

## **ABSTRACT**

**Dede Sopian, Effect of Application of Learning Model Aptitude Treatment Interaction (ATI) the Improvement of Mathematical Reasoning Abilities Students of SMK.**

This research is motivated by the problem of low ability students' mathematical reasoning. Students are familiarized with the treatment always learn in one class without recognizing their initial abilities respectively, for the one learning alternatives that can improve the ability of mathematical reasoning is learning model Aptitude Treatment Interaction (ATI). Purpose of this study were 1) to determine the mathematical reasoning skills students acquire the learning model Aptitude Treatment Interaction (ATI) better than the students who received conventional teaching; 2) to determine the students' attitudes toward learning mathematics model Aptitude Treatment Interaction (ATI); 3) to determine the correlation between mathematical reasoning abilities and attitudes. This study used an experimental method. The study population was all students of SMK Puragabaya Bandung academic year 2016/2017. And samples were taken on two randomly selected class by class. The research instrument used is test type description of the problems of mathematical reasoning ability and attitude scale questionnaire. Data analysis was performed using normality test, homogeneity test, and t test. Based on the analysis of research data, we concluded: 1) mathematical reasoning skills students acquire learning model Aptitude Treatment Interaction (ATI) is better than students who received conventional learning model; 2) students' positive attitudes towards learning mathematics by using model Aptitude Treatment Interaction (ATI); 3) there is a correlation between the ability of mathematical reasoning with students' attitudes toward learning mathematics using model Aptitude Treatment Interaction (ATI).

**Key Words : Aptitude Treatment Interaction (ATI), Conventional, Mathematical Reasoning.**