

Characteristics of the Psychological and Pedagogical Support of Children with Sensory Disabilities

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ABSTRACT

The article focuses on the meaning of the sociocultural traditions of teaching the deafblind as persons with severe combined sensory disabilities, which allowed the authors to extrapolate these techniques, forms, technologies for teaching deaf children with development delay from the position of pedagogical optimism. The article discusses examples of the organization of psychological and pedagogical support for children with sensory disabilities at various stages of education. The authors of the article consider the technology of deafblind support as the most promising, which allows optimizing the process of teaching children with special needs based on the cooperatively shared activity of an adult and a child as a propaedeutic, preceding substantive and practical training activity that has been successfully tested for many years. The article reveals the trends and prospects of building individual learning paths for schoolchildren with sensory disabilities, analyzes their personal achievements.

Keywords: *children with sensory disabilities, deafblind children, psychological and pedagogical support, deaf children with special needs*

1.PREAMBLE

The reorganization of the Institute of Defectology into the Institute of Correctional Pedagogy of the Russian Academy of Education led to a change in its scientific and economic status, which entailed the reduction and then the liquidation of experimental groups and schools. Experimental group for the training of deafblind children at the laboratory named after Sokolyansky I.A. was also disbanded. In 1992 Irina Leonidovna Solovieva, had being working the director of the Moscow boarding school No. 65 for deaf children, considered it her task to help children and teachers of this experimental group. Irina Leonidovna invited the teachers and deafblind children to enter the boarding school. The offer was accepted. Thus, deafblind students began to continue their education in ordinary classes for the deaf. The laboratory specialists (about 5 teachers and psychologists) used their enormous scientific and practical potential in work with deaf students, especially those who had visual impairment. The psychologist of the laboratory, Basilova T.A. helped to identify Usher syndrome's carriers among deaf children with visual impairments in the boarding school. Thanks to our initiative, the Usher Forum organization, headed by the psychologist Salomatina I.V., was created by common efforts. This organization currently supports deafblind people and helps solve their problems. Among the 330 students of the boarding school 24% had visual impairments of various genesis, for which it was necessary to organize adequate psychological and

pedagogical support. At the boarding school, a psychological - medical - pedagogical consultation was organized, headed by Bertin G.P. A permanent seminar was organized at the school, conducted by Basilova T., Bertyn G., Vasina G. V., Akshonina A. Y., Salomatina I.V. [8] Teachers of the boarding school studied the technology of Sokolyansky I.A. and learned to build individual trajectories of correctional and pedagogical work for children with hearing and vision impairments, their parents. We learned more and we were teaching them. And the most important thing was that we taught our deaf students: to empathize with their peers with Usher syndrome and come to the rescue. We helped their parents prepare the children for the life of the deafblind, in every possible way assisting the Usher Forum association. The experience of the boarding school in creating a space for comfortable learning of deaf children with psychoneurological disorders was tested at many Russian and international conferences. [1, 2, 3, 8]

The essence and meaning of the sociocultural traditions of teaching the deafblind, as individuals with severe combined sensory impairments, allowed us to extrapolate techniques, forms, technologies, and most importantly - ethics, as a set of views on the educational possibilities of these children from the position of pedagogical optimism. Which, in turn, made it possible not only to apply, but also to optimize the technology of tactile-sign support for teaching other categories of children with complex developmental

disorders. Experimental work was organized at the boarding school as part of a federal test site of the Ministry of Education of the Russian Federation. The staff was able to test the methods at numerous seminars, courses and conferences, many deaf schools in Russia began to use our methods in teaching deaf children with developmental delays. Teachers quickly enough felt the effectiveness of these approaches, noticed changes in the educational activities of their students, appreciated the appearance of interest and self-awareness in children. Deafblind support technologies changed teaching of deaf children with development delay in the deaf schools.

Technology of the deafblind teaching by Vasina G.V. and Akshonina A.Ya. [3, 6, 7] was studied by many teachers of the deaf, among whom were employees of the boarding school No. 65 Zheryatyeva E.A., Solovieva O.A., who have been accumulated many years of working experience with children with combined hearing, vision and intelligence disorders. The tradition of teaching for deafblind children, starting from Ivan Sokolyansky is based on leading cooperatively shared activities in the social diad "adult - child with intellectual and sensory disabilities", gradually in "step by step" format creating child's personal life experience. In this case cooperatively shared activity as a propaedeutic form allows to prepare the child for independent substantive and practical activity[6].

