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# Ability to logical problems decision of preschool aged children

The problem of thinking development in childhood is a traditional one for psychology. We can find it in works of G. Piage, N.N. Poddyakova, T.I. Ovchinnikova and others.

In works of these researchers were found different regularity of formation and functioning of conception, eye-minded thinking. And at the same time questions in connection with development of ability to logic, time perspective analysis, solution of logical tasks present the problem field in studying thinking in early childhood.Especially It makes a problem in research of peculiarities of child thinking development with general speech disorders.

Researches of Russian and foreign authors (A.L. Vegner, R. Olver, G. Piage, L.S. Vigotskiy, A. N. Leontiev, E.M. Mastukova, T.A. Fotekova and others) let us find out the range of characteristic features of child thinking with speech disorders: children have a delay in language and logical thinking development, children have difficulties in acquiring of thinking process without special education , mainly analysis and synthesis, comparison, generalization, rigidity of thinking is a characteristic of many children.

The purpose of our research is to study features of logical problems decision by children with general speech disorders. The plan of our research is connected with the assumption that children of preschool age with speech impairments have certain features in the development of cogitative activity which appear in the decision of cognitive problems.

"Establishment of sequence of events" method has been used for studying features of the logical problems decision.

This method consists of two series of subject pictures which differ in complexity. The first series - "The Snowman" - consists of four pictures and it is most simple. The second series is - " The Boy" - the most complex in construction of a subject line, casual and time relations. A series of pictures is offered to a child which display on a table by turns in casual order. The child gets 4 points for correctly combined 4 pictures, 6 points for correctly combined 6 pictures.

Our research was held in Preschool education institution № 60 and №223 and was divided into 2 stages. First stage was diagnostics of logical thinking of two subgroups (5 and 6 years old) children with the general speech disorder. These groups went under correctional education using Filicheva T.B., Chirkina G.V.'s program [2]. The given program is planned for 2 years of education. Within the frame of our research control tests were made in the beginning and in the end of each year of education. The second stage was diagnostics of logical thinking of two subgroups (5 and 6 years old) children with the normal speech development, corresponding to the age, who studied general educational programs.

Analyzing data of our research by results of the first series of this method we observe distinctions in average index: comparing average index of normal and speech disordered 5 year old children in the beginning of academic year, we see 3,2 and 2,8 accordingly. Thus, we notice that children with problems in speech development coped with the decision of problems on establishment of sequence of events a little bit better.

The level of complexity of the task with definition of sequence out of 4 pictures is normally accessible to children of 4,5 - 5 years old [1]. Analyzing results, we can say that speech disordered children by 5 years form ability to define correct sequence of events. Hence, there is a process of logical components formation of thinking with speech disordered children. At the end of academic year of correctional education 5 and 6 years old children with general speech disorders and normal speech development children successfully coped with the task (in one and the other group accordingly), but at the beginning of the second year of education in relation to these data, the average score became low in both groups (for 6 years old speech disordered children Xav. = 3,6; for 6 years old children with normal speech development Xav. = 3,1).

Thus, we can assume that decrease in results, in relation to final results at the end of the first year of education, may be influenced by the break in the education process (as there are no classes during summer). At the same time, obviously, children with speech disorders have skill to establish logical relations for a long time.

The operations of logical events formed during correctional education and without it are not significant. But, all the same, children with speech disorders have ability to logical thinking. Correctional education forms intellectual, cogitative actions, and is more steady, decrease in results not so much high in comparison to children with who education was not spent to.

By results of 2-nd series of pictures we observe the following data: low results show 5 years old children with normal speech development (Xav. = 1,75) than 5 years old children with speech disorders (Xcp. = 2,7). But thus at the end of the first year speech disordered children have reached 4,2 points in ability to logical decision of problems, and children with norm speech development - 2,5. 6 years old children, at the beginning of 2-nd year of education, both speech disordered children and children with normal speech development show such results (Xav. = 3,0 and Xav. = 2,9 accordingly).

We interpret received results as follows: the big decrease in development of ability to define logical sequence with speech disordered children at the beginning of 2-nd second year, shows us that the generated skill of logical problems decision turned out to be unstable and as soon as education process was stopped, children have shown low results.

These low results (Xav. = 3,0) almost coincide with those results which 5 years old children with normal speech development showed at the end of the year (2,5) when they were educated under the general educational program. By this we want to say that a result of correctional education of speech disordered children was a formation

of skill to logical problems decision. The educational effect on development of thinking process is less than in general educational programs.

Thus, the ability to logical problems decision is not sensitive for 5 years old children what the facts tell us about at which the skills received during education differ in instability and after the termination of education skill is not so well kept.

For 6 years old children the establishment of logical relation in structure of thinking activity answers age norms. That education effect which will be reached as a result of correctional education, it practically does not decrease with speech disordered children and practically coincides with norm results.

Thus, possessing to the full of preconditions for development of cogitative operations, it is required to children more time and efforts for formation of such complex processes. Therefore, owing to special education we observe dynamics in mastering by the analysis, synthesis, comparison and definition of sequence of actions.

As non formation of thinking having speech disorders in most cases on a degree of expressiveness is connected with weight of speech defect [4] It is possible to draw a conclusion, that, raising a level of speech development with children, processes of thinking are formed also. As research has shown, there are certain features in development of ability to logical thinking formation with speech disordered children.

**Literature**

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