

**THE IMPLEMENTATION OF COOPERATIVE LEARNING MODEL
(STUDENT TEAMS ACHIEVEMENT DIVISION TYPE) BY
USING CHEMSKETCH MEDIA TO INCREASE STUDENTS
ACHIEVEMENT IN HYDROCARBON TOPIC**

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ABSTRACT

This research has objective to investigate whether the students achievement that be taught by implementation of cooperative learning model (student teams achievement division type) by using chemsketch media is higher than students achievement that be taught by implementation of direct instruction model by using chemsketch media in hydrocarbon. The population is all X IPA students in SMA Negeri 1 Sunggal and the samples are taken two classes; X IPA 1 and X IPA 3 that consist of 31 students in each class. Before, teaching and learning process, students are given pretest 25 questions that has been validated with value of reliability is 0.91. After the treatment, students are given the posttest to measure students achievement. The result obtained is pretest score in experiment and control class continued is 32.516 and 32.645 meanwhile for posttest score is 89.806 and 74.194. Based on the calculation of normality by the SPSS-16, it shows that both in experiment and control class, continued pretest and posttest data is obtained $\text{sig.} > \alpha$ ($0.125 > 0.05$, $0.160 > 0.05$, $0.099 > 0.05$, $0.127 > 0.05$). It is parallel with the calculation by using Chi Square formula ($\chi^2_{\text{table}} < \chi^2_{\text{count}}$), both in experiment and control class, continued pretest and posttest data is obtained ($8.573 < 12.592$, $5.845 < 12.592$, $2.777 < 7.815$, $9.484 < 9.488$). From data can be concluded that data are distributed normally. In homogeneity test, gain data has $\text{sig.} > \alpha$ ($0.145 > 0.05$). Based on calculation by using Fisher formula, $F_{\text{count}} < F_{\text{table}}$ ($1.516 < 1.84$). It can be concluded that the data is homogeny. For hypothesis testing, in SPSS-16, it shows that it has $\text{sig.} < \alpha$ ($0.000 < 0.05$). Based on the calculation of right side t-test, $t_{\text{count}} > t_{\text{table}}$ ($17.112 > 1.671$), it means that H_0 is accepted. So students achievement that be taught by implementation of cooperative learning model (student teams achievement division type) by using chemsketch media is higher than students achievement that be taught by implementation of direct instruction model by using chemsketch media in hydrocarbon topic.