

**THE COLLABORATION BETWEEN DISCOVERY BASED LEARNING
AND PROBLEM BASED LEARNING MODEL THAT USING
MACROMEDIA FLASH TO STUDENT'S ACHIEVEMENT
AND MOTIVATION IN ELECTROLYTE AND NON
ELECTROLYTE SOLUTION
TOPIC**

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ABSTRACT

The main objective in this research is to know the influence the collaboration model between problem based learning with discovery based learning to student's achievement and to analyze the correlation between student's achievement and student's motivation. This research was conducted in SMAN 1 Sidikalang on the second semester. The samples are two classes student from X grade, one class as class experiment I and one class as class eperiment II. The research instrument that used in thisn research consist of test instrument (evaluation test) and non test instrument (questionnaire sheet). Based on validity, there are 22 questions are valid and r_{count} for reliability test is high 0,78. Pretest is given to both class experiment to know the prior knowledge of students. From the research result, the average posttest in experimental class I I is $79 \pm 6,747$ with gain 0,655 (medium), while for the average of posttest in experimental class II is $74 \pm 9,135$ with gain 0,562 (medium). The pretest and posttest data of this research are already normally distributed and homogen. Based on the hypothesis test gotten the $t_{\text{count}} > t_{\text{table}}$ or $3,321 > 1,671$, it means that H_a is accepted and H_o is rejected. So, it can be concluded that student learning achievement that taught by collaboration between discovery based learning and problem based learning using macromedia flash is higher than the student's achievement that taught by problem based learning using macromedia flash in learning electrolyte and non electrolyte solution. The correlation between student's and motivation in class experiement I $r_{xy(\text{count})} = 0,443$. It is higer than the $r_{xy(\text{table})}$ for 30 sample 0,361. The coefficient correlation is categorized as enough correlation.

Keyword: discovery model, problem based learning, macromedia flash, motivation, student's achievement