

THE EFFICIENCY OF EXPERIENTIAL LEARNING IN PRESCHOOL CHILDREN

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Abstract

The child is constantly evolving throughout his life, and participation in the education process is a key element in ensuring this development. Experiential learning in preschool children is a current issue, the potential of which would fully ensure their personal training and development. At present, the task of educational institutions is to create an educational environment, whose interactive character would allow the achievement of the objectives of modern education based on the personal involvement of preschoolers in teaching and extracurricular activities. Experiential learning is learning that takes place after reflection on what is being done and is learning through action, through cooperation. The experiential approach to learning allows participants to lead and take responsibility for learning individually through direct discoveries and experiments. The child's main activity is play. Preschoolers are interested in experimentation, exploration, creation, and representation of what they learn through play and construction. Experiential learning is a didactic strategy based on the idea that the maximum profit in learning is obtained by experiencing unique situations and the transfer of knowledge thus obtained to new learning situations. Learning experiences can be positive or negative; the role of the teacher is to ensure/facilitate positive experiences.

Keywords: experience, experimentation, experiential learning, preschool children

1. INTRODUCTION

At the preschool age, education "is conceived as a comprehensive existential context established at the family and extra-family level, which integrates individuals, but also institutions, their actions, the attitudes and values they practice, the material, organizational, managerial resources, etc." [11, p.31]

Learning has been repeatedly described, in school practice, in terms specific to the activities of thinking (conceptualizing, understanding, solving problems) or of music functions (recognizing, retaining, reproducing knowledge). In order to learn and retain new information from the environment, we rely on the existence of cognitive structures with a minimum level of stability, clarity, and organization. The flow of learning cannot be conceived independently of the activity of cognitive mechanisms, but neither is it reduced to this activation. Psychic realities designated by concepts such as cognitive capacity or "expansion of processing capacity", a phrase used in research from 1978, can constitute targets of an educational-formative intervention. [9, p. 175]

The study of learning implies the requirement that students are supported from a very early age to learn not only how to produce a particular skill (reaction), but also why and when to produce it, which involves practicing that reaction in a simplified version, but in the context in which it is produced in reality, not isolated, in subskills broken by the situations in which the skill is to be applied. [13]

Three important characteristics of effective learning: it is active, it is goal-oriented, and it leads to measurable results. Ineffective learning, the main tools are critical thinking and metacognitive strategies. Active learning involves conscious involvement and participation in the knowledge-building process. In order to succeed in understanding the concepts learned and for them to acquire value, they must be transformed into their own systems of knowledge, the connection must always be made between new experiences and previous experiences, between and within fields of knowledge, between knowledge and the possibility of putting it in practice. Referring to goal orientation, this implies the orchestration of efforts towards achieving certain objectives. In order to fix the objectives, the existing weak points are looked for, they will be transformed into training and self-training needs. Objectives in learning may aim at the acquisition of information, the formation of skills, the formation of behaviors, or the

development of learning potential. The objectives are set beforehand and the contents and procedures are chosen based on them. Designing effective learning activities is done through objectives, not content. As for the measurable results, they are an impetus to continue the investment of effort in learning. The results materialize in immediate aspects (exams passed, concepts mastered, ideas acquired), but there are also results that can be demonstrated in a longer time (success in the profession, intellectual performance, behaviors in real life). Personal development is a continuum, it does not end with the acquisition of purchase or achievement of a result. The key feature of the results obtained through effective learning is quality, and the instrumental of effective learning that supports the person to guide himself and become aware of his thinking mechanisms is critical thinking.

Piaget's research shows that, by actively involving the child in a stimulating environment, he can be helped to make the transition to a new stage of development, and educators can ensure such an environment by using various materials and activities that stimulate his natural curiosity. Therefore, children who are before the operational - concrete level of development can be presented with new concepts by using concrete objects, and through dialogue and questions, they will have control over the learning situation. [10]

For preschool children, it is specific that the learning achieved by observing the behavior of others, by imitation, by joint participation in life events, and by social reinforcement is amplified. To all this is added the fact that "models of the affective states experienced by some characters from stories, cartoons, TV shows, etc. can be taken over" [12, p. 108]

In older preschoolers, due to the acquisition of some intellectual work procedures within the compulsory activities and due to the development of the capacity for critical self-evaluation of the possibilities and results obtained, learning takes on a much more organized character and becomes much more effective, thus anticipating school learning. [4]

Plato and Aristotle, since ancient times, identified experience as a way to access a sensible reality. In Kant's work, experience represents a world of objects built by an active spirit, by understanding the meaning of external phenomena, and in Hegel, experience is the movement of the spirit itself, which is produced in its actions, through and for consciousness. The 19th-century values experience and develop a new concept, that of experimentation.

