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N. Toybazorova<sup>1</sup>, A. Gavrina<sup>2</sup><sup>1</sup>Baishev Aktobe University, Aktobe, Kazakhstan,<sup>2</sup>Yurk Consulting, Moscow, Russia.

E-mail: kapustinag05@gmail.com, psyal@gmail.com

**COGNITION AND SPEECH DEVELOPMENT  
IN A PRESCHOOL AGE**

**Abstract.** The speech – a historically developed form of communication of people using language. The speech and language of the modern person – a result of prolonged historical development. Speech communication is carried out under laws of this language which represents the system of phonetic, lexical, grammatical and stylistic means and rules of interaction. The speech and language make difficult dialectic unity. Language is the expression of human communication through which ideas, information, emotions, and beliefs can be shared. Typically developing children master the fundamentals of language and speech in the toddler-preschool era. Language and speech skills serve a pivotal role in learning and social relationships. In our study, we compare two groups of toddlers from different kindergarten. The collected data showed us significant differences in speech development of city and rural preschool age children.

**Keywords:** speech, sensitive age, preschool and school age, thinking.

Speech is a historically established form of people's communication through language. Speech communication is carried out according to the laws of the given language, which is a system of phonetic, lexical, grammatical and stylistic means and rules of interaction. Speech and language constitute a complex dialectical unity. Speech is carried out according to the rules of the language, and at the same time, under the influence of some factors (the requirements of social practice, the development of science, the mutual powers of languages, etc.), it changes and perfects the language. A person all his life develops his speech, mastering the language. Each age stage introduces something new in its speech development. The most critical steps in mastering speech are in children's age - preschool and school periods. Mastering speech at the age of 3 to 7 years is vital because this period is the most sensitive to its assimilation.

Speech and language of modern man is the result of long historical development. The child learns the language in the process of communicating with adults and learns to use it in speech. Thanks to speech (especially in its written form), the historical continuity of people's experience is realized. Out of speech, it is inconceivable to master human's knowledge and form consciousness. Being a means of expressing the thoughts of people in the process of their communication. Speech becomes the central mechanism of their thinking. According to Vygotsky speech activity was as a fundamental activity of man, saw in it great opportunities for the development of the personality, consciousness, all cognitive processes of man.

In order to solve these problems, it is necessary to know about the intellectual development of senior preschool children. It is also necessary to make an analysis of Child Psychology principles and current domestic and foreign psychological research of the intellectual development of the child.

The Soviet Union school of psychology was based on the same methodology which was influenced greatly by Bolshevik revolutions and Lenin's ideas:

1. Stages of cognitive development as a result of the activity. (Leontyev, 1978; Ananyev, 2000; Vygotsky, 1978; Elkonin, 1972)
2. Law of "interiorization" and "zone of proximal development" (Vygotsky, 2000; Elkonin, 1972)
3. The variation of activities and learning strategies (Galperin, 1978; Davydov, 1992; Popov, 2002)
4. The role of individual differences in intellectual development and training activities (Averin, 2000; Ushakova, 2015).

Development can be described as a process of initiation and improvement of these internal means of activities, as the process of overcoming internal obstacles in the implementation of activities, as the process of expansion the borders of zones of actual and proximal development, as the process of assigning the ways of the joint activity by a child (interiorization), as simultaneous movement in different directions, described by multi-vector model of the zone of proximal development, leading to the appearance of new vectors, to the quality changes of the state of vectors and the interrelationships between them (Vygotsky, 2000).

Intellectual development is understood as a continuous dynamic process by most Soviet authors. Different authors identify various aspects of intellectual development, indicating the quantity and quality of its structure, indicating out features of mental activity (operations and mental actions), different forms of thought (Galperin, 1978; Davydov, 1992; Volkov&Volkova, 1998; Zhukova, Mastuykova, Filicheva, 1998).

The Russian psychologists are guided by the principles of the system and structural-genetic approaches to the study of children's intellectual development (Garber, 2013). They do not oppose education and intellectual development, general and special abilities, biological and social conditions of intellectual development (Kolomna and Panko, 1997).

Currently, it revealed that children's intellectual development depends on brain structures and specially organized challenging activities. Education is a leading factor in the intellectual development of children. There are also some basic directions in the study of children's intellectual development in Western psychological school. One direction is characterized by examining the child's cognitive development as a result of the natural maturation of the nervous system and the whole organism (Hall C., Gesell A. et al.). The other direction of research of child intellectual development process is related to social environment (Hedegaard, 2012; Sannino, 2015).

