

12. Rubinshteyn S.L. *Psikhologo-pedagogicheskiye problemy npravstvennogo vospitaniya shkol'nikov*. - M.: Progress, 2007. – P. 183.
13. Hash P. *Music education at the New York institution for the blind, 1832-1863* // *Journal of Research in Music Education*. – 2015. 62(4), 362-388. Retrieved April 23, 2020, from www.jstor.org/stable/43900265
14. Yanovskaya M.G. *Emotsional'nyye aspekty npravstvennogo vospitaniya: Kniga dlya uchitelya*. - M.: Prosveshcheniye, 2008 – P. 230.
15. Vygotskiy A.S. *Psikhologiya iskusstva*. - M.: Pechatnyy dvor, 2005. – P. 230.
16. Hye Young Park, Hyun Ju Chong, Soo Ji Kim. *A Comparative Study on the Attitudes and Uses of Music by Adults with Visual Impairments and Those Who Are Sighted* // *Journal of Visual Impairment & Blindness*, July-August. – 2015. 303-316.
17. Mohanty S. *Social justice and culture: on identity, intersectionality, and epistemic privilege*. In G. Craig (Ed.), *Handbook on global social justice*. Cheltenham, UK: Edward Elgar Publishing.
18. Paudel P. *Online education: benefits, challenges and strategies during and after COVID-19 in higher education* // *International Journal on Studies in Education*, - 2021. 3(2), 70-85.
19. Pablo Rodríguez Aedo. *Music teaching strategies for schoolchildren with low vision, including blindness - Submitted in partial fulfillment of the requirements for the Degree of Doctor of Education in Teachers College, Columbia University, 2021*. – 220 p.
20. Yi, T.S. *Back of the orchestra: High school schoolchildren' experiences with alternative seating practices [Doctoral dissertation]*. Columbia University. USA. – 2018.
21. Yan B., Zhou Q. *Music learning based on computer software* // *International Journal of Emerging Technologies in Learning*. – 2017. №12(12), 142-150.

IRSTI: 14.23.05
UDK: 373.2

<https://doi.org/10.51889/2959-5762.2023.79.3.029>

M.Izat^{1*}, U.Kiyakbayeva¹, V.Bayraktar²

¹ Abai Kazakh National Pedagogical university,
Almaty, Kazakhstan,

² Gazi University, Ankara, Turkey

FORMATION OF INTELLECTUAL SKILLS OF CHILDREN OF THE SENIOR PRESCHOOL GROUP THROUGH EDUCATIONAL GAMES

Abstract

This article talks about the importance of the formation of intellectual skills of children. The game is the leading activity of children in the preschool period of their lives. During the game, the child's intelligence, psyche, and communication skills are formed. Playing, children learn about the world around them, learn to communicate with each other and interact with adults. In the process of gaming activity, its participants have a unique opportunity to "invent" a plot, distribute roles, and agree on the rules of interaction. To date, the problem of studying the intellectual development of a child has been widely presented in the research literature. Preschool age is a long period in the life of a child in the age range from 3 to 7 years. Research by scientists has shown that this period is particularly significant in a person's life and it is at this age that a person accepts as much information as he will not be able to perceive later in his life. It is at this age that psychological mechanisms are formed in the child, which will only be improved later.

Keywords: intellectual development; intellectual skills; older preschool children; educational games; preschool age.

