THE EFFECT OF PROBLEM BASED LEARNING (PBL) MODEL ON MATHEMATICAL DISPOSITION AND IMPROVEMENT OF ABILITIY OF MATHEMATICAL CONNECTION STUDENTS OF SMA NEGERI IN NORTH BEKASI

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ABSTRACT

This study examines the effect of the PBL model and direct learning on the improvement of mathematical connection capability in terms of the early ability of mathematics. In addition, to know the influence of PBL model and direct learning to the mathematical disposition of high school students in North Bekasi. This research is a quasi experiment. The experimental class is treated as a PBL model, while the control class is a direct learning model. The reasonably affordable population of this study is the students of SMA Negeri 4 Kota Bekasi class XI IPA academic year 2016/2017 that comes from a population that is normally distributed, has the same or homogeneous variance, and has the same average. The instruments used consisted of mathematical connection ability test, maths early test ability, and mathematical disposition questionnaire. Prior to use, the instrument has passed the test of content validity, construct validity, and empirical validity. Data analysis was done by two way Anova test and t-test.

Based on the results of the research, it was found that: (1) improvement of students' mathematical connection ability as a whole which received treatment of PBL model higher than students who received direct instruction model. (2) there is an interaction between the learning model and the early mathematical ability to improve students' mathematical connection ability. (3) improvement of mathematical connection ability of students with high math early ability who get treatment of PBL model is higher compared to students who get treatment of direct learning model. (4) the mathematical disposition of students who are treated with PBL model is higher compared to the students who get the direct learning model treatment

Keywords: mathematical connection ability, mathematical disposition, problem based learning (PBL) and direct learning.