

## **ABSTRACT**

**Sutria Lumayung.** (2019). *Improvement of Mathematical Problem Solving Ability and Self Confidence of Vocational Students with a Double Loop Problem Solving Strategy.*

*One form of learning difficulties is students are difficult to solve a problem or in other words the level of student understanding is low, especially in mathematical problem solving. In addition to problem solving abilities, there are other aspects that also have an influence, namely psychological aspects, self confidence in mathematics must be planted because students will tend to understand, discover, and fight for the mathematical problems they face. students who are trained with Double Loop Problem Solving (DPLS) learning will have the skills to manage their thinking, so that they are able to carry out problem solving and decision making processes. This study aims to: 1) Determine the improvement of mathematical problem solving abilities of students who obtain the DPLS learning model; 2) Knowing the increase in self-confidence of students who obtain the DPLS learning model; 3) Knowing the relationship of problem solving ability and self confidence to students who obtain the DPLS learning model. The research method used in this research is a quasi-experimental method. The population in this study was Puragabaya Bandung Vocational School students and then for the sample of the study the students of class X AK-B as an experimental class who got learning with the DLPS model and class X AK-A students as the control class who got conventional learning. The research instrument consisted of tests of mathematical problem solving ability and self confidence questionnaire. The results of this study indicate that the mathematical problem solving ability of students who obtain the DPLS learning model is higher and students' self confidence is better than students who obtain conventional learning. Then there is a positive correlation between mathematical problem solving abilities and self confidence of students who obtain learning using the DLPS model.*

*Keywords: Double Loop Problem Solving (DPLS), mathematical problem solving ability, Self Confedence.*