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### PSYCHOLOGICAL ASSESSMENT OF SPEECH AND LANGUAGE DIFFICULTIES IN PRESCHOOL CHILDREN

**Abstract.** The article substantiates the importance of the problem of timely identifying preschool children's speech and language difficulties. It highlights the importance of searching for new psychometric research tools of research. The author considers the prospects of using standardized methods of psychological diagnostics in modern educational practice and presents the results of an experimental study on the test of a new method for assessing the development of the Russian language. The article contains the results of comparative analysis of speech and language development parameters in two groups of preschool children (of 5-6 years of age): normally developing (111 people) and children with speech and language developmental disabilities (60). It describes the diagnostic capabilities of the instrument of research on the clinical sample of children with impaired language and speech. The article reveals reliably significant differences in the results of individual subtests according to the method of assessing the development of the Russian language in the two experimental groups of children. On the basis of testing the methods and results, the author comes to conclusions about the identified significant differences between the two groups of children. The results can be used in solving the problems of special help of various kinds to preschool children with impaired speech and language development.

**Keywords:** preschool children, speech and language development disorders, psychological diagnostics, standardized method of assessment of the Russian language development, modern educational practice.

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The child's cognitive-communicative development is an important constituent of the preschool period of childhood. By the end of the preschool period, one of the child's main integrative properties is mastering all means of communication and interaction with the surrounding people and development of all components of oral speech. The conception of the Special Federal State Educational Standard for

children with disabilities states that language and linguistic practice, acquisition of literacy, basic forms of speech and ability to use them and development of oral and written communication make up one of the main educational spheres and content areas at each stage of education [6].

It is a well known fact that mastering native language in its basic forms takes place during the first 5 – 6

year of the child's life. It is at preschool age that intensive practical acquisition of language takes place; it is a time of acute sensitivity to linguistic phenomena, when the linguistic behavior of the child is in its making, and their vocabulary and grammatical skills are actively developing. Language acquisition takes a very active form: in the sphere of morphology children learn basic features of the declension and conjugation types; in syntax they acquire complex sentences, conjunctions and various constructions. At the same time children develop their skills of practical use of language, which stimulates the development of all cognitive processes [16].

In situations of normal development, children at their preschool age naturally pass the pre-grammatical period of acquisition of language and formation of coherent oral speech. The same does not happen in children with various developmental disorders. Not all children master their native language and coherent oral speech by the beginning of school education.

At present we witness a stable increase of the number of children with speech and language development disorders in our country and in the whole world. Specialists mark a general tendency to lowering linguistic abilities and speech possibilities of children of different ages. The processes of formation of speech habits, the level of formation of the lexico-grammatical aspect of speech, the development of realization of lingual elements and the semantic aspect of the word are late or impaired in many children [1; 2; 12; 15]. It is common truth that the majority

of traditionally distinguished kinds of psychic dysontogenesis are accompanied by deficiencies in speech and language development.

The modern Russian educational practice comprises the existing system of special differentiated education of children with various developmental disorders with the experience of integrated education of children with special educational needs [10; 11]. The ideology of inclusive education presupposing the inclusion of children with different starting opportunities in a uniform education process is becoming more and more popular [5].

At the same time, we observe a decline of prestige of special education with the parents of children with developmental disorders, which often results in unplanned integration of such children in the environment of mass education institutions [4; 11].

Nowadays, there are many children with developmental deviations of various kinds and of different degree of manifestation in preschool education institutions.

The role of differential diagnostics considerably grows in this situation. Specialists note the need to overcome the existing drawbacks of organization and methods of diagnostic practice and to solve many problems connected with the application of concrete psychometric procedures [8].

The process of education of children of any age by all means takes into account their opportunities and abilities. This should be done individually in reference to each child because it helps to work out specific methods and techniques

of pedagogical influence. It is also utterly important to do so in relation to all children as the content of education depends on this strategy.

Multiple test measurements of pedagogical nature widely spread in the modern Russian educational practice allow evaluating children's success but give no information about the nature and causes of high or low results.

