

## ABSTRACT

Erwin Ginting, Nim. 065020404. The Effect Of Instructional Strategy And Logical Thinking Ability Toward The Learning Out Come Of Biology Students SMA PGRI 20 Siborong-borong. Thesis Medan; Post Graduate Program, State University Of Medan 2010.

The objective of this research were: 1) To discover the different effect between Map Concept instructional strategy and conventional instructional strategy. 2) To discover the different of biology strategy instructional out come between students with high and low logical thinking ability, and 3) To discover the interaction between instructional strategy and logical thinking to ward biology learning achievement.

The population of this research was 120 students of grade XI SMA PGRI 20 Siborong-borong consisting of 3 classes. The sampling technique applied was Cluster Random Sampling with grade XI IPA 1 students taught with Map Concept Instructional strategy and grade XI IPA 3 students taught with conventional instructional strategy. The instrument use to measure the learning achievement was a multiple-choice test of 35 items with a five-answer option. To surf students with high and low logical thinking ability Piaget had modiflicated by university of Malang,  $r = 0.86$ . The Normality use Liliefors and the Homogeneity test was Bartlett test. The data analysis technique was analysis of variances (ANAVA) with two-way at the level of significance  $\alpha = 0.05$  followed by Schefee test.

The hypothesis testing showed that students taught with Map Concept strategy had a higher learning out come compare with student taught with conventional strategy. This was propped by  $F. \text{count} = 201.57 > F. \text{Table} = 3.968$  at the level of significance  $\alpha = 0.05$ . Students with high logical thinking ability the learning out come were higher than students with low logical thinking analysis. This was propped by the  $F. \text{count} 5.20 > F. \text{table} = 3.968$  the level of significance  $\alpha = 0.05$  with level accuracy = 0.76 and the was interaction between learning strategy and student logical thinking ability to warred biology learning out come this was shown by  $F. \text{count} = 16.69 > F. \text{table} = 3.968$  at the level of significance  $\alpha = 0.05$ .

With the follow up testing using Scheffe list it was propped that students using conventional learning strategy. While students with low logical thinking ability got higher learning out come if taught with conventional learning strategy compared with student taught with Map concept instructional strategy.