

**THE EFFECT OF PREDICT OBSERVE EXPLAIN STRATEGY (POE)  
ON STUDENTS ACTIVITY AND LEARNING OUTCOME  
IN HUMAN RESPIRATORY SYSTEM SUB TOPIC FOR  
GRADE XI SCIENCE PROGRAM AT SMA NEGERI  
15 MEDAN ACADEMIC YEAR 2013/2014**

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**ABSTRACT**

This research aims to find out: (1) the effect of POE Strategy on students' activity, (2) the effect of POE Strategy on students' learning outcome. This research aims to know the effect of POE Strategy in biology specifically on human respiratory sub topic in grade XI at SMA Negeri 15 Medan academic year 2013/2014. The population of this research was all of grade XI science program SMA Negeri 15 Medan. There were 2 classes chosen as the sample by applying cluster random sampling technique. It was obtained the sample 38 students for experiment class and 38 students for control class. Experimental class was taught by POE strategy while control class was taught by conventional strategy. The instruments used to obtain the data were cognitive test in form of multiple choices as test instrument and observation sheet as non-test instrument. The research result of hypothesis test for posttest showed that  $t_{\text{count}} = 8.76 > t_{\text{table}} = 2.38$  at the level significance of 0.01, means that  $H_0$  is rejected and the  $H_a$  is accepted. It can be concluded there is a significant difference of student learning outcome between POE strategy and conventional strategy. Then, t-test of observation results showed that students' activity in both classes is significantly different. The students in experiment class were more active than students in control class by the average score of 80.56 and 50.05 respectively. The result of hypothesis test for student activity showed that  $t_{\text{count}} = 10.31 > t_{\text{table}} = 2.38$ . It means that students' activity in experimental class is higher than students' activity in control class. On the whole, learning outcome in learning human respiratory sub topic that taught by POE strategy is higher than student learning outcome that taught by conventional strategy at SMA Negeri 15 Medan academic year 2013/2014.

Keyword : *learning outcome, students' activity, predict observe explain(POE)*