

**EFFECTIVENESS OF PROBLEM BASED LEARNING MODELS IN  
IMPROVE MICROSOFT EXCEL 2007 LEARNING ACHIEVMENT  
STUDENTS OF GRADE XI SCIENCE DEPARTEMENT SMA NEGERI 2  
REMBANG**

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**ABSTRACT**

This research has purpose to know the comparative effectiveness of Problem Based Learning (PBL) models and conventional learning models in improve Microsoft excel 2007 learning achievement students of grade XI science department SMA Negeri 2 Rembang.

The research method is used in this research was quasi experimental methods. The sample in this research was the students class XI IA 2 and XI IA 3 of SMA Negeri 2 Rembang. The sampling technique is used was random sampling. The design of the research is nonequivalent control group design. Different test done to measure the difference in the effectiveness of Problem Based Learning models and the conventional learning models based on learning achievement of using Independent Sample t-test.

Based on this research can be concluded that the effectiveness of Problem Based Learning models have an index of normalized gain is 0,55; the effectiveness of conventional learning models have an index of normalized gain is 0.39 and in the same criteria. The criteria is in sufficient criteria. But if based on calculation of the gain, improvement learning achievement with Problem Based learning models is better than the improvement learning achievement with conventional learning models. This is shown by the results of t-test use gain value, so be got  $t_{hitung} > t_{tabel}$  ( $2,865 > 1,669$ ) and significant value  $(p) = 0,006$  or  $p < 0,05$ .

Key word: learning models, Problem Based Learning, learning achievement