This technology constructs such a learning path when teacher doesn't force the growth of the student's academic competencies, but creates a personalized space for him to achieve his own social level. The adult next to the child, step by step, forms his world view in the following sequence: first the world of the family, then the world of the class and school, later the area that surrounds the school, the world of the city, etc. And this is the world not of an abstract child, but of each individual student, with his own family, age, educational and cognitive abilities, which interacts with the personal and professional world of his teacher. The means of such interaction are a set of demonstrations of cooperatively shared activities of an adult with a child, using the technology of "holding therapy" together with the child: his hands and body, combining pantomime, natural gestures, drawing and writing. Under the guidance of an adult, the child chooses available methods for transmitting information and starts to express his own experience using simple sentences and then moving on to more complex ones. The teacher helps the child to make a short text using his sentences and to name it. Gradually this practice becomes the part of daily life. The child creates not only texts, but also letters. Further, the teacher offers his own story from personal experience that has more complex structure. These two texts (spontaneous student's text and educational teacher's text) build on each other to achieve greater progress in the child's speech. Special trust and interest in communicating with the teacher appears, for example, Ivan Sh., began to bring his notes about what happened at home or on his way home, asking for clarification of an interesting story seen on television or an article with an peculiar picture in a popular magazine. The true essence of education is this interesting communication through written speech [5,9].

1.1 Creating of new didactic materials

From the experience of Solovieva I.L.: "When I started to work as the school principal, I paid attention to a boy with a nice smile who didn't talk using signs or voice, although he had studied for several years in the school. His patient mother never complaint and was waiting for the moment when Vanya would start talking or sign speaking. There was no result of traditional teaching method applied for about 7-8 years. Vanya was this very boy who I suggested to include into the group, where was the teacher that had a great experience with deafblind students education. For a while the boy just was smiling, but then the miracle happened. Teachers managed to create first text with him about the passenger in the suburban electric train. This story was ironical and humorous. As time went on, Vanya moved to the higher educational level, reached his deaf peers and was transferred to an "ordinary class". However, he still hurries to the individual class with "his own teachers" to share his emotions and feelings with them. Now Vanya has good sign and written language, he fully communicates with his mother and got friends".

This technology required new didactic materials in the classes. Let's talk about how the necessary didactic resource was formed. Solovieva I.L. was a member of the Expert Council of the Ministry of Education of the Russian Federation and deputy head of the section of manuals for special schools, where scientific and methodological achievements from related branches of defectology for special (correctional) schools were discussed constantly. These achievements were discussed with the teachers of the boarding school and immediately included in the corrective work for the Deaf. The boarding school No. 65 began to work according to 7 (seven) adapted curricula, including the curriculum for deaf students with delayed development. Teachers saw a huge gap between the real students' interests and the content of their manuals. So, the methods of Sokolyansky I. A. became the basis for the textbooks authors to compose the stories, relying on everyday life of children. For example, about the life of a deaf child, about his experiences along the way of growing up and mastering the world through stories about his family, home, school, city, etc. These stories should be accessible to children and encourage them to continue and compare with their experience through tasks they can manage.

At the same time those textbooks should not be a copy of mainstream books: as our children are special and their manuals should be equally special for them. The books should help, advice, lead students to the adulthood, be easy to study. These scientific and methodological achievements have formed the basis of State educational standards of primary general education for deaf kids Option 1.3, Adapted Educational Program -option 1.3, a set of sample educational programs approved by Academic Association of Ministry of Education and Science of the Russian Federation in 2015 [10].

As a teacher for the deaf Ivan Afanasyevich Sokolyanskiy [1] encountered great difficulties in teaching them verbal

language. So that to overcome those obstacles he invented new methods of deafblind students education. This experience of Sokolyanskiy I.A. changed the tradition of the deaf students' education and proved great opportunities for the deaf and deafblind students' co-education. This experience allows usage of the systems that substitute natural language. Method of Goncharova E.L., Akshonina A.Ya., Vasina G.V., Pashentseva L.V helps to involve every child to the cooperative activity with an adult. In this case, the mastering the functions of surrounding subjects is essential for the real learning of the objective outside world in the learning process of the students with sensory disabilities. It becomes a mean of a child's cognitive development, particularly of the forming a child's sensory. Sensory-motor education of a blind or a deaf child that usually carried out in the course of the substantive and practical activity becomes the essential part of the mental development, forming its basis. In this case cooperatively shared activity as a propaedeutic form allows to prepare the child for independent substantive and practical activity[9].

