

The Application of Educational Games in Primary Education: A Theoretical Framework

Saloua Touati Tliba

University Echahid Hamma Lakhdar -El Oued (Algeria), E-mail: touatitliba-saloua@univ-eloued.dz

Abstract:

This study aims to shed light on educational games in the field of learning and education, through the perspectives of educators and teachers in primary education. The goal is to identify the key determinants associated with this learning approach. Accordingly, this study seeks to explore the meaning and types of educational games, followed by the theories that have interpreted this type of learning. Finally, it examines how learning takes place through play. In this context, the following research question is posed: What are the theoretical frameworks for educational games employed in educational activities in primary education?

Keywords: Educational games, concept, types, theories, learning, learner.

Introduction:

Perhaps the first to recognize the importance of play and its scientific value was the Greek philosopher Plato. This is evident in his call in the "Laws" for the distribution of apples to boys to help them learn arithmetic. Aristotle also agreed with him, emphasizing the need to encourage students to play with real objects and tools that they will use seriously when they grow up. From this perspective, we are prompted to investigate the educational games employed in educational activities in primary education from a theoretical standpoint.

First: Definition of Educational Play

The word "play" has long been an expression attributed to any voluntary behavior that does not seem to have any clear biological or social use, so many parents, and even educators, fail to understand its nature.

A-Lexical Definitions of "Play" :

Play: the opposite of seriousness, and it is said of anyone who does a work that does not benefit him; you are just playing, and in a hadith of Ali - may God be pleased with him -: "Ibn al-Nabighah claimed that I am a plaything: meaning that I play a lot, and the plaything: the object that is played with, and the plaything: the statue and chess is a game, and backgammon is a game, and everything that is played with is a game.¹ "

Play and playground: the place of play, and the game is a type of play².

The toy: is a small statue that is played with, and the game: is the plural of games: a name from play, and the game: is the turn of play, and it is said: Sit down until I finish this game.³

Play: is an activity performed by the learner"⁴.

After following the meanings of the lexical material "play", it appears according to the linguistic dictionaries that play is associated with work that does not benefit, or with the tendency to ridicule, but rather it is an activity against seriousness.

As for the educational definition, it clearly distinguishes between play and unstructured activity and play that is subject to strict rules.

B - Technical Definitions of "Play":

Psychologists and educators have presented many definitions of play, varying according to the different perspectives on its nature and the role it plays in the individual's life. However, they carry their common characteristics in terms of activity and motivation.

Thus, play is the exploitation of kinetic and mental energy at the same time through an activity that may be directed or undirected, carried out by learners usually to achieve fun and entertainment, and learning indirectly, and thus it is a human instinct⁵, that arises with the human being from the first moments of his birth like sleeping and eating ..., and through which he acquires behavioral patterns that are reflected in the social situations that he faces in the next stages of work, and it can be practiced individually or collectively⁶.

✚ **Susanna Miller** defines it as: "An important behavioral activity that plays a major role in shaping the individual's personality and sometimes confirming the group's heritage. It is a behavioral phenomenon in living creatures, and it is distinguished by higher vertebrates and humans in particular."⁷.

She considered it an important behavioral activity, through which the individual learns a set of rules of behavior, order, self-discipline, and social, which contributes to the formation of his independent personality, through which the individual discovers the world around him, and the relationships that connect people or things.

✚ **Good** defines it as: "Play is a directed or non-directed activity for the sake of fun and amusement. Adults usually use it to contribute to the development of their behavior and personalities in their various dimensions, mental, physical, and emotional.⁸ "

Directed Play: This refers to a play that is **guided** by adults. It involves specific games with plans, programs, and objectives set by adults, which children then carry out.

Non-Directed Play: This type of play arises from the child's imagination and creativity. It is spontaneous and unstructured, allowing children to explore their interests, express their individuality, and develop self-directed learning skills⁹.

✚ **Taylor** defines it as: "Play is the breath of life for the learner. It is their life, not a way to pass the time and occupy themselves. Play for the learner is like education, self-exploration, recreation, and work for adults¹⁰. "

✚ **Piaget** defines it as: "Play is a representational process that works to transform incoming information to fit the needs of the individual. Play, imitation, and simulation are an integral part of the process of mental development and intelligence¹¹. "

Jean Piaget, a renowned Swiss psychologist, strongly advocated for incorporating the spirit of play into the educational process. He believed that play provides a rich environment for learners to acquire knowledge and develop cognitive skills¹². Piaget's emphasis on play aligns with his theory of cognitive development, which posits that children actively construct their understanding of the world through play and exploration.

