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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

PSYCHOLOGICAL CHARACTERISTICS OF THE FORMATION OF INTELLECTUAL QUALITIES IN PRE-SCHOOL AGED CHILDREN

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INTRODUCTION

Relevance of the topic and degree of elaboration. The study of thinking and creative qualities in modern conditions is one of the central problems of a number of sciences and is quite relevant. The development of mental qualities depends on the individual characteristics of a person. From this point of view, in the modern era, the development and formation of educated, intelligent, comprehensive preschool children is an important state level problem.

Formation of preschool children as a personality is the demand of today. In the Law of the Republic of Azerbaijan on Education, it is specially mentioned that education and upbringing should be based on the highest intellectual thought and new pedagogical thinking. In this regard, the period of school age, which forms the personality, plays a crucial role in instilling many necessary qualities. Therefore, educational institutions should strive to effectively utilize the opportunities provided by this stage in a beneficial manner.

In contemporary times, exploring the developmental characteristics of mental qualities in preschool children and offering support to educators and parents in this area hold considerable relevance.

Firstly, within the context of Azerbaijani psychological discourse, the psychological traits of preschoolers have received relatively little attention in the early decades of the 20th and 21st centuries, indicating a pressing need for further exploration in this domain.

Secondly, there exists a substantial demand for children and adolescents equipped with intelligence, advanced intellect, knowledge, and sophisticated cognitive abilities, particularly in an age marked by escalating glopointsization.

From this perspective, studying the formation, development, and education of thinking qualities in preschool children creates fundamental conditions for determining the possibilities and mechanisms of instilling

many spiritual and psychological qualities in them, alongside the significant role of thinking in shaping their personality.

It should be noted that in the modern age, in the background of rapid development and dynamism of society, being able to think flexibly and independently is one of the important requirements during the formation of the personality. In this regard, it is necessary to consider these issues in the education system and to form a personality with flexible thinking.

Thirdly, it is crucial to explore the psychological issues, organizational aspects, and general psychological laws governing the development of mental qualities in preschool children. Understanding the specific features and new developments at each age stage is essential for providing effective support to parents and educators.

Moreover, it is imperative to intellectually prepare children for life, beginning from preschool age, across political, economic, ideological, spiritual, and psychological dimensions. Success in any field managed by a politician, pedagogue, leader, or educator relies on intelligent, competent, and thoughtful actions. Hence, preschool children should cultivate intellectual skills and habits early on. Intellectual qualities hold particular importance in preschool education, encompassing analysis, composition, generalization, comparison, abstraction, flexible thinking, and logical reaction to events. These psychological aspects are crucial for designing appropriate educational activities for preschool children and achieving desired outcomes.

The problem of intellectual and quality development in preschool children historically attracted the attention of our great ancestors, historical figures, pedagogues, and psychologists and led to the formation of certain studies in this field. (L.S. Vygotsky, A.V. Zaparojets, E.I. Zeyliger, V.I. Loginov, N.M. Poddyakov, A.L. Wengner and others). They note that it is in preschool age that the foundation of imagination and memory is laid, which ensures the successful mental development of

the child. The stage of preschool age plays an important role in the creation of the initial form of generalization, drawing conclusions, and abstraction. The first 6 years of a child's life are not only the stage of discovering scientific knowledge, facts, generalizing, but also an important stage for understanding (L.S. Vygotsky, E.I. Zeyliger, O. Sherbo).

Educators and psychologists believe that the child's mental development continues intensively during the pre-school age. During this period, children acquire systematic knowledge about simple information, not individual knowledge, and can identify simple but important relations and dependencies and find connections between them (K.D.Ushinski, U.P.Usova, E.I.Tikheyeva, A.M. Leushina).

In general, in the history of psychology, mental qualities were recognized as an important scientific problem in the XX century. The first interesting pages of this history were written by such famous psychologists as A. Bine, E. Claparede, J. Piaget, V. Shtern. In their research, the study of two important qualities of the mind - criticality and independence - in an experimental direction is particularly significant. However, in the 30s and 40s, the problem of mental qualities was not systematically investigated in psychology. After a period of stagnation, various works (M.F. Morozov, A.I. Lipkina, S.F. Juykob, Z.I. Kalmykova, N.M. Stadnenko, etc.) directly devoted to this problem were published in the early 60s.