М.М. Изат^{1*}, Ұ.Қ. Қыяқбаева¹, В.Байрактар²

¹Абай атындағы Қазақ ұлттық педагогикалық университеті, Алматы, Қазақстан

²Гази университеті, Анкара қаласы, Түркия

МЕКТЕП ЖАСЫНА ДЕЙІНГІ ЕРЕСЕК ТОП БАЛАЛАРЫНЫҢ ЗИЯТКЕРЛІК ДАҒДЫСЫН ДАМЫТУШЫ ОЙЫНДАР АРҚЫЛЫ ҚАЛЫПТАСТЫРУ

Аңдатпа

Бұл мақалада балалардың зияткерлік дағдыларын қалыптастырудың маңыздылығы туралы айтылады. Ойын – бұл балалардың өмірінің мектепке дейінгі кезеңіндегі жетекші қызметі. Ойын барысында баланың ақыл-ойы, психикасы, қарым-қатынас дағдылары қалыптасады. Ойнау арқылы балалар қоршаған әлемді біледі, қатарластарымен және ересектермен қарым-қатынас жасауды үйренеді. Ойын барысында қатысушылар сюжетті "ойлап табуға", рөлдерді бөлуге, өзара әрекеттесу ережелері туралы келісуге ерекше мүмкіндік алады. Қазіргі уақытта зерттеу әдебиеттерінде баланың интеллектуалды дамуын зерттеу мәселесі кеңінен ұсынылған. Мектепке дейінгі жас-3 жастан 7 жасқа дейінгі баланың өміріндегі үлкен кезең. Ғалымдардың зерттеулері көрсеткендей, бұл кезең адам өмірінде ерекше маңызды және дәл осы жаста адам өмір бойы қабылдай алмайтындай көп ақпарат алады. Дәл осы жаста баланың психологиялық механизмдері қалыптасады, олар кейіннен жақсарады.

Түйін сөздер: зияткерлік даму; зияткерлік дағдылар; ересек жас балалар; дамытушы ойындар; мектепке дейінгі кезең.

Изат М.М.^{1*}, Киякбаева У.Қ.,¹ Байрактар В.²

¹Казахский национальный педагогический университет имени Абая,

Алматы, Казахстан

² Университет Гази, Анкара, Турция

ФОРМИРОВАНИЕ ИНТЕЛЛЕКТУАЛЬНЫХ НАВЫКОВ ДЕТЕЙ СТАРШЕЙ ДОШКОЛЬНОЙ ГРУППЫ ЧЕРЕЗ РАЗВИВАЮЩИЕ ИГРЫ

Аннотация

В данной статье говорится о важности формирования интеллектуальных навыков детей. Игра это основная деятельность ребенка в дошкольном периоде жизни. Во время игры у детей развивается навыки как коммуникабельность, интеллект, психика. В процессе игры ребенок познает окружающий мир, общаются со сверстниками и взаимодействуют со взрослыми. Играя, у дошкольников есть возможность «придумать» сюжет, поделить роли, договориться об общих правилах. В настоящее время исследовательские материалы много представлены проблемы изучения интеллектуального развития детей. Дошкольный возраст – это большой отрезок в жизни ребенка в возрастном диапазоне от 3 до 7 лет. Ученые в своих исследованиях доказали, что именно этот период имеет особое значение в жизни людей и именно в этом возрасте дети принимают столько информации, сколько позже не смогут воспринимать за всю жизнь. Так же в этом возрасте у дошкольников развивается психологические механизмы, которые в дальнейшем еще больше будут улучшаться.

Ключевые слова: интеллектуальное развитие; интеллектуальные навыки; дети старшего возраста; развивающие игры; дошкольный период.

Main provisions. Despite the deep study of both general and particular aspects of intellectual development and upbringing of preschoolers, the problem of educational games as a means of intellectual education of older preschoolers in general has not been sufficiently investigated in preschool pedagogy. Currently, the development of intellectual skills in children 4-5 years old

remains little studied. Visual-imaginative thinking is considered by A.V. Zaporozhets and D.B. Elkonin as a special form of thinking that persists throughout a person's life and is being rebuilt into higher types of thinking [1]. The tasks of mental education are sometimes understood simplistically, trying to "invest" as much knowledge about the environment as possible in a preschooler. But it's not about "multi-knowledge". It is much more important to develop common ways of cognitive activity in a child - the ability to analyze, compare, generalize, and also take care that he has a need to acquire new knowledge, master the ability to think. There is no special column "mental education" in the child's day mode. It is carried out both when the child is playing, and when he is engaged in feasible work, and when he gets acquainted with new objects and phenomena of reality with your help.

