

ABSTRAK

Yustika Dasriyanti, NIM 4201151011. Pengaruh Model *Project Based Learning* Berbasis STEM (STEM-PjBL) terhadap Kemampuan Berpikir Kreatif pada Submateri Ekologi Kelas VII SMPS Budi Agung Medan.

Penelitian ini bertujuan untuk mengetahui pengaruh *project based learning* berbasis *science, technology, engineering, and mathematics* (STEM-PjBL) terhadap kemampuan berpikir kreatif. Jenis penelitian ini adalah *quasi experiment* dengan desain *Non-Equivalent Control Group Design*. Populasi penelitian ini adalah seluruh peserta didik kelas VII di SMP Swasta Budi Agung Medan. Sampel penelitian diambil dengan teknik *purposive sampling* yang terdiri dari dua kelas, yaitu kelas VII-1 (kelas eksperimen) yang berjumlah 27 siswa dan kelas VII-2 (kelas kontrol) berjumlah 25 siswa. Instrument dalam penelitian ini adalah tes esai sebanyak 3 butir soal untuk mengukur kemampuan berpikir kreatif. Analisis data menggunakan uji *mann-whitney*, *spearman's rank*, dan uji *normalisasi-gain* (N-gain). Hasil penelitian menunjukkan bahwa terdapat pengaruh model pembelajaran proyek berbasis STEM terhadap kemampuan berpikir kreatif. Kemampuan berpikir kreatif pada kelas yang menggunakan STEM-PjBL yaitu 86.33 ± 10.587 lebih tinggi dibandingkan kelas konvensional 60.12 ± 13.017 dengan nilai $\text{Sig.} < 0,05$. Hasil uji korelasi menunjukkan bahwa terdapat hubungan antara model *project based learning* berbasis STEM dengan kemampuan berpikir kreatif sebesar 0.808 pada kelas eksperimen, artinya terdapat korelasi yang sangat kuat antara model *project based learning* berbasis STEM dengan kemampuan berpikir kreatif pada submateri ekologi kelas VII. Persentase peningkatan N-gain pada kemampuan berpikir kreatif di kelas eksperimen sebesar 70% (cukup efektif).

Kata kunci: pembelajaran proyek, STEM, berpikir kreatif, ekologi



ABSTRACT

Yustika Dasriyanti, NIM 4201151011. The Influence of the STEM-Based Project Based Learning Model (STEM-PjBL) on Creative Thinking Skills in Class VII Ecology Sub-material at SMPS Budi Agung Medan.

This research aims to determine the effect of project based learning based on science, technology, engineering, and mathematics (STEM-PjBL) on creative thinking abilities. This type of research is a quasi experiment with a Non-Equivalent Control Group Design. The population of this study were all class VII students at Budi Agung Medan Private Middle School. The research sample was taken using a purposive sampling technique consisting of two classes, namely class VII-1 (experimental class) with 27 students and class VII-2 (control class) with 25 students. The instrument in this research is an essay test with 3 questions to measure creative thinking abilities. Data analysis used the Mann-Whitney test, Spearman's rank, and the normalization-gain test (N-gain). The research results show that there is an influence of the STEM-based project learning model on creative thinking abilities. The ability to think creatively in classes that use STEM-PjBL is 86.33 ± 10.587 higher than conventional classes of 60.12 ± 13.017 with a value of Sig. < 0.05 . The results of the correlation test show that there is a correlation between the STEM-based project based learning model and creative thinking ability of 0.808 in the experimental class, meaning that there is a very strong correlation between the STEM-based project based learning model and creative thinking ability in the ecology sub-material of class VII. The percentage increase in N-gain in creative thinking abilities in the experimental class was 70% (quite effective).

Keywords: project learning, STEM, creative thinking, ecology