In the history of psychological thought of Azerbaijan in the XX century and in the modern period, serious attention was paid to this field and scientific works, monographs, dissertations, textbooks and methodical materials were written. The works of M.C. Maharramov, A.A. Alizade, V.R. Aliyeva, A.A. Gadirov, V.C. Aliyev, A.S. Bayramov and others can be cited as examples. Professor A. Bayramov was the most active in this field.

The object of the research. Forms of manifestation of mental qualities in preschool children.

The subject of the research. Psychological analysis of developmental characteristics of mental qualities in preschool children.

The purpose of the research is to study the psychological features of the formation of mental qualities in children during the preschool age, to investigate the factors influencing its development.

The goals and tasks of the study.

Studying the psychological features of the formation of mental qualities in children during preschool age, its development to investigate influencing factors.

In order to realize the purpose of the research, it is considered necessary to solve the following tasks:

1. To study the study of mental qualities in psychology in the history of psychological thought;
2. To examine the dynamics of mental qualities, manifestation characteristics, formation;
3. To clarify the socio-psychological factors affecting the development of mental qualities;
4. To show ways and means of formation of mental qualities in preschool children.

Research methods. The theoretical analysis method of psychology, as well as observation, interview, experiment, test and other methods were widely used during the research. "Revelation of common understandings", "What is already here", "Who lacks what?", "Finding inconsistencies" methods were used in the research work.

Hypothesis of the study. The formation of mental qualities in preschool children depends on the child's individual psychological characteristics, training methods, proper organization of pedagogical work, the content and logical structure of the material, and how and by what rules the child assimilates it.

The main provisions defended:

- Mental qualities, encompassing traits such as independence, critical thinking, flexibility, and logic, possess an ethno-psychological, physiological, and socio-spiritual nature, forming the essence of a child's personality development. These qualities are enduring in child psychology, consistently influencing development and should thus be prioritized as a fundamental goal from an early age.
- The development of mental qualities in preschool children is not a linear progression; it fluctuates and is contingent upon the concrete expression of various elements of cognition.
- The cultivation of mental qualities in preschool-aged children is not instantaneous but rather nurtured and reinforced alongside the development of individual cognitive processes.
- Identifying the novel aspects of psychological foundations, organizational dynamics, and the cultivation of mental qualities in preschool-aged children, and communicating them to educators, parents, and society at large, is crucial in meeting the demands of preschool education development.

Scientific novelty of the research. Actual data characterizing the mental qualities of preschool children were collected and systematized. However, in this research work

- The criteria of the qualitative and quantitative characteristics of the development levels of mental qualities of preschool children have been determined;
- Psychological-pedagogical ways and means for the formation of mental qualities in preschool children are shown.

Theoretical and practical significance of research. In our opinion, the study of the psychological characteristics of the development of mental qualities in preschool children is also important as a theoretical source for future research on the problem of thinking as a whole. Educators, psychologists, parents, students and masters can widely use the scientific results obtained during the research, the issues used in the mental

development process, the theoretical and practical proposals, the methods and tools used in their scientific work.

Research approval and implementation. Fundamental information on the progress of this research was given in the discussions held in the specialized departments, and the results obtained in the relevant scientific conferences were also discussed. Several articles and abstracts related to the main content of the research have been published.

The name of the institution where the dissertation work was performed at the Department of Pedagogical Psychology of the Azerbaijan State Pedagogical University.

The total volume of the dissertation with a mark, noting the volume of the structural sections of the dissertation separately. The dissertation consists of an introduction, 3 chapters (8 subchapters), a conclusion, a list of used literature and appendices. Introduction consists of 6 (11000), chapter I - 51 (92703), chapter II - 46 (72627), chapter III - 19 (30946), conclusion - 4 (7427), bibliography - 12 (16457) pages; the total dissertation consists of 231160 characters.

THE MAIN CONTENT OF THE DISSERTATION.

In the introductory section, the significance of the research is established by justifying its relevance. Furthermore, the tasks, objectives, and scientific hypotheses are elucidated, alongside an explanation of the theoretical and practical significance. Additionally, a series of scientific propositions are presented to further enhance the foundation of the study.