2. Theories Explaining Play

Psychologists and educators have long recognized the significance of play as an expressive behavioral phenomenon due to its profound positive impacts. They have meticulously studied this phenomenon in both humans and animals, attempting to decipher its underlying mechanisms despite their diverse perspectives and approaches. Despite this keen interest, their explanations have remained varied. This divergence stems from the theoretical frameworks that underpin each theory or school of psychology. These theories include:

A. Surplus Energy Theory

- ✓ Proposed in the late 19th century by **Friedrich Schiller** and **Herbert Spencer**.
- ✓ Suggested play is a way to release excess energy in humans¹³.
- ✓ Applied to learners: Children surrounded by care may have excess energy they release through play¹⁴.

B. Preparation for Life Theory

- ✓ Developed by **Karl Gross**.
- ✓ Play is a biological function that helps organisms prepare for future activities¹⁵.
- ✓ Play allows practicing and developing physical and cognitive skills necessary for survival and reproduction later in life.

C. Recapitulation Theory

- ✓ Offered by **Stanley Hall**.
- ✓ Play is a way for children to relive the evolutionary history of the human species.
- ✓ Children's play reflects the activities and behaviors of our ancestors.

D. Psychoanalytic Theory

- ✓ This theory emerged from **Freud's school** of psychoanalysis. Its proponents hold the following views:

Compensatory Function of Play: Play serves a compensatory function, fulfilling suppressed desires and impulses that society deems unacceptable. Individuals harbor these desires and the need to satisfy them, and play allows them an outlet for expression. Additionally, play is seen as a mechanism to overcome fears and anxieties¹⁶.

Alleviating Anxiety: According to this theory, play assists learners in alleviating the anxiety that all individuals strive to eliminate by any means possible. Play is considered one such method.

"For proponents of psychoanalysis, play is a symbolic expression of repressed desires or unconscious conflicts. This expression helps reduce tension and anxiety in learners. For instance, a learner harboring

unconscious resentment towards their father might select a doll representing the father and inflict harm upon it, such as gouging out its eyes or burying it in the ground. Through such actions, the learner expresses their pent-up emotions through play, the learner corrects reality and molds it to their desires. mitigate the impact of painful experiences and even predict future events. For example, a learner might exclaim, 'You will be punished, my doll, for not obeying Mommy!' ¹⁷"

Roots in Aristotelian Thought: The psychoanalytic theory of play traces its roots back to the Greek philosopher Aristotle¹⁸. He believed that the function of tragic representations was to assist viewers in catharsis, or the purging of their emotions, by witnessing the unfolding of events and tragedies.

E. Physical Growth Theory

- ✓ Prominent proponents include **Kar** who views play as a means for organ growth, particularly the brain and nervous system.
- ✓ At birth, a child's nervous fibers are not fully covered by the myelin sheath, which insulates and protects them.
- ✓ Play involves movements controlled by various brain centers, stimulating these centers and gradually forming the myelin sheath¹⁹.

F. Recreation or Renewal Theory

- ✓ Play is a natural way to rest the body after strenuous work.
- ✓ This theory is more applicable to adults, as learners rarely engage in exhausting work that requires play as a recreational activity²⁰.

The body uses muscles and nerves differently during play than during serious work, allowing the tired muscles and nerves to rest and regain energy²¹.

Play often requires more physical exertion than serious work. To rest the body from work, one should engage in activities opposite to those of work.

G. Jean Piaget's Theory of Play

- ✓ **Piaget's** theory of play is closely linked to his explanation of intelligence development, viewing play as an integral part of a learner's overall activity and mental growth²².

Play serves a clear biological function by actively repeating and practicing new experiences, leading to mental representation.

Piaget emphasizes the importance of active involvement in building cognitive processes, criticizing **Montessori's** sensory-based play materials as restrictive to active learning²³.

Despite her intention to encourage free growth, Montessori's methods, inspired by adult psychology²⁴, often restrict natural growth by imposing activities designed for adults²⁵.

3. Types of Educational Games:

According to many educators, organized educational games can be classified into the following categories:

A. Doll Games:

These include games with cars, trains, hunting tools, dolls, animal figures, machines, and decorative items²⁶. The content of these games can be diverse, reflecting various aspects of adult life, such as housework, schoolwork, driving a bus, flying an airplane, or caring for animals.

Observing their surroundings, listening to short stories, and watching puppet shows can enhance learners' performance in these games. These activities strengthen observation skills, promote orderliness and, a broad understanding of the world, and stimulate the imagination through engaging and enjoyable scenarios.

Doll games also foster good communication skills as learners take on different roles, encouraging them to express themselves effectively. These games can serve as a catalyst for language development in all its forms, improving pronunciation, fluency²⁷, and the ability to construct and connect long sentences.