In John Dewey's conception, experience is a situational transition during which an organism adapts to an environment that it transforms. The analysis of the studies developed by J. Dewey at the beginning of the last century allows us to find that the American philosopher and pedagogue systematically criticized traditional education, based on academic/disciplinary learning, since it emphasizes only scientific knowledge, recognized and validated by society, not the experiential one. The author draws attention to the fact that "the accumulation of knowledge only for its own sake, without taking into account its significance in social life is a danger, and the acquisition of skills without considering their social utility is almost criminal" [3, p.130]. He proposes replacing the traditional way of learning with a new education, based on experiential learning and the transdisciplinary valorization of the new education developed in his contemporaneity, emphasizing that the traditional school gives too much importance to the abstract, ignores the existence, needs, ideal of the democratic society and does not prepares the child for the necessities of life.

Basarab Nicolescu presents the phenomenon of transdisciplinarity as a new philosophy on life, but also a new vision on the development of education, stating that the transdisciplinary approach is the logical way of evolution of education and training in the 21st century, which should lead to the formation of thinking and consciousness transdisciplinary, to act in the name of establishing the necessary balance between the interiority and exteriority of the human being and to ensure the formation of the complete man, developed on all three levels: individual, social and cosmic. The transdisciplinary vision of learning in B. Nicolescu's conception could lead to the realization of an integral education of the personality, which must develop "both the mind and sensitivity, but also the body of the human being since only transdisciplinarity acts in order to establish the necessary balance between interiority and the exteriority of the human being" [8, p.93]. A fully formed person has harmonized within himself all three

dimensions that make up his being: mental, emotional, and physical, but current education privileges the mind of man, to the detriment of his sensitivity and physical development.

For Peter Jarvis, experience is about the body receiving sensations (sound, image, smell), then they are transformed into the language of the brain and mind to give them meaning. Human existence must have experiences and learn in order for the human essence to emerge and develop. The stimulus for this learning is the experience we have with the environment - the point where we intersect with the world. [5]

Preschoolers have an instinctive desire to learn, discover and try new things. Their natural curiosity is attracted to anything they are unfamiliar with, so this makes children interested in trying anything. This interest in learning can be exploited in schools and at home to maximize a child's development, but only when done properly. While preschoolers are naturally curious, they are also very active, mentally and physically. Often, they have difficulty paying attention to things that do not interest them. So is there a way to make almost any subject instantly intriguing to children? The answer lies in experiential learning.

Experiential learning presents a relatively recent way of approaching the learning process, with John Dewey, Kurt Lewin, Kurt Hahn, Carl Rogers, Jean Piaget, David Kolb, and Peter Jarvis as forerunners. Experiential learning is: that form of learning that occurs outside the classroom, while the assimilation of information is specific to school; "it is the one in which the learner is in direct contact with the reality he is studying" [6]; "the process by which knowledge is created by transforming experience" [7, p.38]; "the transformation of experience into knowledge, skills, and attitudes; learning is a continuous process whose objective is to give meaning to experience; learning is inert to everyday experience" [5]. Essentially, experiential learning theory is a holistic idea that combines the concepts of concrete experience and the acquisition of knowledge through critical thinking and reflection. The theory was called experiential learning to emphasize the importance of experience as central to the learning process, in contrast to other types of learning theories.

According to David Kolb, the experiential learning cycle integrates the following four stages: actual concrete experience; observation and reflection on lived experience; the formation of abstract concepts through generalizations resulting from experience and reflection; experimentation in new situations, using the abstract concepts formed in the previous sequence. This model has been enriched over time, making additions in line with new findings and theories from psychology and psychopedagogy as follows: Peter Jarvis adds the idea of correlating experiential learning with cognitive styles. The reflection stage within experiential learning has been analyzed in detail, emphasizing its epistemic valences.