To help the child to connect verbal mediation with the gesture, the adult demonstrates this gesture with the substantive action. Then the child speaks and fingerspells first short words, and finally he writes it in block letters. So, the child with sensory disabilities studies grammatical structure of the Russian language practically.



Figure 1. «Vova rides».

For example, Read.

Vova rides.

Here is Vova.

2. Show: Here is Vova.

3. Say: Who is he?

What is Vova doing?

Read:

A plane flies.



Figure 2. «A plane flies».



Figure 3. «A bird flies».

Show:

A bird flies.

So using verbal communication with adults is obviously the way to go for the child and it helps his speech development. When the child studies Russian at school, he studies the grammatical structure of language and enhances his active vocabulary. The following are examples of our experience with using deafblind support technologies.

1.2 Using deafblind support technologies

From experience of Zheryatyeva's deafblind student: "Zhenya S. was born on 2000. Being pregnant her mother had a rubella. When Zhenya was one year old, she had a heart operation. With severe congenital bradyacusia (3-4 degree), the girl uses effective hearing aids with good speech perception. If the hearing aid battery is dead – there is no support, Zhenya cannot use signs and fingerspelling. Vision: she uses glasses, writes and reads with the magnifying glass, navigates without glasses, she has hyperopia of a high degree, nystagmus. When she came in Morozov hospital for the first time, they refused to do the operation. Moreover, nobody offered to pick up appropriate glasses. Delayed development, household vocabulary. She is neat, she navigates well at home, can wash herself and cook a simple breakfast on her own. She helps to clean the house and to nurse younger brother and sister. First years of the education educational material was limited by her vision abilities. She studied in boarding school №65 through home-based learning as a deaf child (but not as a deafblind). Then she changed to boarding school №101 where she had the home-based education at 5th grade. Russian: she did not know the letters of the sign language, wrote in block letters with shaky lines because of the vision. She was not able to read. She repeated the words by ear with almost good articulation. Math: there is a straight counting but she

loses or mixes up 6, 7 by ear. Reverse counting is with supporting materials. She knows numbers and can call them. Zhenya can solve math problems using the model. She doesn't know the answers: "how many?" "were there?" "is there now?" "is there together?" She can write down math calculations but cannot solve it alone (only using the model). She knows algebraic signs «+», «-», «=». Spatial representations are not formed: she does not know where the "left", "right", "front", "back", "up", "down", "between", "in the middle" are (but she knows the parts of the body – "an arm", "a leg", "an ear" etc.). Temporary representation are not formed also: she does not know what "yesterday", "today", "tomorrow", "a day of the week", "a month", "an hour", "a minute" mean. Geometric figures: she knows such figures as "a circle", "a square", "a triangle", "a sphere" (a ball), "a cube" (a toy block). She knows colors. She answers only closed-ended questions which can be answered by a simple "yes" or "no". She does not make her own decision. If she is given an opportunity to choose something (this or that?) she repeats both variants without making any sense. She is too focused on approval: she says «Good girl!», «Well done!» to herself for every action, right or wrong. As soon as she enrolled in the school №101 the appropriate glasses for her were picked up. Zhenya learned the fingerspelling, learned to count within 10, to solve math problems. The first year of education in this school two teachers took her classes: the first was for Russian language, reading, pronunciation and the second for math and the natural science. The second year of education one teacher taught core subjects, and the other one was for the art and pronunciation. Zhenya paints very well. However, she often suffers from somatic diseases. Here are the excerpts from school records (2014): "General awareness and social adaptation: awareness at a simple level, the social maturity of the child is incomplete: understanding of the world around at a simple level. Learning skills: by the time of making records the child's learning skills were not developed enough, however she can act independently according to the model, she needs multiple repetitions when explaining a new material. In 2012-2014 Zhenya's active dictionary expanded, she briefly answered simple questions, learned reading, writing (with the support of sign language letters and hearing), describing pictures with simple sentences, counting within 20 (with the support of sticks), solving simple problems of addition and subtraction with teacher's help. Academic performance in the core subjects of the school educational program: mathematics – "good", reading – "satisfactory", the Russian language – "satisfactory", the natural science – "good" (an individual educational program is equal to the second grade program for the students with hearing impairments). Zhenya is highly motivated to learn and able to control herself. She is attentive, active and focuses on the subject for a long time, she tries hard, however, her work capacity is low, the girl gets tired quickly. Mathematics skills: calculation within 20 with the support of sticks, verbal counting within 10, comparing by size and quantity; the girl doesn't understand the task herself, but needs an explaining and demonstration, solves the task