B. Motor Games:

These games require physical exertion from learners, promoting their overall well-being, developing balance and coordination, strengthening muscles, and acquiring motor skills. Examples include throwing, catching, assembling, racing, jumping, balancing, swinging, and ball games²⁸.

While these games often lack a competitive element, they offer individual benefits and contribute to social development. Learners learn to cooperate and interact with others in various activities, fostering harmony and social skills²⁹. Motor games are often incorporated into elementary education as extracurricular activities for enjoyment and relaxation.

C. Dramatic Games:

These include role-playing and theatrical performances, relying on the learner's imagination and creativity. Also known as creative games, they allow learners to create situations, practice responses, and develop solutions. Providing theatrical props and costumes can encourage participation³⁰.

The content of dramatic games is determined by the available tools and objects. Learners can imitate the actions of others, and represent positive relationships with those around them, such as a mother feeding, caring for, and taking her children for a walk. They can engage in dialogues, both imaginary and realistic, contributing to language development.

D. Cultural Games:

These include poetry competitions, riddles, map games, and intellectual games. They aim to stimulate individual interests, cater to curiosity, and satisfy the desire for knowledge, information, and understanding of the world around them³¹. These games require mental effort and provide entertainment and enjoyment.

Educational games in elementary education can be classified as individual or group activities based on the number of participants or the gameplay method, whether organized or spontaneous. Dedicated time is allocated for these games for entertainment, enjoyment, and support for fundamental educational activities such as reading, writing, and expression.

4-Learning Through Play :

Learning through play is the utilization of play activities to acquire knowledge, introduce scientific principles to learners, and expand their cognitive horizons³².

Educational games, as defined by Al-Khafaf, are "a form of guided, purposeful games that follow specific plans, programs, tools, and materials prepared and experimented with by teachers. Students are then directed to practice these games to achieve specific goals"³³.

The fundamental idea behind this approach is to engage learners actively and positively in educational settings³⁴.

The learning-through-play approach plays a significant role in transferring what a student learns from one situation to new educational contexts. This transfer depends on several factors³⁵:

A. Mastery of Game Rules: Studies in this field suggest that using the play approach in learning facilitates the transfer of its impact from one educational context in which the learner has trained to another new context in which they have absorbed and understood its meanings.

B. Relationship Between Movements: This refers to the learner's awareness of all the movements they perform while practicing the original game and the relationship between these movements, which adds meaning to the learned situations.

C. Similarity in Strategies: The more the elements of similarity or resemblance between the strategies of one game and another new game increase, the more the transfer of the learning effect to the learning of strategies of a new game increases.

D. Desire to Play: The learner's desire to practice games affects, in one way or another, the transfer of the learning effect to other situations. If the learner's tendency is positive towards practicing certain games, then this will naturally lead to a positive transfer to other educational contexts.

E. Diversity in Play: The learner's practice of an educational task provided by a particular game in different and diverse contexts exposes them to several new situations.

Conclusion:

The importance of play has captured the attention of scientists and researchers, who have presented theories to explain the phenomenon. However, most of them have not provided a comprehensive explanation of the function of play. However, everyone agrees on certain points that play is nothing more than a spontaneous expression of joy, like any other human activity that requires motivation. In this capacity, it has become one of the effective tools used in education and training.

Recommendations:

- ✚ **Adopt the learning through educational games approach:** The Ministry of Education should adopt the learning through educational games approach and implement it in the curricula under the supervision of specialists.
- ✚ **Generalize the use of the learning-through-play approach:** Generalize the use of the learning-through-play approach in all the content of the learner's curriculum, due to its positive impact.
- ✚ **Organize training courses for teachers:** Organize training courses for teachers to train them on how to use the learning through-play strategy and how to employ it in the curriculum.

