

ABSTRACT

M. Surya Irawan Lubis, NIM 4193121009 (2023). The Effect Of Cooperative Learning Model Numbered Head Together (NHT) Type On Student Higher Order Thinking (HOT) Learning Outcomes In Optical Devices Topic At SMA N 1 Secanggang

This study aims to determine the effect of Numbered Head Together (NHT) type cooperative learning model on students' Higher Order Thinking (HOT) learning outcomes. The research method used is quantitative research with the type of quasi experiment research with pretest-posttest control group design. The population of this study were all students of class XI IPA SMAN 1 Secanggang in the academic year 2023/2024. The sample was taken using purposive sampling technique and obtained XI IPA 3 class as the experimental class and XI IPA 2 class as the control class. The independent variable in this study is the Numbered Head Together (NHT) type cooperative learning model applied to the experimental class, while the students' higher order thinking (HOT) learning outcomes are the dependent variable. Data collection in this study was carried out using pretest and posttest through questions with higher order thinking level. The research hypothesis was tested using hypothesis testing with a significant level of 0.5%. the results of the hypothesis test showed $t_{count} > t_{table} = 3.768 > 1.671$. so H_a is accepted. Based on these results, it can be concluded that there is an effect of Numbered Head Together (NHT) type cooperative learning model on students' Higher Order Thinking (HOT) learning outcomes.

Keywords: *Cooperative Learning, Numbered Head Together, Learning Outcomes*