ABSTRAK

Rona Riahni Sinaga, NIM 4203141045 (2024). Perbedaan Kemampuan Berpikir Tingkat Tinggi dengan Menerapkan Model *Project Based Learning* (PjBL) dan *Problem Based Learning* (PBL) pada Materi Virus Kelas X SMA Negeri 1 Panombeian Panei.

Penelitian ini bertujuan mengetahui perbedaan kemampuan berpikir tingkat tinggi dengan menerapkan model *Project Based Learning* (PjBL) dan *Problem Based Lea rning* (PBL) pada materi virus kelas X SMA Negeri 1 Panombeian Panei. Penelitian yang dilakukan adalah penelitian semu (*quasi eksperimen*). Populasi dalam penelitian ini adalah seluruh peserta didik kelas X SMA Negeri 1 Panombeian Panei yang terbagi menjadi 6 kelas dengan jumlah 180 orang. Sampel dalam penelitian dipilih dengan teknik *purposive sampling* dan terdiri dari 2 kelas yaitu kelas X-1 sebagai kelas PjBL dan kelas X-2 sebagai kelas PBL dengan jumlah total 60 siswa. Instrumen yang digunakan dalam penelitian ini adalah tes essay kemampuan berpikir tingkat tinggi yang telah divalidasi oleh ahli. Hasil penelitian menunjukkan bahwa kemampuan berpikir tingkat tinggi siswa dengan menerapkan model *Project Based Learning* (PjBL) dengan nilai rata-rata sebesar 40.08 lebih besar dibandingkan dengan kemampuan berpikir tingkat tinggi siswa dengan menerapkan model *Problem Based Learning* (PBL) dengan nilai rata-rata sebesar 30.83. Data kemampuan berpikir tingkat tinggi diuji dengan menggunakan uji-t pada taraf signifikan $\alpha = 0.05$ menunjukkan bahwa nilai $t_{hitung} > t_{tabel} = (2,0 > 1,5)$ sehingga H_0 ditolak H_a diterima. Artinya, terdapat perbedaan kemampuan berpikir tingkat tinggi siswa menggunakan model pembelajaran *Project Based Learning* (*PjBL*) dengan model pembelajaran *Problem Based Learning* (*PBL*) pada materi pokok virus kelas X SMA Negeri 1 Panombeian Panei Tahun Pembelajaran 2023/2024.

Kata Kunci: Kemampuan berpikir tingkat tinggi, model *Project Based Learning* (PjBL), model *Problem Based Learning* (PBL), Virus.

ABSTRACT

Rona Riahni Sinaga, NIM 4203141045 (2024). Differences in High-Level Thinking Ability by Applying Project Based Learning (PjBL) and Problem Based Learning (PBL) Models on Virus Material in Class X SMA Negeri 1 Panombeian Panei.

This study aims to find out the difference in high-level thinking skills by applying the Project Based Learning (PjBL) and Problem Based Learning (PBL) models on virus material in class X SMA Negeri 1 Panombeian Panei. The research conducted is a quasi-experimental research. The population in this study is all students of class X SMA Negeri 1 Panombeian Panei which is divided into 6 classes with a total of 180 people. The sample in the study was selected by purposive sampling technique and consisted of 2 classes, namely class X-1 as a PjBL class and class X-2 as a PBL class with a total of 60 students. The instrument used in this study is a high-level thinking ability essay test that has been validated by experts. The results showed that the high-level thinking ability of students by applying the Project Based Learning (PjBL) model with an average score of 40.08 was greater than the high-level thinking ability of students by applying the Problem Based Learning (PBL) model with an average score of 30.83. The data on higher-level thinking skills were tested using a t-test at a significant level of $\alpha = 0.05$ indicating that the value of $t_{hitung} > t_{tabel}= (2.0 > 1.5)$ so that H_0 was rejected H_a accepted. This means that there is a difference in students' high-level thinking ability using the Project Based Learning (PjBL) learning model and the Problem Based Learning (PBL) learning model in the virus subject matter of class X of SMA Negeri 1 Panombeian Panei T.P 2023/2024.

Keywords: High-level thinking skills, *Project Based Learning* (PjBL) model, *Problem Based Learning* (PBL) model, Virus.