome*, which can be considered a right-hemispheric disorder, is corrected and cured due to the development of opposite left-hemispheric forms of mental activity of the child: there are rare cases of such

correction when some persons with Down syndrome (being a genetic disorder) can win the highest strata of intellectual activities, for example working as professors in the Institutes of higher learning.

Thus, the psychocorrection of "children of the sun" must involve activating the left-hemispheric mechanisms of mental activity (through forms of sensory activity characterized to the left hemisphere – rhythm, cold color gamut, etc.), including the development of their personality principle due to the creation of such socio-pedagogical and training-therapeutic environment that allows the "children of the sun" to be aware of themselves through the development of reflection, goal-setting mechanisms (with focusing on the future: compare with the method of "tomorrow's joy" by A.S. Makarenko), enriching their social-role repertoire, etc.

Children with *autistic forms of life activity* represent the state of pathological rooting in the left-hemispheric activity which leads to many mental and behavioral problems. Accordingly, these problems are corrected due to the activation of the right-hemispheric activity in such children with all the therapeutic-training consequences stemming from this activation.

In addition, let us note that in order to understand the cause and essence of autism, it is necessary to analyze the peculiarities of its generation.

It is known that autism is being analyzed in the context of the phase states of the psyche, which can be connected with the *paradoxical phase*, when human organisms react to weak signals in a more active way than to strong ones. This circumstance should be taken into account in the process of diagnosing autism in infancy, when attention should be paid to such symptoms of children as a distortion of the reaction to discomfort, to violent reactions of fear, to crying in response to weak stimuli of the external environment, while such children have weak reactions to strong stimuli. For the same reason, a weakening of the reaction to the feeding

position is noted, and the expression of pleasure after feeding is also insignificant.

Thus, contact can be established with an autistic person (whose psyche functions at the level of the paradoxical phase: this conclusion is gained from research experiences of I.P. Pavlov who **connected the nature of schizophrenia with the paradoxical phase of psychic activity**) at the level of weak signals/stimuli. In this regard, an example can be given of a doctor abiding near such a patient for several hours before he could manage to establish contact with this patient.

Due to the autistic-left-hemispheric deficiency of energy-emotional reactivity in autists (who, due to physical clamps and distress are characterized by metabolism problems – insufficient processes of digestion and assimilation of food), they can be cured by communicating with animals, which are characterized by high motor-emotional lability and by a lack of conscious (left-hemispheric) activity.

It should be noted that schizophrenia (characterized by the deficiency of right-hemispheric functions) was treated in the 19th century by Katsuzō Nishi (西 勝造, にし・かつぞー), the founder of the Japanese "*Nishi System of Health Engineering*", with diet, enemas and physical exercise. K. Nishi associated all mental illnesses with the state of the intestines when a polluted large intestine may lead to a disruption in blood circulation, endocrine balance, metabolism, and changes in blood pressure.

Yu.S. Nikolaev treated schizophrenics with fasting and enemas. He defended his doctoral dissertation on the treatment of schizophrenia with fasting; in 1963, a corresponding monograph was published, which summarized the long-term results of fasting treatment of schizophrenic patients.

In this context, a special role belongs to the **methods of art therapy** [1; 4].

It should be noted that art therapy became popular in the mid-20th century, both in the United States and Europe. The term "art therapy" was coined in 1942 by the British artist Adrian Keith Graham

Hill, who discovered the beneficial properties of drawing/painting during recovery from tuberculosis. In the 1940s, several researchers in the field of mental health began to describe their work with people undergoing treatment as "art therapy." Since there were no formal art therapy courses or training programs at the time, health professionals often received training in other disciplines while consulted with psychiatrists, psychologists, or other mental health professionals [7; 8; 9; 15; 16].

Art therapy is a powerful direction of psychological assistance being a non-verbal form of work that has no restrictions in use. Non-verbal means are often the only possible means for expressing and clarifying a traumatic emotional state. And the therapeutic and corrective effects of art therapy can manifest themselves through visual activity even in the absence of further verbalization of experiences, which is associated with the action of a number of therapeutic factors and mechanisms (relaxation, catharsis, development of self-organization and decision-making skills, experiencing insight, etc.) [14; 16].

Let's consider some methods/techniques of art therapy used for psychocorrection of unproductive psychophysiological states inherent in "the rain children".

The simplest art technology method that can be used to correct autistic conditions is *finger painting*. Tactile sensations affect the human nervous system [9]. In addition, finger painting exercises provide a high-quality reflex massage. There are certain points on the palms that are associated with the organs of the body; by massaging them, one can have a positive effect on the state of the body as a whole. The child can draw itself, and adults may accompany this creative process.

