

## ABSTRACT

Aisyi Aliah Mukarramah, 2018. *Increased Capacity to Solve a Problem for Senior High School Student (SMA) Through a Model Guided Inquiry Lab on Learning to the Concept of Recycling Waste*. The first Supervisor: Dr. Rer. Nat. Adi Rahmat, M.Si. and the second supervisor: Mrs. Ida Yuyu Nurul Hizqiyah, S.Pd. M.Si.

*This research was triggered by educational world demanding students to have all kinds of skill, in order to become the quality of society until they able to face global competition and for the rapid development of science of knowledge and technology (IPTEK) in 21<sup>st</sup> century. This research aims to acquire information about the increased capacity to solve a problem for senior high school student (SMA) through a model Guided Inquiry Lab on learning to the concept of recycling waste. This research uses the method of quasi experiments with Non-Equivalent Control Groups Design. The subject of this research is a student of class X MIPA 2 which consisted of 31 people as a class experimentation and student of class X MIPA 5 which consisted of 34 people as a class control. Data research then analyzed using N-Gain test, t-test of N-Gain score and Mann-Whitney test, namely the average pretest in common two test and the difference of two the average posttest. The results of reseach showed that class control received a score of N-Gain of 0,28 to a category low while class experiment received a score of N-Gain of 0,56 with medium category. The t-test of N-Gain score received significance 0,000 the meaning is the ability of solving a problem for a class experiment more increased than a class control. The test Mann-Whitney is the difference between two sample with significance <0,05. In test in common two the average pretest received significance 0,262 while in the difference of two the average posttest received significance 0,000. To the meaning of pretest of control class and experiment class same significantly while posttest of control class and experiment class differ significantly, namely the experiment class better than control class. So it will be concluded that the implementation of the model of guided inquiry lab better than model verification and can improve the ability to solve the problem of student until 0,56 with medium category.*

*Keywords: Ability to Solve Problems, Model Guided Inquiry Lab, The Concept of Recycling Waste.*