only with the teachers helping questions (making up a math problem), she can define the algebraic sign of math action (if increased it is "+", if decreased it is "-"), and solve the math problem. Zhenya speaks the verbal language with the correct grammar, using simple phrases. She can create a short story using simple phrases, she chooses pictures for them, adds missed words in the changed text correctly, but cannot retell it. Writing skills: writes well in block letters, there are some grammar mistakes because of the hearing disabilities. Self-reading: she understands simple short phrases, while reading short stories she needs adults' help, clarifying and leading questions, cannot retell.

Emotional-behavioral features: familiarity with the rules of behavior, following moral standards and discipline in relations with adults and peers is formed in accordance with her age; high motivation, perseverance for long-term goals, completing tasks, responses to successes and failures are adequate.

Zhenya's personality traits, that help to develop a program of support: she is persistent, ready to cooperate, likes to draw, shows her interest in fashion (fashion magazines, beautiful clothes and accessories). Features of family education, that the teacher learned from the conversations with the child and her parents: Zhenya is an older sister in a large family, helps with housework, takes care of her younger brother and sister, she looks after herself in daily routine.

In 2015 Zhenya went to study to auxiliary school near her home. She had an individual program in the school for the deaf: Russian language, mathematics, labor. In 2017 Natalya, Zhenya's mother, opened her inclusive development center, so that Zhenya could have an additional education and communication with other children".

From experience of Solovieva O.A.: "Danila I., 2003 year of birth: deafness, residual cerebral organic insufficiency, intellectual disability, autism spectrum disorder (ASD), minor cerebral dysfunction (MCD), compensated hydrocephalus. Vision impairment: high myopia; congenital, partial atrophy of the optic nerve, inconsistent convergent strabismus. Postural disorder, flat feet.

The educational program contained the following corrective measures:

Development of spatial praxis: exercises for activity changing: "Find the window", "Find your toy"; construction exercises: "Build a house", "Assemble a pyramid"; designer modeling: "Pyramids", "Puzzles"; games "Who Hid", "Labyrinth"; layout "Street". Development of self-service skills: a dining room - the themes "Dishes", "Products"; toilet and toiletries; dressing – "Clothes", "Shoes".

Development of oral praxis: propaedeutic exercises for the development of articulation movements - logopedic massage

Correction of behavioral disorders: relaxing massage; exercises for attention development; game "Forbidden movement".

Development of emotional-volitional system: the formation of the basic components of emotional-volitional system; the formation of the size, shape perception, color sense; graphic skills formation".

Methods of work with children with sensory disabilities were used through organizing work on rehabilitation programs of the Russian Children's Fund in 2011-2018. From the experience of Mironova A.V.: "Lisa K., 9 years old, was born on time with an assessment of 9/9 points by Apgar with congenital torticollis, chronic intrauterine hypoxia. From 6 months old, she has been under the supervision of a neurologist with a diagnosis of perinatal pathology of CNS, then - ADHD, speech delay. At the age of 7 she was diagnosed with severe congenital bradyacusia (III-IV degree). The girl uses effective hearing aids. Then she diagnosed with moderate myopia. Vision corrected with glasses.

We offer an example of individual classes with Lisa "My Family".

Purpose of the lesson: Systematizing knowledge about professions of her close relatives. Lisa continued to work on family genealogy and got acquainted with the concept of "lineage", composed a coherent story about her family. At the same time, much attention was paid to the development of phonemic perception, visual and auditory attention and perception; improving the stylistic and grammatical structure of speech, the development of memory, thinking. Lisa's grandmother prepared for the lesson a painting "The Tree of Professions of My Family". This work was of great educational value, as the examples of the family members formed a respectful attitude of the girl to the work of adults, to older members of her family.

