

## **ABSTRACT**

### **APPLICATION OF DISCOVERY LEARNING MODEL ASSISTED WITH WORDWALL TO IMPROVE MATHEMATICAL CRITICAL THINKING SKILLS AND SELF-CONFIDENCE OF JUNIOR HIGH SCHOOL STUDENTS.**

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*One of the causes of low student math scores is the lack of students' mathematical critical thinking skills. Therefore, to improve students' mathematical critical thinking skills, it is necessary to apply an effective learning model, one of the alternatives that can be used is the Discovery Learning model assisted by Wordwall. This study aims to determine whether the mathematical critical thinking ability of students who obtain the Discovery Learning model assisted by Wordwall is higher than students who obtain the expository learning model, to determine whether the Self-confidence ability of junior high school students who obtain the Discovery Learning model assisted by Wordwall is better than students who obtain the expository learning model, to determine whether there is a significant positive correlation between mathematical critical thinking ability and Self-confidence of junior high school students who obtain the Discovery Learning model assisted by Wordwall. The research method used was quasi experiment with nonequivalent control group design. The population in this study were students of SMP Negeri 43 Bandung with a sample of VIII grade students who were selected according to certain considerations with a total sample of 60 students, including the experimental class, namely VIII-F as many as 30 students and the control class, namely VIII-G as many as 30 students. The instruments in this study were mathematical critical thinking ability test and Self-confidence questionnaire. The mathematical critical thinking ability test instrument was given during the pre-test and Post-test, while the Self-confidence questionnaire was given during the Post-test. Data analysis of the research results used the help of IBM SPSS 24 for Windows software. Based on the data analysis, it was concluded that: 1) Mathematical critical thinking ability of students who obtained Discovery Learning model assisted by Wordwall is higher than students who obtained Expository learning model. 2) Self-confidence ability of junior high school students who obtained the Discovery Learning model assisted by Wordwall is better than students who obtained the expository learning model. 3) There is a significant positive correlation between mathematical critical thinking ability and Self-confidence of junior high school students who obtained the Discovery Learning model with the help of Wordwall.*

**Keywords:** *Mathematical critical thinking ability, Self-confidence, Discovery Learning Model, and Wordwall.*