

**THE EFFECT OF DISCOVERY LEARNING MODEL ASSISTED
BY PhET SIMULATION ON ABILITY TO
CRITICAL THINKING IN SCIENCE LEARNING
(Quasi-Experimental Research on Class IV Students of SDN Rahayu 01)**

**IVENA DEA LESTARI
NPM 205060183**

ABSTRACT

This study was motivated by the low critical thinking skills of students in IPAS learning in class IV SDN Rahayu 01 and the limited use of learning media in the teaching and learning process. IPAS learning should provide opportunities for students to be active in finding learning concepts. Therefore, the use of the discovery learning model assisted by PhET Simulation learning media to provide a better understanding of the concept of IPAS learning that is effective and interesting. This study aims to describe the description of the learning process, determine the improvement of students' thinking skills in IPAS lessons using the discovery learning model assisted by PhET Simulations, and analyze the effect of the discovery learning model assisted by PhET Simulations on students' thinking skills. The research method used is Quasi Experiment with Nonequivalent Control Class Design research design. Data collection techniques through critical thinking ability tests in the form of essays totaling 10 items, observation and documentation. The test consisted of pretest and posttest conducted in the experimental class and control class. Based on the results of the study, it shows that there is an increase in the experimental class using the discovery learning model assisted by PhET Simulations with the control class based on the results of the N-Gain Test which resulted in an experimental class value of 0.74 or 73.66% including the high category and a control class value of 0.36 or 36.21% including the medium category and the results of the Paired Sample T-Test test resulted in a significant value of $0.00 < 0.05$. It can be concluded that there is an effect of using the discovery learning model assisted by PhET Simulations on the thinking ability of students in class IV IPAS lessons at SDN Rahayu 01.

Keywords: Critical Thinking Ability, Discovery Learning Model, PhET Simulations