Another well-known art technology technique is the *collage technique*. It consists in gluing or attaching in many ways (for example, using tape, paper clips, a stapler, plasticine, etc.) various clippings on a chosen topic to a paper or other dense texture. These can be parts of

postcards, photographs, newspapers or magazines. Collage contributes to the development of predictive thinking, fantasy, and daydreaming. Visualization of desires contributes to the development of imagination, connecting various contents of the subconscious.

Another technique is *drawing mandalas* or *drawing in a circle*. Mandalas have a deep spiritual meaning in Hinduism and Buddhism, representing the Universe since the soul of each person is a separate universe that one wants to know. In art therapy, mandalas are used for coloring, there are albums for adults and children or templates from the Internet.

In this context, *color therapy* is important, since color undoubtedly affects a person, as it accompanies them from birth. Using color analysis one can learn a lot of information, including patients' mood, experiences, fears and difficulties. Color therapy is used in different ways: creating blots, staying in a room completely painted in a certain color, selecting clothes or household items, using colored glasses or other accessories, and also creating a color picture or collage. An interesting combination is fairy tale therapy and color therapy: creating a story in the same color as the illustration.

Music therapy can also be useful and productive, since music affects the brain in two hemispheres at the same time, is able to affect neurons, excite the nervous system or relax it. Music therapy is used in education, upbringing, rehabilitation, prevention of disorders and diseases. Music (its melodious aspect) produces a positive effect on children with deviations, with autism, depression, fears, stress, anxieties. Music can treat not only mental illnesses, but also physical ones, such as insomnia, epilepsy.

Puppet therapy also becomes an important tool for psychocorrection of the "the rain children" in the context of their integration into the socio-pedagogical environment. Each child has its own favorite toy, the doll becomes a faithful friend for the child, with its help the child creates its own comfort. When the doll

comes to life, the child transfers all its feelings, needs, values and emotions to the doll.

Let's consider some psychocorrectional techniques for working with the "children of the sun".

Dance therapy helps expressing one's emotions, feelings, dreams, fantasies, fears, experiences through movements, relieving tension thus rejecting negative emotions, restoring harmony and recovering creatively. This technique is especially relevant for "children of the sun", who find it difficult to verbally describe their emotions, since they experience a significant deficit in the left hemisphere's reflection/verbal mechanisms. Dance becomes a way of transmitting information, knowledge, establishing contact, self-expression, and releasing experiences. The main task is to restore one's "I". Dance therapy connects the conscious and subconscious aspects of the human psyche, and also helps even a withdrawn person opening up.

Drama therapy, which actualizes the processes of left hemisphere's mechanism of reflection through the enrichment of the role repertoire in the "children of the sun", will be useful in this process, since through role-playing and different scenes, the child is freed from negative feelings, fears, anxieties, and also learns to communicate better with others. Also, with the help of scenes, the fantasies and dreams can be revived. This therapy is extremely effective when used together with fairy tale therapy. Thanks to this combination, one can revive fairy tale characters with their fears and overcome them, destroying them or transmute/sublime them into something else. Often, self-made masks, costumes, and props are used as auxiliary materials.

Sand therapy is an integral method of psychocorrection, which can be used for all categories of children with special needs. This therapy helps to create contact with the outside world and to look at the situation from the outside. A fairy tale, a real story, a current situation or dreams can come to life in the sandbox. This therapy is relevant in working with different age categories, and

especially with children, since they are not always able to verbally describe their feelings and emotions as they really are. The advantage of the sandbox lies in the person's awareness of problems due to using symbolic images and in the ability to change characters, to develop different scenarios. By this one can change his/her attitude towards events, towards oneself, towards others and find the right solution. This is a small model of the external and internal worlds, where all positive and negative events occur and intertwine.

The sandbox helps the child feel like the creator of its world, who is able to change it. The plot, idea and description of the sand picture are important, as well as what characters are used with their size, being positive or negative. No less important is the symbolic meaning of each element, as well as the dismantling of the sandbox. The element that the child takes away first is important – this is the most negative element that carries a negative impact, fear, anxiety. During the game in the sandbox, person's inner world and experiences are revealed. Sand therapy provides an opportunity to work through traumatic situations, to realize one's past and present, the causes of difficulties, fears and negative phenomena in life. There is no right or wrong way to play in the sand.