Leontiev (1978) defined speech activity as "the process of using a language for communication by a person". According to him, speech activity is represented by three parties: motivational, target and executive, highlighting several stages (phases):

- the preliminary orientation phase;
- the planning phase;
- the implementation phase;
- the phase of control.

The development of speech of children of different ages is part of the interests of methodological science, which relates to applied and solving practical tasks of teaching, developing and educating children. Traditionally, language teaching involved studying elements of different levels of the language system, the features of their expression plan and content plan, the patterns of functioning. The current state of the methodology of speech development is characterized not only by the use of data from linguistics and psychology but also by the connection with modern science such as psycholinguistics. Specialists involved in the development of children's speech should know well the general laws of speech ontogeny, the main stages, and features of speech formation. The ontogenetic principle describes the development of verbal expression in ontogeny (Levina, 1968 ). This principle is especially important in Special Education, which let us use prediagnostic of speech disorders. In this article, we will consider some aspects of the theory of speech development. One of the essential concepts considered in psycholinguistics is the concept of speech activity. By the definition of Zimnya (2001), "speech activity is a process of active, purposeful, mediated by the language and conditioned by the situation of communication between people." Speech as one of the types of human activity in general, however, is an extraordinary activity that is not comparable with any labor or with the game".

Leontiev identifies some distinctive features of speech activity:

- objectivity,
- purposefulness,
- motivation,
- hierarchical ("vertical") organization
- phase ("horizontal") organization.

It is quite obvious that the development of a child's speech is the training of his speech activity, which possesses all the characteristics mentioned.

The concept of "phase structure" is part of the activity (Rubinshteyn, 1940). According to him, human activity consists the following stages: motivation, orienting actions, activity planning, plan implementation and control phase.

Vygotsky paid attention to the phase structure of speech activity. The process of speech generation was considered by the scientist as the process of movement from thought to word, "from the motive that generates thought to the formulation of the thought itself, to its mediation in the inner word, then in the meanings of external words and finally in words". Leontiev applies Rubinstein scheme to speech activity, singling out such links as a link of motivation and formation of speech intentions, a link of orientation, a link of planning, an executive and a loop of control. Zimnya (2001) develops a three-phase model of the structure of speech activity, which, according to Glukhov (1988), is the most acceptable from the technique of speech work.

The motives for the verbal communication is in the natural condition of upbringing. Motivations for writing the speech at the stage of education are created by the teacher, explaining the need for such a form of speech communication and interest the student in it. Particularly relevant is the situation when teaching a student to write creative work (statements, essays). The teacher has to create an environment in which the student feels "vital necessity" in the creation of written text. One of the possible implications of this method is the task where students have to write a story. Vygotsky states cognitive development stems from social interactions from guided learning within the zone of proximal development as children and their partner's co-construct knowledge. In contrast, Piaget maintains that cognitive development stems mainly from independent explorations in which children construct the understanding of their own. For Vygotsky, the environment in which children grow up will influence how they think and what they think about.

According to the cultural-historical theory of Vygotsky (1987), the specificity of a child's development relates to a social and historical basis. The main mechanism of a child's intellectual development is associated with the formation in their mind of verbal meanings (generalizations), the restructuring of which characterizes the direction of the growth of their intellectual capacities.

The main way of a child's concepts development depends on changes in the generalization of the word. Vygotsky (1978) believed that intellectual development is characterized by the level individual mental processes development and also by cross-functional relationships and their changes. Each period of intellectual development is inherent in the structure of certain mental processes. According to Vygotsky (2000), higher mental functions such as perception and memory intensively develop during preschool age.

Language is the expression of human communication through which ideas, information, emotions, and beliefs can be shared. Typically developing children master the fundamentals of language and speech in the toddler-preschool era. Language and speech skills serve a pivotal role in learning and social relationships. Delays in the early development of language and speech skills, which are prevalent in the population, may affect several domains of function (Ushakova, 2015; Alexandrov, 2013; Butusova, 2012).