Experiential learning is a learning method where children actively participate in the learning process. This makes the lessons personal for the children by including them in the learning process. In this way, classes become fun activities for children. Experiential learning gives children a sense of achievement that will build their self-esteem and fuel their desire to learn. By taking ownership of a situation, with the help of adults, children learn how to pursue their ambitions without being afraid to try something new or struggle at first. Experiential learning is collaborative and allows children to develop their own unique strategy (with some support) rather than following a pre-set formula to arrive at an answer. They will be more likely to think creatively in the future, instead of assuming that all problems have right and wrong answers and right and wrong ways to approach them.

In experiential learning, the role of the teaching staff is to optimize the act of learning and to create the necessary conditions for a good performance of the activity. The teacher is not limited to transmitting knowledge but becomes a facilitator in the action of modifying old ideas in accordance with new ones. It provides the necessary resources to the learner, shares opinions, empathizes with him, and guides him when he encounters difficulties. In experiential learning, the teacher has the role of guiding the child and ensuring an active dialogue between them. In the learning process, personal experiences and personal development are valued, and learning is organized around them.

In order to be part of successful activity, it is necessary to create a warm, emotionally charged, and secure atmosphere. The atmosphere created since the beginning of the learning process positively or negatively influences the success of the activity carried out. Taking into account the fact that the child's

previous experiences are the basis of future, evolutionary ones, the learning process must take place according to the child's experience, values, ideas, feelings, and attitudes.

Research suggests that children also learn best through positive interactions and experiences. Rich and positive experiences help shape their malleable brains. In fact, 90% of a child's development occurs before the age of six. The early years create the blueprint for the child's physical, emotional, cognitive, and social development; therefore, the quality and variety of experiences and interactions a child is exposed to in the early years can create a lasting impact on their life.

Experiential education also implies that students create, to some extent, their own learning. They are not told how to learn in a playful way. And they are not necessarily given a set of instructions for the doing part of the experience, as long as they form these steps beforehand with the educator. They are simply guided and encouraged. The outcome is not controlled - even mistakes can be part of the learning process. But the educator should make sure that the child is on the right path to learning something.

This type of experiential learning, where children gain knowledge through action and reflection on their experiences, is full of movement, imagination, and self-directed play. However, this type of learning is increasingly rare in early childhood education classrooms in the US, where many young children spend their days sitting at desks and completing worksheets. U.S. kindergartens have become increasingly academic, rigorously structuring children's time, emphasizing assessment, drawing a firm line between work and play—and restricting children's physical movement. A University of Virginia study published earlier this year found that, compared to 1998, children today spend far less time learning autonomously - moving freely and doing activities of their own choosing - and much more time in a passive learning environment.

Movement allows children to connect concepts to action and learn through trial and error. If you walk into a kindergarten classroom, everyone is moving. There are structured activities, but generally, it's about purposeful movement, says Nancy Carlsson-Paige, professor emerita of early childhood education at Lesley University, who describes the ideal classroom setup. In the classroom culture she advocates, children receive materials for an activity, go back and decide what else they need for what they want to create, see how the shape of one block works in relation to another block, if they need more, if it is balanced, if it should be higher, if it is symmetrical. All of these concepts unfold as children actively build and move. [2]

The realistic nature of the information transmitted and recorded in the context of experiential learning, as well as the expressiveness and facility with which they can be observed, favors the motivation for learning, but also the appearance of positive affective experiences, with an impact on the students' epistemic interest, in various stages of development of their personality. Evaluation within this type of learning becomes self-evaluation, being an experience that learners learn to apply to themselves, by referring to the observed, reflected aspects and application alternatives identified by each. In specialized literature, as well as in educational practice, various working models have appeared suggested to be applied at different educational levels, in which experiential learning is the basis. This system aims to develop students' theoretical and practical investigation skills, but also the development of teachers' and students' creativity, by inserting experiential learning sequences into science lessons.

