ATTENTION FEATURES IN PRESCHOOL AND YOUNGER SCHOOL AGE†

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Abstract

In modern times, in the conditions of the rapid development of society, the multifaceted development of children, deep knowledge, development of cognitive processes, increase of receptivity, and the formation of a harmonious mental and emotional personality are even more critical. The article discusses the problem of cognitive processes, particularly attention, among preschool and primary school children. This attention feature plays an important role in the development of cognitive processes; for example, if a child has well-developed attention, he can remember the memorized material and analyze what he hears and thinks. Therefore, emphasizing the role of attention, in this article, we have discussed the approaches of several well-known psychologists regarding the development of the features of cognitive processes of children of preschool and primary school age, and then we have presented a study aimed at the stability and efficiency of attention of children of the specified age, which was carried out in the city of Glendale, United States of America in the educational center named "Russian School of Mathematics".120 children of preschool and primary school age participated in the research. We used the methods "Find and Delete", "Place Signs", and "Landolt's Circles", which are intended for children of preschool and primary school age. During the implementation of attention methods and in the process of calculating the results, we noticed that there are differences between the efficiency and stability of attention, although this data is lost in the formula for calculating the final results of the test. Since one of our tasks is also to study the dynamics of the development of cognitive processes, we found it appropriate to present the results separately. As we can see from the results, attention efficiency is more developed than stability at an early age. For example, if a child is instructed to draw balls, then the child almost does not make mistakes, does not paint the bucket in the place of the ball, but quickly gets tired and leaves the work half-finished. This refers to an early age. Later, we notice that the effectiveness gradually decreases, and the stability of the

results increases. We explain this phenomenon in the following way: after attending school, the child is forced to follow the instructions of the teacher for a long time, as a result of which, due to age characteristics, the arbitrariness of attention develops, which is the logical reason for the development of stability, but at the same time the child loses his ability to work, often makes mistakes, because arbitrary behaviorism forced, the child wants to get rid of it as quickly as possible. These forced situations include sitting in class, listening to the teacher for a long time, and doing homework, so he is distracted and cannot work effectively—another reason why new approaches are needed in organizing children's activities.

***Keywords**: cognitive processes, memory, development, age specificity, attention, game, relationship system.*

INTRODUCTION

Today, we live in a time when children have unprecedented access to vast amounts of information about the world. However, they also face significant pressure from adults, especially in the context of educational processes. This reality necessitates reforms in education to meet modern demands. Yet, current educational practices often fail to foster a healthy, well-rounded development for children. In fact, they may contribute to issues such as childhood neurosis and a lack of interest in learning. These challenges will be discussed in this paper, alongside our research, which highlights the negative effects children of young school age may experience. Before addressing these issues, we will explore theoretical approaches to understanding this developmental stage.

LITERATURE REVIEW

Let us present the psychological characteristics of preschool and primary school children, as presented by various authors, and relate this to the child's cognitive processes, particularly the development of attention. Preschool age includes the period from 3 to 6 years. In the preschool period, it is customary to distinguish between younger preschool age (3–4 years old), middle (4–5 years old) and senior (5–6 years old). At the same time, 3–4 years old is the age when the child masters fine motor skills and individual movements of the arms and legs, middle preschool age is the period of mastering joint activities, and 5–6 years old is the preschool period itself, the stage of preparation for school. In each of these substages, the development of attention has a corresponding direction (Shipaniva, 2017).

D. B. Elkonin explains the existence of the problem at this stage of development by the fact that the child is a member of society, he cannot live outside of society, and his main need is to lead a common life with adults. But in modern historical conditions it is impossible to achieve this, and the child's life passes in indirect, rather than direct, contact with the world. The child strives for independence. From this contradiction, role-playing is born as an independent activity of children, where they imitate the life of adults (Elkonin, 2007).

The essence of the game, according to L. S. Vygotsky, is the realization of the child's generalized desires, the main content of which is the system of relationships with adults. The characteristic feature of the game is that it allows the child to perform an action in the absence of conditions for actually achieving its results, since its motivation is not in obtaining a result, but in the very process of performing the action (Shipaniva, 2017).

Analyzing these approaches, it can be assumed that the child focuses his attention on social roles, the content arising from them. That is, in order for him to play "family", he follows the behavior of mom, dad, the characteristics of their interaction. That is, the game, which is the leading activity of this age, contributes to the development of attention. Gradually, the child's games become more complicated and more and more children are involved in them. Children discover roles and rules (Kruchinin V.A., Komarova N. F., 2016). Games with rules and organized games are more complex and require more attention. Children need to be more attentive in order to monitor compliance with the rules of the game and try to follow them themselves.

