

ABSTRAK

Zia Aqila Hanafiah. 2026. **PENGARUH MODEL PEMBELAJARAN *JUST IN TIME TEACHING* (JiTT) TERHADAP HASIL BELAJAR KOGNITIF PESERTA DIDIK PADA MATERI DINAMIKA ROTASI**

Hasil penelitian pendahuluan menunjukkan bahwa hasil belajar kognitif peserta didik di SMAN 2 Tasikmalaya masih rendah, yang dibuktikan dengan nilai tes hasil belajar peserta didik dengan rata-rata nilai 62,73. Penelitian ini bertujuan untuk mengetahui pengaruh penerapan model pembelajaran JiTT terhadap hasil belajar kognitif peserta didik pada materi dinamika rotasi. Metode penelitian yang digunakan adalah kuasi eksperimen dengan *posttest-only control group design*. Populasi penelitian meliputi seluruh kelas XI di SMAN 2 Tasikmalaya sebanyak 5 kelas, dengan melibatkan kelas XI A5 sebagai kelas eksperimen dan kelas XI A4 sebagai kelas kontrol yang dipilih menggunakan teknik *cluster random sampling*. Instrumen penelitian berupa tes uraian untuk mengukur ranah kognitif Memahami (C2), Menerapkan (C3), dan Menganalisis (C4). Hasil uji prasyarat menunjukkan data kelas eksperimen dan kelas kontrol berdistribusi normal dimana $\chi^2_{hitung} < \chi^2_{tabel}$, yaitu untuk kelas eksperimen $3,899 < 5,991$ dan untuk kelas kontrol $5,657 < 5,991$ serta hasil uji homogenitas menunjukkan kedua kelas tersebut homogen di mana $F_{hitung} < F_{tabel}$, yaitu $1,22 < 1,76$. Hasil uji hipotesis menunjukkan nilai $T_{hitung} > T_{tabel}$ ($4,79 > 1,67$) maka dapat disimpulkan bahwa model JiTT berpengaruh terhadap hasil belajar kognitif pada materi dinamika rotasi di kelas XI SMAN 2 Tasikmalaya. Pengaruh model JiTT terhadap hasil belajar kognitif terjadi karena model ini menciptakan pembelajaran yang lebih responsif, penugasan sebelum kelas terbukti efektif dalam mengurangi kesalahpahaman awal siswa, sehingga mengubah fokus kelas dari sekadar penyampaian materi dasar menjadi aktivitas diskusi yang lebih mendalam dan interaktif.

Kata kunci: Dinamika Rotasi, Hasil Belajar, *Just-in-Time Teaching* (JiTT), Kognitif, Taksonomi Bloom.

ABSTRACT

Zia Aqila Hanafiah. 2026. ***THE INFLUENCE OF THE JUST-IN-TIME TEACHING (JITT) LEARNING MODEL ON STUDENTS' COGNITIVE LEARNING OUTCOMES IN ROTATIONAL DYNAMICS.***

The preliminary research findings indicate that the cognitive learning outcomes of students at SMAN 2 Tasikmalaya are still low, as evidenced by their learning achievement test scores with an average of 62.73. This study aims to determine the effect of implementing the Just-in-Time Teaching (JiTT) learning model on students' cognitive learning outcomes in the rotational dynamics material. The research method used was a quasi-experiment with a posttest-only control group design. The research population comprised all five grade XI classes at SMAN 2 Tasikmalaya, involving class XI A5 as the experimental class and class XI A4 as the control class, which were selected using a cluster random sampling technique. The research instrument was an essay test designed to measure the cognitive domains of Understanding (C2), Applying (C3), and Analyzing (C4). The prerequisite test results indicated that the data from both the experimental and control classes were normally distributed, where $\chi^2_{\text{count}} < \chi^2_{\text{table}}$ specifically $3,899 < 5,991$ for the experimental class and $3,899 < 5,991$ for the control class. Moreover, the homogeneity test results demonstrated that both classes were homogeneous, where $F_{\text{count}} < F_{\text{table}}$ namely $1,22 < 1,76$. The hypothesis test results revealed that the value of $T_{\text{count}} > T_{\text{table}}$ ($4,79 > 1,67$) therefore, it can be concluded that the JiTT model affects students' cognitive learning outcomes in the rotational dynamics material for grade XI at SMAN 2 Tasikmalaya. The impact of the JiTT model on cognitive learning outcomes occurs because this model fosters a more responsive learning environment. Pre-class assignments have proven effective in minimizing students' initial misconceptions, thereby shifting the classroom focus from the mere transmission of basic materials to more profound and interactive discussion activities.

Keywords: Bloom's Taxonomy, Cognitive Learning Outcomes, Just-in-Time Teaching (JiTT), Rotational Dynamics.