

ABSTRAK

SAIDATUL HUMAIRAH: Pengaruh *Flipped Classroom* yang Diintegrasikan dengan *Problem Based Learning* Berbantuan Animasi Terhadap Hasil Belajar Kognitif Siswa Pada Materi Termodinamika di SMA Negeri 1 Gandapura. **Program Studi Pendidikan Fisika, FKIP, Universitas Malikussaleh, 2024.**

Penelitian ini bertujuan untuk mengetahui pengaruh *flipped classroom* yang diintegrasikan dengan *Problem Based Learning* berbantuan animasi terhadap hasil belajar kognitif siswa pada materi termodinamika di SMA Negeri 1 Gandapura.

Penelitian ini dilakukan pada semester genap tahun ajaran 2023/2024 dengan jenis penelitian yang digunakan adalah quasi eksperimen dengan desain berbentuk *nonequivalent control group design*. Teknik pengambilan sampel yang digunakan adalah *purposive sampling*, dengan populasi seluruh siswa kelas XI IPAS. Sampel pada penelitian ini adalah kelas XI IPAS 3 sebagai kelas eksperimen yang diajarkan menggunakan *flipped classroom* diintegrasika *Problem Based Learning* berbantuan animasi dan kelas XI IPAS I sebagai kelas kontrol yang diajarkan menggunakan metode pembelajaran ceramah. Instrumen penelitian adalah Tes. uji validasi 20 soal yang telah di validasi oleh ahli menggunakan software SPSS.

Hasil pengujian data menggunakan independent sample t test diperoleh nilai sig. (2-tailed) sebesar $0,000 < 0,05$. Pengujian tersebut dapat disimpulkan bahwa model *flipped classroom* diintegrasikan dengan *problem based learning* berbantuan animasi berpengaruh dalam meningkatkan hasil belajar kognitif siswa dibandingkan model konvensional.

Kata kunci : *Flipped Classroom, Problem Based Learning, Animasi, Termodinamika*

ABSTRACT

SAIDATUL HUMAIRAH: The Effect of a Flipped Classroom Integrated with Animation-Assisted Problem Based Learning on Students' Cognitive Learning Outcomes on Thermodynamics Material at SMA Negeri 1 Gandapura. **Physics Education Study Program, FKIP, Malikussaleh University, 2024.**

This research aims to determine the effect of a flipped classroom integrated with animation-assisted Problem Based Learning on students' cognitive learning outcomes in thermodynamics material at SMA Negeri 1 Gandapura.

The research was conducted in the even semester of the 2023/2024 academic year and the type of research used was quasi-experimental with a design in the form of a nonequivalent control group design. The sampling technique used was purposive sampling, with a population of all class XI IPAS students. The sample in this study was class X IPAS 3 as an experimental class taught using a flipped classroom integrated with animation-assisted Problem Based Learning and class X IPAS 1 as a control class taught using the lecture learning method. The research instrument is the test. validation test of 20 questions that have been validated by experts using SPSS software.

The results of data testing using the independent sample t test obtained a sig value. (2-tailed) of $0.000 < 0.05$. From this test it can be concluded that the flipped classroom model integrated with problem based learning assisted by animation has an effect in improving students' cognitive learning outcomes compared to conventional models.

Keywords : Flipped Classroom, Problem Based Learning, Animation, Thermodynamics