

**THE IMPLEMENTATION OF THE SCAFFOLDING METHOD USING THE CONCRETE-
PICTORIAL-ABSTRACT (CPA) APPROACH TO ENHANCE MATHEMATICAL
CONCEPTUAL MASTERY AMONG GRADE V STUDENTS
AT GLR CHRISTIAN ELEMENTARY SCHOOL SURABAYA**

Silvia de Fretes

Krida Wacana Christian University, Indonesia
silviadefretes@gmail.com

Saparso

Krida Wacana Christian University, Indonesia
saparso@ukrida.ac.id

Takim Andriono

School Leadership Development Program (YPVM) &
Yayasan TRAMPIL Indonesia (YTI), Indonesia
Andriono2509@gmail.com

Maya Devi Kusumadjaja

School Leadership Development Program (YPVM), Indonesia
mayadk@gmail.com

Abstract

This study aims to improve the mastery of mathematical concepts among grade V elementary school students through the implementation of the scaffolding method combined with the Concrete-Pictorial-Abstract (CPA) approach. The research employs a Classroom Action Research (CAR) design, consisting of two cycles. Each cycle includes four stages: planning, action implementation, observation, and reflection. Data were collected through tests, observations, reflections, and interviews. Data analysis was conducted using a combination of quantitative and qualitative methods. The results of the study indicate an improvement in students' conceptual mastery of mathematics. Test scores increased from 73.9% in the pre-cycle to 86.9% in the first cycle, and further to 100% in the second cycle. Analysis of observation sheets, reflections, and interviews showed improvements in all measured indicators from the first to the second cycle: (1) the percentage of students able to restate concepts increased from 90% to 100%; (2) the ability to distinguish between objects reached 100%; (3) the ability to visualize concepts rose from 80% to 100%; (4) students' ability to follow procedures reached 100%; and (5) the ability to apply learned concepts to solve problems improved from 60% to 80%.

Keywords: Scaffolding, Concrete-Pictorial-Abstract (CPA), Conceptual Mastery, Elementary School Students