*A*BSTRACT

Munandar, Adinda Rahmayunita. (2024). ***The Increase of Concept Understanding Ability Through Discovery Learning with Mind Mapping Assisted by ChatGPT and Its Impact on Students' Self-***

As one of the goals in learning mathematics in the Kurikulum 2013 and Kurikulum Merdeka, the ability to understand concepts is an important thing that must be mastered in order to achieve mathematics learning goals. In reality, Indonesian students tend to still have the ability to understand concepts in the low category. Apart from that, Indonesian students' self-confidence is still low. This research aims to: 1) To analyze whether the ability to understand mathematical concepts of students who receive learning using discovery learning with mind mapping assisted by ChatGPT is higher than students who receive learning with the conventional model, 2) To analyze the self-confidence of students who receive learning with the model discovery learning with mind mapping assisted by ChatGPT and students who received learning using the conventional model, 3) To analyze the effectiveness of implementing the Discovery Learning model with mind mapping assisted by ChatGPT in increasing students' ability to understand mathematical concepts. This research is research with a mixed method approach and applies quasi experimental design techniques. The research sample in this study consisted of two classes, XI MIPA 5 as an experimental class who received discovery learning with mind mapping assisted by ChatGPT and XI MIPA 6 who received conventional learning This research uses instruments in the form of descriptions of tests of ability to understand mathematical concepts and self-confidence questionnaires. The data that has been collected is then processed and analyzed using the help of IBM SPSS 26 for Windows software. The results of this research show that 1) The increase in the ability to understand mathematical concepts of students who receive the discovery learning model with mind mapping assisted by ChatGPT is not higher than students who receive learning using conventional learning, 2) Self-confidence of students who receive learning using the discovery learning model with mind mapping assisted by ChatGPT is better than students who receive learning using conventional models, 3) The discovery learning model with mind mapping assisted by ChatGPT is not effective in improving the ability to understand mathematical concepts.

Keyword: *Concept Understanding Ability, Self-confidence, Discovery Learning with Mind Mapping, ChatGPT*