

**EFFECTIVENESS OF USE OF PROBLEM BASED LEARNING MODEL IN  
WATER POLLUTING MATERIAL TO INCREASE STUDENT LEARNING  
RESULT**

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**ABSTRACT**

*This research was conducted based on the background of the students' understanding of the water pollution subconsion where most of the students' learning outcomes are less satisfactory or the value below the Minimum Exhaustiveness Criteria (KKM). This study aims to improve student learning outcomes through a model of Problem Based Learning on water pollution material. The research was conducted at SMA Pasundan 7 Bandung in class X MIPA 1 and X MIPA 2. The research method used is Quasi Experimental with Research design of Nonequivalent Control Group Pretest-Posttest Design. The research instrument used is cognitive test of 20 multiple choice questions. The results showed the mean grade of posttest grade 67,50 and posttest experimental class 74,50. Data analysis using t-test show result  $t_{count} > t_{table}$  with  $t_{count}$  value 3,487 and  $t_{table}$  2.05 with significance level 5% or significance value  $< 0,05$  is 0,001. From the criteria,  $H_0$  is rejected and  $H_a$  accepted. The result of N-gain analysis of 0.61 showed improvement of learning result with medium criterion. Assessment of attitudes and skills possessed by students during learning, showed very good criteria with the average value of 100 - 90 including category A. So, the Problem Based Learning model further improves student learning outcomes.*

**Keywords:** *Problem Based Learning Model, Learning Outcome, Water Pollution Material.*