Journal of Positive School Psychology http://journalppw.com
2025, Vol. 9, No. 1, 117-124

Techniques And Methods For Developing Creative Thinking Skills In Pre-School Children Through The Results Of Some Studies

Dr. Bouchaour Zahra Nawal[1], Pr/Dr. Boufares Abderrahmane[2]

[1,2]University of Ahmed Draia Adrar (Algeria).
The Author's E-mail: bouchaour.nawal@gmail.com[1], boufares@univ-adrar.edu.dz[2]

Received: 01/11/2024 Published: 10/05/2025

Abstract:

This research paper aims to present techniques and methods for developing creative thinking skills among pre-school children through some studies, as it is considered one of the topics that has received wide interest from researchers in the fields of educational psychology, because of its significant impact on developing children's mental skills. Preschool in particular; The researchers relied on the analytical approach, as they studied and analyzed the literary heritage of what creative thinking is in terms of concept and characteristics, then to its importance, and techniques and methods of developing it among pre-school children, while citing the results of some local studies, including Arab and foreign, that dealt with the subject.

Keywords*: creative thinking skills, pre-school children, techniques and methods of developing it.*

1. Introduction:

The political, economic and social transformations that societies are witnessing, and the constant movement of this world that is moving at an accelerated pace, require societies to find ways and means to meet their current desires and future ambitions and adapt to the changes in order to ensure their survival and continuity.

The scientific and technological progress that the world is experiencing today is the result of the strenuous efforts of many creative people, so working to continue this progress depends on releasing more of the creative potential of individuals (Al-Salama, 2018, 502).

Creativity is considered a distinctive feature by which the civilization of nations and peoples is measured, and interest in talented and creative people has become the main concern of advanced, civilized societies, and this has become clear in the field of education and educational programs that work to nurture, develop and stimulate creativity. "Because the future of nations depends on the future of their children, it is necessary to develop creativity among children, who are the foundation of the future." (Taha. Z, Elbakatoshy. A Elbana, A, 2013, 1636)

2- Research Problem:

The stage of childhood is of great importance, and is evident through the results of the return of the efforts invested in its care. Therefore, institutions and agencies have been established responsible for its care and providing the basic components that guarantee its protection and growth. Studies conducted in the fields of childhood have proven that a large proportion of the components of an individual's personality are cognitive and behavioral. It is formed in his childhood, and today's child is the product of tomorrow and the maker of the future, because today's child lives in a world full of creative challenges that have imposed their presence in every area of private life in the current information age, which is characterized by rapid scientific and technological change. Therefore, all societies focus their attention on child care as a The most important human resource relied upon to achieve its growth and development. (Amrio and Yaqoubi, 2014: 386).

Identifying children with high creative abilities in the pre-school stage, especially children aged four to six, and directing

sufficient attention to them, would contribute to increasing the percentage of innovative adults. (Zakri and Nawar, 2016: 91-92)). Attention must be paid to techniques and methods for developing creative thinking skills among this group. From the above, we can raise a problem for this analytical study through the following questions:

- What techniques and methods are used to develop creative thinking skills among pre-school children?

3- Research Aims:

We are trying, through this research paper, to present, through study and analysis, to highlighting effective methods and approaches in developing creative thinking skills among pre-school children through international experiences, while citing the results of some local studies, including Arab and foreign ones, that dealt with the elements addressed in this research.

4- Research Importance:

This research has theoretical scientific importance in that it addresses the issue of creative thinking among pre-school children, knowing the importance of this age stage that must be taken care of, by developing their creative thinking skills by choosing the most important and most effective ways and methods appropriate for this, taking into account The developmental characteristics that distinguish it from other age stages, and thus this research will contribute to enriching scientific knowledge in this field.

5- Research Methodology:

The researchers relied on the analytical approach because it is appropriate to the nature of the subject, which is concerned with studying and interpreting phenomena, and aims to find the best possible solutions to the studied phenomenon, relying on interpretation, criticism and deduction.