"A poet," wrote Ya. Korchak, "is a person who greatly rejoices and grieves greatly, easily feels, worries and sympathizes. And the children are like that. And a philosopher is a person who thinks deeply and necessarily wants to know how everything really is. And again the children are like that..." [2]. The concept of "intellectual abilities" is understood by the authors of scientific works in different ways. Intellectual abilities are considered: as the ability to think logically (R.S. Nемов) [3], as qualitative and quantitative changes in intelligence, systems of its characteristics (A.K. Markova); as the development of basic forms of thinking (A.V. Basov, L.F. Tikhomirova) [4]. Studies led by L.A. Wenger, allowed us to establish that, by their structure, intellectual abilities are indicative actions performed using the means of mental activity, and the mechanism of their formation is due to the mastery of certain forms of mediation. During a person's life, different forms of thinking occur, and, consequently, various types of intellectual abilities, the manifestation of which in solving a certain mental task is due to the kind of thinking that the individual uses in this case. Mastering more complex and later emerging types of intellectual abilities are related and based on the preceding ones. Moreover, each of them has its own sensitive period of formation. B.M. Teplov points out that general abilities include those that determine a person's success in a variety of activities. These, for example, include mental abilities, subtlety and accuracy of manual movements, developed memory, perfect speech and a number of others. In connection with the problem of formation and development of abilities, it should be pointed out that a number of studies by psychologists are aimed at identifying structures of preschool children's abilities for various types of activity [5].

Introduction. The standard curriculum of preschool education and training States: "the development of cognitive and intellectual skills is carried out daily in a playful way and through organized activities of children, taking into account their individual characteristics, the basics of mathematics." Educational games occupy a large place in the work of preschool institutions. They are used in organized educational activities and in independent activities of children. Performing the function of a learning tool, such a game can serve as an integral part of educational activities. It helps to assimilate, consolidate knowledge, and master the ways of cognitive activity. Educational games are games that simulate the creative process itself and create their own microclimate, where there are opportunities for the development of the creative side of intelligence. Children master the signs of objects, learn to classify, generalize, compare. The attention of older preschoolers is not arbitrary, not stable enough, limited in scope. Voluntary attention develops together with other functions and, above all, the motivation of learning, a sense of responsibility for the success of educational activities. The use of the game as a teaching method increases the interest of children in educational activities, develops concentration, provides better assimilation of program material. Therefore, the topic of my research was "The development of intellectual abilities of older preschoolers through educational games and puzzles." Throughout preschool childhood, the child is laying a common foundation of abilities. As you know, successful problem solving is associated with the ability to analyze and synthesize, switch from one mode of action to another, abstract, concretize, classify, compare, systematize, generalize, etc. Therefore, the main tasks of raising a child is the development of such thinking skills and abilities that would allow not only to assimilate

new knowledge, but also when the need to use them in a different situation and even in a different field of activity, that is, creatively. One of the effective means of developing intellectual abilities is a didactic game – it is an indispensable means of teaching children to overcome various difficulties in mental activity. In the didactic game, perception, thinking, memory, speech are formed - those fundamental mental processes, without sufficient development of which it is impossible to talk about the development of a child's intelligence. There is no direct dependence .

Methods and materials. Based on the research of scientists, the period in which the intellectual development of children is most intense is 4-5 years. To solve the tasks and test the hypothesis, a set of methods was used: analysis of psychological and pedagogical literature, observation, conversation, questioning, testing, study of children's activity products, formative experiment, processing (quantitative and qualitative) of the results obtained. The effectiveness of the use of educational games for the development of intellectual abilities of preschoolers can be tested during a pedagogical experiment. In the game of communicative communication of children formation of T.Imanbekov, M.Turyskeldina, G.M. Kasymova ,U.Autalipova, M.N. Makhmanova, L.Ya Lozovan, A.T. Ruzskaya studied in depth in his scientific works. There is a specificity of research methods and stages for children of the adult group. The structure of the pedagogical experiment includes – the ascertaining stage of the experiment (September), the forming stage (October-February), the control experiment (December) [6].

The ascertaining experiment, sometimes also called the slice method, is focused on establishing the actual state of the object under study, stating the initial parameters. The main goal is to determine the state of intellectual abilities of preschoolers at the beginning of the experiment. To do this, it was necessary to conduct testing [7].

The ascertaining experiment was conducted in September 2011 with children of five to six years of age in the senior group of the kindergarten "Cheryomushka". To conduct the ascertaining experiment, we used psychodiagnostic techniques to determine the level of intellectual abilities of preschoolers. Thus, in the study we turned to the field of psychodiagnostics.

Before and after the experiment, an individual psychological examination of children was conducted, which was built with the obligatory observance of the constancy of the external conditions of the experiment. It was held in the form of a game, in the same room, in the morning, without the presence of outsiders, while maintaining the sequence of presentation of test tasks [8].

