ABSTRAK

Endah Nur Hidayah. 2024. **PENGARUH MODEL *QUESTIONING, ORGANIZING, DOING, AND EVALUATING (QODE)* TERHADAP KETERAMPILAN PROSES SAINS PADA MATERI GELOMBANG BUNYI**

Penelitian ini dilatarbelakangi oleh rendahnya keterampilan proses sains pada pembelajaran fisika. Hal ini disebabkan karena dalam proses pembelajaran jarang dilakukan praktikum dikarenakan adanya keterbatasan alat dan bahan. Salah satu solusi yang dilakukan peneliti untuk mengatasi masalah tersebut yaitu menerapkan model *Questioning, Organizing, Doing, and Evaluating (QODE)*. Tujuan penelitian ini adalah untuk mengetahui pengaruh model *Questioning, Organizing, Doing, and Evaluating (QODE)* terhadap keterampilan proses sains pada materi gelombang bunyi di kelas XI MIPA SMA Negeri 8 Tasikmalaya tahun ajaran 2023/2024. Metode penelitian yang digunakan yaitu kuasi eksperimen dengan desain penelitian *posttest only control group design*. Populasi penelitian ini yaitu seluruh kelas XI MIPA SMA Negeri 8 Tasikmalaya sebanyak 5 kelas yang berjumlah 184 orang. Sampel penelitian diambil menggunakan teknik *cluster random sampling* sebanyak 2 kelas, yaitu kelas XI MIPA 1 sebagai kelas eksperimen dan kelas XI MIPA 2 sebagai kelas kontrol. Keterampilan proses sains diukur menggunakan tes berupa soal pilihan ganda berjumlah 16 butir soal setelah diberikan perlakuan (*posttest*). Hasil uji hipotesis menggunakan uji Wilcoxon dengan taraf signifikansi α=0,05 diperoleh $t_{hitung} < t_{tabel}$ yaitu $115,5 < 221,57$ sehingga H_a diterima dan H_0 ditolak. Artinya pada taraf kepercayaan 95% dapat disimpulkan bahwa ada pengaruh model *Questioning, Organizing, Doing, and Evaluating (QODE)* terhadap keterampilan proses sains pada materi gelombang bunyi di kelas XI MIPA SMA Negeri 8 Tasikmalaya tahun ajaran 2023/2024. Hal ini dikarenakan model *QODE* berlandaskan pada teori belajar konstruktivisme yang dapat mendorong peserta didik untuk secara aktif membangun pengetahuan dari pengalaman sendiri dengan orang lain dan lingkungannya.

Kata kunci: gelombang bunyi, keterampilan proses sains, model *QODE*

ABSTRACT

Endah Nur Hidayah. 2024. **THE EFFECT OF THE QUESTIONING, ORGANIZING, DOING, AND EVALUATING (QODE) MODEL ON SCIENCE PROCESS SKILLS ON SOUND WAVE**

This research is motivated by the low skill of science processes in physics learning. This is because in the learning process practicum is rarely carried out due to the limitations of tools and materials. One of the solutions taken by researchers to overcome this problem is to apply the Questioning, Organizing, Doing, and Evaluating (QODE) model. The purpose of this study is to determine the influence of the Questioning, Organizing, Doing, and Evaluating (QODE) model on science process skills in sound wave materials in class XI MIPA SMA Negeri 8 Tasikmalaya for the 2023/2024 school year. The research method used is quasi-experiment with a posttest only control group design. The population of this study is all classes of XI MIPA SMA Negeri 8 Tasikmalaya as many as 5 classes totaling 184 people. The research sample was taken using the cluster random sampling technique for 2 classes, namely class XI MIPA 1 as the experimental class and class XI MIPA 2 as the control class. Science process skills were measured using a test in the form of multiple-choice questions totaling 16 questions after being given posttest. The results of the hypothesis test using the Wilcoxon test with a significance level of α=0.05 obtained $t_{statistics} < t_{tabel}$ of 115.5<221.57 so that it H_a accepted and H_0 rejected. This means that at a 95% confidence level, it can be concluded that there is an influence of the Questioning, Organizing, Doing, and Evaluating (QODE) model on science process skills in sound wave materials in class XI MIPA SMA Negeri 8 Tasikmalaya for the 2023/2024 school year. This is because the QODE model is based on the theory of constructivist learning which can encourage students to actively build knowledge from their own experiences with others and their environment.

Keywords: sound waves, process science skills, QODE model