

**THE IMPLEMENTATION OF COOPERATIVE LEARNING MODEL
STUDENT TEAM ACHIEVEMENT DIVISION (STAD) TYPE BY
USING LEARNING MODULE TO INCREASE STUDENT
ACHIEVEMENT IN SALT HYDROLYSIS TOPIC**

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ABSTRACT

This research has the purpose to know the significant difference of learning outcomes of students after teaching used *Cooperative Learning Model Student Team Achievement* (STAD) by using Module and Direct Instruction Method by using module in the topic Salt Hydrolysis. The population in this research is all of the students in class XI SMA Swasta Al-Ulum Medan academic year 2012/2013 that have 4 classes. The samples chosen are random sampling, samples that take are XI Science 1 and XI Science 2. Every class has 35 students. The research instrument uses multiple-choice tests. After validation, the amount of questions became 20 from 40 questions & reliability is 0.835. The learning outcomes can be known from the ability of students in answering chemistry questions in the salt hydrolysis topic, after teaching by Cooperative Learning Model *Student Team Achievement* (STAD) and Direct Interaction Method. Results of research can be shown in the experimental class with an average of pre-test 36.14 and post-test 79.85. And then the average score in the control class for pre-test 38.71 and post-test 69. The score of Normality test by SPSS 17 for windows has ($\text{sign} > \alpha$), the score of pretest, posttest and gain in the experimental class is ($0.283 > 0.05$, $0.220 > 0.05$ and $0.545 > 0.05$). So, pretest, posttest, and gain in the experimental class have Normal Distributed Categorized. The score of pretest, posttest, and gain in the Control class is ($0.298 > 0.05$, $0.172 > 0.05$, $0.630 > 0.05$) so, pretest, posttest and gain in the control class is Normal Distributed Categorized. Next, Homogeneity by SPSS 17 for windows is $0.05 \leq 0.518$ it means the data is homogeneous. Hypothesis data using SPSS 17 for windows we get the data Sig. (1-tailed) $0.000 < 0.05$ it means Learning outcomes in cooperative learning model *Student Team Achievement Division* (STAD) type by using module is significantly higher than student learning outcomes taught by Direct Interaction Method that integrated by using module.

Normality test by statistical test using Chi Square Formula ($X^2_{\text{count}} > X^2_{\text{table}}$), the score of pretest and posttest in the experimental class is ($7.97 > 11.07$, $7.61 > 11.07$) but in the control class ($6.95 > 11.07$, $9.71 > 11.07$) so pretest and posttest is Normal Categorized. Next Homogeneity test by statistical ($F_{\text{count}} < F_{\text{table}}$). Based on the data score of Homogeneity is ($1.21 < 1.77$) so the data is homogeneous. From statistical test with $\alpha = 0.05$, $t_{\text{count}} > t_{\text{table}}$ or ($9.5 > 1.68$) H_0 is accepted. The percentage of increasing learning outcomes by using *Student Team Achievement Division* (STAD) is 68% and learning outcomes that teaching using Direct Interaction Method is 49%.