

ABSTRAK

ZAINUN NURUL FATHONAH, 2024. **PENGARUH MEDIA PEMBELAJARAN VIRTUAL LABORATORIUM TERHADAP KETERAMPILAN PROSES SAINS DAN HASIL BELAJAR PADA MATERI SISTEM RESPIRASI (Studi Eksperimen di Kelas XI MIPA SMAIT 'Ibadurrohman Boarding School Kota Tasikmalaya Tahun Ajaran 2023/2024)**. Skripsi. Jurusan Pendidikan Biologi Fakultas Keguruan dan Ilmu Pendidikan. Universitas Siliwangi.

Penelitian ini bertujuan untuk mengetahui pengaruh media pembelajaran virtual laboratorium terhadap keterampilan proses sains dan hasil belajar pada materi sistem respirasi. Metode penelitian menggunakan *pre-experiment* dengan desain *one-group pretest-posttest design*. Populasi serta sampel penelitian adalah seluruh peserta didik kelas XI MIPA SMAIT 'Ibadurrohman Boarding School Tasikmalaya sebanyak 28 peserta didik. Teknik pengambilan sampel dilakukan dengan metode sampling jenuh. Teknik pengumpulan data keterampilan proses sains berupa instrumen tes keterampilan proses sains berbentuk soal uraian sebanyak 9 soal, serta teknik pengumpulan data hasil belajar berupa instrumen tes berbentuk soal pilihan majemuk sebanyak 22 soal yang berkaitan dengan materi sistem respirasi tes hasil belajar peserta didik. Uji hipotesis menggunakan uji *paired sample t* dengan nilai *Sig. (2-tailed)* sebesar $0,000 < 0,05$ sehingga H_0 ditolak yang artinya terdapat pengaruh media pembelajaran virtual laboratorium terhadap keterampilan proses sains dan hasil belajar pada materi sistem respirasi. Adapun analisis N-gain dilakukan menggunakan bantuan *software Microsoft Excel* dengan prosentase n-gain 67,7% pada keterampilan proses sains dan 56% pada hasil belajar, menurut teori Hakke kategori tersebut dapat ditafsirkan bahwa media pembelajaran virtual laboratorium cukup efektif digunakan untuk meningkatkan hasil belajar pada materi sistem respirasi di kelas XI MIPA SMAIT 'Ibadurrohman Boarding School Kota Tasikmalaya Tahun Ajaran 2023/2024.

Kata Kunci: Virtual Laboratorium, Keterampilan Proses Sains, Hasil Belajar

ABSTRACT

ZAINUN NURUL FATHONAH, 2024. **THE EFFECT OF VIRTUAL LABORATORY LEARNING MEDIA ON SCIENCE PROCESS SKILLS AND LEARNING RESULTS ON RESPIRATION SYSTEM MATERIALS (Experimental Study in Class XIth MIPA SMAIT 'Ibadurrohman Boarding School Tasikmalaya Academic Year 2023/2024)**. Thesis. Department of Biology Education, Teaching and Education Faculty. Siliwangi University.

This study aims to determine the effect of virtual laboratory learning media on science process skills and learning outcomes on respiration system material. The method is a pre-experiment research method with One-Group Pretest-Posttest Design. The population and research sample were all students of class XI MIPA SMAIT 'Ibadurrohman Boarding School Tasikmalaya, with as many as 28 students. The sampling technique was done by the saturated sampling method. The technique of collecting data on science process skills in the form of a science process skills test instrument in the form of 9 description questions, and the method of collecting data on learning outcomes in the form of a test instrument in the form of compound choice questions as many as 22 questions related to the material of the respiration system of students learning outcomes test. Hypothesis testing using paired sample t-test with Sig value. (2-tailed) of $0.000 < 0.05$ so that H_0 is rejected, which means that there is an effect of virtual laboratory learning media on science process skills and learning outcomes on respiration system material. The N-gain test was conducted using the help of software Microsoft Excel with a n-gain percentage of 67,7% on science process skills and 56% on learning outcomes, according to Hakke's theory, this category can be interpreted that the virtual laboratory learning media is compelling enough to be used to improve learning outcomes on respiration system material in class XI MIPA SMAIT 'Ibadurrohman Boarding School Tasikmalaya City Academic Year 2023/2024.

Keywords: *Virtual Laboratory, Science Process Skills, Learning Outcomes*