International Journal of Teaching and Learning (INJOTEL) e-ISSN: 3025-8308
Vol. 3 No. 4, April 2025, pages: 106~115

IMPLEMENTATION OF SCIENCE-BASED CREATIVE GAMES IN EARLY CHILDHOOD

Tutin Rahayu
Master's Program in Early Childhood Education, Panca Sakti University Bekasi, Indonesia
Corresponding author email: tutinrahayu26@gmail.com

Hamid Patilima
Master's Program in Early Childhood Education, Panca Sakti University Bekasi, Indonesia
hamidpatilima@panca-sakti.ac.id

Abstract

This study aims to analyze the implementation of creative science-based games in early childhood education at PAUD Cinta Kasih Ibu, Cengkareng Timur, West Jakarta. A qualitative approach with a case study method was used to explore the planning, implementation, and challenges of applying creative science-based games. Data were collected through participatory observation, in-depth interviews with teachers and school principals, and relevant documentation. The findings indicate that science-based games enhance critical thinking, exploration, and creativity in young children. However, implementation faces challenges such as limited facilities, insufficient teacher training, and varying levels of children's understanding of scientific concepts. This study recommends improving teacher training, developing more innovative learning media, and involving parents in strengthening children's scientific literacy from an early age.

Keywords: Creative games, science, early childhood, exploration-based learning, early childhood education.

INTRODUCTION

The development of the digital era and the challenges of the 21st century demand a generation that possesses not only theoretical knowledge but also critical, creative, and innovative thinking skills. Integrated science learning with creative play becomes a relevant approach to addressing these challenges. Science-based creative play allows children to explore, experiment, and discover scientific concepts in an enjoyable and meaningful way. Through this approach, children not only passively receive information but actively engage in the learning process that fosters curiosity and problem-solving skills.

The science learning in Early Childhood Education should be implemented through enjoyable play activities that actively involve children in the discovery process. As stated by Adminpintarharati (2022) in their research on the implementation of science education for early childhood, effective science education is one that provides children with the opportunity