A sand picture is created without any preparation, and therefore reflects the inner world in the best possible way and makes problems visible. The sandbox is an effective method not only of identifying fears, but also of overcoming them. This method can be both individual and group, and also combines well with other types of art therapy.

In this regard, we can also mention such a therapeutic method of Arminian scientist G.M. Nazloyan as *psychotherapeutic sculpting*: a mentally ill person, in the presence of a doctor, molds himself/herself from clay or other available materials (often life-size) over the course of several days. Completion of the work is often accompanied by relief of symptoms. In this case, the therapeutic effect is achieved due to the formation of

a *reflexive position* in the patient in the process of distancing himself/herself through contemplating his/her copy. It should be said that the mechanism of reflection is the basis for forming human self-awareness – the highest goal of a person's development. Therefore, reflection/self-awareness can be considered both the main tool used to explain many phenomena of anthropogenic reality (as V. Frankl noted, self-understanding, being the main explanatory principle of human behavior, implies self-detachment and reflection), and a fairly universal tool for the treatment of all diseases, including mental ones. At large, the method of G.A. Nazloyan can be considered a radical method of curing alcoholism, allowing the patients to change their alcoholic lifestyle, that was used by Ukrainian scientist G.A. Shichko, who suggested that patients keep a diary, in which they expressed the impressions and reflections of the day spent.

Conclusions and research perspectives. The article is devoted to the current problems of inclusive pedagogy. The system of psychocorrection of children with Down syndrome and autistic children is outlined.

The use of psychocorrectional resources of art therapy in the space of inclusive education in the context of the procedure of psychocorrection of "the rain children" and "children of the sun" presupposes the use of interdisciplinary resources of scientific research: The concept of functional asymmetry of the human brain, as well as the results of research in the fields of psychocorrectional pedagogy, art pedagogy, psychotherapy, psychiatry, post-nonclassical psychology, which reveals the fractal nature of the human psyche.

The concept of functional asymmetry of the cerebral hemispheres is considered to be an important means of our research, since the functions of the hemispheres reflexing the spatio-temporal organization of the brain thus expressing the general asymmetry of space and time in the Universe being associated with the spatial

differentiation of the matter, when the formation of the brain became possible on the basis of the evolution of space and time, and the hemispheres, accordingly, can be considered a certain psychophysiological focus of human organism, since many key aspects of a person stems from their functions.

An integral psychofractal structure/model of a person has been constructed, which demonstrates the coherence of such functional axes of a person as the axis of hemispheric interactions (revealing two polar states characteristic of the left and right hemispheres of the human brain), the constitutional axis, the axis of phase states of the psyche, the psychopathological axis, and the homeostatic axis.

It has been found that the psychological correction of the "children of the sun", characterized by the predominant activity of the functions of the right hemisphere, presupposes the activation of the left-hemispheric mechanisms of the human psyche; and "the rain children", characterized by the predominant activity of the functions of the left hemisphere (and certain deficiency of right hemispheric mechanisms), are corrected due to the development of children's right-hemispheric functions.

The process of psychological correction is implemented through the use of some methods/techniques of art therapy, such as finger painting, color therapy, music therapy, dance therapy, drama therapy, sand therapy, etc.

The article does not exhaust all aspects of the problem field of the research and presupposes the development of specific procedures for psychocorrection of children with special needs in the context of the developed complex system of psychological correction of the problems of such children.

In this regard a very important psychological phenomenon is to be taken into consideration while interacting with "the rain children" and "the children of the sun" since this process is of *fundamentally resonant character* when

its participants reveal resonant relationships with each other. At the level of neuron organization of the human brain, the principle of resonance is realized in the phenomenon of **"mirror neurons"**, investigated by G. Rizzolatti and his colleagues (1998). According to the mentioned phenomenon, the functioning schemes of neuron cells in the human brain of a person are mirrored

by the neuron cells of another person when these persons are in the process of close interaction. That is, the actions of a person, accompanied by the activation of the corresponding structure of the neurons of his/her brain, cause the activation of the same structure of the neurons in the brain of another person, who observes these actions and participates in these actions.