The advantages of this teaching system are also demonstrated by the interdisciplinary character of the lessons, being correlated various information, which belongs to different scientific fields, approached in our kindergarten in a predominantly monodisciplinary way. Through this interdisciplinary approach, the degree of understanding of the surrounding reality increases, it favors the development of critical thinking, directed observation skills, the ability to formulate conclusions and communicate, etc.

The experiment and the experience are presented and explained as follows: "the experiment represents the intentional production or modification of a phenomenon, caused by the researcher, under conditions imposed by the research hypothesis in order to capture its characteristics and causes, the experience represents the practical verification of a law or formulas by triggering phenomena in the laboratory, group room"[1, p.151]. In kindergarten, the experiences carried out are simple, through which children observe the causes and consequences of the connections between objects and natural phenomena. Their success depends on the volume of knowledge and elementary skills of observing the actions performed

that preschoolers possess; the information obtained during the experiments allows them to better understand the phenomenon, than only through the teacher's verbal presentation. Educators can carry out various activities through which they discover new things, making attractive and interesting experiences, to stimulate their curiosity and, at the same time, develop the ability to research what surrounds them. Experiential activities can be carried out, through which we can give preschoolers the opportunity to know the world around them and learn about it, through observation and exploration/investigation.

Play allows children to interpret alternative scenarios and find different ways of expressing social or emotional difficulties. They can learn to assert themselves, acquire social skills, and leadership qualities, and resolve group conflicts through role-playing and using the play space as a rehearsal for real-life situations. Learning is not only about academic activities but also about life skills. The role of play has been established not only as part of learning but also as a foundation for healthy social and emotional functioning.

The preschool child learns through play. Creative free play, chosen by the child and corresponding to his internal motivation, is the most important for his development. Learning experiences are given by the child's relationships with objects, with other people (adults and children), and with himself. Just as each child has his own experience and identity, so the learning opportunities we offer in the educational program have different values for different children. In the educational activity at preschool age, the process that the child carries out is more important than the actual contents or results. In the chosen free game there are necessary opportunities for the individualization of learning and development. Through play, the child uses the experiential learning techniques necessary for his individual development. The effectiveness of an education program at preschool ages is dependent on individual treatment and the training of group relations in the learning and development of the preschool child.

From all these arguments, I practically applied experiential learning in this study as direct experiences, physical, and practical experiences, relying on activities that actively involve preschool children in a fun way and playful activities.

2. MATERIALS AND METHODS

2.1. Materials

A review of the research literature related to experiential learning and the evaluation of instructional effectiveness was conducted. By consolidating previous research, the conceptual framework of the present study was formulated.

2.2. Methods

This study aims to determine the effectiveness of experiential learning activities compared to activities carried out through traditional methods used in the activities of the Science Domain - environmental knowledge. The research was experimental and practical-applicative. The purpose of this study was to identify the level of efficiency in carrying out experiential learning activities in the training and personal development of preschoolers.

The objectives of the study were to: identify experiential learning activities that can be used in the instructional-educational process at kindergarten; highlighting the cognitive outcomes produced by experiential learning activities.

The organization and conduct of the experiment were based on the synthesis of the previously stated theoretical premises and allowed me to formulate the hypothesis that the use of experiential learning in the teaching-learning process determines qualitative increases in the learning of preschoolers.

The research was carried out at an Extended Program Kindergarten in Constanța, in the urban environment between September and December 2021. The sample was composed of 120 preschoolers, of which 58 were male and 62 were female. The design is an intersubject experimental one (parallel/equivalent samples technique) involving an experimental group and a control group, and

further, the evolution of the two groups will be studied comparatively. The preschoolers involved in this experiment are between 5 and 6 years old and attended kindergarten starting with the small group. The children come from normal family environments, which support and are actively involved in the educational activity. There is permanent communication between the preschoolers and the educators of the two samples of children and the groups of children are fairly well-knit, there is a good interrelationship between the children of each group. These children meet the criteria established at the beginning of the experiment (age, kindergarten attendance). The children's training level is heterogeneous in terms of intellectual possibilities. To ensure the validity of the results, the experiment was organized into 2 groups: the group in which experiential learning activities were introduced and their effects were monitored called the experimental group consisting of two large groups (60 preschoolers); the control group in which there was no intervention, and the educational process unfolded normally, was made up of two large groups (60 preschoolers), in relation to which the effects of the experiment were compared.