The first chapter, titled "**Theoretical-Historical Perspectives on the Issue**," is divided into four sub-chapters. Within the initial sub-chapter, titled **"The Essence of Research and Its Context in Psychological Literature**," the significance of the research is elucidated through pertinent examples.The research conducted in this direction at the end of the XIX century and the beginning of the XX century is reviewed. Attention is drawn to the textbooks of M. Mustafayeva, M. Ismayilova, L. Amrahli and other psychologists. The place and position of mental qualities in the formation of preschool children as a personality is explained. In this direction, the world-wide researches and at the same time the researches of

professor A.S. Bayramov, the founder of a great psychological school in this field, are addressed.

In the latter part of the chapter titled "Psychological Analysis of Mental Attributes," an examination is conducted on the various qualities of thought, such as intellectual independence, criticality, adaptability, depth, and logical speed, among others. Their essence is elucidated through concrete examples and relevant facts.

Moving on to the third sub-chapter within Chapter I, titled **"The theories on Mental Attributes,"** the dissertation delves into the historical evolution of theories concerning the investigation of cognitive traits. Through a comprehensive analysis of existing psychological literature, it becomes evident that experimental studies on the independence of thought are scarce, both internationally and within Russian psychological discourse. Consequently, this section prioritizes discussions surrounding the critical aspects of cognition.

Transitioning to the fourth sub-chapter, titled "**The Research Methodology,**" readers are provided with insights into the methodologies employed throughout the research process. These methodologies include observation, interviews, analysis of activity outcomes, theoretical-historical investigations, experiments, and testing procedures.

Chapter II of the dissertation, called **"The Forms of Manifestation and Developmental Characteristics of Mental Qualities in Preschool-Aged Children"** consists of two sub-chapters. "**Manifestations of Critical Thinking in Preschool Children and Development Characteristics**" in the first half of chapter II, mainly critical thinking and its essence, forms of manifestation, and development are interpreted with concrete facts.

One of his intellectual qualities is critical thinking. Critical thinking primarily aims to expose contradictions and illogicalities in human judgment. In preschool children, the cultivation of critical thinking fosters an intellectual approach to understanding events in the world around them. In such instances, children do not simply accept information blindly but instead engage in logical analysis, forming and expressing their critical viewpoints.

When examining the development of children's cognitive abilities, a vivid picture emerges, illustrating a transition from quantity to quality. Various methods in psychology, including tests, narrative pictures, oral

texts, and question-and-answer techniques, were employed to delineate the characteristics of critical thinking in preschoolers and to track its developmental trajectory.

It's important to note that thinking and its attributes are not innate; they evolve through life experiences, familial interactions, kindergarten settings, and peer relationships. A child isn't born with fully formed thinking capabilities. Critical thinking begins to emerge, albeit in rudimentary forms, between the ages of two and three in preschoolers, progressing with age. To assess the manifestations and developmental patterns of cognitive qualities such as criticality and independence in preschoolers aged 3-6 years, observations, interviews, age-appropriate texts (read aloud by the researcher), tests, and narrative pictures were utilized.

Thus, it can be said that the criticality of thinking shows itself from the pre-school age. However, such a way of thinking is not yet established in preschool children. In order to develop children's critical thinking, they should be given full information about nature and society. Because they have limited life experience, their thinking is concrete. Therefore, any information given to them should be specific. The educator should know that informing children about individual facts does not yet ensure the development of critical thinking. Since thinking is a purposeful mental process, children should be given certain specific tasks and it is necessary to achieve their solution. For this, it is necessary to mobilize all the mental characteristics of children in order to develop their critical thinking. In order to develop critical thinking in children, parents and educators do not need much hard work. You can use age-appropriate texts, pictures, stories, proverbs.

The second sub-chapter of Chapter II, entitled **"Independence of Thinking and its Manifestations and Developmental Characteristics in Preschool Children,"** within the dissertation, elucidates the concept of independent thinking and its developmental traits. Independent thought stands as a cornerstone among mental attributes, encompassing various facets of human engagement. In its essence, independence denotes the absence of external assistance, wherein individuals achieve tasks through their own volition and capabilities. This trait of independence permeates all aspects of a child's activities and behaviors, including actions such as walking

autonomously, formulating thoughts independently, speaking with autonomy, and standing or sitting independently.