REFERENCES (TRANSLATED & TRANSLITERATED)

1. Art-tekhnologii [Art Technologies]: navch.-metod. posibnyk / uklad.: O.A. Miroshnychenko. (2024). Zhytomyr: TOV "Vydavnychiy dim Buk-Druk", 180 [in Ukrainian].
2. Dehtiarenko, T.M. (2008). *Korektsiino-reabilitatsiina robota v spetsialnykh doshkilnykh zakladakh dlia ditei z osoblyvymy potrebamy [Correctional and rehabilitation work in special preschool institutions for children with special needs]*: navch. posib. Sumy: Universytetska knyha, 302 [in Ukrainian].
3. Skrypnyk, T.V. (2012). Systemna psykhotekhnika ditei z rozladamy autychnoho spektra [Systemic psychocorrection of children with autism spectrum disorders]. *Pedahohichna i psykholohichna nauka v Ukraini. T. 2: Psykholohiia, vikova fiziologiia ta defektologiia – Pedagogical and psychological science in Ukraine. T. 2: Psychology, age physiology and defectology: zb. nauk. prats.* Kyiv: Pedahohichna dumka, 388-398 [in Ukrainian].
4. Terletska, L.H. (2016). *Psykholohiia zdorovia: art-terapevtychni tekhnologii [Health Psychology: Art Therapy Technologies]*: navch. posibnyk. Kyiv: Vydavnychiy Dim "Slovo", 128 [in Ukrainian].
5. Asgharzadeh Salmasi, F., & Poursharifi, H. (2011). The effect of narrative therapy on improving social compatibility in children with conduct disorder. *Journal of Educational Sciences*, 4 (14), 13-24 [in English].
6. Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50, 248-287 [in English].
7. Buchalter, Susan I. (2009). *Art Therapy Techniques and Applications*. Jessica Kingsley Publishers, 222 [in English].
8. Christopher, G. (2024). Healing trauma and building empathy through art therapy. *International Journal of Art Therapy*, 29(4), 182-183. Retrieved from: <https://doi.org/10.1080/17454832.2024.2418226> [in English].
9. Durana, C. (1998). The use of touch in psychotherapy: Ethical and clinical guidelines. *Psychotherapy: Theory, Research, Practice, Training*, 35(2), 269-280. Retrieved from: <https://doi.org/10.1037/h0087817> [in English].
10. Edelstein, A. (1933). In memoriam Peter Gannuschkin. *Archiv für Psychiatrie und Nervenkrankheiten*, 100, 424-426 [in German].
11. Eysenk, M.W., & Keane, M.T. (1993). *Cognitive psychology: a student's handbook*. Hillsdale: Erlbaum, 557 [in English].
12. Fodor, J. (1972). Some reflections on L.S. Vygotsky's. Thought and Language. *Cognition*, 1(1), 83-95. Retrieved from: [https://doi.org/10.1016/0010-0277\(72\)90046-7](https://doi.org/10.1016/0010-0277(72)90046-7) [in English].
13. Gannouchkine, P.B. (1901). La volupté, la cruauté et la religion. *Annales médico-psychologiques*, 14, 353-375 [in French].
14. Hill, A. (1945). *Art Versus Illness*. London: George Allen and Unwin, 88 [in English].
15. Lyddon, W.J., Clay, A.L., & Sparks, C.L. (2001). Metaphor and change in counseling. *Journal of Counseling and Development*, 79(3), 269-274. Retrieved from:

<https://doi.org/10.1002/j.1556-6676.2001.tb01971.x> [in English].

16. Meyers, L. (2024). Walk a Mile in My Shoes: stories of recovery in art therapy. *International Journal of Art Therapy*, 29(4), 221-229. Retrieved from: <https://doi.org/10.1080/17454832.2024.2347903> [in English].

17. Murphy, Michael, Donovan, Steven, & Taylor, Eugene. (1997). *The Physical and Psychological Effects of Meditation: A Review of Contemporary Research With a Comprehensive Bibliography, 1931-1996*. Inst of Noetic Sciences, 33 [in English].

18. *Special Needs Children – Know the Types and Know Your Rights*. Retrieved from: <https://pbwslaw.com/special-needs-children-rights/> [in English].

19. Springer, S. & Deutsch, G. (2000). Left Brain, Right Brain: Perspectives from Cognitive Neuroscience. *Journal of Psychophysiology*, 14, 50-52. Retrieved from: <https://doi.org/10.1027//0269-8803.14.1.50> [in English].

20. Voznyuk, A., & al. (2021). Interdisciplinary Educational Technology based on the Concept of Human Brain Functional Asymmetry. *Postmodern Openings*, 12(2), 433-449. Retrieved from: <https://doi.org/10.18662/po/12.2/316> [in English].

21. Yuan, H. (2023). A Study of Special Needs Children Entering Regular Classroom Learning. *Journal of Education, Humanities and Social Sciences*, 10, 133-138. Retrieved from: <https://doi.org/10.54097/ehss.v10i.6903> [in English].

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