The research methods used in this study were: experiment, observation, and tests. The research was carried out in three stages: the initial, confirmatory stage, in which we applied an initial test; the experimental stage, with formative value, the stage in which I will present the experiential learning activities carried out for the cognitive development of preschoolers; the control stage, with a comparative character in which they determine whether the objectives have been achieved and whether the hypothesis can be validated.

The first stage, the initial stage - the first step in the actual research consists in testing the level of cognitive development of preschoolers at the beginning of the experiment. We planned an initial test in September 2021 that aimed to verify the knowledge of preschoolers in the Science Domain - Knowledge of the environment, which was acquired by the children during the previous school year. The test applied at this stage follows the level of the following items: name the objects in the image, identify the components of the environment, color only the vegetables, circle as many fruits as the goat in the story had, and color the domestic animals, cut the wild animals with a line. The achievement indices for each individual item were between 0 points, fails to solve the requirements – NS (behavior requiring support); 1 point, partially solves requirements – D (behavior in development); 2 points, resolve requirements – A (behavior achieved).

In the second stage, the experimental stage - we introduced experiential learning activities for the acquisition of knowledge, which they can apply, in the daily activities of the preschoolers, for a period of two months (the period October - November 2021), in the experimental group in various situations. At this stage, the preschoolers in the experimental group were included in activities that used as a model the cycle of experiential learning described by David Kolb, activities centered on concrete experience, reflective observation, abstract conceptualization, and active experimentation. The theme of the proposed activities was: Autumn Fairy, Autumn Colors, Gifts of Autumn, Autumn in the Kitchen, Playful Pencils, and Nature Detectives. For the concrete experience, we have established activities that stimulate children's curiosity, provoke their attention, and convey to them the experience of an adventure. Preschoolers in the course of the experience looked, commented, observed, touched, listened, and the educators helped them to become aware of what they were experiencing with questions: What do you feel? what do you hear what do you see For the reflective observation, which I carried out after the concrete experience, I introduced the process of reflection on the lived experience, in which the observed aspects were discussed. The preschoolers expressed their own opinion and listened to the opinions of all the children to reflect on the experience they participated in. Questions like: What did you notice? Was the observation exactly like the other colleagues? What was interesting? What wasn't interesting? Educators are the ones who have an important role in this stage, which is to carefully examine all the answers and collect all the information about the preschoolers' lived experiences. In terms of abstract conceptualization, generalizations were formulated as a result of lived experiences, and concepts were extracted. Preschoolers, guided by educators, made similar connections and noticed and associated new acquaintances with previous ones. At this stage, theoretical knowledge is obtained, and preschoolers develop their ability to synthesize, their critical spirit, and they can understand causal relationships. For active experimentation, we proposed a new experience but made it with the help of the knowledge acquired from the previous experience. Preschoolers have the opportunity to solve certain

situations and evaluate and anticipate their results. The preschoolers in the control group carried out activities with the same theme but carried out traditionally using classic methods: exposition, explanation, and conversation, the preschoolers were more passive, and the knowledge was taught without the little ones researching, and investigating, discovering alone. After a period subjected to the experiment of experiential learning activities, we applied a formative test to see the progress achieved by the children in the experimental group. The test applied at this stage monitored the level of the following items: identify the season autumn, draw some specific elements in the picture of the season autumn, color the autumn fruits and circle the autumn vegetables, circle the domestic animals in blue, color from bottom to top as many dots as wild animals are, draw a line from each animal to its appropriate habitat. The achievement indices for each individual item were between 0 points, fails to solve the requirements – NS (behavior requiring support); 1 point, partially solves requirements – D (behavior in development); 2 points, resolve requirements – A (behavior achieved).

