ABSTRACT

SHOFFATUL MARDIYAH KHOFIFAH. **Increasing the Ability to Understand Mathematical Concepts and *Self-efficacy* of Vocational High School Students through *Problem posing* Learning Model assisted by *I*nteractive learning media.**

The importance of mathematics education requires learning mathematics to be taught at every level of education, including at the SMK level. One of the goals of mathematics education in SMK in accordance with Permendikbud no. 60 of 2014 is to understand the concept of mathematics. In addition, affective abilities, namely Self-efficacy, are as important as cognitive abilities. Hence the importance of conceptual understanding and Self-efficacy in solving mathematical problems. However, the facts in the field based on the results of interviews and previous research, there is a decrease in students' understanding ability and self-efficacy as a result of distance learning during the COVID-19 pandemic. The purpose of this study was to determine: The improvement of students' understanding of mathematical concepts who received learning using the *Problem posing* model assisted by *macromedia flash* was higher than students who received problem based learning; the self-efficacy of students who received learning using the *Problem posing* model assisted by Interactive learning media was better than students who received problem based learning; The correlation between the ability to understand mathematical concepts and self-efficacy using a *problem posing* learning model assisted by *I*nteractive learning media. The research conducted in this study used a quantitative research approach. The research design used was the experimental group and the control group. The population in this study were students of class X SMKN 15 Bandung. Samples were taken based on purposing samples with class X PH 3 as the experimental class and class X PH I as the control class. The instruments used to collect data are pretest and posttest and a self-efficacy questionnaire. Based on the data analysis, it can be concluded as follows: 1) The increase in the ability to understand mathematical concepts who obtained the *problem posing* learning model assisted by *I*nteractive learning media was higher than those who received the ordinary learning model. 2) The self-efficacy of students who received a *problem posing* learning model assisted by *macromedia flash* was better than those who received an ordinary learning model. 3) There is a correlation between students' ability to understand mathematical concepts and self-efficacy of students who get a *problem posing* learning model assisted by *I*nteractive learning media.

Keywords: Ability to Understand Mathematical Concepts, Self-efficacy, and *problem posing* learning models.