

ABSTRACT

Lutviah Hidayati. The Comparison of Students' Aptitude of Mathematical Concepts Understanding who were Taught by *Probing Prompting Learning Model* and *Problem Based Learning Learning Model* at SMP Negeri 92 Jakarta. Bachelor Thesis. Jakarta: Program of Mathematics Education, Faculty of Mathematics and Sciences, Universitas Negeri Jakarta, 2017.

This research examined which model would be more appropriate to improve students' aptitude of mathematical concepts understanding by comparing two learning models, *Probing Prompting* and *Problem Based Learning*.

The research was conducted at class VIII SMP Negeri 92 Jakarta, periodic year 2016/2017, from February to March 2017. The method of this research was quasi-experiment using two-stage sampling as the sampling technique, with purposive sampling at the first stage and cluster random sampling at the second stage. Two classes with equally normal distributions, same variances and same means were selected as the experimental classes. The instrument of this research was aptitude test of mathematical concepts understanding towards Tangent Lines of Circles Unit as the post-test. The instrument's content validity, construct validity and empirical validity had been reviewed by expert validators and was deemed valid. The reliability was tested using *Cronbach's Alpha* formula and had reliability coefficient of 0.6743 and was categorized as high.

Based on the post-test result, first experimental class (using *Probing Prompting* learning model) and second experimental class (using *Problem Based Learning* learning model) had equally normal distributions and same variances. The hypothesis test was calculated using *t*-test with level of significance $\alpha = 0.05$. Based on the calculation, the amount of *t*-test was 1.7643 and $t_{table} = 1.669$, which means that $t_{value} > t_{table}$ so H_o was rejected. It can be concluded that students' aptitude of mathematical concepts understanding who were taught using *Probing Prompting* learning model was higher than students' aptitude of mathematical concepts understanding who were taught using *Problem Based Learning* learning model.

Keywords: mathematical concepts understanding, probing prompting learning model, problem based learning learning model