

## ABSTRACT

**ANDI H MANURUNG, NIM 512131001.** *Influence of Learning Group Investigation Model on Learning Outcomes Electric Lighting Installation Electricity Engineering Expertise Program Students Class Xi SMK Negeri 1 Percut Sei Tuan T.A 2016 / 2017. Thesis, Medan: Faculty of Engineering UNIMED 2018.*

This study aims to determine whether the learning outcomes of students who are taught with learning using media props higher than students who were taught by learning using Group Investigation Strategy on the students of class XI program of electrical engineering expertise SMK Negeri 1 Percut Sei Tuan.

This research was conducted on the students of class XI of electrical engineering expertise program of SMK Negeri 1 Percut Sei Tuan academic year 2016/2017. The population of this research is the students of class XI program of electrical engineering expertise of SMK Negeri 1 Percut Sei Tuan consisting of 2 classes consisting of 60 people where each class is 32 oorang and 28 people. The classes used as samples are class XI TITL and class XI TITL 2 as control class.

The research method used in this research is experimental research. The data collection technique is collected by using multiple choice test. To test the normality of data used Liliefors test at the level of trust ( $\alpha$ ) of 0.05. In learning calculation test of normality of pre test of student learning taught by conventional learning strategy at significance level = 5% with number of sample (dk) = 32 obtained  $L_{table} = 0,1566$  while  $L_o = 0,0993$ . Thus it is evident that  $L_o = 0.0993 < L_{table} = 0,1566$ , so that the test of conventional learning strategy comes from normal distributed population, and the result of normality test post test of student learning taught by group investigation learning strategy at significance level = 5% with the number of samples (dk) = 28 obtained  $L_{table} = 0.1658$  while  $L_o = 0.0800$ . Thus it is evident that  $L_o = 0.000 < L_{table} = 0.1658$ , so the post normality test test of group investigation learning strategy comes from a normally distributed population.

To test the homogeneity between learning using conventional learning model and group investigation obtained  $F_{arithmetic} = 1.003 < F_{table} = 1.876$ . Thus it can be concluded that the results of pre-test students on classes that are taught with group investigation learning strategies and on classes taught by conventional learning strategies have a homogeneous variance.

Keywords: Group Investigation Learning Strategy: Learning Results of Electric Lighting Installation