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# The Implications of Physical Education and Situated Learning Methods on the Creativity Development of Preschoolers

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***Abstract :*** Situated learning is a method where the student is learning outside of a conventional classroom with blackboard and textbooks, it utilize the environment to create scenarios for the students to be immerse into the problem and find methods to act out solutions. Preschool education is an important aspect of a cognitive needs. Several studies suggest that the age range of three to five is essential for the growth of inventiveness. By combining the study environment and imagination than textbook materials, preschool children can get in touch with their imaginative and creative skills, by undergoing situated learning, they could enhance their logic and learning development capacity. The goal of this study is to see how situated learning in physical education affects the creativity of preschool children. The approach used in this study starts with a pre-test of the child's inventiveness, followed by a six-week schedule of situated physical learning courses. The data is compared to illustrate how students' learning abilities have evolved over time, as well as the effectiveness of situated learning training in improving creativity.

***IndexTerms*** **- creative development, situated learning, logic building, pre-school education, physical education.**

## I. INTRODUCTION

As the Early Childhood Educare (2017) adopts an innovative approach to early childhood education by emphasizing free and directed play learning. It can supported that, the infancy stage is defined as a person's most important stage of life in physical and mental development (Zhou Yuru, 2012). Children are naturally lively, and they may gradually gain new abilities to execute acceptable roles within groups through situated games and involvement.

Children's emotional and cognitive requirements, as well as their specific development, can be met through a number of recreational settings. Game-induced social behaviors can promote good interactions and values in social ties (Zhang et al., 2010). Previous study has sparked a lot of interesting debate and controversy, as well as introduced the concept of situated learning, which is increasingly popular among the general public for usage in a variety of learning activities and knowledge-based learning (Brown et al., 1989). Data collection should take effect in context-based cognitive learning activities, according to other study (Lave & Wenger, 1991).

Situated learning may aid youngsters in achieving educational goals, along with improving their critical thinking abilities, in an emotional stress-free environments (Jamali et al,. 2012). It has been proven that between the ages of 3 and 5, a critical time of creativity development occurs. Environmental design and educational activities may help children develop, practice, and integrate logic building, which can help them to be more creative (Johnson et al., 2005; Zhang, 2008; Zhou, 2011; Wei, 2014; Song, 2016).

Using narrative situations in physical education-related activities for preschoolers creates a pressure-free learning environment, and the diversity of activities will encourage youngsters to learn (Zhang and Huang, 2005). Allowing two or more toddlers to play situated cognitive games together can increase interpersonal interactions and cooperation opportunities (Liao and Huang, 2016). As they worked to finish the objective, students would learn about teamwork, logic building, and gradually becoming more inventive into their behavior.

The idea of preschool education is steadily accepted into contemporary education system, thus this study primarily investigates whether situatedly physical educational training programs could help preschool children to develop logic and imagination building, allowing their minds to stay creative naturally in their daily lives. In order to create interest in learning motivation at an early age, educators must use a range of tactics to keep the kid interested in diverse circumstances and places (Huang, 2007).

## II. METHODOLOGY

The purpose of this study is to evaluate how a six-week physical situated teaching strategy can influence the creativity of preschool children by repeating Torrance's creativity prediction test (1981). With the preschoolers' parental support, the children are first taken into a stimulating exam to test their creativity skills, after the program is over, the same exam will test again to measure their improvements. The reliability test result was 0.75, which is within the permitted range of 0.60 to 0.76.

The six-week program consists of five fundamental steps for each session:

1) a physical warm-up; 2) a brief review of previous session, follow by a new story, with the intention for the children to relate the new story with previous lessons; 3) the story is act out with costumes and props to make the children to be immerse into the scenario; 4) A range of interactive games and activities were carried out, while using staffs use praises to encourage the children to be more vocal; 5) To progressively de-escalate the student's excitement, music is played along with a similar warm-up activity, accompanied with compliment for each student's performance at the end.

Findings and Analysis

The figure below depicts the before and after of a 6-week situated physical education game instruction. The data acquired on the creativity of participants is compared for their pre and post test results.

Figure 1 shows the children being tested on their creativity in coming up with ideas and solutions to the provided scenario. Group D had the highest score of all the groups during the pre-test, earning a total of 25 points. Follow by ranking, Group C (21), B (17), C (16), E(15), and F (13). Suggestions on how creativeness is already showing difference between toddlers under six years old. The six-week curriculum in situated physical education learning strategies is designed to increase preschoolers' creativity, helping them to be more depended on their critical thinking than external assistance.

