

**THE DIFFERENCE OF EFFECT OF PROBLEM – BASED LEARNING
AND NUMBERED HEADS TOGETHER TOWARD STUDENTS'
PROBLEM SOLVING ABILITY ON THE TOPIC OF
STATISTICS IN GRADE XI SMA NEGERI 2 BALIGE**

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ABSTRACT

The type of this research is quasi – experiment. The objective of this research was to determine whether students' problem solving ability of mathematics which taught by PBL is higher than NHT. Population of this research was 217 students of grade eleventh science in SMA Negeri 2 Balige. Applying cluster-random-sampling, XI MIA 2 was taken as Experiment Class I and taught by using PBL, meanwhile XI MIA 1 as Experiment Class II and taught by using NHT. Each of class consist of 30 students. Technique of analyzing data is consisted of normality, homogeneity, and hypothesis test. Based on normality and homogeneity test, the data was taken from normal distribution and homogeneous population. Hypothesis test is done by using analysis of co-variance and coefficient of determination index. The result of ANCOVA show that $F_{\text{statistics}} = 9.430$ and $F_{(0.5)(2, 58)} = 3.160$. Consequently $F_{\text{statistics}} > F_{\text{table}}$, then H_0 is rejected. It means there is significant effect of learning model toward students' problem solving ability. The coefficient of determination index in PBL class is 0.5738 or 57.38% meanwhile in NHT class is 0.4810 or 48.10%. It means students' problem solving ability of mathematics which taught by PBL is higher than NHT. Furthermore, the difference of both effect is equal to 11.18%. The result of this research contributes to suggest the using of PBL model to increase students' problem solving ability of mathematics.