It is evident that we can get the most objective data about the opportunities and abilities of children through psychological diagnostics [13]. It is psychological investigation and psychological methods that make it possible to discover the essence and specific features of intellectual and speech ineffectiveness, disorders of attention, memory, auditory and visual perception, spatial orientation and other developmental disorders.

An analysis of psycho-diagnostic methods used for investigation of language and speech development of preschool children was conducted in accordance with the goals of our research.

The undertaken analysis allowed us to establish that according to the domestic traditions of special psychology and pedagogy the child's linguistic competence is assessed through the evaluation of development of their communicative means [2].

The study of the level of formation of linguistic means (communicative means) covers the observation of expressive (child's own active speech) and impressive (comprehension of other people's communication) speech. Observation of expressive speech includes the state of independent coherent speech, peculiarities

of active vocabulary, grammatical structure, syllabic structure of words and pronunciation of speech sounds. Observation of impressive speech is aimed at the study of peculiarities of the child's comprehension of words, grammatical constructions and sentences [2; 14].

Assessment of language and speech development of preschool children is based on various methods and techniques of mostly logopedic observation described in the domestic special literature (T. P. Bessonova, L. S. Volkova, V. P. Glukhov, O. E. Gribova, O. B. Inshakova, L. V. Spirova, T. B. Filicheva, G. V. Chirkina, S. N. Shakhovskaya, A. V. Yastrebova and others).

Irrespective of a variety of methods of observation of language and speech development of children the number of scientifically based and tested psychometric procedures is evidently insufficient. This is also true about diagnostics of preschool children at the pre-reading stage when timely psycho-pedagogical support in mastering the native language and speech literacy skills can minimize prospective problems of reading and writing at school [3; 7; 10].

The problem of measurements is still urgent in modern home special psychology nowadays. Long-standing traditions of priority of the deep and all-round qualitative analysis of studying children with developmental disorders in our country create a situation when the results of separate investigations are practically incomparable.

Russian psychological science suffers from deficit of standardized methods

of psychological diagnostics presupposing a unified procedure of carrying out, standard diagnostic material, formalized system of evaluation of results and age-related norms obtained on statistically representative samples [3; 7].

The practical value of the search of new instruments of psychological assessment of language and speech development of preschool children is beyond doubt. The aim that faces the practical school psychologist consists in the primary distinction of the norm from the deviations in the development of children. The presence of available diagnostic methods which would make it possible to reveal in a statistically reliable way the peculiarities of language and speech development of preschool children, and to determine their correspondence to a certain average level established for the children of a particular age may become a basis for any prospective psycho-diagnostic procedures.

With the purpose of searching for new psycho-diagnostic instruments for mass usage in practice we approbated a new teaching aid comprising tests and methods of their conduct for assessment of the level of development of Russian in preschool children with normal development and in their peers with developmental disorders.

The standardized method of assessment of the level of development of Russian was worked out by a group of authors headed by E.L. Grigorenko (M. Babyonyshev, L. Hart, J. Reich, J. Kuznetsova, R. Rissman & E. Grigorenko, 2007). *Assessment of the Development of Russian* is not a translation method and has been designed for the study of lexico-grammatical skills

of Russian-speaking children between the ages of 3 and 9 as an individual learning aid [17; 18].

*Assessment of the Development of Russian* includes seven subtests each of which can be used as a separate learning technique. The present study uses five subtests in accordance with the age under study: "Passive Vocabulary", "Linguistic Operators", "Active Vocabulary", "Sentence Structure", and "Word Structure". The given set of tests allows defining the boundaries of passive and active knowledge of preschool pupils in such spheres as syntax, vocabulary, morphology, and phonetics and makes it possible to compare active and passive linguistic skills of pupils [9; 10].

The experiment was carried out on the basis of preschool education institutions # 1358, 1703, 2305, 2380, 2412, 1538 and the State Budgetary Education Institution "Center for Psycho-Medico-Social Support *Mitino*" in Moscow using the cohort sampling method. The sample included 171 Russian-speaking preschool children of 5-6 years of age from families in which Russian is the native language.

