ABSTRACT

Wati Agustia Rahmawati: Improved Mathematical Connection Capability and *self-regulated learning* Junior High School Students through *Relating, Experiencing, Applying, Cooperating, Transfering (REACT)*

The connection capability is contained in the standard according to NCTM, meaning that this connection capability is an important capability that must be developed and mastered by the students. But in reality we still encounter students whose mathematical connection ability is low, the low ability of mathematical connections in the students may be related to the learning model used by the teacher. Less precise learning model that resulted in the learning objectives is not achieved. One of the learning models that can improve students' mathematical connection ability is Relating, Experiencing, Applying, Cooperating, Transfering (REACT) model. this research aims to: 1) know the difference of students' mathematical connection ability improvement that get REACT strategy learning with those who get conventional learning. 2) to know the increase of self-regulated learning of students who gain learning with REACT strategy with those who obtain conventional learning. 3) to know the correlation between the ability of connection and self-regulated learning of students who obtained the learning model with REACT strategy. Based on the method of this research is quasi experimental research. The population and the sample in this study were the students of SMP class VII who were selected not randomly but selected by the school. The instruments used in this study are test and attitude scale. The test used is a test type description of the problem of mathematical connection capability. The test is tested first, based on the results of the test, all questions worthy of research. Data analysis was performed using SPSS 24.0 for Windows program. Based on data analysis and research result, it can be concluded that: 1) improvement of mathematical connection ability of students who gain learning with Relating, Experiencing, Applying, Cooperating, Transfering (REACT) model better than students who received conventional learning 2) Self-Regulated Learning students who acquired the Relating, Experiencing, Applying, Cooperating, Transfering (REACT) learning model were better than students who received conventional learning, 3) There is no correlation between Self-Regulated Learning with mathematical connection capability.

Keywords: Mathematical Connection, Self-Regulated Learning, REACT Strategy