

## ABSTRACT

Syifa Az Zahra. (2023). *Improve the mathematical problem-solving skills and self-confidence of high school students through the Discovery Learning Model with a realistic learning approach.*

*This study aims to: (1) Know whether the improvement in mathematical problem solving that obtains a Discovery Learning model with a realistic learning approach is better than the students who obtain a conventional model; (2) Know if the student's self-confidence of obtaining a discovery learning model with the realistic Learning approach is superior to that of students obtaining conventional models; (3) Know whether there is a positive correlation between the ability to solve mathematic problems and the students' confidence of acquiring a model that obtained the Discovery learning Model with a realist learning approach. The method used in this study is the experimental quota with the research design of non-equivalent control group design, the research sample consists of two classes. Obtained Class VIII A as an experimental class that obtains learning with the Discovery Learning Model with a Realistic Learning Approach and Class VIII C as a control class that gets a conventional learning model. The instruments used in this research are the description of the test of the ability to solve mathematical problems and the scale of learning independence. The data is then processed using IBM SPSS 23.0 for Windows 10. The results of the study showed that: (1) the ability to solve mathematical problems of students who obtain the Discovery Learning model with a realistic learning approach is higher than the students who acquire the conventional model; (2) the student's self-confidence in obtaining the discovery learning model with the realistic Learning approach is greater than the student who obtains the convencional model; (3) there is a positive correlation between the mathematic problem-solving ability and the self- confidence of the student that acquires the Discover Learning model..*

**Keywords:** *Mathematical Problem Solving Skills, Self-confidence, Discovery Learning Models, Realistic Approaches*