6- The nature of creative thinking:

In this aspect, we discuss the nature of creative thinking in terms of exposure to its concept, characteristics and skills.

6.1. The Concept of Creative Thinking:

"There is general agreement between two core features in any definition of creativity: originality (novelty) and value (relevance)" (2020, 1398 (Murcia. K&Al

There have been many definitions related to the concept of creative thinking, and among these definitions we find the following:

Guilford defined creative thinking as: mental processes characterized by comprehensiveness and complexity and involving overlapping cognitive, emotional, and moral factors that constitute an active state of mind. Torrance defined creative thinking as: a process of sensitizing problems, realizing gaps and weaknesses, searching for solutions, making predictions, formulating hypotheses, testing them, rephrasing them, and generating new solutions by employing available data in order to arrive at new results that the learner conveys to others (Al-Salama, 2018, 512). "There are those who define it as a personality trait." (Kyung-Hwa Lee, 2005, 195).

Honig defined creative thinking as: divergent thinking that works to divide ideas, make connections, and introduce new ideas that generate new ideas and products through mental interaction between the individual and the experiences he gains.

Through the aforementioned definitions, we can define creative thinking among pre-school children as: the child's ability to generate new ideas that are characterized by originality and flexibility, through the social and cultural information he possesses that enables him to adapt to new situations, and in the form of problems that require immediate solutions, through perseverance and curiosity.

2.6- Creative Thinking Skills:

Guilford's theory of mind construction has contributed to clarifying the creativity process as a comprehensive process that includes processes, contents, and productions. Through it, Guilford identified 120 capabilities that can be summarized as follows: (Ghadhban 2011: 106):

1) Fluency:

Guilford defines fluency as: "the flow of ideas easily" (the text should be documented), so it is the ability of an individual to produce the largest number of ideas on a topic in a specific period

of time, and therefore fluency refers to the ability to use the individual's stock of knowledge when needed, so it is Represents the quantitative aspect of creativity. (Ghadban, 2011: 107).

2) Sensitivity to the problems:

Al-Salama (2018, 513) defines it as: "Awareness of the existence of problems, needs, or elements of weakness in the environment or situation. This means that some individuals are quicker than others to notice the problem and verify its presence in the situation. There is no doubt that discovering the problem represents a step It is first in the process of searching for a solution to it, and then adding new knowledge or introducing improvements and modifications to existing knowledge or products. Also linked to this ability is the ability to notice unusual, anomalous, or puzzling things in an individual's surroundings, or to repurpose or use them and raise questions about them.

3) Flexibility:

It is the skill that is used to generate various patterns or types of thinking and develop the ability to transfer these patterns and change the direction of thinking, and move from normal or habitual thinking processes to responding, reacting, and perceiving things in varying and diverse ways. Flexibility has various forms, which are: automatic flexibility - flexibility. Adaptive – Flexibility to redefine. (Al-Masalati, 2018, 215).

4) Originality:

Torrance defines it as an individual's ability to give a new idea that is out of the ordinary, or contrary to what is common.

Originality is the characteristic most closely associated with creativity and creative thinking, and originality here means novelty and uniqueness, and it is the common factor among most definitions that focus on creative outputs as a touchstone. (Al-Salama, 2018, 513).

5) Details or expansion:

This creative ability includes providing several details for specific things, towards expanding a summarized idea or elaborating on a vague topic, and the details here are estimated by the improvements and additions that the creative person makes to the basic idea he has arrived at.

Torrance points out that young creative children tend to add many unnecessary details to the drawings, shapes, and stories they produce, such as increasing the number of eyelashes in the eye, the number of buttons in a shirt, the number of stairs in the entrance to a house drawing, or the fruits in the tree, etc. However, the ability to know details is still not clearly defined, even in the writings of Torrance himself, which requires further studies to verify the importance of knowing the property of details as one of the main components of creative thinking. (Ghadban, 2011: 109).

