

**THE INFLUENCE OF PROBLEM BASED LEARNING MODEL TO INCREASE
STUDENT'S ACHIEVEMENT AND STUDENT'S CHARACTER
OF COOPERATION AND RESPONSIBILITY ON THE
TEACHING OF SOLUBILITY AND SOLUBILITY
PRODUCT IN SENIOR HIGH SCHOOL**

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ABSTRACT

The main objective of this research is to know the influence of problem based learning model toward student's achievement and cooperation and responsibility character. It means to know the average percentage of student's cooperation and responsibility character can be developed by applying problem based learning model. This research was conducted in SMA Panca Budi Medan on the second semester. The sample that is used are the students in grade XI in two classes, one class as experiment class and the other as a control class. The research instrument that is used in this research consist of test instrument (evaluation test) and non test instrument (observation sheet and questionnaire). The research instrument in this research are 20 multiple choice questions from 40 questions were validated by validator and students, with $r_{\text{count}} > r_{\text{table}}$ 0.361, state that it was reliable with high category. Research result show that the average of posttest in experiment class is $86,40 \pm 6,21$ with gain 0,82 (high) and the average posttest in control class is $78,20 \pm 5,57$ with gain is 0,69 (medium). The data of research had been analyzed by using normality test and homogeneity test, which is shown that data gain are normal distributed and homogeny. It is a requirement to do hypothesis test. Based on hypothesis test using t-test was gotten value of $\text{significance}_{\text{count}} (0,000) < \text{significance level} (0,05)$ in order that alternative hypothesis (H_a) is received and null hypothesis (H_0) is refused. It means that the student's achievement who learnt using problem based learning model is higher than the student's achievement who learnt using direct instructional method. The percentage of student's cooperation and responsibility character from observation sheet data were developed from first meeting up to third meeting. The average of student's cooperation character for all meeting is 70,22%, while for student's responsibility character is 74,59. The average student's cooperation character from questionnaire data is 85,11 and student's responsibility character is 88,44%. It show that the student's couldn't assessed themselves.