

THE DIFFERENCES OF STUDENT'S ACHIEVEMENT AND CRITICAL THINKING BY IMPLEMENTING PROBLEM BASED LEARNING (PBL) AND GUIDED INQUIRY LEARNING ON STOICHIOMETRY TOPIC

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ABSTRACT

The objective of this research is to know the difference of problem based learning model and guided inquiry learning model toward student's achievement and critical thinking. This research was conducted in SMA N 1 Sidikalang on the even semester. The sample of this research are the students in grade X which consist two classes, one class as experimental class I taught by PBL model and the other as experimental class II taught by guided inquiry learning model. The research instrument in this research are 20 multiple choice questions from 40 questions that have validated. Before hypothesis test, 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. Based on hypothesis test of hypothesis I using t-test was gotten value of $\text{significance}_{\text{count}} (0,015) < \text{significant level} (0.05)$, so the H_{a1} is accepted and H_{o1} is rejected. It means that student's achievement that taught by implementing Guided Inquiry Learning is higher than student's achievement that is taught by implementing PBL on stoichiometry topic. In hypothesis test of hypothesis II using t-test was gotten value of $\text{significance}_{\text{count}} (0,030) < \text{significant level} (0.05)$, so the H_{a2} is accepted and H_{o2} is rejected. It means that there is differences in student's critical thinking that taught by implementing PBL model with student's critical thinking that is taught by implementing Guided Inquiry learning model on stoichiometry topic.

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

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