7- The importance of creative thinking:

The importance of creative thinking is evident in what Guilford (1965) and Torrance (1977) emphasized that there is nothing that can contribute to raising the level of well-being, development and progress of humanity more than raising the level of creative performance among nations and peoples. Torrance also emphasizes the need for creative thinking is one of the basic needs that children's mental health cannot be healthy without satisfying it, and that the failure of the study curricula to satisfy these needs and include them among their objectives is behind many of the problems of the study, and the results of many studies have shown that the characteristics of mental health at their levels and degrees Different types of learning are positively related to creative abilities.

In this regard, Murcia Karen and others (2020, 1398) believe that creativity is important in relation to the individual and society, and its subject has been researched by researchers in all disciplines, including psychology, education, the arts, and the business world. It plays a major role in solving daily problems and adapting to changes, and through it we reach discoveries and inventions. Therefore, creative thinking skills must be developed and become a desirable educational goal present in all educational curricula.

"Gardner (1982) indicated that pre-school children have high levels of creative ability." (Kim. K. H, 2011, 286) social norms, and thus they acquire traditional ideas." (Besançon. M & Al, 2006, 495).

In this regard, the study of S. Karka (1990) shows that creative thinking and problem solving are considered one of the most important basic skills that are organized and

trained as basic skills required for future employment. (Al-Musharrafi, 2003, 32).

As for Zachopoulou Evridiki (2007), she believes that researchers in the field of psychology and education have realized the importance of creativity in the educational process, and therefore, building curricula for pre-school children must provide them with opportunities to use their knowledge, exercise their abilities, and learn. Continuous, through enhancing inquiry, logical and critical thinking, decision making and problem solving, as well as imposing and expressing thoughts and emotions. Based on the assumption that every child is born with creative potential, the child's age (3 and 5 years) is the delicate and sensitive stage for developing creativity, and educators must enhance those personal traits that demonstrate the ability to create.

8- Methods and techniques for developing creative thinking skills in pre-school children:

There are many techniques and methods adopted in developing creative thinking skills among pre-school children. The following is a mention of the most important of these techniques and methods, citing some of the studies that have dealt with them, including:

1.8. The role of the kindergarten teacher:

Fauzan and Mazzini (2015) see it as: N, Mat zaini. N that kindergarten teachers must undergo training programs in the field of developing the ability to think creatively among pre-school children, and be creative in planning the educational process, and creating an educational environment conducive to positive interaction with children, and in this regard we find the study of Al-Hawamdeh and Shaher ((2013) which aimed to identify the role of kindergarten teachers in developing children's creative thinking skills. The results of the study showed that there is self-interest among kindergarten teachers in developing children's creative thinking skills, and a functional interest related to the nature of work and its requirements. It also showed there are a set of proposals that kindergarten teachers consider appropriate to address the obstacles facing the development of creative thinking skills, including: providing a safe environment for children that makes them feel reassured, and preparing advanced educational programs in curricula and methods. While we find the study "Nikkola" (2020) (Nikkola. T& Al): which aimed to reveal the role of the teacher in raising the creative thinking abilities of pre-school children in Finland through social participation and positive interaction of the kindergarten child with the teacher and his colleagues? It was concluded that there is an impact of the creative abilities of the pre-school child on social participation and positive interaction, and teachers in kindergartens must create a stimulating learning environment to develop the creative abilities of the pre-school child.

2.8. Play and its different ways:

Through play, the child begins to recognize and classify things and learn their concepts due to the close relationship between children's play and his thinking. All modern theories of mental development have confirmed that the origin of human intelligence and thinking lies in what the young child does in terms of activity and movement in play, and this confirms the importance of play in building children's thinking and their minds and the growth of many of their mental processes, such as the skills of thinking, observation, and experimentation. Creative thinking is a combination of imagination and scientific thinking to develop an old idea or to find a new idea, no matter how small the idea, resulting in a distinctive, unusual production that can be applied and used. (Abdel Razzaq et al., 2014, 187). Abdel Razzaq and his colleagues (2014) concluded through their study that aimed to identify the effect of a pretend play program in developing creative thinking in children, as it was concluded that pretend games have a significant impact in developing creative thinking in children. In their study, which aimed to identify the impact of educational games on developing creative thinking skills among children in the city of Tulkarm for the second semester 2018-2019, Jayyousi and Nimer (2020) recommended that kindergarten curricula should include games. Educational games that stimulate creative thinking in children are supported by a special brochure that explains how to prepare and implement these games.