The emergence of independent thinking, even in its simplest form, is observable from infancy and progresses gradually over time. Consider Ayan, an 8-month-old infant, who, during feeding, demonstrates a desire for autonomy by pushing away his grandmother's hands and grasping the feeding bottle, attempting to feed himself.

Similarly, let's observe Abbas, a 3-year-old child attending the "Buta" private preschool. Facing a challenge while seated on stairs, Abbas displays a moment of contemplation and problem-solving. Recognizing that he cannot descend while seated or standing, he initiates a plan to independently navigate the stairs. With deliberate action, he extends his hand for support, carefully lowers his legs, and descends with calculated movements, embodying the essence of independent thought in his actions.

Preschool children react to every object and event they see and hear. Its presence makes him think, he has many thoughts about it, he asks independent questions. "How did the tree come into being?", "What is the earth made of?", "Why do cows have horns and not humans?", "Who created water?", "Where do they get children from?", "Who created animals?" etc. no one asks these questions to children in advance. Their interest in the objects and events around them makes them ask such questions. Children asking such questions about the world around them are the simplest forms of independent thinking.

Questions have a unique place in the formation of intellectual skills and habits of preschool children. Questions arise from children's inner intelligence, interest in learning things. The question has a unique value in the formation of thinking. When a child comes across a question, as a rule, he begins to think, make judgments, take and leave something in his mind, and the child's thinking, as they say, ignites by itself. When does a question arise? Questions are the result of children's independent attitude to the surrounding world.

Experiments show that the number of questions decreases as the child develops and gets older. This is due to the fact that the answers to some questions become clear in the process of education, in the assimilation of social experience, it is already clear to him that some questions

cannot be explained. The child gradually learns the rules of behavior. They have ideas about norms of behavior.

The third chapter of the dissertation, titled "Results of a Psychological Experiment on the Development of Mental Qualities in Preschool Children," is comprised of two sub-chapters. In the first sub-chapter, "Results of the Psychological Experiment on the Development of Mental Qualities in Elementary, Middle, and School-Preparatory Groups," an analysis is presented regarding the developmental characteristics of critical and independent thinking in preschoolers, derived from psychological experiments.

Selecting research methods grounded in sound scientific principles and executing them skillfully stands as a pivotal concern in psychological inquiry. Each experimental study undergoes four critical stages:

1. Data collection and observation.
2. Formulation of hypotheses concerning the relationships and dependencies among the observed facts.
3. Implementation of experiments to test the validity of the hypotheses.
4. Analysis and interpretation of the gathered data.

However, the proportion of time allocated to each stage may vary depending on the nature and demands of the subject matter. Topics necessitating prolonged and systematic observation may find experimentation relatively challenging, as exemplified in the study of mental qualities within psychology, where learning about thought processes in laboratory settings proves somewhat arduous.

To investigate the developmental characteristics of mental qualities in preschoolers, we employed various tools including simple texts (read aloud by the instructor), tests, narrative pictures, and age-appropriate oral texts. The study encompassed children aged 3-4, 4-5, and 5-6 years, chosen deliberately due to observations indicating the ease with which a significant number of 3-4-year-olds, and nearly all 5-6-year-olds, transition their attention between objects upon receiving verpoints instructions.

The formative years of personality development commence during preschool age, hence the steadfast focus of psychologists on this age group.

To ensure the precision of our experiment, each participant was thoroughly examined utilizing research methods commonly employed in

applied psychology. Furthermore, the experimental materials were carefully crafted to be equally unfamiliar to all participants, thus facilitating the assessment of independence and critical thinking development. Additionally, materials were selected from contexts closely related to the children's daily lives to gauge individual levels of independence and criticality accurately.

Taking into account that the thinking of preschool children develops from visual-practical to concrete-figurative, and from there to relatively abstract thinking, during the research, we conducted experiments on pictures.

Through the methods we mentioned earlier, we tried to study the forms of manifestation of mental qualities in preschool children, their development characteristics, and the ways of developing those qualities. For this purpose, in 2014, 2015, 2016-2017, research was conducted on more than 300 children in branches of that kindergarten in "Buta" Nizami district in Narimanov, Binagadi, Bakikhanov districts of Baku in two stages. Also, the children of Kindergartens No. 286 of Binagadi District and No. 266 of Nasimi District were also involved in the study. In the first stage, we did not deviate from the instruction to reveal the inner essence in the pictures (read texts) presented to children in order to determine the forms of manifestation of their thinking qualities. That is, we did not resort to explanatory and educational methods. In the second stage, we used the educational and explanatory method and focused on developing the qualities of thinking in children, and the results of this have shown themselves. .