L. S. Vygotsky and D. B. Elkonin considered play to be the most important form of a child's socialization, allowing him to connect with the world, including interpersonal and social relationships (Vigotsky, 2004).

D. B. Elkonin, analyzing the origins of play, shows that it appears in the history of mankind at a time when the involvement of children in labor activities was pushed back over time (Elkonin, 1997).

Thus, the development of attention in preschool age is largely determined by its leading activity - the game, development and application in the life of the child.

The main problem here is that in the current period, various role-playing and games with rules have been replaced by computer games or video clips, the content of which is often incomprehensible and contains aggressive elements. I think this is also the reason why, according to statistical data, the number of children with hyperactivity or attention deficit has increased in the world. Dependence on various gadgets, looking at them for a long time leads to the fact that the child quickly gets tired of the toy, the child does not study real life and other accessories, his attention is focused only on the gadget, as a result of which he misses real life.

With all this, the child moves to the next stage of life - junior school age. Let's also consider the features of this stage and their connection with the development of attention.

The younger school age covers the period from 6 to 10 years. At this age, a number of significant changes occur, both physiologically and socio-psychologically. It is at this stage that such personal qualities as independence and diligence (E. Erikson) are formed in the child, which is largely due to the change in leading activity, the transition from play to learning. And it is here that

a number of authors emphasize the complexity and simultaneous crisis of the 7-year-old age. Some authors also determine the course of the crisis of the 7-year-old age by the factors of the child's readiness or not for school (S. Khudoyan, 2004).

One of the features of the younger school age is the restructuring of the child's system of relationships with the surrounding reality, associated with entering school. The younger school age is characterized by the fact that the child acquires a new status - he becomes a student, and the leading activity changes from play to learning. Educational activity has a social significance and puts the child in a new position in relation to adults and peers, changes his self-esteem and rebuilds relationships in the family (Gonina, 2020).

Junior school age is one of the most important stages of personality development, during which there is a transition from carefree childhood to a period when there is a need to take on new roles, to be responsible in fulfilling various requirements. In this period, two main motives come into conflict: necessity and desire. On the one hand, guided by the need for necessity, the child discovers adult life, and on the other hand, motivated by the need for desire, the child demonstrates behavior that returns him to the world of childhood, where everything is safe, familiar, feasible, there are no certain obligations and requirements. On the one hand, the child is impulsive, restless, has unstable attention, and on the other hand, since a new level of needs is already forming in him, he begins to act, guided by certain goals, values, and feelings. Qualitative changes in development are clearly visible during the development of a junior schoolchild. The formation of volition / planning, a program for the development of actions, and the implementation of control appear at the center of the child's mental development (G. J. Craig, 2002).

Let us also present the characteristics of attention as a separate phenomenon. Attention also has various properties, including concentration, stability, distribution, transferability, and volume. For example, concentration refers to focusing mental activity on a particular object or task. This is essential for achieving success in intellectual or creative work. Distribution is the performance of two or more types of activity at the same time; it is the perception of their objects and the control of their own actions. There are complex types of activities that require a person to perform various actions and distribute attention appropriately. Distribution involves performing multiple tasks simultaneously, while transferability refers to the ability to shift focus from one activity to another. Such a need for rapid shifts of attention often arises during the realization of intentions that have been consciously put forward in different circumstances of life. Stability of attention is, first of all, the preservation of the given activity for a long period of time and then only the preservation of reflected objects, their images in consciousness. The stability of attention is ensured by the interest of the activity and its objects, by the voluntary efforts with the help of which a person strives not to

deviate from other issues and phenomena, to remain within the limits of the given activity. The volume of attention is the number of objects, activities, inner mental contents which a person can consciously perceive and keep in his circle of attention (A. Nalchadyan, 1997, pp. 113-116).

Memory and attention also acquire a voluntary quality, and their volume increases. The emotional development of a primary school-aged child depends more than before on experiences outside the home. Children are able to establish relatively stable interpersonal relationships, such as making friends (usually with peers of the same sex) (G. J. Craig, 2002). The main feature of primary school age children's attention is involuntary. The child cannot focus his attention on the necessary educational material for a certain period of time (attention deviates), any new, bright, interesting thing draws the students' attention, if it is interesting, attractive and unusual. The scope of focus for preschool age children is short. Preschoolers focus on attractive pictures, usually for 12-20 seconds. Stability of attention depends on the individual characteristics of preschoolers. The attention of children with certain neurological conditions is diverted faster than healthy children. Moreover, as noted by R. S. S.: Nemov, the difference in stability of attention can reach 1.5-2 times (Nemov, 2005).