As for "Murcia Karen" and others (2020), they conducted a study aimed at revealing the effect of e-learning on creative skills on children between (3-4) years in Australia. To reveal this,

some applications were used, such as the iPad, and the children in the study sample were subjected to the BeeBot game, while stimulating freedom of action, curiosity, communication and boldness in the children under study. The results showed that creativity in children between (3-4) years old can be greatly influenced by digital code. In light of these results, some educational principles were proposed that can better help empower children to be creative in the educational process, using digital technologies.

3.8. Sports activities:

Scientists confirm that physical and sports activity is a practical practice whose results appear in practical and applied performance and requires thinking combined with implementation. This is what is called creative production and sports activity. Gross confirms that play is nothing but preparing the child for serious work in life, and in this field we find a study Amrio and Yaqoubi (2014), which aimed to reveal the effect of a recreational sports program in developing some creative abilities among pre-school children, mainly represented in (imagination ability, fluency ability, originality ability), where he concluded that most children have a great ability of imagination in comparison. Of the ability to originality, and this is consistent with many scientific research and studies that came in this field, while the children's ability to fluency was close between the experimental and control samples because the age of the children allows for the growth of this ability.

5.4. Stories and acting:

Al-Hamidi (1999) believes that the story can be a means of developing creativity and imagination in humans, because it contains many incidents and situations in which a person needs to form links and relationships between its various elements and events. In this field, we find a study by Al-Rashidi (2017), which aimed to identify the impact of children's stories (religious and social) on developing creative thinking skills among pre-school children in the Qassim region. The results of this study indicated that there were differences between the two experimental groups and the control group. In creative thinking skills and in favour of the two experimental groups, the results also indicated that there were statistically significant differences in the level of creative thinking and its dimensions (flexibility, fluency) and in favor of the first experimental group (religious stories).

5.8. Problem Solving:

Rudnick and Krolik defined the problem-solving method as: "A method that includes information and skills that enable the student to understand the problem he faces and work on solving it. These information and skills become basic components within the student after learning them, and he can use them to solve a new situation similar to the original situation." The method of solving problems is related to the method and not to the content of the problem. (Al-Baghdadi, 2002, 395).

The problem-solving method according to Al-Baghdadi (2002, 399) includes critical thinking, logical thinking, exploratory activities, innovative thinking and investigation. He also believes that one of the most important features of the problem-solving method for scientific education is that it represents realism, as the problems are directly related to the student's life.

As for Albert Enestian, he believes that the big problems facing us cannot be solved with the same level of thinking that led to the creation of this problem itself, and that naivety, in his view, is that we do the same thing in the same way and then expect different results. (Suwaidan, 2004, 84-85).

In this regard, we find the study of "Al-Bariqi" and "Al-Adwan" (2010), which aimed to investigate the effectiveness of the problem-solving strategy in developing creative thinking skills in the field of social and national education. To achieve the objectives of the study, the Torrance Formal Test (B) for creative thinking was applied as a pre- and post-test. On the study sample that included (86), the results of the study showed that there were statistically significant differences ($\alpha \leq 0.05$) among fourth grade students attributed to the problem-solving strategy in all creative thinking skills, and in favor of the experimental group, while there were no statistically significant differences. It is attributed to gender and the interaction between teaching method and gender.

6.8. Brainstorming:

Osborn defines it as an innovative conference that aims to produce a list of ideas that can lead to the crystallization of the problem, and ultimately lead to the formation of a solution to the problem. This term was used because the mind ravages the problem, examines it, and scrutinizes it with the aim of arriving at appropriate innovative solutions to the problem (Al-Ahmadi, 2008). 10).