In both the first and second stages of the research, we focused not only on individual differences in the field of independence and criticality in small (3-4 persons) groups, but also on the characteristics of the development of mental qualities in preschool children in general. It should be noted that determining the development dynamics of independence and criticality at this stage was the main goal of the research. Five methods were used during the experiment. Of course, since it is impossible to cover all of them, we are satisfied with giving the results of some of them.

The first stage of the experiment:

Results of experimental psychological analysis of independence of thinking in small groups

Table 1

№	Full name	Points	Comments
1	Musazada Esmanur	10 points	Completed
2	MammadovAmir	10 points	Completed
3	Abdullazada Aliya	10 points	Completed
4	Babayev Jalal	10 points	Completed
5	Maharramli Said	10 points	Completed
6	Mammadov İman	1 point	1-2 completed
7	Maharramli Suleyman	5 points	2-3 completed
8	Omar Yıldırım	1 point	1-2 completed
9	Jafarzada Jafar	1 point	1-2 completed
10	Mammadov Amir	5 points	2-3 completed
11	Qurbanzada Chingiz	5 points	2-3 completed
12	Nəbiyev Nijat	5 points	2-3 completed
13	Mammadzada Fakhraddin	5 points	2-3 completed
14	Samadzada Telli	0 point	Incomplete
15	Guliyeva İlayda	0 point	Incomplete

In the second phase of the experiment, i.e. the educational phase, the results were as follows:

Table 2

№	Full name	Points	Comments
1	Musazada Esmanur	10 points	All completed
2	MammadovAmir	10 points	All completed
3	Abdullazada Aliya	10 points	All completed
4	Babayev Jalal	10 points	All completed
5	Maharramli Said	10 points	All completed
6	Mammadov İman	10 points	All completed
7	Maharramli Suleyman	10 points	All completed
8	Omar Yıldırım	8 points	1-2 left
9	Jafarzada Jafar	9 points	1 left
10	MammadovAmir	7 points	2-3 left
11	Gurbanzada Chingiz	8 points	3-4 left
12	Nabiyev Nijat	8 points	3-4 left
13	Mammadzada Fakhraddin	10 points	All completed
14	Samadzada Telli	10 points	All completed
15	Guliyeva İlayda	10 points	All completed

Other methods were also used to determine the development characteristics of mental qualities in preschool children.

Pictures of pen-paper, tennis racket-tennis pointsl, lock-key, tooth-brush-toothpaste, hammer-nail, saw-wood should be grouped in the material for middle group (4-5) (Appendix-2). During the research in this group, there were some issues that caught our attention. For example, one of the children, Riad, drew a line between the hammer and the saw, connecting them and drawing a line from the middle of that line to the wood. This is an obvious example of individual differences between children of the same age group somewhere. Another child was torn between two options when combining the Aydan hammer. He attached it to the wood, then again to the nail. He also connected the saw to the wood. Among the children, Murad did not group 3 pairs of pictures.

The results of the matching method in the middle group

Table 3

№	Full name	Points	Comments
1	Bagirzada Riad	10 points	All completed
2	Sevdimaliyeva Siraj	10 points	All completed
3	Tatlıeva Aysel	10 points	All completed
4	Hashimov Murad	5 points	3 completed
5	Huseynova Maryam	10 points	All completed
6	Musazadə Aydan	5 points	Between two choises
7	İsmayılzadə İsmayıl	3 points	1-2 completed
8	Jafarzada Kanan	3 points	2 completed
9	Rzayeva Nuray	10 points	All completed
10	Sarıyev Vusal	0 points	Incomplete
11	Jabrayilova Fidan	0 points	Incomplete
12	Sadıgova Farah	0 points	Incomplete
13	Aliyev Faiq	2 points	1 completed
14	Aliyev Baylar	3 points	2 completed

In the second phase of the experiment, i.e. the educational phase, the results were as follows:

Table 4

№	Full name	Points	Comments
1	Bagırzada Riad	10 points	All completed
2	Sevdimaliyeva Siraj	10 points	All completed
3	Tatlieva Aysel	10 points	All completed
4	Hashimov Murad	5 points	3 left
5	Huseynova Maryam	10 points	All completed
6	Musazada Aydan	10 points	All completed

7	İsmayilzada İsmayıl	10 points	All completed
8	Jafarzada Kanan	8 points	3-4 completed
9	Rzayeva Nuray	9 points	1 left
10	Sariyev Vusal	7 points	2-3 completed
11	Jabrayilova Fidan	8 points	3-4 completed
12	Sadıgova Farah	8 points	3-4 completed
13	Aliyev Faiq	10 points	All completed
14	Aliyev Baylar	10 points	All completed

This once again underscores the importance of educators and parents being mindful of fostering the development of mental attributes in preschool children by consistently assigning tasks aimed at logical thinking and nurturing their intellectual growth. We provided additional material (Appendix 3a) to assess the independence of thinking in children within preschool groups. It includes images of a spider, a bird's nest, a rabbit, a banana, rain, a monkey, a spider web, a girl with an umbrella, and a carrot. Children were instructed to categorize these elements accordingly. During this activity, Sahin connected the bird not only to the bird's nest but also to the carrot, presuming that the bird could consume carrots. Similarly, Ravil associated the spider with the bird's nest, explaining, "the spider lives here." As such children's interpretations did not yet form a comprehensive understanding, we proceeded with the second methodology.

The results of the psychological experiment conducted on the study of children's thinking independence in the preschool group

Table 5

№	Full name	Points	Comments
1	Agazada Zeyshan	10 points	
2	Qasimli Leyla	10 points	
3	Qasimov Yusif	10 points	
4	Abdurrahimli Ayla	10 points	
5	Muxtarli Aykhan	10 points	
6	Yagubov Aykhan	10 points	
7	Aghayev Fərkhad	10 points	
8	Jabbarli Shahin	10 points	Connected the bird to both the bird's nest and the root
9	Huseynli Huseyn	10 points	
10	Abdullazada Vusal	10 points	
11	Akbarov Said	10 points	
12	Ashugov Ravil	10 points	Connected the spider to the bird's nest too.

13	Səmədzadə Rza	10 points	
14	Əhmədov İbrahim	10 points	
15	Mammadov İslam	10 points	
16	Yolchuyeva İşil	10 points	
17	Nabiyev Nijat	10 points	

In the preparatory group for school. We tried to study the level of independence and generalization ability of children in the preschool group through the "grouping of objects" (appendix - 4) methodology. In order to study the characteristics of independent thinking of preschool children, and their forms of manifestation, we used the test for grouping objects (Appendix 4). Grapes, pears, cherries, cakes, oranges, strawberries, bananas, apples in the test). According to the instructions, the children were able to group the fruits according to their characteristics (grapes, pears, cherries, apples; oranges, strawberries). Also, the methodology allows children to learn the ability of analysis and synthesis. He must select and group objects of the same type from the pictures placed in front of him, and isolate the object that does not fit into that group. Classification of objects reflects the working capacity and persistence of attention. Isolation allows for logical reasoning, correct generalization, and a rigorous and clear conclusion.

Evaluation of the results: 10 points - the child looks at all the pictures, understands the general content and distinguishes the extraneous object. It takes 1 minute or less; 8-9 points - the child understands and performs the task within 1 minute or 1.5 minutes; 6-7 points - the child can complete the task within 1.5-2 minutes; 4-5 points – the child solves the task within 2-2.5 minutes; 2-3 points – the child solves the task within 2.5-3 minutes; 0-1 points – the child solves the task spending too much time in 3 minutes or cannot complete the task

Results about the level of development: 10 points - very high, 8-9 points - high, 4-7 points - average, 2-3 points - low, 0-1 points - very low

In the material for this group, grapes, pears, cherries, apples, bananas, strawberries and oranges should be grouped under the name of fruits, and the cake should be marked as an excess in the picture (Appendix 4). performed the task at a very high level.