The attention of a 6-7-year-old child can be stable for 25-30 minutes or even longer if he is busy with something that requires his active action: drawing, decorating, choosing collections, counting, etc. Without practical work, it is more difficult to maintain the stability of attention during mental action. However, when listening to the story or watching a movie, children can also focus on perceived content for a long time. It is especially important if the activity includes some solving problems. Looking at a picture can cause a deviation after 5-7 minutes of the start of the lesson, if the teacher is satisfied, 386 that the children simply named the depicted subjects.

But if the teacher sets more complex problems that require children to search, study, compare different parts of the picture, establish contact between elements, generalize, draw conclusions, then such work contributes to children's attention. it acquires stability and strength of concentration (G. J. Craig, 2002).

The excessive number of materials given has a negative impact on children's attention. If the teacher used 3-4 pictures in one lesson, or learned 2 new poems or demanded to remember and draw 2-3 scenes from the film they watched, the children's attention is dispersed. The resulting impressions merge into some general vague image. One of the most common reasons for distracting and ignoring children's attention is their fatigue. Keeping one position for a long time, the monotony of the actions taking place, the boring and unnecessary repetitions of what is already known, the forced inactivity, makes the child tired, and the weaker he is, the less he gets used to such work (G. J. Craig, 2002).

The attention and memory of a primary or a younger elementary age child is mechanical and developed at a certain level. The primary school age child is characterized by subject-pictorial memory, but there are also all prerequisites for the development of lexical memory. Children of this age usually have the ability to memorize the material mechanically. They often literally learn and reproduce educational material without delving into the content and try to reproduce it in their own words. With proper pedagogical work, they gradually acquire memorization skills. According to L. S. Vygotsky, if memory is dominant in the mental processes of preschool children, then thinking is dominant in primary school age. Due to this circumstance, the types of thinking of the student develop rapidly. And since the development of other mental processes is determined by the degree of mental development, imagination, will, feelings, etc. also develop as a result. There is a transition from outstanding-pictorial thinking characteristic of preschool age to lexical thinking. The child can analyze, judge logically, formulate thoughts (L. S. Vygotsky, 2004).

Junior school age is characterized by the fact that the child acquires a new status. he becomes a student, and the leading activity changes from game to study. Educational activity has a social significance and puts the child in a new position relative to adults and peers, changes his self-esteem and reconstructs relationships in the family (Gonina, 2020). Junior school age is one of the most important stages of personality formation, during which there is a transition from a carefree childhood to such a period when it is necessary to play new roles, to fulfill various requirements of being responsible. In this period, two main motivations are in conflict: necessity and desire. On the one hand, guided by the need for necessity, the child reveals adult life, and on the other hand, motivated by the need for desire, the child shows such behavior that returns him to the world of childhood, where everything is safe, familiar, feasible, there are no certain responsibilities and demands. On the one hand, the child is impulsive, restless, has unstable attention, and on the other hand, there is unstable attention. Since a new level of demands is already being formed for him, he begins to act, guided by certain goals, values, feelings. Qualitative changes in development are clearly visible during the development of the younger schoolchild. The development of volition, planning, action development program, implementation of control appears in the center of the child's mental development (L. S. Vygotsky, 2004).

MATERIALS AND RESEARCH METHODS

In our study, we included 690 children of preschool and primary school age: 330 boys and 360 girls. The children were students of the Russian School of Mathematics, the River East School, and the Zangak Summer School (USA).We conducted research on the stability and effectiveness of attention in preschool and junior school children, using methods such as "Find and Delete," "Put

Signs," and "Landolt Rings." The purpose of these methods is to assess different aspects of attention: efficiency, stability, volume and transferability. Each of these properties of attention can be assessed both separately and as a whole. The child is given a sheet of paper on which there are randomly selected pictures: a mushroom, a house, a bucket, a ball, a flower, and a flag. The child must, after the instruction, color the picture that the researcher will say until the word "pause" is said. The work lasts 2.5 minutes. Each instruction is repeated 5 times for 30 seconds.

The results are calculated according to the number of highlighted pictures both in each 30 seconds and in the entire 2.5 minutes.

RESEARCH RESULTS AND DISCUSSION

While implementing the attention techniques and calculating the results, we noticed that there are differences between the efficiency and stability of attention, although this data is lost in the formula for calculating the final test results. Since one of our tasks is also to study the dynamics of the development of cognitive processes, we found it appropriate to present the results separately.

