

ABSTRAK

Mata pelajaran sistem komputer merupakan materi yang berkaitan dengan komputer maupun dengan sistem yang ada pada komputer. Pada materi tertentu seperti rangkaian, akan lebih baik apabila siswa dapat praktik mengetahui langsung bagaimana rangkaian itu dibuat agar siswa lebih memahami materi, serta aktif mengikuti proses pembelajaran sehingga hasil belajar siswa baik. Penelitian ini bertujuan untuk mengetahui efektivitas *Software proteus* pada mata pelajaran sistem komputer terhadap hasil belajar siswa. Indikator suatu pembelajaran dapat dikatakan efektif apabila tiga dari 4 indikator sudah terpenuhi, yaitu (1) Hasil Belajar siswa dikatakan tuntas apabila 75% siswa memperoleh nilai sesuai dengan KKM dan terdapat perbedaan hasil belajar siswa yaitu hasil belajar kelas eksperimen lebih tinggi dari pada kelas kontrol; (2) keterlaksanaan pembelajaran berupa aktivitas guru minimal baik; (3) aktivitas siswa selama pembelajaran minimal baik; (4) respon siswa terhadap pembelajaran minimal kuat. Berdasarkan hasil penelitian, diperoleh : (1) Hasil belajar siswa secara klasikal menunjukkan ketuntasan sebesar 82,60% dan hasil belajar kelas eksperimen lebih tinggi dengan rata-rata 76,73 sedangkan rata-rata kelas kontrol yaitu 71,70; (2) keterlaksanaan pembelajaran selama 2 pertemuan memperoleh nilai rata-rata 85,71 dengan kategori baik; (3) aktivitas siswa selama 2 pertemuan memperoleh rata-rata 78,52 dengan kategori baik; (4) respon siswa yang didapat 75,53% dengan kategori kuat. Peningkatan hasil belajar siswa kelas eksperimen *pretest* ke *posttest* melalui uji gain sebesar 0,70 dengan kategori tinggi. Berdasarkan indikator efektivitas, keempatnya sudah terlaksana. Pada uji-t diperoleh hasil t_{hitung} sebesar 2,1473 dan t_{tabel} sebesar 2,0800 dengan taraf signifikan 0,05, $t_{hitung} > t_{tabel}$ sehingga H_0 diterima yaitu terdapat perbedaan hasil belajar kelas yang menggunakan *software proteus* dengan kelas yang tidak menggunakan *software proteus*. Sehingga Pembelajaran menggunakan *software proteus* dikatakan “efektif” pada mata pelajaran sistem komputer terhadap hasil belajar siswa di SMK Negeri 1 Arosbaya.

Kata Kunci: Efektivitas, *Software Proteus*, Sistem Komputer, Hasil Belajar

ABSTRACT

The subjects of computer systems are materials related to computers as well as with existing systems on the computer. In certain materials such as the circuit, it would be better if students can practice knowing directly how the circuit was made so that students could understand the material better, and the actively follows the learning process. Therefore, student learning outcomes will be nicely done. This study aims to determine the effectiveness of proteus Software on the subjects in computer systems to student learning outcomes. Indicators of a learning can be proposed to be effective if three of the four indicators are achieved, such as; (1) Student learning outcomes is proposed complete if 75% of students get the value in accordance with the KKM (the criteria target minimum) and there are differences in student learning outcomes that the experiment class is higher than the control class; (2) the implementation of learning in the form of a minimum teacher activity are good; (3) student activity during learning is at least good; (4) student's response to learning is minimal strong. Based on the result of the research, it can be concluded that: (1) The students' learning result classically shows the mastery of 82.60% and the experimental class learning result is higher with the average of 76.73 while the control class average is 71.70; (2) learning implementation during the two meetings obtained an average score of 85.71 with good category; (3) student activity for 2 meetings obtained an average of 78.52 with good category; (4) student responses obtained 75,53% with strong category. The improvement of student learning outcomes of pretest experiment class to posttest through gain test is about 0.70 with high category. Based on the effectiveness indicator, all four have been implemented. In t-test the result of t_{count} is 2,1473 and t_{table} is 2,0800 with significant level 0,05, $t_{\text{count}} > t_{\text{table}}$ so that H_0 is accepted that there is difference of learning result of class which use proteus software with class that do not use proteus software. Therefore, learning using proteus software is proposed "effective" on the subjects of computer systems to student learning outcomes in State of Senior high school 1 Arosbaya.

Keywords: Effectiveness, Proteus Software, Computer System, Learning Outcomes