-
- ¹ Ibn Manzur, Abu al-Fadl Jamal al-Din. *The Ocean of the Arabic Language*. Edited by Yusuf al-Khayat. Dar Lisan al-Arab, Beirut, Lebanon. n/a Vol. 3, p. 371.
- ² Ibn Hammad, Isma'il al-Jawhari. *The Correctness - The Crown of the Language and the Correctness of Arabic*. Edited by Ahmad Abd al-Ghafour Attar. Dar al-Ilm lil-Mala'een, Beirut, Lebanon. 3rd ed., 1984. Vol. 1, p. 219.
- ³ A group of authors. *The Guide to Language and Names*. Dar al-Mashriq, Beirut, Lebanon. 25th ed., 1986. p. 723.
- ⁴ Michel Takla Gerges. *Dictionary of Educational Terms (English - Arabic)*. Translated by Ramzi Kamil Hanna Allah. Reviewed by Yousuf Khalil. Maktabat Lubnan Nasheroun, Beirut, Lebanon. 1st ed., 1998. p. 282
- ⁵ Aziza Sobhi Abd al-Salam. *Play in Children*. Dar al-Mawhaeb, Algiers, Algeria. 1st ed., 2009. p. 11.
- ⁶ Muhammad Sobhi Abd al-Salam. *Developing the Child's Talents and Skills*. Dar al-Mawhaeb, Algiers, Algeria. 1st ed., 2009. p. 92.
- ⁷ Fadel Hanna. *Play in Children*. Dar Mashreq Maghreb, Damascus, Syria. 1st ed., 1999. p. 17.
- ⁸ Walid Abd Bani Hani. *Learning Through Play - 100 Educational Games -*). Dar 'Alam al-Thaqafah, Amman, Jordan. 1st ed., 2010. p. 15.
- ⁹ Abdullah al-Sufi. *Encyclopedia of Child Care*. Dar al-'Awda, Beirut, Lebanon. 2nd ed., 1982. p. 268.
- ¹⁰ Walid Abd Bani Hani. *Learning Through Play - 100 Educational Games*. Previous reference, p. 15.
- ¹¹ Fadhel Hanna. *Play in Children*. Previous reference, p. 17.
- ¹² Maria Piers and Genevieve Landau. *Play and Child Development*. Translated by Abd al-Rahman Sayed Suleiman and Sheikha Yousuf al-Darbaty. Maktabat Zahrat al-Sharq, Cairo, Egypt. ndp 41.
- ¹³ Hamed Abd al-Salam Zahran. *Psychology of Growth*. Dar 'Alam al-Koutub, Cairo, Egypt. 5th ed., 1990. p. 272.
- ¹⁴ Fadhel Hanna. *Play in Children*. Previous reference, p. 78.
- ¹⁵ Susanna Miller. *Psychology of Play*. Translated by Hassan 'Isa. Reviewed by Muhammad Imad al-Din Ismail. Silsilat 'Alam al-Ma'rifah, Kuwait. No. 120, 1987. p. 18.
- ¹⁶ *Ibid.*, p. 24.
- ¹⁷ Walid Abdel Bani Hani, *Learning through Play - 100 Educational Games -*, op. cit., p. 22.
- ¹⁸ Susanna Miller, *The Psychology of Play*, op. cit., p. 12.
- ¹⁹ Lyla Yusuf, *The Psychology of Play and Physical Education*, Dar Al-Kutub Al-Alamiyah, Cairo, Egypt, 1st ed., 1965, p. 22.
- ²⁰ Susanna Miller, *The Psychology of Play*, op. cit., p. 34.
- ²¹ Fadhel Hanna, *Play in Children*, op. cit., p. 74.
- ²² Susanna Miller, *The Psychology of Play*, op. cit., p. 53.
- ²³ *Ibid.*, p. 60.
- ²⁴ See Saleh Abdel Aziz, *Education and Teaching Methods, -A Series in Teaching Methods-*, Dar Al Ma'arif, Cairo, Egypt, 5th ed., 1963, Vol. 2, pp. 59-60.
- ²⁵ Fadhel Hanna, *Play in Children*, op. cit., p. 94.
- ²⁶ Walid Abde Bani Hani, *Learning through Play - 100 Educational Games -*, op. cit., p. 25.
- ²⁷ Fadhel Hanna, *Play in Children*, op. cit., p. 100.
- ²⁸ Walid Abd Bani Hani, *Learning through Play - 100 Educational Games -*, op. cit., p. 25.
- ²⁹ Viola Biblawi, *Children and Play*, Alam Al-Fikr Magazine, Kuwait, Issue 3, 1979, p. 126.
- ³⁰ Fadhel Hanna, *Play in Children*, op. cit., p. 99.
- ³¹ Mohammad Mahmoud Al-Hila, *Educational Games and Production Techniques - Psychologically, Educationally and Practically -*, Dar Al-Masirah, Amman, Jordan, 1st ed., 2003, p. 15.

³² Nibras Younes Mohammed Al Murad, The Effect of Using Programs with Kinetic Games, Social Games and Mixed Games in Developing Social Interaction in Kindergarten Children Aged (5-6) Years, Unpublished PhD Thesis, Mosul University, Riyadh, 2004, p . 20.

³³ Iman Al-Khaffaf, Play: Modern Teaching Strategies, Dar Al-Manhaj, Amman, Jordan, 1st ed., 2010, p. 279.

³⁴ Morsy, Mohamed Saeed. The Child's Play: Pleasure. Dar Al-Zahour, Cairo, Egypt. 1st ed. 2005. p. 24.

³⁵ Nibras Younes Mohammed Al Mourad, The Effect of Using Programs with Kinetic Games, Social Games and Mixed Games in Developing Social Interaction in Kindergarten Children Aged (5-6) Years, op. cit., p. 25.