

**THE USE OF GUIDED DISCOVERY TO IMPROVE
MATHEMATICS STUDENTS' PROBLEM SOLVING IN POLYHEDRON
AT IX GRADE SMP NEGERI 1 MEDAN**

Ginda Maruli Andi S

ABSTRACT

The objectives of this research are : 1) To know How does the learning process thoroughly using method Guided Discovery that is applied in polyhedron can improve the students' mathematics problem solving for students at VIII SMP Negeri 1 Medan, 2) To describe What are the constraints that faced in learning process of Polyhedron material for students at IX grade SMP Negeri 1 Medan, 3) To describe How does the effectiveness of learning process thoroughly Guided Discovery that applied in the polyhedron in improving the students' math problem solving for students at IX grade SMP Negeri 1 Medan.

The type of research is class action research which taken in 2 cycles. Each cycle consists of some phases, namely: 1) the initial dialogue, 2) planning actions, 3) implementation of the action, 4) observation and monitoring, 5) reflection, and 6) evaluation.

The research has done in SMP Negeri 1 Medan. The subject of this research The subject in this research is the students at XI grade SMP Negeri 1 Medan at Odd semester, Academic Year 2013/2014 with the number of students are 24 students, consisting of 8 students are boys and 16 are girls and the object of research is the improving of students mathematics problem solving with using guided discovery method that applied in the at IX SMP Negeri 1 Medan.

The results of the research are; 1) The use of guided discovery method can improve the students' mathematics problem solving of the polyhedron at IX grade SMP Negeri Medan. In the first test, the average score is 54.09, 3 students or 13.64% can achieve the competence and 19 students or about 86.36% can't achieve the competence. From the result of the cycle I test, gotten the increasing of the ability of the students. In the cycle I test, gotten that the average score is 67.90 and the classical achievement of the class is 50% or 11 students can achieve the competence. In the cycle II the average score is 93.78 and the classical achievement of the class is 95.45% or 21 students can achieve the competence. 2) Based on the test result and interview result found that the constraints that faced by the students are difficultness in memorize the formula and understanding the concept. From those constraints the students make some mistakes, namely translating mistake, miss-concepts, calculating mistake, and use the wrong strategic in solving the problem. The other variables that can also influence the students' outcomes are students' psychology, sex, economic background, and others that are not included in this research.

Keyword: Guided discovery, Mathematics problem solving