The individual psychological examination was preceded by a conversation, the purpose of which was to establish positive emotional contact with the child and form a positive attitude towards the examination. The conversation included both mandatory and spontaneous questions, which depended primarily on the psycho-emotional state of the child. During the psychological experiment, the observation necessary to identify the behavioral characteristics of the child (variability – constancy of mood), the logic of actions and actions, the specificity of speech was carried out.

The following methods were used in the study:

1. The Goodenough-Harris "Draw a Man" test;
2. "Logical classification" – modified methodology (Luria A.R. – Karpova S.N. to identify the ability to determine the relationship of objects and objects, to see their measurement in time).
3. Methodology for assessing the level of development of general and nonverbal intelligence – standardized methodology "Progressive color matrices" J. Ravenna.

All methods were carried out in 3 stages, each of which consisted on average of 20-40 minutes in duration.

The content of the methods used was as follows: The initial standardization of the Gudinaf methodology was carried out in 1926. Since then, until 1963, the test was used without significant changes and gained wide popularity during this time. In order to update the test norms, F. Goodinaf's student D.Harris conducted a new standardization of the method. Since that time, the "Draw a Man" test has been known as the Goodenough-Harris test. The main attention in the test is

paid to the accuracy and detail of the drawing, and not to artistic visual means. It is the detail of the image that acts as the main indicator of the level of mental development of the child. This approach is based on the hypothesis that the drawing of a familiar object reveals those distinctive, essential features that the child has identified in it as a representative of the corresponding class of objects. The drawing is considered as the concept (representation) of the child about the subject expressed in graphic form. The complication of the images made by the child, observed as the child grows older, is regarded as an indicator of the development of conceptual thinking [9]. It should be noted that this hypothesis, which is the basis of the test, does not rely on any strict theoretical constructions. It expresses an empirically observed relationship between the features of a child's drawing and the general mental development of the child. As a result of numerous studies, it has been found that for preschool children, the data of the Goodinaf-Harris test are highly correlated with the data of arithmetic tests, as well as with some tasks that reveal the level of development of operational intelligence [10]. This technique is widely used as a component of a comprehensive examination of a child. It is important to emphasize that despite the repeatedly confirmed high reliability of the test, most experts believe that the test has almost no independent diagnostic value. The drawing test is used in order to get the first idea of the child's level of development. Due to the fact that most preschoolers like to draw, this test can help establish contact with the child and establish the cooperation necessary for conducting an examination using more complex diagnostic techniques [11].

Results. The research shows the theory of the game as a pedagogical means of educating preschoolers: knowledge about the intellectual education of an older preschooler is enriched, ideas about the developing game in general are expanded, and as a means of pedagogical influence, in particular, technology has been developed and pedagogical conditions for the implementation of this game for children are defined. So, having analyzed the literature on the research problem, we have revealed that the concept of "intellectual abilities" is considered as a comprehensive education, the main component of which are generality of mental activity - its focus on abstracting and generalizing the essential in the material; awareness of thinking, determined by the ratio of its practical and verbal aspects; flexibility and stability of mental activity[12]. Classification of stages of intelligence development:

I. Sensorimotor intelligence

A. Focusing on one's own body

1. Reflex exercise: 0-1 months.

2. First skills and first circular reactions: 1-4,5 months.

3. Coordination of vision and grasping. Secondary circular reactions: 4,5 8 9 months

4. Differentiation of means and goals. The beginning of practical intelligence:

9-11,12 months.

5. Differentiation of action schemes due to tertiary circular reactions.

B. The emergence of new means to achieve the goal: 11 12 18 months.

6. The beginning of the internalization of schemes and the solution of some problems by deduction: 18-24 months [13].

II. Representative intelligence and formal operations A. The formation of formal operations 1.

Hypothetical-deductive logic and combinatorics: 12-14 years. B. Achievement of formal operations

2. The structure of the "grid" and the group of four transformations: 13-14 years. 18 15 23

Intelligence in children is a system for the development of cognitive processes relative to the age norm, which ensures the adaptation of the child in society. Adaptation in society presupposes, first of all, the child's ability to develop and learn among peers, interact with others, responding to social norms of behavior.

