ABSTRAK

Rani Rahmawati. 2024. **PENGARUH MODEL PEMBELAJARAN *BRAIN BASED LEARNING* (BBL) BERBANTUAN *NEARPOD* TERHADAP KETERAMPILAN PROSES SAINS PESERTA DIDIK PADA MATERI GELOMBANG CAHAYA**

Penelitian dilatarbelakangi oleh hasil tes studi pendahuluan keterampilan proses sains peserta didik dalam mata pelajaran fisika di kelas XI MAN 3 Tasikmalaya yang masih rendah sebesar 43,3% dari 29 peserta didik. Keterampilan proses sains menjadi salah satu keterampilan yang dianggap penting dalam pembelajaran abad 21, sehingga membutuhkan model yang dapat melatih dan meningkatkan keterampilan proses sains peserta didik. Tujuan penelitian untuk mengetahui pengaruh model pembelajaran *Brain Based Learning* (BBL) berbantuan *Nearpod* terhadap keterampilan proses sains peserta didik pada materi gelombang cahaya. Metode penelitian yang digunakan *quasi experiment* dengan desain penelitian *posttest-only control group design*. Populasi penelitian yaitu kelas XI MIPA 1 – 6 di MAN 3 Tasikmalaya tahun ajaran 2023/2024 sebanyak 207 orang. Tekni *Purpusive Sampling* digunakan untuk menentukan sampel kelompok kontrol (kelas XI MIPA 5) dan eksperimen (kelas XI MIPA 2) dengan jumlah sampel pada masing-masing kelompok sebanyak 33 peserta didik. Keterampilan proses sains peserta didik diukur melalui tes uraian sebanyak 6 butir soal materi gelombang cahaya. Teknik analisis data adalah uji prasyarat seperti uji normalitas, uji homogenitas, serta uji hipotesis dengan menggunakan uji t (pada taraf signifikansi 5%). Hasil uji hipotesis menunjukkan $t_{hitung} > t_{tabel}$ yaitu $1{,}74 > 1{,}67$ yang berarti H_a diterima, sehingga disimpulkan bahwa model pembelajaran BBL berbantuan *Nearpod* berpengaruh terhadap keterampilan proses sains peserta didik.

Kata kunci: gelombang cahaya, keterampilan proses sains, model pembelajaran *Brain Based Learning* (BBL), *Nearpod*.

ABSTRACT

Rani Rahmawati. 2024. ***THE INFLUENCE OF BRAIN BASED LEARNING (BBL) MODEL ASSISTED BY NEARPOD ON STUDENT'S SCIENCE PROCESS SKILLS IN LIGHT WAVE MATERIAL***

This research is motivated by the results of the initial test of students' science process skills in physics in class XI MAN 3 Tasikmalaya which is still low, namely 43.3% of 29 students. Science process skills are one of the important skills in 21st century learning, so a model is needed that can train and improve students' science process skills. The purpose of the study was to determine the effect of the Brain Based Learning (BBL) learning model assisted by Nearpod on students' science process skills on the material of light waves. The research method used was a quasi-experimental with a posttest-only control group design. The population was class XI MIPA 1 - 6 at MAN 3 Tasikmalaya in the 2023/2024 academic year totaling 207 people. The purposive sampling technique was used to determine the control group samples (class XI MIPA 5) and experiment (class XI MIPA 2) with a sample size of 33 students for each group. Students' science process skills were measured through 6 essay test questions about light waves. Data analysis techniques in the form of prerequisite tests such as normality tests, homogeneity tests, and hypothesis tests using the t-test (at a significance level of 5%). The results of the hypothesis test show that $t_{statistic} > t_{tabel}$*, namely 1.74>1.67, which means that* H_a *is accepted, so it is concluded that the BBL learning model assisted by Nearpod has an effect on students' science process skills.*

Keywords: light waves, science process skills, BBL model, Nearpod.