THE INFLUENCE OF EXPERIMENTAL METHOD USING *PAS* IN SENIOR HIGH SCHOOL TOWARD STUDENT'S PROCESS SKILL AND ACHIEVEMENT IN REDOX REACTION

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ABSTRACT

This research purposed to know the influence of experimental method using *PAS* toward student's process skill and achievement in redox reaction. In addition, this research also purposed to know the feasibility of *PAS* guidance, the result of testing *PAS* guidance in laboratory UNIMED, percentage skill of student and student's perception to *PAS* guidance. The population of this research is all Senior High School students grade X at MAN 2 Model Medan and the sample are 2 classes of students in superior class, experiment class that taught with experimental method using *PAS* and control class that taught using conventional method. The instrument that used in this research is 15 questions in the form of multiple choice that has been standardized by statistic method by using t-test with validity test ; $r_{count} > 0.444$, reability test ; $0.781 > r_{table}$ with category is high. Then, the result data was analyzed with normality test and homogeneity test. In experiment class normality test for gain data is 1.80 and in control class normality test for gain data is 2.37 with X^2_{table} is 11.07, so the data both of class is normal distributed. In homogeneity test for pre-test F_{count} is 1.03, post-test is 1.11, gain is 1.00 with F_{table} is 2.07, so the data are homogenous. Based on the analysis data of research, both of class seen the differentiate of student's achievement, where the average score of post-test in experiment class is 81.21 with average gain is 0.69, meanwhile the average score of post-test in control class is 73.03 with average gain is 0.53. The difference of student's achievement in both of class proven by hypothesis test by using t-test with significant level is $\alpha = 0.05$, where $t_{count} > t_{table}$ (5.333 > 1.717), can be concluded refusing Ho and accepting Ha, it means that the student's process skill and achievement that be learnt with experimental method using *PAS* higher than student that be learnt with conventional method in the teaching of redox reaction. The result data of research show: 1) *PAS* guidance is very feasible to used as experiment guidance with average score is 95.83, 2) the result testing of *PAS* guidance in laboratory UNIMED was give similar result with the theory, 3) percentage skill of student is high with average score is 87.12, 4) student's perception to *PAS* guidance got average score is 86.25 that's mean student understand by the presence of *PAS* guidance as experimental guidance.