

ABSTRAK

PENINGKATAN HASIL BELAJAR DAN MINAT BELAJAR SISWA MENGUNAKAN METODE *PROBLEM BASED LEARNING* BEBASIS *VIRTUAL LAB*

Purwati
NIM : 211424014

Penelitian ini bertujuan untuk meningkatkan hasil belajar dan minat belajar peserta didik melalui penerapan model pembelajaran *Problem Based Learning* (PBL) berbasis *Virtual Laboratory* pada materi Gerak Lurus Beraturan (GLB) dan Gerak Lurus Berubah Beraturan (GLBB) di kelas XI SMA. Rendahnya hasil belajar dan minat belajar peserta didik dalam pembelajaran fisika menjadi latar belakang dilakukannya penelitian ini, yang disebabkan oleh pembelajaran yang masih berpusat pada guru, keterbatasan fasilitas laboratorium, serta minimnya penggunaan media pembelajaran interaktif.

Penelitian ini menggunakan metode kuasi eksperimen dengan desain pretest-posttest control group design. Subjek penelitian terdiri dari dua kelas, yaitu kelas eksperimen yang diberi perlakuan pembelajaran PBL berbasis *Virtual Laboratory* dan kelas kontrol yang menggunakan metode pembelajaran konvensional. Instrumen penelitian berupa tes pemahaman konsep untuk mengukur hasil belajar dan angket untuk mengukur minat belajar peserta didik. Analisis data dilakukan menggunakan uji statistik t-test untuk mengetahui perbedaan hasil belajar dan minat belajar antara kelas eksperimen dan kelas kontrol.

Hasil penelitian menunjukkan bahwa terdapat peningkatan hasil belajar dan minat belajar peserta didik setelah diterapkannya model pembelajaran PBL berbasis *Virtual Laboratory*. Kelas eksperimen menunjukkan hasil belajar dan minat belajar yang lebih tinggi dibandingkan kelas kontrol. Dengan demikian, dapat disimpulkan bahwa model pembelajaran PBL berbasis *Virtual Laboratory* efektif dalam meningkatkan hasil belajar dan minat belajar peserta didik pada materi GLB dan GLBB.

Kata Kunci: Problem Based Learning (PBL), *Virtual Laboratory*, hasil belajar, minat belajar, Gerak Lurus Beraturan (GLB), Gerak Lurus Berubah Beraturan (GLBB)

ABSTRACT

**IMPROVING LEARNING OUTCOMES AND STUDENTS LEARNING
INTEREEST USING THE PROBLEM BASED LEARNING METHOD
BASED ON VIRTUAL**

Purwati
NIM : 211424014

This study aims to improve students' learning outcomes and learning interest through the implementation of the Problem Based Learning (PBL) model based on Virtual Laboratory on the topics of Uniform Linear Motion (GLB) and Uniformly Accelerated Linear Motion (GLBB) in grade XI. The low level of students' learning outcomes and learning interest in physics learning served as the background of this study, which was caused by teacher-centered learning, limited laboratory facilities, and the lack of interactive learning media.

This research employed a quasi-experimental method with a pretest-posttest control group design. The research subjects consisted of two classes: the experimental class, which received PBL-based Virtual Laboratory learning, and the control class, which received conventional learning methods. The research instruments included a conceptual understanding test to measure learning outcomes and a questionnaire to measure students' learning interest. Data were analyzed using a t-test to determine differences in learning outcomes and learning interest between the experimental and control classes.

The results showed that there was an improvement in students' learning outcomes and learning interest after the implementation of the PBL-based Virtual Laboratory model. The experimental class demonstrated higher learning outcomes and learning interest compared to the control class. Therefore, it can be concluded that the PBL-based Virtual Laboratory learning model is effective in improving students' learning outcomes and learning interest on GLB and GLBB topics.

Keywords: Problem Based Learning (PBL), Virtual Laboratory, learning outcomes, learning interest, Uniform Linear Motion (GLB), Uniformly Accelerated Linear Motion (GLBB).