ABSTRACT

Nadiya Ahsani Salsabilla (2023). ***Improving Mathematical Communication Ability and Self-Confidence of Junior High School Students Through the Problem Based Learning Model Assisted by Geogebra.***

Mathematical communication ability and self-confidence are important things for students to have. Mathematical communication ability is an important aspect of students' cognitive abilities, meanwhile, self-confidence is an affective ability that supports the success of learning mathematics. However, students' mathematical communication ability and self-confidence at school are still very low. The aims of this study were to: 1) Knowing the increase in mathematical communication ability of students who get the Geogebra-assisted Problem Based Learning model is higher than students who get conventional learning models. 2) Knowing the Self-confidence of students who get the Geogebra-assisted Problem Based Learning model is better than students who get conventional learning models. 3) Knowing that there is a correlation between mathematical communication ability and self-confidence of students who obtain the Geogebra-assisted Problem Based Learning model. The method used is quasi-experimental. The subjects in this study were students of SMPN 16 Bandung. Data analysis technique with a two-sample comparison test (t-test) using the IBM SPSS 23.0 for Windows software program. Based on the results of data analysis, the following conclusions are obtained: 1) The increase in the mathematical communication ability of students who received the Geogebra-assisted Problem Based Learning model was higher than that of students who received conventional learning models. 2) Self-confidence of students who use the Geogebra-assisted Problem Based Learning model is better than students who receive conventional learning models. 3) There is a correlation between mathematical communication ability and self-confidence of students who obtain the Geogebra-assisted Problem Based Learning model.

Keywords: *Mathematical Communication Ability, Self-confidence, Geogebra Assisted Problem Based Learning Model.*