

**THE IMPLEMENTATION OF COOPERATIVE LEARNING STAD  
TYPE WITH MULTIMEDIA BASED ON COMPUTER TO  
FOSTER TEAMWORK AND INCREASE STUDENT'S  
ACHIEVEMENT IN REDOX REACTION TOPIC**

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**ABSTRACT**

The objectives of this research are: (1) to know the chemistry student's achievement that taught by cooperative learning STAD type and direct instruction, (2) to investigate whether the student's achievement taught by cooperative learning STAD type with multimedia based on computer is significant higher than student's achievement taught by direct instruction, (3) to investigate how many percent of student's teamwork character that can be fostered by using cooperative learning STAD type, (4) to investigate the effectiveness of cooperative learning STAD type with multimedia based on computer compare with direct instruction to increase student's achievement.

This research was done in SMAN 3 Medan, SMA Laksamana Martadinata and SMA Krakatau in Medan. The population is all student X grade in SMAN 3 Medan, SMA Laksamana Martadinata and SMA Krakatau in Medan. The samples are 6 classes which taken 2 classes of each selected schools choosed randomly. The sample classes devided into experiment class use cooperative learning STAD type and control class use direct instruction. The research instruments are achievement test and observation sheet. The achievment test is pretest and posttest, the mean of pretest in experiment class is 24,111 and in control class is 20,611. The posttest in experiment class is 78.056 and in control class is 65.611. Both of instrument have been validated by expert about the content. The achievement test is used to measure the increasing of student's achievement and observation sheet is used to measure the foster of student's teamwork character. The research data is analysed by using *SPSS 16.0 for Windows*.

The result of research are: (1) the mean of student's chemistry achievement that taught by cooperative learning STAD type with multimedia based on computer is better (86.67% pass the KKM) compare with student's chemistry achievement that taught by direct instruction (63.33% pass the KKM)., (2) the student's achievement taught by cooperative learning STAD type with multimedia based on computer is significant higher ( $\text{sig}=0.000$ ) compared by student's achievement taught by direct instruction, (3) the cooperative learning STAD type with multimedia based on computer can foster (45.80 %) the student's teamwork character, (4) the effectiveness of cooperative learning STAD type with multimedia based on computer is effective to increase student's achievement (20.51%) compare with direct instruction.