ABSTRAK

Juniaty Berutu, Nim 4182131004. Perbandingan Hasil Belajar Siswa dengan Model *Project Based Learning* dan *Problem Based Learning* Berbantuan Media *ChemSketch* pada Materi Ikatan Kimia.

Penelitian ini bertujuan untuk mengetahui perbandingan hasil belajar siswa pada penerapan dua model pembelajaran dan mengetahui peningkatan hasil belajar siswa dari masing-masing model yang diterapkan. Penelitian dilakukan pada kelas X MIPA SMA Negeri 1 Tanjung Morawa sebanyak 2 kelas eksperimen. Kelas MIPA 2 dengan *Project Based Learning* dan MIPA 3 dengan *Problem Based Learning*. Masing-masing kelas diberikan *pre-test* sebelum proses pembelajaran dan *post-test* setelah proses pembelajaran. Soal *pre-test* dan *post-test* yang diberikan, berisi butir soal yang sama. Data yang didapatkan diolah dengan uji *Wilcoxon* dan uji *N-Gain* untuk mengetahui peningkatan hasil belajar siswa pada masing-masing kelas serta uji *Independent Sample T-Test* untuk mengetahui perbedaan hasil belajar dari kedua model yang digunakan. Hasil penelitian menunjukkan terdapat peningkatan hasil belajar siswa bernilai positif pada masing-masing kelas dengan kategori tinggi, artinya nilai *post-test* lebih tinggi dibandingkan nilai *pre-test*nya. Dimana pada kelas MIPA 2 didapatkan nilai *N-Gain* sebesar 0,79 sedangkan pada MIPA 3 sebesar 0,72. Namun terdapat perbedaan hasil belajar yang signifikan pada kedua kelas. Dimana dari hasil uji *Independent Sample T-Test* rataan nilai *post-test* kelas MIPA 2 dengan rataan nilai *post-test* kelas MIPA 3 didapatkan nilai *Sig.(2-Tailed)* sebesar 0,001 lebih kecil dari taraf signifikan 0,05.

Kata kunci : *Project Based Learning*, *Problem Based Learning*, *ChemSketch*, Hasil belajar.

ABSTRACT

Juniaty Berutu, Nim 4182131004. *Comparison of Student Learning Outcomes with Project Based Learning Models and Problem Based Learning Models Assistes By Chemsketch Media on Chemical Bonding Materials.*

The purpose of this study is to uncover, compare and record students' achievements and improvements in the application of two teaching techniques. The study conducted in two distinct MIPA tenth grade classes at SMAN 1 Tanjung Morawa. Project Based Learning model was used in MIPA 2, while Problem Based Learning model was used in MIPA 3. Both classes receive a pretest and a posttest, containing the same set of questions. Wilcoxon and N-Gain tests were used to assess the increase in student achievement in each class, and the independent sample t- test was used to compare the learning outcomes of the two models. The results showed an improvement in student achievement with positive scores in each class with a high category, meaning that the posttest value was greater than the pretest value. MIPA 2 has an N-Gain of 0.79, whereas MIPA 3 has an N-Gain of 0.72. However, the learning outcomes in the two classrooms varied significantly. Whereas the Independent Sample T-Test results show that the average posttest value for MIPA 2 class is lower than the average posttest value for MIPA 3 class, the value of Sig. (2-Tailed) is 0.001, which is less than the significant level of 0.05.

Keywords: Project Based Learning, Problem Based Learning, ChemSketch, Learning Outcomes