

ABSTRAK

JABBAARUDIN, ABDUL AZIZ. 2024. “**PENERAPAN *PROBLEM BASED LEARNING* (PBL) BERBANTUAN *ARTIFICIAL INTELLIGENCE LEARNING SYSTEM* (AILS) TERHADAP HASIL BELAJAR KOGNITIF PESERTA DIDIK DALAM PEMBELAJARAN SISTEM GERAK MANUSIA** (Studi Eksperimen Dikelas XI MIPA SMA Negeri 3 Tasikmalaya, Tahun Ajaran 2024/2025)” Skripsi Jurusan Pendidikan Biologi. Fakultas Keguruan Dan Ilmu Pendidikan. Universitas Siliwangi.

Penelitian ini bertujuan untuk mengetahui pengaruh penerapan *Problem Based Learning* (PBL) berbantuan *Artificial Intelligence Learning System* (AILS) terhadap hasil belajar kognitif peserta didik dalam pembelajaran sistem gerak manusia (studi eksperimen dikelas XI MIPA SMA Negeri 3 Tasikmalaya, tahun ajaran 2024/2025). Penelitian ini dilakukan pada bulan September 2024. Metode yang digunakan dalam penelitian ini adalah kuasi eksperimen. Populasi dalam penelitian ini terdiri atas kelas XI MIPA SMAN 3 Kota Tasikmalaya dengan jumlah peserta didik 212 orang yang merupakan bagian dari 6 kelas. Sampel penelitian dilakukan dengan menggunakan *purposive sampling* dan diperoleh kelas XI MIPA 1 sebagai kelas eksperimen berjumlah 34 orang dan kelas XI MIPA 3 sebagai kelas kontrol berjumlah 34 orang. Adapun instrumen yang digunakan berupa soal tes berjumlah 25 soal pilihan ganda sebagai indikator hasil belajar kognitif peserta didik. Teknik analisis data yang digunakan adalah uji *t independent* dengan taraf signifikansi $\alpha = 0,05$. Berdasarkan hasil analisis data dan pengujian hipotesis menunjukkan bahwa nilai signifikansi hasil belajar kognitif peserta didik di kelas eksperimen dan kelas kontrol bernilai 0,007 yang menunjukkan angka tersebut lebih kecil dari 0,05. Sehingga dapat disimpulkan bahwa dalam penelitian ini terdapat pengaruh penerapan *Problem Based Learning* (PBL) berbantuan *Artificial Intelligence Learning System* (AILS) terhadap hasil belajar kognitif peserta didik dalam pembelajaran sistem gerak manusia (studi eksperimen dikelas XI MIPA SMA Negeri 3 Tasikmalaya, tahun ajaran 2024/2025).

Kata kunci: *Problem Based Learning* (PBL), *Artificial Intelligence Learning System* (AILS), Hasil Kognitif, Peserta Didik.

ABSTRACT

JABBAARUDIN, ABDUL AZIZ. 2024. “Application Of Problem Based Learning (Pbl) Assisted By Artificial Intelligence Learning System (Ails) On Students’ Cognitive Learning Outcomes In Learning Human Movement System (Experimental Study In Grade XI MIPA Of SMA Negeri 3 Tasikmalaya, Academic Year 2024/2025)” Thesis Department Of Biology Education. Faculty Of Teacher Training And Education. Siliwangi University.

This study aims to determine the effect of the application of Problem Based Learning (PBL) assisted by Artificial Intelligence Learning System (AILS) on students' cognitive learning outcomes in learning human motion systems (experimental study in class XI MIPA SMA Negeri 3 Tasikmalaya, academic year 2024/2025). This research was conducted in September 2024. The method used in this study was quasi-experimental. The population in this study consisted of class XI MIPA SMAN 3 Kota Tasikmalaya with a total of 212 students who are part of 6 classes. The research sample was conducted using purposive sampling and obtained class XI MIPA 1 as an experimental class totaling 34 people and class XI MIPA 3 as a control class totaling 34 people. The instrument used was a test question totaling 25 multiple choice questions as an indicator of students' cognitive learning outcomes. The data analysis technique used was the independent t test with a significance level of $\alpha = 0.05$. Based on the results of data analysis and hypothesis testing, it shows that the significance value of students' cognitive learning outcomes in the experimental class and control class is 0.007, which shows that the figure is smaller than 0.05. So it can be concluded that in this study there is an influence of the application of Problem Based Learning (PBL) assisted by the Artificial Intelligence Learning System (AILS) on the cognitive learning outcomes of students in learning the human movement system (experimental study in class XI MIPA SMA Negeri 3 Tasikmalaya, academic year 2024/2025).

Keywords: Problem Based Learning (PBL), Artificial Intelligence Learning System (AILS), Cognitive Outcomes, Students.