

ABSTRAK

Ezra Pebiola Lumbantobing, NIM 4193311021 (2023). Perbandingan Antara Model Pembelajaran Project Based Learning dan Model Pembelajaran Konvensional Terhadap Kemampuan Pemahaman Konsep Matematis Siswa.

Penelitian ini menggunakan metodologi penelitian *True Experimental Design*. Peneliti melaksanakan penelitian di SMA Swasta Methodist 7 Medan untuk mengetahui perbedaan antara model *project based learning* dengan model pembelajaran konvensional terhadap kemampuan pemahaman konsep matematis siswa. Sampel dalam penelitian ini adalah seluruh kelas X IPA SMAS Methodist 7 Medan yang terdiri dari 2 kelas sebanyak 40 siswa. Berdasarkan data pretest diketahui bahwa nilai rata-rata siswa yang diajar dengan model pembelajaran berbasis proyek pada kelas eksperimen adalah 55,97, sedangkan nilai rata-rata siswa yang diajar dengan model pembelajaran konvensional pada kelas kontrol adalah 55,42. Pada data *Posttest* diketahui rata-rata nilai kelas eksperimen yang diajar menggunakan model *Project Based Learning* adalah 82,36. Sedangkan rata-rata nilai pada kelas kontrol yang mengikuti model pembelajaran konvensional adalah 77,64. Dengan menggunakan uji hipotesis satu arah diperoleh $t_{hitung} = 2,501$ dan $t_{tabel} = 1,684$ pada signifikansi $\alpha = 0,05$ sehingga $t_{hitung} > t_{tabel}$. Maka dapat disimpulkan, H_0 ditolak dan H_a diterima sehingga terdapat perbedaan kemampuan pemahaman konsep matematis siswa yang diajarkan dengan menggunakan model pembelajaran *project based learning* dan siswa yang diajarkan dengan model pembelajaran konvensional di SMAS Methodist 7 Medan T.A 2023/2024.

Kata Kunci: *Project Based Learning*, Konvensional, Media Berbasis Android, Pemahaman Konsep.

ABSTRACT

Ezra Pebiola Lumbantobing, NIM 4193311021 (2023). Comparison between the Project Based Learning Model and the Conventional Learning Model on Students' Ability to Understand Mathematical Concepts.

This research uses the True Experimental Design research methodology. Researchers conducted research at the Medan 7 Methodist Private High School to determine the difference between the *project based learning* model and the conventional learning model on students' ability to understand mathematical concepts. The sample in this study was all class X Science at SMAS Methodist 7 Medan, consisting of 2 classes totaling 40 students. Based on pretest data, it is known that the average score of students taught using the project-based learning model in the experimental class is 55.97, while the average score of students taught using the conventional learning model in the control class is 55.42. In the Posttest data, it is known that the average score for the experimental class taught using the Project Based Learning model was 82.36. Meanwhile, the average score in the control class that followed the conventional learning model was 77.64. By using a one-way hypothesis test, $t_{count} = 2.501$ and $t_{tabel} = 1.684$ at significance $\alpha = 0.05$ so $t_{count} > t_{tabel}$. So it can be concluded, H_0 is rejected and H_a is accepted so that there is a difference in the ability to understand mathematical concepts of students taught using the project based learning model and students taught using the conventional learning model at SMAS Methodist 7 Medan FY 2023/2024.

Keywords: *Project Based Learning*, Conventional, Android Based Media, Understanding Concepts.