Table 1 Lesson plan

Stage name	Purpose	Content	Outcome analysis
Organisational aspects	Create a motivational base for classes	Psychologist: Lisa, hello. How are you? I know that you and your grandmother visited an professional exhibition yesterday. And I want to continue this topic with you and your grandmother. You don't mind? L.: I do not mind	Lisa readily makes contact. Very emotionally talks about the experience.
Updating reference knowledge	"How are the concepts similar and different?" (Development of the ability to highlight the essential signs of difference and similarity)	Psychologist: Lisa, I know that you really like reading books and solving riddles. I will tell you words, and you answer me are they similar or are they differ. P.: Morning-evening. L.: These are natural phenomena. They are similar. In the morning the day begins, in the evening ends. P.: Cow-horse. L.: They are artiodactyls, feed on grass. The cow does not have a ridge and is weak. P.: Tanker-pilot. L.: They are involved in military affairs. They have different cars. This is the difference. P.: Lake-river. L.: This is all water. Oh stands still, the river flows. P.: Bird- River. L.: These are all environmental units. The lake can fly. If there is evaporation, then the water evaporates, flies to another place and again falls as precipitation in another place. That is, it moves. Like a bird. This is common. Differences: living and nonliving. The bird needs to be fed. P.: You said it right, well done! And what do you want to become when you grow up? L.: Zoologist. This is an important profession, I will work with animals. I have animal encyclopedias. I really like to read them. P.: So you are already preparing to enter the university? L.: Yes, I read books. To work with animals, a specialist needs to know a lot, love animals and be passionate about his work. He knows the features of not only their anatomy, physiology, but also behavior.	The girl with great interest began the assignment. She talked a lot about some of the nuances of words. The grandmother who was present at the lesson also entered into the conversation. The three of us for a long time sorted out the nuances of animate and inanimate nature. Struck by the depth of interests and knowledge of the girl.
Main stage (formation of new knowledge)	Compose a story about your family tree of professions.	P.: Very good. Now we are just moving on to the homework that you did with your grandmother. Tell me what it is. L.: This is a family tree of professions. P.: Lisa, do you know how the "tree of my family's professions" can be said differently? L.: No. How? P.: Listen, I'll tell you.[Genealogical tree of professions] (auditory material is behind the screen). L: The genealogical tree of professions. P.: Well done, you heard correctly. You got a very beautiful family	Lisa was very creative about the task. Together with grandmother, they made a real family tree, on which close relatives and their professions were depicted in the form of colorful leaves. In the process of dialogue, the girl was active, answered questions with interest and proved her point of

		<p>tree with colorful leaves. Tell me about it. L.: Yes, thanks. This is me in the middle. My leaf is orange. P.: You wrote on a leaf that you want to become a zoologist. Why? L.: Because I love animals. P.: And what do zoologists do? L.: It is important for zoologists to know the features of life, development, distribution of animals, their relationship with other biological species and the human impact on them. P.: Yes, I think you're right. Tell me about other members of your family. L.: That's mom. She works as a seller. And this is uncle. He works as a logistician, quality engineer. P.: Do you know what your uncle does? L.: He is responsible for the passage of goods from the manufacturer to the buyer. P.: Do you think he has an interesting profession? L.: Yes. But I want to be a zoologist. P.: Good. Tell me about the rest. L.: Green leaves - whom I personally saw. These are my grandparents and great-grandfathers and great-grandmothers. And yellow leaves - with whom I have never met. P.: Today you met with a new term, the family tree. In another way it can be called [lineage] (the word is pronounced behind the screen). L.: Lineage? P.: Yes. You heard correctly. Look carefully at your tree. This is your lineage, family tree.</p>	view.
Summarizing the lesson	Assessment of the child	<p>P.: Today you and I talked about the professions in your family. Finally, I want to tell you a riddle. Without it Adults do not live and children? Who will support you, friends? Your united ... (Family) L.: Family. P.: That's right!</p>	
Reflection	Awareness of one's feelings, feelings from the lesson, "feedback".	<p>P.: Lisa, thanks for such an interesting lesson! L.: Thank you. P.: If you want, choose your own T-shirt stickers. L.: Thank you!</p>	Lisa with great pleasure chose stickers with the highest scores.

Table 2 Effectiveness

Effectiveness of classes	Brief description
The set goals have been reached.	This type of work can be modeled as a frontal lesson. If the level of speech development due to the individual characteristics of a hearing disabled child is not high, then one of the parents can provide active assistance (make a family tree, as well as make a story). At the same time, it is possible that the parent is not only an assistant to the child in the story of his family, but also one of the participants in the frontal classes.

2. CONCLUSION

In the light of the preceding considerations, it seems clear that children with sensory disabilities require a special, personalized organization of psychological and pedagogical support at different stages of education. Among the most effective, testing many years in our experimental scientific work, the technologies of deafblind support present in this article.

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