In this regard, we find the study of Al-Ahmadi (2008), which aimed to build a proposed program for developing creative thinking skills, use the brainstorming method in teaching the program, and measure the effectiveness of the program in developing creative thinking skills, as the study found a noticeable improvement in the research sample in the post-measurement. In testing creative thinking skills, the program was characterized by a degree of effectiveness in developing creative thinking skills, and it also showed that the brainstorming method is effective in developing creative thinking skills.

Through the presentation of previous studies related to each method or style of developing the ability to think creatively among pre-school children, we notice that most of them focused on the lessons of play of various types and methods for developing thinking skills, whether explicitly or implicitly, or playing directly or indirectly through guidance, behavioural or educational programmes. It is natural that play is the primary gateway to creative thinking for a child, because it allows him to deal with tangible things and provides him with the reasons for creativity, including: freedom, curiosity, daring, and discovery.

9- Conclusion:

We conclude from the above that creative thinking is a human trait, the signs of which appear in the individual from his childhood and the first years of his life. Thus, we find that pre-school children, through their developmental characteristics, are characterized by a love of curiosity and exploration, and they also have curiosity and exploration of the environment surrounding them. Through the research and studies conducted on this subject by researchers, we have learned the importance of creative thinking as it is one of the most important skills that must be developed in pre-school children through some of the following suggestions:

- Building educational curricula that suit the developmental characteristics of pre-school children and derive their content from the characteristics of creative thinking and its skills.

- Taking into account the findings of recent research and studies in the field of creative thinking and in the field of designing the classroom environment in kindergartens.

- Kindergarten teachers and educators undergo training courses, especially in the field of methods and techniques for developing creative thinking skills in pre-school children.

10. Reference list:

1. Al-Ahmadi, Maryam and Muhammad Ayed, (2008), Using the brainstorming method to develop creative thinking skills and its impact on written expression among third-year intermediate female students, Arabian Gulf Message Journal, 29 (107), 59- 93.

2. Al-Bariqi, Abeer and Ubaidullah, Al-Adwan, Zaid Suleiman, (2010), The effectiveness of the problem-solving strategy in developing creative thinking skills in the subject of social and national education among fourth-grade students, Aleppo University Research Journal, Arts, Humanities, and Educational Sciences Series.

3. Al-Baghdadi, Muhammad Reda, (2003), The History of Science and the Philosophy of Scientific Education, Cairo, Dar Al-Fikr Al-Arabi.

4. Jayusi, Magdy and Nimr, Rashid, (2020), The impact of educational games on developing creative thinking skills among children attending kindergarten in the city of Tulkarm, Journal of Humanities and Educational Sciences, 6 (2), 70-92.

5. Al-Hattah, Zubaida, (2007), The effectiveness of a proposed educational program in developing creative thinking skills, unpublished master's thesis, Faculty of Humanities and Social Sciences, University of Algiers, Algeria.

6. Al-Hammadi, Ali, (1999), The Injection of Creativity, Beirut, Dar Ibn Jazm for Printing and Publishing.

7. Al-Hawamdeh, Mustafa Mahmoud and Abu Shreikh, Shaher Deeb Muhammad, (2013), The role of kindergarten teachers in developing children's creative thinking skills, Zarqa Journal of Research and Human Studies, 13, (15), 105-120.

8. Al-Rashidi, Fatima and Sahab, Jalawi, (2017), The impact of "religious and social" children's stories on developing creative thinking skills among pre-school children in the Qassim region - Kingdom of Saudi Arabia, International Journal for the Development of Excellence, 8 (14), 03- 25.

9. Refaat, Saad (2011), Educational Ideas for Developing Creativity and Invention in Children, Egypt, Dar Al-Yaqeen for Publishing and Distribution.

10. Al-Zaidi, Fatima and Bint Khalafallah Omar, (2008), The impact of active education on developing innovative thinking and academic achievement in science among third-year middle school female students in public schools in the city of Mecca, unpublished master's thesis. College of Education, Umm Al-Qura University, Mecca, Kingdom of Saudi Arabia.