Discussion. It is proved that intensive development of intelligence in preschool age increases the percentage of children's academic performance at school. Thinking in the older preschool age is put forward in the center of the child's mental development and becomes decisive in the system of

other mental functions, which under its influence are intellectualized, acquire a conscious and arbitrary character. Intellectual development games contribute to the development of children's understanding and perception, intelligence, the formation of concepts, and deep assimilation of knowledge.

The main structural feature of the game of intellectual development is strict compliance with the rules of the game, which are born from the game itself and are created by children or offered by adults, the readiness of the teacher to organize the game, taking into account the age and personal development abilities of the child.

Intellectual play, focused on deepening the mind, is the first step in human life. Therefore, through the game, children learn a lot of information from life, improve their knowledge, remember what they have tried and learned. As a result, he independently studies the environment, begins to distinguish between life and activities. Forms relationships and abilities to work.

The rules of the game the development of logical thinking abilities of the player, respect for each other, reckoning with their needs are caused by the individual actions of each student. If the main condition of the game is to win, each player counts on the chances of his opponent and increases his trust in each other.

To date, the problem of studying the intellectual development of a child has been widely presented in the research literature. The development of the problem of mechanisms of intellectual development - higher mental functions - was started by V.M. Wundt, the most thorough research on the topic was conducted by L.S. Vygotsky and his followers.

Conclusion. The game of intellectual development is a kind of educational method that enhances the child's enthusiasm, facilitates the difficult process of learning, helps to speed up development, becomes a source of energy for strengthening and encouraging cognitive activity during learning. The development of intellectual abilities of preschool children is one of the most pressing problems of our time. Preschoolers with a well-developed intellect prepare well for school, quickly memorize new material, are confident in their abilities, easily adapt to the new environment. The ability of the game to contribute to the intellectual development of the child is considered in detail in the field of pedagogical science, and game activity has become the leading form of educational activity. Folk wisdom says: "a thoughtful child, grows out of the game." That is why great thinkers came to the idea that children should be taught through play. This is the pedagogical meaning of the games. In particular, these intellectual development games are the main exercise that trains and relaxes the child's brain. The main structural feature of the game of the intellectual developer is the strict observance of the rules of the game, which are born from the game itself and are created by children or offered by adults, the readiness of the teacher to organize the game, taking into account the age and personal development abilities of the child.

References:

1. *«Мектепке дейінгі тәрбиелеу мен оқытуды дамыту моделі» Қазақстан Республикасы Үкіметінің 15.03.2021 №137 қаулысы.*
2. *Тоқаев Қ.К «Халық бірлігі және жүйелі реформалар-ел өркендеуінің берік негізі» Қазақстан халқына арнаған Жолдауы / Қ.К. Тоқаев. – Астана. – 2021. - қыркүйек.*
3. *Мектепке дейінгі ересек жаста құрастыру дағдыларын қалыптастыру бойынша әдістемелік ұсынымдар - Астана, 2019ж. - 30 бет.*
4. *Иманбеков Т. Қазақ балабақшаларындағы оқу-тәрбие жұмыстарында ұлттық ойындарды пайдалану (5-7жас): Дис. п.ғ.к. / Т.Иманбеков. – Алматы, 1995. – 143 б.*
5. *Төлєнова Ұ.Т. Балабақшадағы аралас топ балаларын ұлттық ойындар арқылы адамгершілікке тәрбиелеу: Дис. п.ғ.к. / Ұ.Т. Төлєнова. – Атырау, 2002. – 132 б.*
6. *М.Б. Меңдалиев. Ұлттық халық ойындарын мектеп жасына дейінгі балалардың дене шынықтыру сабағында қолдану: Дис. п.ғ.к. / М.Б. Меңдалиев. – Астана, 2009. –119б.*
7. *Аралбаева Р.Қ. Мектепке дейінгі педагогика «Мектепке дейінгі оқыту және тәрбиелеу» мамандығы бойынша дайындалатын студенттерге арналған оқулық / Р.Қ. Аралбаева // Жоғары оқу орындарының қауылдастығы. – 2012. –114–125б.*

