

**Comparison Between Students Learning Outcomes Taught With Problem
Based Cooperative Learning Using Experiment And
Demonstration Methods On Thermochemistry**

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ABSTRACT

This research purposes to know comparison students learning outcomes taught with problem based cooperative learning using experiment and demonstration methods on material thermochemistry in class of XI IPA SMAIT AL-FITYAN Medan. Population that used in this research all students of XI IPA 2015/2016 Academic Year. Sample that used is all of students in XI IPA SMAIT AL-FITYAN that are first class as experimental class and second class as demonstration class but the all of them using problem based cooperative learning model. Data collection techniques of learning outcomes use test method. Data analysis techniques for hypothesis testing are done by using t-test right side. The result of research show that learning outcomes using problem based cooperative learning with experiment method is higher than demonstration method on material thermochemistry in XI IPA SMAIT AL-FITYAN Medan. Average in experimental class I is 70.5 and experimental II is 62.25.