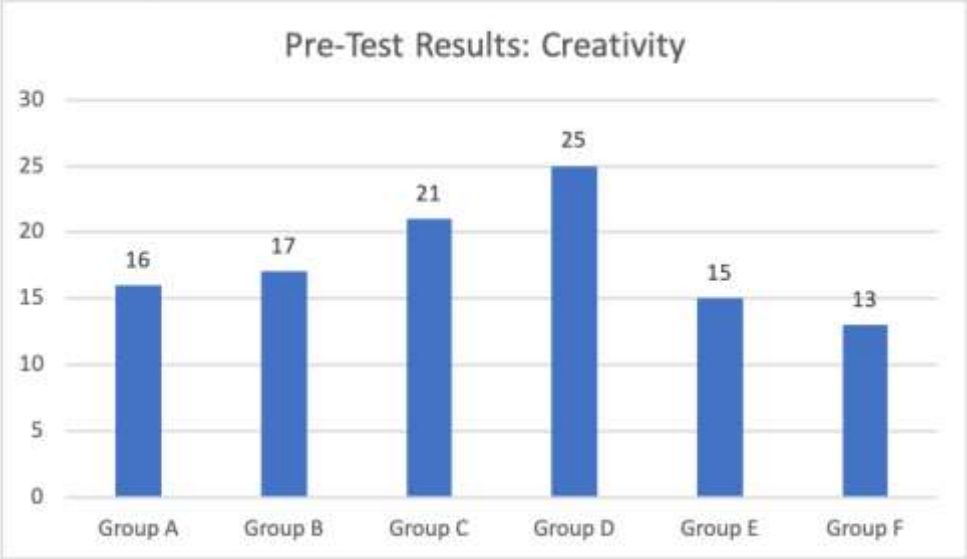


**Figure 1.** Pre-Test Results: Creativity

After only six weeks of situated physical education training, all preschoolers have strengthened their capacity to understand what the offered narrative is about and are able to come up with creative ideas to deal with the circumstances of the tale. Figure 2 displayed how Group D has the highest level of creativeness of 28, followed by Group B (24), A (20), E (19), F (18), and C (13).

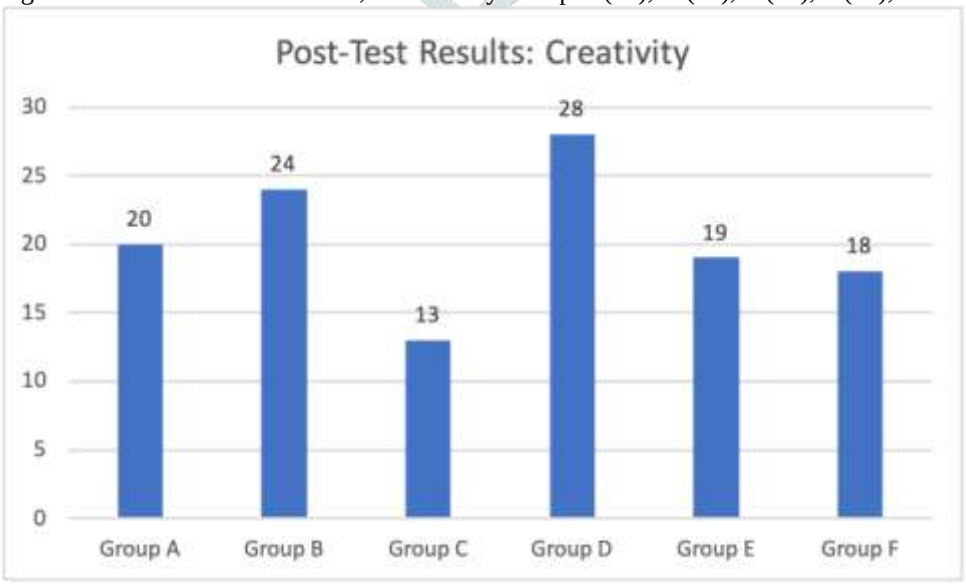


**Figure 2.** Post-Test Results: Creativity

Figure 3 compares pre and post test results to indicate how situated physical education learning practices may enhance toddlers' creativity in coming up with solutions to the problems. The most noteworthy increases were seen in groups A (+4), B (+7), D (+3), E (+4), and F (+5), and A (+6), while Group C has shown a decline in their creativity level (-8).

One possible explanation according to staff is that group C is more easily distracted and tend to enjoy outdoor environment than indoors environment. Most groups seems to be able to adapt to the situated learning such as Group B, A, and F. Group D show the lowest improvement among the rest, yet is the best during the pre-test results. Possible explanation might be that creativity requires new experiment, and Group D might be more mature than the rest of the team, thus may require more advance stage of physical education learning to make the learning experience more challenging.

These pre-test results displayed how preschoolers' creativity in retelling the tale, assessing he situation, and coming up with methods to resolve the given problem of the story. From the fact that these toddlers are under the age of six, it can be suggested that their level of creativity is considered as normal since these children are still in the phase of learning how to walk, talk, and building memory. Although the scores of the post-test may appear to be low or inadequate. It is necessary to point out that the participants children whom some have yet to attend kindergarten and are in the the stage of struggling and learning to walk or speak. The primary focus of physical situated learning is for children to learn the ability to exercise their mind by boosting or tapping into their creativity skills. It is possible to explain that some children are unaware of their ability to create things or to express themselves thus even with what seems to be a low score of improvement of this excelsis is sufficient to provide evidence that this situated learning training did made an impact for preschool children in their growth. Even for adults, creativity development may be limited and could only inspired by stepping outside one self's comfort zone and be expose to unfamiliar elements, likewise the need to accumulate experience for them to turn these basic necessities into something new.