According to Vygotsky (1978), much important learning by the child occurs through social interaction with a skillful tutor. The tutor may model behaviors and provide verbal instructions for the child. Vygotsky refers to this as cooperative or collaborative dialogue. The child seeks to understand the actions or instructions provided by the tutor (often the parent or teacher) then internalizes the information, using it to guide or regulate their performance.

Social interactions define the mechanism of distribution of functions on the one hand and the means or method of mastering those functions on the other hand (Vygotskiy, 1987; Vygotskiy, 1988). Thus, for example, guided social interactions, which initially serve as instruments for social realization of the processes of cognition and communication later, begin to play the role of the cognitive function of self-regulation and mental representation of various kinds of information. These social interactions activate the not yet developed cognitive functions, which allow the child to act on a higher cognitive level. The gap between that which a learner is able to do on his/her own (the actual level of development) and that which he/she is capable of with proper guidance is called "zone of proximal development". Therewith, according to Vygotsky (Cole, 1996; Daniels, 2008; Daniels, 2010), learning is successful only when it goes ahead of development, when it awakens and brings to life those functions, which are yet in the process of maturing or are in the zone of proximal development. This, in his view, is the way how education plays a crucial role in development.



According to Ushakova (2015), "the formation of skills in monologic speech requires the compulsory qualities such as coherence and integrity, which are closely interrelated and characterized by a communicative orientation, the logic of presentation, structure, and also a certain organization of linguistic means."

The monologue is spoken speech addressed to other people. A monologue depends on what tasks the speaker sets himself and what type of specific activity.

Vygotsky says that a monologue is a higher, more complex form of speech than a dialogue. Monologic statement, in addition to linguistic means, also has a number of additional expressive factors that distinguish the new and essential. Various information and facial expressions can give different meanings to the same syntactic constructions.

Its specificity characterizes monologue speech. Relative completeness describes the monologue. At the initial stage, the trainees master the basics of monologic utterances of various kinds: narratives, reasonings, descriptions. Forming the skills and skills of monologue requires the obligatory development of such qualities as connectivity and integrity, which are strictly interrelated and characterized by a communicative focus, the logic of presentation, structure, and also a particular organization of linguistic means.

Let us consider the results of a study on the features of constructing connected speech in the control and experimental groups. We conducted the experimental research with children of 4-5 years of kindergarten No. 9 in Aktobe and kindergarten No. 12 in the Aktobe region, who are trained and brought up according to one standard program of education and upbringing. In total, 50 children participated in the experiment.

- Experimental group - 27 children, age 5-6 years, №9.
- Control group - 23 children, age 5-6 years, № 12.

The experiments were carried out in the first half of the day individually with each child for 30-35 minutes.

Table 1 – Results of the study of speech activity

Group	Indicators			
	Very high	High	Average	Low
Experimental	25	1	–	1
Control	14	–	6	3

As can be seen, from Table 1, the children of the control group have the following indicators:

- very high level - 14 children;
- average level - 6 children;
- low level - 3 children.

In the experimental group, children have the following indicators:

- High and very high level - 26 children;
- low level - 1 child.

Thus, we see the existence of differences in the control and experimental groups, in the parameter of psychological readiness.

In the control group, we found children with specific difficulties in monologic speech activity. It is necessary to form elementary knowledge about the structure of the text (beginning, middle, end) and ideas about the ways (means) of communication between sentences and the structural parts of the statement. It is the methods of connection between phrases that serve as one of the critical conditions for the formation of the coherence of a speech utterance. In any completed sentence, there are the most typical ways of combining phrases. The most common of these is the chain link. The primary means of this connection are pronouns, lexical repetition, synonymous substitution. Chain communication makes speech more flexible and diverse, as, mastering this way, children learn to avoid duplication of the same words and constructions. Sentences can also be connected using parallel communication when they do not adhere but are compared or even opposed.

At the initial stage of learning the construction of coherent monologic texts, it is necessary to develop the ability to disclose the topic and the main idea of the utterance, the ability to title the document.

Table 2 – Results of statistical testing of the hypothesis on differences in the control and experimental groups

Mann-Whitney U	95.000
Wilcoxon W	220.000
Z	-1.182
Asymp . Sig . (2-tailed)	.237
Exact Sig . [2 * (1-tailed Sig .)]	.257 (a)

As can be seen, from the above table 2,  $U_{emp} = 117.5 < U_{0,05} = 138$ , therefore, we can safely assert about the existence of statistically significant differences between children from the experimental and control groups.

