EFFECT OF COOPERATIVE LEARNING TYPES STUDENT TEAM ACHIEVEMENT DIVISON USING VIRTUAL LABORATORY FLASH MEDIA TOWARDS IMPROVING SENIOR HIGH SCHOOL STUDENTS' ACHIEVEMENT IN THERMOCHEMISTRY TOPIC

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ABSTRACT

Effect of Cooperative Learning types STAD using Virtual Laboratory flash media in improving students' achievement was conducted to know the significant differences student's achievement in experimental class in SMA Negeri 1 Tebing Tinggi and control class that taught with conventional method. The population of this research are all of XI grade of SMA N 1 Tebing Tinggi. The sample were divided into two class one was called experimental class in class XI IPA-3 and control class in class XI IPA-5 based on purposive sampling techniques. The kind of this research is experimental research.

Instrument used is validated multiple choice questions as 21 questions and choice 20 questions as instrument test. The result of instrument test standardization reliability is 0.757. The first time, pre-test is given to experimental class and control class. In experimental class was used Cooperative learning types STAD using virtual laboratory flash media and in control class was used conventional learning method. The last, post test is given for each of class. Before hypothesis test, the data is tested by normality test by using Chi Square test and homogeneity test by using F test. Test result stated the sample is distributed normally and homogeny.

Based on the result in experimental class was obtained the average of pre-test score 32.97 with standard deviation 8.118 and post test score 86.09 with standard deviation 6.442. In control class was obtained the average of pre-test score 28.91 with standard deviation 6.18 and post test score 64.22 with standard deviation 7.94. The hypothesis is tested by using t- test and obtained t_{count} of post test is 12.100 and t-test result of normalized gain is **15.480** while t_{table} = **1.671** at significance level $t_{0.05}$ and df = 62 and $t_{count} > t_{table}$, so Ha is received. It proved there is significant differences of student's achievement taught by learning cycle model with experimental method are higher than conventional learning method. Increasing of student's achievement was calculated by using normalized gain and the percentages gain in experimental class is 79.9% and percentages gain in control class is 50.1%. As addition, the cognitive aspect growth is application. The increasing value is C2 (Comprehension) with the average of normalized gain is 0.81. Followed by C3 (Application) with the average normalized gain value is 0.79 and C4 (Analysis) with the average normalized gain value is 0.79.