

Terisha Sheline Shazhaq. 2023. *Pengaruh Model Pembelajaran Project based learning (PjBL) Dipadu dengan STEM Terhadap Hasil Belajar Siswa Kelas XI TKJ Pada Materi VLAN*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing : Etistika Yuni Wijaya, S.Pd., M.Pd.

ABSTRAK

Hasil belajar yang rendah dapat disebabkan oleh ketidaktepatan model pembelajaran yang digunakan. Berdasarkan hasil wawancara dengan guru mata pelajaran Administrasi Infrastruktur Jaringan di SMK Negeri 1 Kwanyar, hasil belajar siswa kelas XI TKJ masih banyak yang dibawah KKM. Penelitian ini bertujuan untuk mengetahui pengaruh model pembelajaran *Project based learning* dipadu dengan STEM terhadap hasil belajar siswa kelas XI TKJ pada materi VLAN, beserta aktivitas pelaksanaan dan respon siswa terhadap model pembelajaran *Project based learning* dipadu dengan STEM. Jenis penelitian ini adalah penelitian kuantitatif dengan *Nonequivalent Control Group Design* dengan populasi 64 siswa, dimana kelas XI TKJ B sebagai kelas eksperimen dan kelas XI TKJ A sebagai kelas kontrol. Pengumpulan data berupa instrumen tes hasil belajar, observasi aktivitas guru dan siswa dan angket respon siswa. Berdasarkan hasil penelitian diperoleh, (1) Hasil uji signifikan menyatakan terdapat pengaruh signifikan antara model pembelajaran *Project based learning* dipadu dengan STEM dengan hasil belajar siswa pada ranah kognitif dengan hasil $p > \alpha$ atau $1,999 > 0,05$ maka H_0 ditolak dan H_a diterima. (2) Aktivitas guru memperoleh presentase 89% berkategori “Sangat Baik” dan aktivitas siswa memperoleh presentase 69% berkategori “Baik”. (3) Respon siswa terhadap model pembelajaran *Project based learning* dipadu dengan STEM memperoleh presentase 83% berkategori “Sangat Baik” Jadi, dapat disimpulkan bahwa terdapat pengaruh model model pembelajaran *Project based learning* dipadu dengan STEM terhadap hasil belajar siswa kelas XI TKJ pada materi VLAN.

Kata Kunci: hasil belajar, *project based learning*, STEM, VLAN.

Terisha Sheline Shazhaq. 2023. *The Effect of the Project based learning (PjBL) Learning Model Combined with STEM on the Learning Outcomes of Class XI TKJ Students on VLAN Material*. Thesis, Informatics Education Study Program, Faculty of Education, Trunojoyo University, Madura. Advisor : Etistika Yuni Wijaya, S.Pd., M.Pd.

ABSTRACT

Low learning outcomes can be caused by the inaccuracy of the learning model used. Based on the results of interviews with Network Infrastructure Administration subject teachers at SMK Negeri 1 Kwanyar, the learning outcomes of class XI TKJ students are still below the KKM. This study aims to determine the effect of the Project based learning learning model combined with STEM on the learning outcomes of class XI TKJ students on VLAN material, along with the implementation activities and student responses to the Project based learning learning model combined with STEM. This type of research is a quantitative study with Nonequivalent Control Group Design with a population of 64 students, where class XI TKJ B is the experimental class and class XI TKJ A is the control class. Data collection was in the form of learning achievement test instruments, observation of teacher and student activities and student response questionnaires. Based on the research results obtained, (1) Significant test results stated that there was a significant influence between the Project based learning learning model combined with STEM and student learning outcomes in the cognitive domain with the results of $p > \alpha$ or $1,999 > 0,05$ then H_0 was rejected and H_a was accepted. (2) Teacher activities get a percentage of 89% in the "Very Good" category and student activities get a percentage of 69% in the "Good" category. (3) Student responses to the Project based learning learning model combined with STEM obtained a percentage of 83% in the "Very Good" category. So, it can be concluded that there is an influence of the Project based learning learning model combined with STEM on the learning outcomes of class XI TKJ students on VLAN material.

Keywords: *learning outcomes, project based learning, STEM, VLAN.*