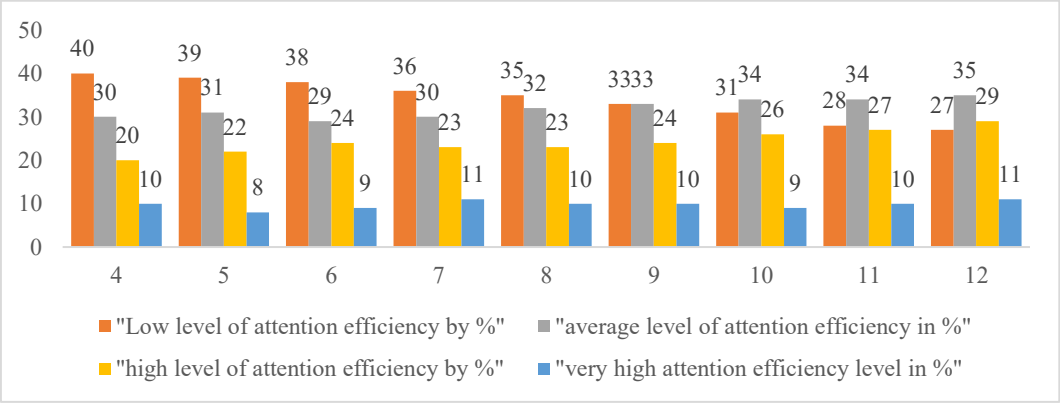

FIGURE 1. Changes in Attention Efficiency at Different Ages

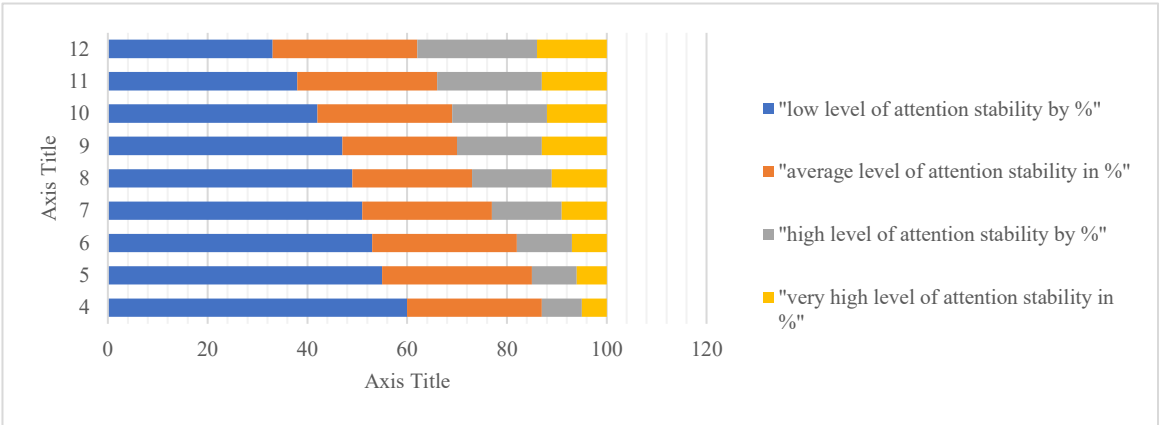

FIGURE 2. Gradual Increase in Attention Stability During School Age

As we can see from the results obtained, the efficiency of attention is more developed at an

early age than stability. For example, if a child is given an instruction to draw balls, the child almost does not make mistakes, does not paint the bucket in the place of the ball, but quickly gets tired and leaves the work, mostly performs the task incompletely. This applies to early age. Later, we notice that the efficiency gradually decreases - from 40% to 27%, instead of it, the results of stability increase. It should also be noted that there is also positive dynamics, but it is very small - from 20% to 29%.

However, it is very, very small compared to the decrease. We explain this phenomenon as follows: the child, in particular, after going to school, is forced to follow the instructions of the teacher, the educator for a long time, due to which, also based on age characteristics, the voluntariness of attention develops, which is the logical reason for the development of stability, but at the same time the child seems to lose efficiency, often makes mistakes, since voluntary behavior is imposed The child wants to quickly get rid of those stressful situations, such as sitting in class, listening to the teacher for a long time, doing homework, etc., which makes him/her distracted and unable to work effectively. Another reason why new approaches are needed in organizing children's classes.

CONCLUSIONS

At an early age, children tend to show high attention efficiency but struggle with sustained focus, often abandoning tasks quickly due to fatigue. As children grow older, attention stability increases, especially after starting the elementary school, where they are required to follow instructions for extended periods. However, this increased stability can come at the cost of efficiency, as children sometimes make more mistakes when forced to focus for longer periods.

This phenomenon underscores the need for new approaches in classroom organization to better support children’s attention development and overall cognitive growth.

These results of attention allow us to come to the following conclusion: it is possible to contribute to the maintenance of attention efficiency through various psychologically developmental games and exercises, for example, in primary school age, and to develop attention stability in preschool age, which today, in a rapidly developing society, can be a very important prerequisite for the child's further development.

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