

THE DIFFERENCES OF STUDENT'S ACHIEVEMENT AND CRITICAL THINKING BY IMPLEMENTING PROBLEM BASED LEARNING (PBL) AND PROCESS ORIENTED GUIDED INQUIRY LEARNING (POGIL) ON SOLUBILITY AND SOLUBILITY PRODUCT TOPIC

Siti Fatimah (4113131072)

ABSTRACT

The main objective of this research is to know the difference of problem based learning model and process oriented guided inquiry learning model toward student's achievement and critical thinking. This research was conducted in MAN Binjai on the second semester. The sample that is used are the students in grade XI in two classes, one class as experimental class I and the other as experimental class II. The research instrument that is used in this research consist of evaluation test and observation sheet. The research instrument in this research are 20 multiple choice questions from 30 questions were validated by validator and students, with $r_{\text{count}} > r_{\text{table}}$ 0.361, state that it was reliable with high category. The data of research had been analyzed by using normality test and homogeneity test, which is shown that data gain are normal distributed and homogenous. It is a requirement to do hypothesis test. Based on hypothesis test of hypothesis I using t-test was gotten value of significance_{count} (0,009) < significant level (0.05), so the H_{a1} is accepted and H_{o1} is rejected. It means that there is differences in student's achievement that taught by implementing PBL with student's achievement that is taught by implementing POGIL on solubility and solubility product topic. In hypothesis test of hypothesis II using t-test was gotten value of significance_{count} (0,175) > significant level (0.05), so the H_{a2} is rejected and H_{o2} is accepted. It means that there is no differences in student's critical thinking that taught by implementing PBL with student's critical thinking that is taught by implementing POGIL on solubility and solubility product topic.

Keyword: *Problem Based Learning (PBL), Process Oriented Guided Inquiry Learning (POGIL), Student's Achievement, Critical Thinking*

Character Building
UNIVERSITY