The modern methods of the coherent speech development for the preschool child based on linguistic, communicative, personal approaches. Formation of conscious construction of a cohesive statement is the essential step of progress for preschool age children. It's necessary to use a wide range of methods of development of the coherent speech. In the process of communication and interaction of the child with reality, baby seizes the coherent speech, and the adult creates this condition, organize the material and language environment, involves in joint activity.

The results of our study let us make certain conclusions. The child communication during different type's activity helps to build a basis for further speech development. But daily communication for the formation of language competence is not enough. A lesson is a primary form of education of preschool children as an organized cognitive activity. On lessons, the tutor systematically and consistently forms children speech skills which could be fixed at further communication of children in everyday life.

#### REFERENCES

- [1] Anan'ev B.G. (2000). Human as knowledge subject. Spb., Piter.
- [2] Alexandrov O.V. (2013). The development mind and speech of 4-6 years kids. M.: Eksmo. 48.
- [3] Averin V.A. (2000). Psychology of early childhood development. St. Petersburg. Piter.
- [4] Behrend D.A., Rosengren K.S., Perlmutter M. (1992). The relation between private speech and parental interactive style // In Diaz R.M., Berk L.E. (Eds.), Private speech: From social interaction to self-regulation. Hillsdale, NJ: Erlbaum. P. 85-100.
- [5] Berk L.E. (1986). Relationship of elementary school children's private speech to behavioral accompaniment to task, attention, and task performance. *Developmental Psychology*. 22(5). 671.
- [6] Berk L., Garvin R. (1984). Development of private speech among low-income Appalachian children // *Developmental Psychology*. 20(2). P. 271-286.
- [7] Berk L.E., Landau S. (1993). Private speech of learning-disabled and normally achieving children in classroom academic and laboratory contexts // *Child Development*, 64. P. 556-571.
- [8] Butusova N.N. (2012). Development of the speech of children at correction of a sound pronunciation: Educational and methodical grant. SPb.: Childhood Press. 304.
- [9] Cole M. (1996). *Cultural Psychology: A once and future discipline*, Cambridge Mass: Harvard University Press.
- [10] Daniels H. (2008). *Vygotsky and Research*. London: Routledge
- [11] Daniels H. (2010). The mutual shaping of human action and institutional settings: a study of the transformation of children's services and professional work // *The British Journal of Sociology of Education*. 31 (4). P. 377-393.
- [12] Davydov V.V. (1992). The psychological theory of formal learning activity and methods of primary instruction based on substantive generalization. Tomsk,
- [13] Elkonin D.B. (1972). Toward the Problem of Stages in the Mental Development of the Child // *Soviet Psychology*. 4. P. 6-20.
- [14] Galperin P.J. (1978). *Relevant problems of developmental psychology*. M.
- [15] Garber E.A. (2013). The History of Psychology in Terms of Valentin Turchin's Meta-Transitional Methodology // *Historical and Cross-Cultural Aspects of Psychology*. E. Witruk & A. Wilcke (Eds.). Series: Beiträge zur Pädagogischen und Rehabilitationspsychologie. Vol. 4. Frankfurt am Main: Peter Lang. P. 159-170.
- [16] Glukhov V.P. (1988). A research of a condition of the coherent monological speech of children of the advanced preschool age with Speech Disorder // *Defectology*. N 6.
- [17] Hedegaard M. (2012). Analyzing children's learning and development in everyday settings from a cultural-historical wholeness approach // *Mind, Culture, and Activity*. 19(2). P. 127-138.
- [18] Khanin O.G. (2012). *Development of the speech. Reading: For preschool children*. Rn. D: Phoenix. 48.