In the second sub-chapter of the third chapter, we delve into the analysis of **"Experimental Studies on the Development of Mental Qualities in Preschool Children within the Family Environment."** Thought processes are inherently ingrained, with the family playing a pivotal role in shaping them from birth to the emergence of a fully developed individual. Indeed, the family stands as the primary social unit significantly impacting the child's personality and cognitive growth. Given that the child predominantly experiences life within the family, it serves as the foundational context for the initial development of mental faculties and the formation of early perspectives on life. Consequently, it is within the family environment that the groundwork is laid for the child's future personality development.

The role of the family in shaping children is profoundly influential. Within the family unit, children begin to cultivate independent and critical thinking from an early age, while numerous intellectual skills and habits take root. Experience underscores the distinctive impact various family dynamics have on children's intellectual growth. Certain families consistently prioritize the intellectual development of their children.

Parents play a crucial role in fostering their children's growth by setting age-appropriate expectations, encouraging independence, involving them in familial discussions, and addressing issues that concern them. Through such practices, parents create an environment conducive to nurturing their children's willpower, character, sense of responsibility, and work ethic. It's essential for children to develop intelligence and the ability to think autonomously from a young age, steering clear of mimicking others' ideas—a trait best nurtured within the family setting.

Engaging preschoolers in discussions about intellectual and skill development through questions and interviews within the family proves captivating. Regularly conducting such interviews instills a habitual curiosity in children, evidenced by their eagerness to initiate discussions with family members. For instance, Huseyin eagerly prompts his tired grandfather after meals, initiating question-and-answer sessions. Subsequently, during one such session, 6-year-old Abbas challenges a tale his grandfather tells, showcasing his critical thinking skills. The grandfather,

impressed by Abbas's discernment, affirms his cleverness, reinforcing the importance of nurturing such traits.

While increasing the quantity of questions may not be the aim, it's crucial for parents to direct their attention towards materials that stimulate children's intellect. An experiment titled "Revelation of Common Concepts" conducted within a family setting with preschoolers (aged 5-6) further underscores the pivotal role the family plays in fostering children's intellectual development. There are two children in the family. (5-year-old Gulay, 6-year-old Lady) their grandfather loves them very much. They are smart kids. His grandfather presents them with 20 words. There are two related words between every four lines. The children should say the related words orally and the grandfather should write them down. The words are:

1. Garden (plant, gardener, dog, gate, land)
2. River (shore, fish, fisherman, solder water)
3. City (car, street, building, bicycle)
4. Stable (haystack, horse, roof, cattle, wall)
5. Football (ball, player, grass, city, opponent)
6. Kindergarten (educator, children, parents, running away, scolding)
7. Reading (title, book, bag, picture, word)
8. Family (child, parent, cat, grass, radio)
9. Newspaper (editor, truth, supplement, telegram, paper)
10. Game (cards, toys, fines, punishment, rules)
11. War (plane, cannon, battle, weapon, soldier)
12. Book (picture, war, paper, love, text)
13. Singing (ringtone, art, sound, clap, melody)
14. Earthquake (cliff, death, landslide, noise, rain)
15. Library (city, book, report, music, readers)
16. Forest (leaf, apple, tree, hunter, wolf)
17. Sports (medal, orchestra, competition, ability, stadium)
18. Hospital (building, garden, enemy, radio, patients)
19. Love (rose, feelings, person, city, nature)
20. Patriotism (city, friends, motherland, family, person)

3 minutes are given to complete the work. In the answer to the first question, the children were able to say + one word that matches each

other in each line, albeit with great difficulty. especially children hardly say related words such as tea, palace, newspaper, sports. but in the second instruction of the grandfather (children, look again, choose the words that are close to each other. For example, look at the words related to the garden in the row of the word garden. What should have been in the garden? children:- plant, what should have been more important? Where does the plant grow? Children: - in the soil.

Yes, the grandfather completes their thought. After the second instruction from the grandfather, the children almost coped with the task. of course, they coped with such tasks. Of course, such assignments and interviews help the development of mental qualities in children.

Thus, in this way, children get acquainted with many concepts, learn their characteristics, and also acquire the ability to make generalizations independently.

