

Sofia Mega Seftriana. 2022. *Penerapan Pembelajaran Guided Discovery Learning dengan Laboratorium Virtual terhadap Keterampilan Proses Sains Siswa*. Skripsi, Program Studi Pendidikan IPA, Fakultas Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing: Wiwin Puspita Hadi, S.Si., M.Pd.

ABSTRAK

Tujuan penelitian ini adalah untuk mengetahui pengaruh model *guided discovery learning* dengan laboratorium virtual terhadap keterampilan proses sains terintegrasi siswa. Penelitian ini menggunakan jenis penelitian kuantitatif metode *pre-experimental* dengan desain penelitian *one group pretest-posttest design*. Teknik pengambilan sampel menggunakan teknik *non-probability sampling* jenis *purposive sampling* dengan sampel yang digunakan pada penelitian ini adalah 32 siswa kelas VIII C UPT SMP Negeri 22 Gresik tahun ajaran 2021-2022. Teknik pengambilan data melalui tes keterampilan proses sains, angket respons siswa, dan observasi keterlaksanaan pembelajaran. Hasil penelitian menunjukkan bahwa: 1) analisis uji t sampel berpasangan diperoleh signifikansi sebesar $0,000 < 0,05$ dengan $t_{hitung} < -t_{tabel}$ yaitu $(-64,266 < -2,0395)$ menunjukkan ada perbedaan keterampilan proses sains siswa sebelum dan sesudah penerapan model *guided discovery learning* dengan laboratorium virtual terhadap keterampilan proses sains siswa. 2) Tes keterampilan proses sains siswa setelah penerapan model *guided discovery learning* dengan laboratorium virtual sebesar 71% dengan kategori tinggi. 3) Rata-rata respons siswa diperoleh hasil sebesar 84% dengan kriteria respons sangat tinggi. 4) Keterlaksanaan pembelajaran menggunakan model *guided discovery learning* dengan laboratorium virtual diperoleh persentase sebesar 97% pada kategori sangat baik.

Kata Kunci: keterampilan proses sains, laboratorium virtual, model *guided discovery learning*.

Sofia Mega Seftriana. 2022. *The Application Guided Discovery Learning with Virtual Laboratories to Students' Science Process Skills*. Thesis, Science Education Study Program, Faculty of Education, Trunojoyo University Madura. Supervisor: Wiwin Puspita Hadi, S.Si., M.Pd.

ABSTRACT

The purpose of this study is to determine the effect of a guided discovery learning model with a virtual laboratory on students' integrated science process skills. This research uses quantitative research with the pre-experimental method with one group pretest-posttest research design. The sampling technique used was a non-probability sampling technique with a purposive sampling type with the sample used in this study was 32 students of class VIII C UPT SMP Negeri 22 Gresik in the 2021-2022 academic year. Data collection techniques through science process skills tests, student response questionnaires, and observation of learning implementation. The result showed that: 1) the paired sample t-test analysis obtained a significance of $0.000 < 0.05$ and $t \text{ count} < -t \text{ table}$ with $(-64,266 < -2,0395)$, indicating that there were differences in students' science process skills before and after the application of the guided discovery learning model with a virtual laboratory on students' science process skills. 2) The test of students' science process skills after the application of the guided discovery learning model with a virtual laboratory was 71% in the high category. 3) The average student response is 84% in very high response criteria. 4) The implementation of learning using guided discovery learning models with virtual laboratories obtained a percentage of 97% in the category of almost all activities carried out.

Keywords: science process skills, virtual laboratory, guided discovery learning model.