ABSTRACT

RATU RETTI SETIARTI, Influence of Implementation Learning Model *Predict Observe Explain* (POE) on Mathematical Representation Skills of Students at SMA Negeri 48 Jakarta. Essay. Jakarta: Mathematics Education Program, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, 2017.

There are five mathematical skills that must be owned by each student, one of which is the mathematical representation skills. Mathematical representation skills can be developed through math learning that encourages students while providing opportunities for students to present their own representations. One of the learning models that is able to present mathematical representation skills of students is *Predict Observe Explain* (POE) learning model. This study aimed to determine whether there is influence of POE learning model on mathematical representation skills of students at SMA Negeri 48 Jakarta.

The method that used is quasi experiment. The research instrument that used is the test instrument of mathematical representation skills in the form of 5 description questions that have been stated valid in content, construct, and empirical. The target population of this study is all students of SMA Negeri 48 Jakarta. The affordable population of this study is all students of tenth grade at SMA Negeri 48 Jakarta. The sampling procedure that used is *two stage sampling* technique, which consists of two stages. The first stage is the class selection stage, that is by *purposive sampling* selected all students of SMA Negeri 48 Jakarta in the first semester of 2017/2018 academic year for class X IIS 1, X IIS 2, and X IIS 3. The second stage is the respondents selection stage, that is by *Cluster Random Sampling* selected X IIS 2 as control class and X IIS 3 as experimental class that have been declared normal, homogeneous, and have the same average.

Based on the test results of data analysis after treatment, the experimental class and control class have a normal but not homogeneous distribution. Therefore, hypothesis testing is done by using t'-test significance level $\alpha = 0{,}05$. Based on the calculation of the statistical hypothesis, obtained $t' = 11{,}54706$ and t comparison that is $\frac{w_1t_1+w_2t_2}{w_1+w_2} = 1{,}7$. If the test criteria is $t' \geq \frac{w_1t_1+w_2t_2}{w_1+w_2}$, then H_0 is rejected so that the average of mathematical representation skills of students that obtaining POE learning model is higher than the average of mathematical representation skills of students that obtaining conventional learning at SMA Negeri 48 Jakarta. This implies that the implementation learning model POE affects the mathematical representation skills of student at SMA Negeri 48 Jakarta.

Keywords : *Predict Observe Explain (POE) Learning Model, Mathematical Representation Skills*