The third stage, the control stage, concerned the application of a final assessment test applied in December 2021 with a higher degree of difficulty compared to the pre-test. The test applied at this stage tracked the level of the following items: name and logical association of the objects in the image, identify the elements and component characteristics of the environment, color and say what they need to grow, circle the fruits and recognize the component parts, color the animals domestic and identify the sounds of animals in the environment, cut wild animals with a line and make the product - living correspondence. The achievement indices for each individual item were between 0 points, fails to solve the requirements – NS (behavior requiring support); 1 point, partially solves requirements – D (behavior in development); 2 points, resolve requirements – A (behavior achieved).

The centralization of the results was carried out graphically, including statistical information on the percentage of achievement of the items for each individual group.

3. RESULTS

Following the centralization of the tests, we obtained essential information regarding the effectiveness of experiential learning in preschool children. Analyzing the results of the initial test for the experimental group, we found that: items 1 and 2 had the best results, items 3 and 4 had good results, and items 5 and 6 had the worst results. From the number of a total of 60 preschoolers, the following was observed: 41% achieved the targeted behaviors; 33% had developing behaviors and 26% of behaviors require support. In the control group, we found that: the best results were also recorded in items 1 and 2, in item 3 the results were good, and the worst results were recorded in items 4, 5, and 6. Out of the total number of 60 preschoolers, the following was observed: 43% achieved the targeted behaviors; 32% had developing behaviors and 25% of behaviors require support. From this it appears that the data obtained for each item give us clear information about the situation of each preschooler, his knowledge, and gaps; children have gaps in their knowledge of the environment; many preschoolers do not differentiate vegetables from fruits; some do not associate well the difference between domestic and wild animals.

Analyzing the results of the formative test in the experimental group, we found that: the best results were also recorded in items 1 and 2, good results were recorded in items 3, 4, and 5, and the worst results were in item 6. From the total number of 60 preschoolers, the following was observed: 60% achieved the targeted behaviors; 30% had developing behaviors and 10% behaviors require support. In general, small progress was observed for all preschoolers in the qualifications obtained for each individual item.

Analyzing the results of the final test in the experimental group, we found that: most of the children who had sufficient qualifications in the initial test progressed, managing to obtain higher qualifications. The number of preschoolers who scored very well increased during this phase of the experiment. From the total number of 60 preschoolers, the following was observed: 75% achieved the targeted behaviors; 20% had developing behaviors and 5% of behaviors require support. In the control group, we found that most of the preschoolers showed progress in the grades obtained for each individual item. From the total number of 60 preschoolers, the following was observed: 60% achieved the targeted behaviors; 25% had developing behaviors and 15% of behaviors require support. Comparing the obtained results, we found

a greater improvement in the results on items, compared to the previous test, in the experimental group than in the control group.

4. DISCUSSION

Through environmental awareness activities, preschoolers shape their notions about the environment, and through experiential learning, the acquisition and transformation of experience are important in the learning process. Only confronting one's own experience with that of others can foster awareness of one's own values and attitudes in decision-making. For the learning process to be an evolutionary experience, it must take place according to the student's experience, ideas, beliefs, feelings, attitudes, and values. If the preschooler becomes aware of his own experience, checks it, and corrects it, making it correspond to his own behavior, then he will evolve towards autonomy and responsibility.

5. CONCLUSIONS

The present research has shown that the use of experiential learning in the teaching-learning process determines qualitative increases in the learning level of preschoolers. The research hypothesis was confirmed by the obtained results. Statistically significant effects were recorded in preschoolers from the experimental group who were subjected to an educational intervention, respectively experiential learning activities, by reporting to the control group.

We noticed that the experiential learning activities with tasks to the extent of the possibilities of the preschoolers ensured their active and creative participation in the acquisition of knowledge, thus creating optimal learning situations from a logical, psychological and pedagogical point of view, determining more learning experiences complex, clearly superior to monodisciplinary ones.

Currently, opinions on the issue of school learning are dominated by cognitivist and constructivist perspectives that support metacognitive development. Within these perspectives, we must bear in mind that clearly designed and coherently organized learning experiences, by providing a practical, experimental, explanatory-demonstrative basis, can lead to effective learning in preschool children. The assimilation of information from lived learning experiences, their analysis, and their use in the creation of new experiences represent the foundations of real, lasting learning with effects on all life plans, developing mechanisms for adapting to new situations.

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