

**THE EFFECTIVENESS OF GUIDED INQUIRY LEARNING
MODEL WITH MACROMEDIA FLASH TO INCREASE
STUDENT'S ACHIVEMENT ON THE TEACHING
COLLOIDAL SYSTEM IN SENIOR HIGH SCHOOL**

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ABSTRACT

The research of guided inquiry learning model with macromedia flash to increase student's achievement was done. This research aimed to know whether student's achievement that be taught by guided inquiry learning model with macromedia flash is significant higher than student's achievement that be taught by direct instruction model in the teaching colloidal system and to know the effectiveness and cognitive aspect that most improve through the experiment class. The population of this research was senior high school student year XI and due to the limitation, SMAN 15 Medan as sample. Sample was chosen by purposive sampling and taken 2 classes from the population. The first class was used as experimental class and second class was used as control class. In experimental class, the method that used was Guided Inquiry learning model with macromedia flash while in control class used Direct Instruction model. Instrument that used is 20 items of multiple choice tests. Before conducting the research, the instrument was analyzed by using SPSS-17 and Microsoft Excel for the validity, reliability, difficulty level and discrimination index. From 40 questions of instrument test, finally gotten 20 items valid with reliability at 0.8829.

The data have been analyzed by using normality and homogeneity test which is shown that data gain are normal distributed and homogeneous. It is requirement to do hypothesis. Based on hypothesis test by using SPSS-17 that using Independent Sample T-Test with significance level 0.05 and by using Right Side t-Test, it can be concluded that student's achievement that be taught by guided inquiry learning model with macromedia flash is significant higher than student's achievement that be taught by direct instruction model in the teaching colloidal system. The effectiveness of guided inquiry learning model with macromedia flash in teaching colloidal system is 77.02%. Based on cognitive aspect gain in experiment class are C1 0.7731 (high category), C2 0.7498 (high category), and C3 0.8009 (high category), so it can be concluded that the most influence of cognitive aspect through experiment class is C3 because it has highest value of gain average.