Our research allows us to come to the following **conclusion**:

- Using general texts and tests can be effective in developing critical thinking in preschool children. However, employing specific instructions—such as utilizing pictures, texts, questions, and tests that provoke the identification of inconsistencies and errors—can yield even greater benefits.
- While critical and independent thinking are evident in children within middle and large groups, expressing these qualities may initially pose a challenge. However, after receiving additional guidance, they demonstrate improved capability and actively engage in subsequent experiments. Research indicates that independent thinking encompasses a broader spectrum of manifestations than critical thinking.
- Experience suggests that some preschoolers do not solely rely on external correspondence of events and pictures. With the aid of supplementary questions, they contemplate presented objects and provide answers based on their observations, fostering the development of their mental faculties to some extent.
- To nurture critical and independent thinking in preschoolers, it's essential to select pictures and texts tailored to their knowledge and age levels. Encouraging children to provide examples of critical and independent thinking as situations arise is beneficial. Stimulating

discussions about hidden meanings within images and texts can further enhance their cognitive development. Additionally, it's advantageous to prompt children to draw conclusions independently, even in routine interviews and experiments. Alongside pictures, providing materials with concealed meanings appropriate to their cognitive level encourages analytical thinking and judgment.

- Significant variations exist among preschoolers regarding the levels of independence and critical thinking. Parents and educators should consider these differences when nurturing these qualities.
- In preschoolers aged 3-6 years, independent thinking, encompassing an autonomous approach to observations, opinions of peers, and elders, tends to be more pronounced than critical thinking. Their curiosity about the world around them often prompts questions about the origins of various elements, reflecting their innate interest in exploration.
- The family plays a pivotal role in cultivating mental qualities in preschoolers. Regular efforts should be made within the family environment to teach children to think independently, critically assess information, and engage in logical thinking activities using diverse materials such as tests, logical thinking exercises, tasks, proverbs, and stories.
- In preschool children, independent thinking typically manifests in a broader scope compared to critical thinking. This inclination is closely tied to their fascination with novel experiences in their environment.
- The development of critical, independent, and other mental qualities in children is influenced by a combination of innate, ethnic, phylogenetic, and ontogenetic factors.
- I t's noteworthy to mention Aristotle's theory of inter-functional relations, which posits that all mental properties are interconnected and play a significant role in development. This theory is reflected in research findings, which demonstrate that tests aid preschoolers in discerning similarities, differences, and correspondences between objects and events, facilitating the formation of intellectual habits.

The main provisions of the dissertation are reflected in the following works of the author:

1. Məktəbəqədər yaşlı uşaqlarda təfəkkür keyfiyyətlərinin formalaşdırılmasında atalar sözlərinin rolu // BSU-nun Elmi əsərlər №1, Bakı: 2015, s.109-116
2. Məktəbəqədər yaşlı uşaqlarda əqli keyfiyyətlərin inkişafında ailənin rolu //ADPU-nun Pedaqoji Universitet Xəbərləri №3, Bakı: 2015, s.398-401
3. Təfəkkür keyfiyyətlərini sosial-psixoloji mahiyyəti // ADU-nun Elmi xəbərləri. №1, Bakı: 2015, s. 388-397
4. Məktəbəqədər uşaqlarda əqli keyfiyyətlərin formalaşdırlmasında milli-mənəvi dəyərlərdən istifadə imkanları/Gənc tədqiqatçıların III Beynəlxalq Elmi Konfransı. Bakı: 2015, s.1357-1358
5. Məktəbəqədər yaşlı uşaqlarda təfəkkür və onların psixoloji təhlili //ADU-nun Elmi xəbərləri №1, Bakı: 2016, s.264-273
6. Məktəbəqədər yaşlı uşaqların şəxsiyyətinin formalaşmasında təfəkkür keyfiyyətlərinin rolu //AMEA Fəlsəfə İnistutu "Elmi əsərlər "Scientific works" 2017, №1 (28)", Bakı: 2017, s.117-125
7. Подходы к свойствам мышления //Казахстан-Международный научной журнал. Алмата: 2017, с.10-17
8. Təfəkkürün müstəqilliyinin inkişaf etdirilməsi yollarına dair /"Qlobal çağrışlar və perspektivlər"mövzusunda Respublika elmi praktik konfransı. Bakı: 2024, s.17-20
9. Factors affecting the formation of critical thinking in preschool children. May 7, 2024 in the Umeå (Sweden) XLIV International scientific-practical conference "Modern Aspects of Modernization of Science: Status, Problems, Development Trends" Stokholm: 2024, p.35-36

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