- [19] Kolomna Y.L., Panko E.A. (1997). Diagnostics and correction of mental development of preschool children. Minsk.
- [20] Kozyreva O.A. (2016). Formation of lexical and grammatical means of language and development of the coherent speech: senior group of special (correctional) preschool educational institutions. M.: Vldos, 2016. 119 p.
- [21] Konovalenko S.V. (2012). Development of psycho physiological base of the speech in children of preschool age with developmental problems. SPb.: Childhood Press, 112.
- [22] Leontiev A.N. (1978). Activity, consciousness and personality (Englewood Cliffs, Prentice Hall).
- [23] Leontiev A.N. (1981). The Concept of Activity in Psychology' // In J.V.Wertsch (ed.). The concept of activity in Soviet psychology. Armonk, NY: M.E.Sharpe.
- [24] Leontiev A.A. (1969). Psycholinguistic units and the generation of speech utterances. M.: Nauka. 397 p.
- [25] Levina R.E. (1968). The characteristic of the general underdevelopment of the speech at children. Bases of the theory and practice of Logopedics. Moscow.
- [26] Popov M.V. (2002). Psychology of the growing person. Moscow.
- [27] Proskura E.V. (2002). Cognitive development of preschool children / Ed. Wenger LA, Moscow: Education.
- [28] Reutskaya O.A. (2013). Development of the speech in badly speaking children. Rn.D: Phoenix.155.
- [29] Sannino A. (2015). The principle of double stimulation: A path to volitional action. Learning, Culture and Social Interaction, 6, 1-15.
- [30] Rogoff B. (1990). Apprenticeships in thinking. New York: Oxford University Press.
- [31] Rubinstein S.L. (1940). The principles of general psychology.
- [32] Vygotsky L.S. (1997). The Collected Works of L.S. Vygotsky. Vol. 3: Problems of the Theory and History of Psychology. Translated and with an Introduction by R. van der Veer. Editors R.W. Rieber & J. Wollock. New York, Plenum Press.
- [33] Ushakova O. S. (2015). Development of the speech and creativity of preschool children. Games, exercises, abstracts of occupations. M.: TD Sfera. 176.
- [34] Volkov B.S., Volkova N.V. (1997). Psychology of childhood. Moscow: APO.
- [35] Vygotsky L.S. (1978). Mind in society: the development of higher psychological processes. M. Cole, V. John-Steiner, S. Scribner and E. Souberman, (eds. and trans.), Harvard University Press.
- [36] Vygotsky L.S. (1987). The collected works of L.S. Vygotsky: Problems of general psychology. Vol. 1. New York: Plenum Press. (Original work 1933–1934).
- [37] Vygotsky L.S. (1998). The collected works of L.S. Vygotsky: Child psychology. Vol. 5. New York: Plenum Press. (Original work 1928–1931).
- [38] Wadsworth B.J. (1996). Piaget's theory of cognitive and affective development: White Plains, NY: Longman.
- [39] Winsler A., Abar B., Feder M.A., Schunn C.D., Rubio D.A. (2007). Private speech and executive functioning among high-functioning children with autistic spectrum disorders // Journal of Autism and Developmental Disorders, 37, 1617-1635.
- [40] Yermolayeva M.V. (2003). Developmental Psychology. Moscow, Voronezh.
- [41] Zhukova N.S., Mastjukova E.M., Filicheva T.B. (1998). Speech therapy. Yekaterinburg, ARDLTD.
- [42] Zimnyaya I.A. (2001). Psycholinguistic of speech activity. Moscow.

**Н. Тойбазарова<sup>1</sup>, А. Гаврина<sup>2</sup>**

<sup>1</sup>Актюбинский университет им. С. Баишева, Актюбе, Казахстан

<sup>2</sup>Юрк Консалтинг, Москва, Россия

### **ПСИХОЛИНГВИСТИЧЕСКИЕ УСЛОВИЯ РАЗВИТИЯ РЕЧЕВОЙ ДЕЯТЕЛЬНОСТИ У ДОШКОЛЬНИКОВ**

**Аннотация.** Речь – исторически сложившаяся форма общения людей посредством языка. Речь и язык современного человека – результат длительного исторического развития. Речевое общение осуществляется по законам данного языка, который представляет собой систему фонетических, лексических, грамматических и стилистических средств и правил общения. Речь и язык составляют сложное диалектическое единство. Каждый возрастной этап вносит что-то новое в его речевое развитие. Наиболее важные ступени в овладении речью приходятся на детский возраст – дошкольный и школьный периоды. Овладение речью в возрасте от 3 до 7 лет имеет ключевое значение, ведь этот период наиболее сензитивен к ее усвоению. Ребенок усваивает язык в процессе общения с взрослыми и учится пользоваться им в речи. Благодаря речи (особенно в ее письменном виде), осуществляется историческая преемственность опыта людей.

**Ключевые слова:** речь, сензитивный возраст, дошкольный и школьный возраст, мышление.