

**THE EFFORT TO INCREASE THE PROBLEM SOLVING ABILITY OF
STUDENT BY IMPLEMENTING PROBLEM BASED LEARNING
(PBL) IN THE TOPIC OF TRIGONOMETRY IN GRADE X
OF SMA NEGERI 1 PERBAUNGAN
IN THE YEAR OF 2012/2013**

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ABSTRACT

This research aims to increase the problem solving ability of student in grade X of SMA Negeri 1 Perbaungan by implementing problem based learning (PBL) model in trigonometry topic.

Type of this research is Classroom Action Research (CAR). Subject in this research is student in class XU-1 of SMA Negeri 1 Perbaungan that consists of 26 students. This research is conducted in two cycles. Data in this research is obtained from learning implementation and student activity observation, problem solving ability test, student response questionnaire and documentation.

Results of this research show that PBL can increase problem solving ability of student. The increasing can be seen in three things such as, (1) average of class score in cycle I is 71.04 becomes 78.35 in cycle II or increases 5.38 (10.29%), (2) total of student who completed in understanding problem step in cycle I is 21 becomes 24 in cycle II or increases 3 students (14.29%), total of student who completed in making a plan step in cycle I is 21 becomes 26 in cycle II or increases 5 students (23.51%), total of student who completed in doing the plan step in cycle I is 16 becomes 23 in cycle II or increases 7 students (43.75%), total of student who completed in checking solution step in cycle I is 15 becomes 23 in cycle II or increases 8 students (53.33%) and (3) total of student who completed to solve problem in cycle I is 13 becomes 23 in cycle II or increases 10 students (76.92%). Based on gain score criteria, the increasing of students' problem solving ability is classified into low category.

Results of this research also show that level of student mastery is 88.46% that means that completeness of student learning completes classically, attainment of basic competence indicator at whole achieves 75% that means that completeness attainment of basic competence indicator is achieved and observation II shown that teacher ability is very good and student activity is good. Those results shown that PBL is effective in trigonometry topic learning in grade X. Response questionnaire result analysis shows that students feel interest, happy and love learn mathematics by implementing PBL especially in trigonometry topic.