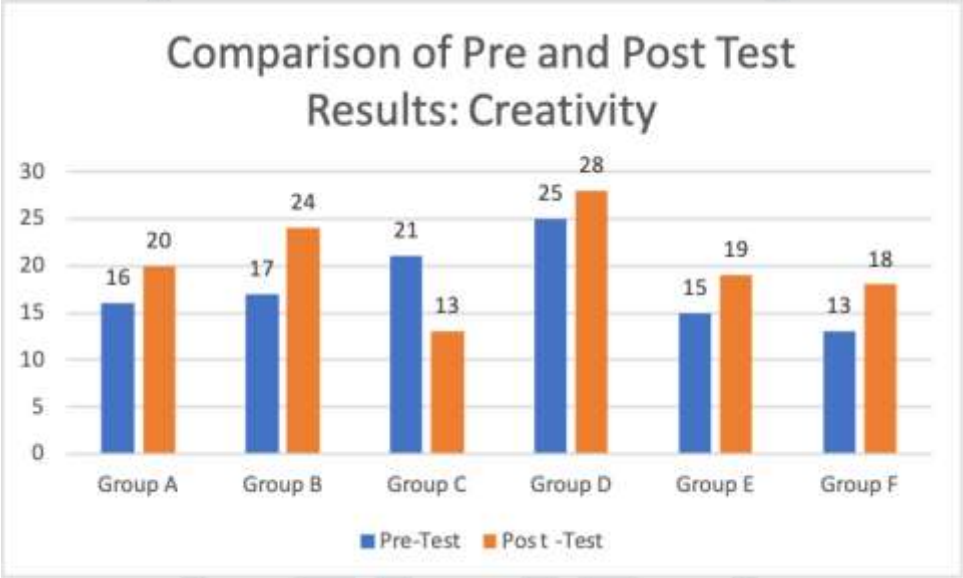


**Figure 3**. Comparison of Pre and Post Test Results: Creativity.

## III. Conclusion

From the practice of situated physical learning, this paper demonstrated how educators and parents could trigger preschoolers' ability to be creative. In this study, six groups of preschoolers are taken under the permission of their parents to undergo a six weeks long training. During each session, the teachers would start with a simple physical exercise warm up accompanied with music to raise the children's excitement. A story of the day is narrated, afterwards the instructors and staff would ask the students to wear pre-made costumes and playout the story. The instructor would point out or create a situation scenario so the children could be immerse into the idea. Sometimes a problem would be presented in the act, and it is up to the students to point out the problem and identify the problem and find clues. They will have to be on their own to think of creative methods to resolve the given situation.

The impacts of situated physical education learning have been shown to be useful in the development of preschool children. As can be seen from the pre-test results, the youngsters received scores ranging from 13 to 25. Suggestion that some youngsters are not creative enough by default to utilize their experience or surroundings to come up with solutions to accomplish the job on their own. However, after six weeks of instruction, the test results revealed that the youngsters are getting more conscious of the assignment and are more capable of finding creative solutions to the problem.

Still, each individual's learning potential varies; for example, Group D has both the highest score of pre and post-test, but in terms of improvement, Group D showed the lowest positive growth in creativeness than the rest, excluding Group C. It might be because the provided questions may appear to be easier for Group D. For this issue, it is suggested that in the future they be given more advance problems for further growth. Whereas, Group C is the only group with negative growth, possible explanation according to staff's observation is that this group tend to be easily distracted and more interested at being in an outdoor environment. Early test results of Group C's parents may utilize this knowledge and build better academic or career path for these children that enjoy outdoor nature to maximize their study abilities. To ensure preschoolers that shares similar attributes to Group C, physical learning situation program may adjust future sessions outside of indoor classroom to observe if indoor and outdoor teachings make any significant difference in children's creative development.

According to the facts given, each child need a good study environment, and instructors must continually adjust study environments to keep toddlers involved and learning. The importance of creativity in fluently interpreting the external world status may aid in improving a child's critical thinking, which will promote projected innovation, social interaction, and cooperative capacities later in life. It has become a competition for preschoolers to accomplish at an early age in nations with declining birthrates. According to the findings, the practice of situated physical education learning has the ability to increase preschoolers' creativity. Overall situated learning is an investment for the parents and their children, not only does the child grow in a stress free environment while learning, it also builds up memorable childhood. One of the major benefits of situated learning is that once the child is accustom with the training, this skill would keep the child to think more creatively even when they are outside of class, possibly to become their second nature that could guide them to a bright future.

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