

**THE COMPARISON OF STUDENTS' LEARNING OUTCOMES AND  
STUDENT ACTIVITIES THROUGH IMPLEMENTING PROBLEM  
BASED LEARNING AND GUIDED DISCOVERY METHOD  
ON HUMAN CIRCULATORY SYSTEM FOR 11<sup>TH</sup> GRADE  
STUDENT SMA NEGERI 1 TEBING TINGGI  
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**ABSTRACT**

This quasy experiment research aims to investigate the comparison of student learning outcome and student activities through implementing problem based learning and guided discovery method on human circulatory system topic in SMA Negeri 1 Tebing Tinggi Academic year 2012/2013. The population of this research was all students in SMA Negeri 1 Tebing Tinggi totaling 231 students. The sample was taken by using random sampling and was obtained the sample for 33 students of problem based learning (XI IPA-1) and 33 students of guided discovery class (XI IPA-2). The instrument of research was student's learning outcome test in multiple choice form with 30 questions which had been validated by expert. The result of data analysis showed that pretest in problem based learning class ( $61.87 \pm 6.72$ ) and pretest in guided discovery class ( $62.48 \pm 8.50$ ). After t test was carried out by using significance degree  $\alpha = 0.05$ , it was obtained that  $t_{calculate} = 0.80 < t_{table} = 2.00$ , so it can be known both classes had no significant difference of student's learning outcomes before implemation. Post-test in problem based learning class ( $78.55 \pm 4.70$ ) has significant different compare with postest in guided discovery class ( $80.00 \pm 4.05$ ). It was obtained that  $t_{table} = 2.00 > t_{calculate} = 1.93$ , define student's learning outcomes of biology in guided discovery class higher than problem based learning class. Then, result of student activities in problem based learning class fist meeting 54.5 second meeting 61.1 and third meeting 58.2 and in guided discovery class the first meeting 70 second meeting 64 and third meeting 67.02. The average of two methods 57.9: 67. Based on resulted data of Experimental students activities problem based learning and guided discovery also shown the difference percentage of classroom activities.

Keyword : *student learning outcomes, students activities, problem based learning method, guided discovery method*