ABSTRAK

Naya Dyta Nafisyah, NIM 4203151027. Perbandingan Keterampilan Proses Sains dan Hasil Belajar Siswa Menggunakan Model *Project Based Learning* dan Model *Problem Based Learning* pada Materi Sistem Ekskresi SMPN 2 Percut Sei Tuan.

Penelitian ini bertujuan untuk mengetahui: 1) Perbandingan keterampilan proses sains menggunakan model *Project Based Learning* dan model *Problem Based Learning* pada materi sistem ekskresi SMPN 2 Percut Sei Tuan, 2) Perbandingan hasil belajar siswa menggunakan model Project Based Learning dan model Problem Based Learning pada materi sistem ekskresi SMPN 2 Percut Sei Tuan. Jenis penelitian ini adalah *quasi experiment* dengan rancangan *Pretest-Postest Non-Equivalent Control Group Design*. Populasi penelitian adalah siswa kelas VIII SMPN 2 Percut Sei Tuan. Sampel penelitian adalah siswa kelas VIII-5 (kelas eksperimen I) berjumlah 30 orang dan VIII-1 (kelas eksperimen II) berjumlah 30 orang dengan teknik *purposive sampling*. Instrumen dalam penelitian ini adalah tes kognitif hasil belajar dan lembar observasi keterampilan proses sains. Analisis data menggunakan uji-t dua pihak. Data dianalisis dengan uji-t pada taraf signifikansi 0,05. Berdasarkan analisis data diperoleh $t_{hitung} < t_{tabel}$ yaitu 1,02 < 2,00. Dengan demikian kriteria $t_{hitung} < t_{tabel}$ tidak terpenuhi. Hal ini menunjukkan bahwa H_0 diterima dan H_a ditolak artinya keterampilan proses sains siswa yang diajarkan menggunakan model *Project Based Learning* (PjBL) sama dengan yang diajarkan menggunakan model *Problem Based Learning* (PBL) pada materi sistem ekskresi SMPN 2 Percut Sei Tuan. Sedangkan $t_{hitung} > t_{tabel}$ yaitu 6,68 > 2,00 sehingga H_a diterima, H_0 ditolak yang artinya ada perbandingan yang signifikan hasil belajar yang diajarkan menggunakan model *Project Based Learning* (PjBL) lebih tinggi dibandingkan yang diajarkan menggunakan model *Problem Based Learning* (PBL) pada materi sistem ekskresi SMPN 2 Percut Sei Tuan.

Katakunci: keterampilan proses sains, hasil belajar, pembelajaran berbasis proyek, pembelajaran berbasis masalah, sistem ekskresi

ABSTRACT

Naya Dyta Nafisyah, NIM 4203151027. Comparison of Science Process Skills and Student Learning Outcomes Using Project Based Learning Model and Problem Based Learning Model on Excretory System Material at SMPN 2 Percut Sei Tuan.

This research aims to find out: 1) Comparison of science process skills using the Project Based Learning model and the Problem Based Learning model on the material of the excretory system of SMPN 2 Percut Sei Tuan, 2) Comparison of student learning outcomes using the Project Based Learning model and the Problem Based Learning model on excretory system material at SMPN 2 Percut Sei Tuan. This type of research is a quasi experiment with Pretest-Postest Non-Equivalent Control Group Design. The research population was the VIII grade students of SMPN 2 Percut Sei Tuan. The research samples were students of class VIII-5 (experimental class I) totaling 30 people and VIII-1 (experimental class II) totaling 30 people with purposive sampling technique. The instruments in this study were cognitive tests of learning outcomes and observation sheets of science process skills. Data were analyzed using two tailed t-test. Data were analyzed by t-test at a significance level of 0.05. Based on the data analysis, it was obtained $t_{count} < t_{table}$, namely 1,02 < 2.00. Thus the criterion $t_{count} < t_{table}$ is not met. This shows that H_0 is accepted and H_a is rejected, meaning that the science process skills of students taught using the Project Based Learning (PjBL) model are the same as those taught using the Problem Based Learning (PBL) model on the excretory system material of SMPN 2 Percut Sei Tuan. While $t_{count} > t_{table}$ is 6.68 > 2.00 so that H_a is accepted, H_0 is rejected, which means that there is a significant comparison of learning outcomes taught using the Project Based Learning (PjBL) model higher than those taught using the Problem Based Learning (PBL) model on the excretory system material of SMPN 2 Percut Sei Tuan.

Keywords: science process skills, learning outcomes, project based learning, problem based learning, excretory system