

ABSTRAK

M Ali Mufid 2017. Pengaruh Pembelajaran Menggunakan Media Packet Tracer Terhadap Hasil Belajar Siswa Pada Mata Pelajaran Jaringan Komputer Kelas X TKJ SMK Agung Mulia Socah. Skripsi Program Studi Pendidikan Informatika. Fakultas Ilmu Keguruan, Universitas Trunojoyo Madura. Pembimbing I: Puji Rahayu Ningsih, S.Pd.,M.Pd, Pembimbing II Muchamad Arif, S.Pd.,M.Pd.

Kata-kata Kunci : *Media pembelajaran packet tracer, aktivitas siswa, hasil belajar siswa*

Sarana dan prasarana di SMK Agung Mulia Socah berupa komponen dan instalasi jaringan komputer belum memadai, seperti tidak adanya perangkat pembelajaran jaringan komputer sehingga siswa tidak bisa membangun jaringan komputer. Adanya laboratorium komputer belum dimanfaatkan secara optimal artinya laboratorium komputer belum dimanfaatkan untuk pembelajaran materi jaringan komputer yang berupa simulasi jaringan komputer. Media packet tracer merupakan *software* simulasi jaringan komputer "*Cisco Packet Tracer*". Media *packet tracer* digunakan siswa untuk melakukan simulasi jaringan komputer yang mendukung komponen jaringan komputer seperti router, switch, hub dan komponen pendukung lain.

Penelitian ini bertujuan untuk mengetahui pengaruh media *packet tracer* terhadap hasil belajar siswa pada mata pelajaran jaringan komputer dikelas X TKJ SMK Agung Mulia Socah.

Penelitian ini merupakan penelitian eksperimen dengan bentuk *Quasi Exsperimen Design* jenis *Nonequivalent Contol Groub Desaign*, yang melibatkan dua kelompok dan dipilih secara *Sampling Jenuh*. Pada Kelas eksperimen proses pembelajaran menggunakan media *packet tracer* dan pada kelas kontrol pembelajaran tanpa menggunakan media *packet tracer*. penelitian dilakukan tes awal (*pretest*) untuk mengetahui kemampuan awal siswa, selanjutnya setelah dilakukan perlakuan dalam jangka waktu tertentu dilakukan *posttest* untuk mengetahui tingkat keberhasilan.

Penelitian ini menghasilkan bahwa pada pengujian kenormalan dan homogenitas kedua sampel, dikatakan bahwa sampel berasal dari siswa berdistribusi normal dan homogen. Pada pengujian persamaan rata-rata nilai *pretest* hasil belajar siswa, dikatakan hasil belajar awal siswa kedua sampel adalah sama. Pada aktivitas siswa didapat bahwa rata-rata aktivitas siswa sebesar 75,14 yang merupakan kategori bagus, sehingga dapat disimpulkan bahwa aktivitas siswa tergolong aktif. Pada aktivitas guru didapatkan rata-rata 88,33 dengan kategori sangat baik sehingga dapat disimpulkan bahwa guru mampu dalam pengelolaan media *packet tracer* dalam pembelajaran. Pengujian hipotesis *posttest* hasil belajar siswa diperoleh nilai $t_{hitung} = 3,685 > t_{tabel} = 2,00$ dengan taraf signifikan $\alpha = 0,05$, terdapat perbedaan antara kelas eksperimen dan kelas kontrol. Dapat disimpulkan pembelajaran menggunakan media *packet tracer* pada jaringan komputer dapat mempengaruhi hasil belajar siswa.

ABSTRAK

M Ali Mufid 2017. *The influence of Packet Tracer Media toward the result of student's Study into the lesson of computer network in 10th class of TKJ SMK Agung Mulia Socah*. Thesis. Program Studi Pendidikan Informatika. Education Faculty. University of Trunojoyo Madura. Advisor I: Puji Rahayu Ningsih, S.Pd.,M.Pd, advisor II: Muchamad Arif, S.Pd.,M.Pd.

Keywords: Learning Media of packet tracer, the activity of student's study, the result of student's study

The infrastucture in SMK Agung Mulia Socah such as the component and computer web installation is still not satisfied yet. For example, there is no learning device of computer web until it make the student cannot develop web computer. The existence of computer lab is not advantaged optimally. It means that that computer lab is not advantaged for learning the material af web computer such as computer web simulation. Tracer packet media constitutes simulation software of computer "Cisco Packet Tracer". Tracer packet media is used by student to apply computer web simulation that supports the component of web computer such as router, switch, hub and other supporting component.

This research aims to find out the influence of packet tracer media toward the result of student's study into the lesson of computer network in 10th class of TKJ SMK Agung Mulia Socah.

This research is included the experiment research with form Quasi Experimental Design type Nonequivalent Control Group Design which involves two groups and those are chosen by saturated sampling into experiment class that processes learning by using packet tracer media and into the control class of learning without using packet tracer media. The first step in this research is doing pretest for finding out the first ability of student. Furthermore, after doing the process in certain time, that is done posttest to find out the success level

The result of this study is stated that in test of stability and the homogeneity of two samples can be stated that the sample is come from the student who have normal and homogeneous. At the test of rate comparison of pretest percentage of the result of student's study is stated that the result of the study toward first and second student is same. At the activity of student is gotten that the rate of student's activity around 75,14 that is included great categories until that is concluded that the activity of student is still active. At the activity of teacher is gotten the rate around 88,33 with greatest categories until it is concluded that the teacher able in management of packet tracer media within learning. Hypothesis testing of posttest toward the result of student's study around nilai $t_{hitung} = 3,685 > t_{tabel} = 2,00$ with standard of significant $\alpha = 0,05$ toward the contradiction between experiment class and control class. The result that has been explained above can be concluded that learning using packet tracer media into computer network can influence the result the student's study.