8. Лиштван З. В. Игры и занятия со строительным материалом в детском саду: учеб. пос. / З.В. Лиштван. – Изд. 30е, доп. М.: «Просвещение», 1979. –176с.
9. Куцакова Л. В. Конструирование из строительного материала (4–7 лет): учеб. пос. / Л.В. Куцакова. – М, – 2016. –27 б
10. Lianne Schröer, Richard P.Cooper, Denis Mareschal. (2021). Science with Duplo: Multilevel goal management in preschoolers' toy house constructions. *Journal of Experimental Child Psychology*,
11. Vol. 206, Retrieved from <https://www.sciencedirect.com/science/article/pii/S002209652030521X#> 1 05 06 7.pdf [in English]
12. Arnold, A., Wing, A. M., & Rotshtein, P. (2017). Building a Lego wall: Sequential action selection. *Journal of Experimental Psychology: Human Perception and Performance*, Vol. 43(5), 847–852. Retrieved from <https://doi.org/10.1037/xhp0000382> [in English]
13. Қазақстан Республикасы Білім және ғылым министрінің «Қазақстан Республикасы мемлекеттік жалпыға міндетті білім беру стандарты» № 182 бұйрық, – 2020. – мамыр

References:

1. Mektepke deiingi tarbielenu men okytudy damyту modeli. 2021: Astana in Kazakh.
2. Poslanie Prezidenta RK Tokaev K.K. sobraniu ot 29.06.2021 (2021). «Khalyk birligi zhane zhuieli reformalar-el orkendeuinin berik negizi». *Kazakhstan khalkyna arnagan Zholdauy* [The unity of the people and systemic reforms are a solid foundation for the prosperity of the country 29.06.2021]. Address to the people of Kazakhstan/ Astana in Kazakh.
3. Mektepke deiingi erese k zhasta kurastyru dagdylaryn kalypastyru boiynsha adistemelik usynymdar. (2019). [Methodological recommendations on the formation of constructive skills] Astana in Kazakh.
4. Iliashenko S.N. (2006). *Marketinh v primerakh i zadachakh* [Marketing in examples and tasks]. Sumy: SumSU. lib.sumdu.edu.ua. Retrieved from <ftp://lib.sumdu.edu.ua/rio/2006/k425253.doc>
5. Imanbekov T. (1995). *Kazak balabakshalaryndagy oku-tarbie zhymystarynda ulityk ойындарды paidalanu (5-7zhas)* [The use of national games in educational work in Kazakh kindergartens (5-7year old)]. Extended abstract of candidate's thesis. Almaty in Kazakh.
6. Tolenova U.T. (2002). *Balabakshadagy aralas top balalaryn ulityk ойындар аркылы adamgershilikke tarbielenu* [Moral education of children of a mixed group in kindergarten through national games]. Extended abstract of candidate's thesis. Atyrau in Kazakh.
7. Mendaliev M.B. (2009). *Ulityk khalyk ойындарын mektep zhasyna deiingi balalardyn dene shynykytyru sabagynda koldanu* [The use of national folk games in physical education lessons for preschoolers]. Extended abstract of candidate's thesis. Astana in Kazakh.
8. Aralbaeva R.K. (2012). *Mektepke deiingi pedagogika* [Preschool pedagogy]. Almaty 33-48 in Kazakh.
9. Lishtvan Z.V. (1979) *Igry i zaniatiia so stroitelnyim materialom v detskom sadu*. [Games and classes with building materials in kindergarten]. M.: «Prosveshchenie» in Russian.
10. Kutsakova L.V. (2016). *Konstruirovaniye iz stroitel'nogo materiala (4–7 let)* [Construction of building materials (4-7 years)]. Moscow in Russian .
11. Lianne Schröer, Richard P.Cooper, Denis Mareschal. (2021). Science with Duplo: Multilevel goal management in preschoolers' toy house constructions. *Journal of Experimental Child Psychology*,
12. Vol. 206, Retrieved from <https://www.sciencedirect.com/science/article/pii/S002209652030521X#> Arnold A., Wing, A. M., & Rotshtein, P. (2017). Building a Lego wall: Sequential action selection. *Journal of Experimental Psychology: Human Perception and Performance*, Vol. 43(5), 847–852. Retrieved from <https://doi.org/10.1037/xhp0000382> in English
13. *Kazakhstan Respublikasy memlekettik zhalpyga mindetti bilim beru standarty* [State compulsory standard of education of the Republic of Kazakhstan]. (2020) in Kazakh.
14. HOST R ISO 9000-2020 from 5th September 2020. Nur-Sultan: Standart in form KZ.