11. Zakri, Narges and Nawar, Shehrazad, (2016), play activity and its relationship to developing innovative thinking among pre-school children, Journal of Humanities and Social Sciences, No. 26, 91-98.

12. Al-Salama, Marwan and Abdullah, Muhammad, (2018), Mathematical thinking and its relationship to creative thinking skills among gifted students in the city of Riyadh, Journal of Scientific Research and Publishing, 34 (03), 501- 542.

13. Al-Suwaidan, Tariq Muhammad and Bashraheel, Faisal Omar, (2004), The Industry of Success, Dar Ibn Hazm.

14. Abdel Razzaq, Asaad Hussein, et al., (2014), Mohsen, the effect of a pretend play program in developing creative thinking in children aged (4-5) years, Journal of Physical Education Sciences, 07 (02), 158-196.

15. Arafat, Fadila, (2010), Creative Thinking, its concept, types, characteristics, components, stages and factors affecting it, online link: http://www.alnoor.se/article.asp?id=91424, date of visit. : 07/22/2020. 18:26

16. Attia, Samiha Muhammad, (2019), The effect of parental authority on the motivation and creative thinking of kindergarten children, Journal of "Studies in Childhood and Education," (10), 347-401.

17. Amrio, Zuhair and Yaqoubi Fateh, (2014), The effect of a recreational sports program on developing some creative abilities among pre-school children, Journal of Humanities and Social Sciences, No. 16, 387-398.

18. Ghadhban, Maryam, (2011), Creative Thinking, Its Abilities and Measures: Paul Torrance's Verbal Creative Thinking Test, Version (A) as a Model: Humanities Journal, (36) December. pp. 105-119. Story University Constantine, Algeria.

19. Al-Musharrafi, Inshrah and Ibrahim Muhammad, (2003), The effectiveness of a proposed program for developing competencies in teaching creative thinking among female student teachers at the Kindergarten College, unpublished doctoral thesis, Department of Curriculum and Teaching Methods, Faculty of Education, Alexandria University, Egypt.

20. Yaqoubi, Fatih, (2011), The effect of a proposed training program using motor games, educational games, and games (kinetic + educational) in developing creative thinking skills among pre-school children, Journal of Mathematical Creativity, 02 (03), 28- 54.

23. Al-Zu'bi, Mohammad Ahmad Abdelaziz & Al, (2017), The Relationship Between Creative Thinking And Motivation To Learn Creative Thinking Among Pre-Schoolers In Jordan, European Journal Of Education Studies, 03(03). 426 - 442.

24. Besançon Maud, Guignard Jacques-Henri, Lubart Todd, (2006), Haut Potentiel, Créativité Chez L'enfant Et Éducation, Bulletin de psychologie, 491 à 504.

25. Fauzan Norsiah, Mat zaini Norfarahin , (2015), International Journal of Technical Research and Applications e, Special Issue 22 PP. 86-93.

26. Kyung, Hee Kim (2011), The Creativity Crisis: The Decrease in Creative Thinking Scores on the Torrance Tests of Creative Thinking, Creativity Research Journal, 23(4), 285-295.

27. Kyung-Hwa Lee, (2005), The relationship between creative thinking ability and creative

personality of preschoolers, International Education Journal, 6(2), 194-199

28. Murcia K & al, (2020), A framework for identifying and developing children's creative thinking while coding with digital technologies, Educational Research, 30(4), 2020, 1395 - 1417.

29. Nikkola T, Reunamo. J & Ruokonen. I, (2020), Children's creative thinking abilities and social orientations in Finnish early childhood education and care, Early Child Development and Care, Print) (Online) Journal homepage: https://www.tandfonline.com/loi/gecd20.

30. Taha, salwa m. Z. ; janat a. Elbakatoshy and heba a. Elbana, (2013), the total quality and its impacts on creative thinking of kindergarten children, j. Agric. Econom. And social sci., mansoura univ,4 (8): 1635 – 1648.

31. Zachopoulou, Evridiki, (2007), Early Years Physical Education, Expression of children's creative thinking through physical education activities, Physical Education in Early Childhood,(51), 14-21.