On the basis of analysis of anamneses and the data from Psycho-Medico-Pedagogical Committee certificates and medical histories two groups of children were made up for comparison. The first group (111 children) consisted of normally developing children who had no registered information about language and speech problems. The second group (60 children) comprised children with developmental speech disorders, reflected in various logopedic diagno-

ses: general underdevelopment of speech, phonetical-phonological underdevelopment of speech, retardation of speech development, dyslalia, etc.

Statistical analysis was made with the help of specialized programs SPSS and Microsoft Excel, the Pearson product-moment correlation coefficient and the analysis of variance (*ANOVA*).

*Table 1* presents the statistical results of observation of children.

On the whole, the results of our research showed the possibilities and advantages of application of standardized methods of psychological diagnostics for assessment of the level of children's acquisition of the Russian

language and definition of the group at risk in relation to language and speech underdevelopment.

In the process of the method approbation we received the normative parameters for each subtest: we defined average values in "crude" points, and calculated average standardized values for each child and for the two groups under observation.

Our study revealed significant differences in the development of the oral Russian language between normally developing children and children with language and speech disorders.

*Table 2* presents the results of subtests in the two groups of children.

*Table 1*

Data about the sample volume and representation according to gender and age

Observation parameters	Group of children without language and speech disorders		Group of children with language and speech disorders		The whole sample	
	M	SD	M	SD	M	SD
Age (months)	65.2	6.3	66.6	6.6	65.7	6.4
Boys, %	41		53		46	
Sample volume	111		60		171	

*M* — average value; *SD* — standard deviation

*Table 2*

Observation results obtained through the method of *Assessment of the Development of Russian*

Observation parameters	Group of children without language and speech disorders		Group of children with language and speech disorders	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Passive vocabulary	0.2	0.79	-0.45	1.18
Linguistic operators	-0.002	1.04	0.004	0.92
Active vocabulary	0.2	0.95	-0.38	0.98
Sentence structure	0.17	0.96	-0.31	1.01
Word structure	0.31	0.88	-0.57	1.17

*M* — average value; *SD* — standard deviation

Statistically reliable results of differences between two groups ( $p < 0.05$ ) were obtained through the following subtests: “Passive Vocabulary”, “Active Vocabulary”, “Sentence Structure”, and “Word Structure”. The group of children with language and speech disorders revealed lower results in four subtests (with the exception of “Linguistic Operators”) in comparison with the group of normally developing preschoolers (see Table 2).

Results obtained through the method of “Linguistic Operators” in both groups showed that the given subtest does not reveal statistically reliable differences in this age group. Its tasks were too difficult for the children of this age. Nevertheless we have unpublished experimental data about its results at junior school age where statistically reliable differences between similar groups are clearly seen.

The possibility of calculating standardized values for the results of each child and average standardized values for the results of the group of pupils allows comparing the results of separate subtests with each other.

Our research revealed the most evident difference between the results of the two groups while doing tasks from the subtests “Passive Vocabulary” and “Word Structure”. These parameters in the group of normally developing preschoolers were the highest (0.2 and 0.31 respectively). In the group of children with language and speech disorders they were the lowest (0.45 and 0.57 respectively).

On the basis of our research we made the following conclusions. The task of expert psychological diagnos-

tics is still urgent in the conditions of modern educational practice. Test methods with a wide age range of applications should be used as it is necessary to take measurements of concrete manifestations of psychic development with the view of prospective differential diagnostics. The method of assessment of the development of Russian may be used for initial screening psychological diagnostics of children with language and speech development disorders. The given method allows calculating statistically relevant results for basic lexicogrammatical parameters of the group of normally developing children and the children with language and speech disorders. The use of modern standardized methods of psychological observation provides researchers and practical teachers with material for objective quantitative estimation and prospective comparison of results and for all-round qualitative analysis.

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