

ABSTRAK

PENINGKATAN PEMAHAMAN DAN MOTIVASI BELAJAR SISWA KELAS X SMA N 1 KALASAN PADA MATERI USAHA DAN ENERGI MENGGUNAKAN MODEL PEMBELAJARAN *PROJECT BASED LEARNING*

Melani Takesan

Universitas Sanata Dharma

Yogyakarta

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Tujuan penelitian ini adalah untuk mengetahui: (1) peningkatan pemahaman belajar fisika pada materi usaha dan energi dengan menerapkan model pembelajaran *project based learning* pada siswa kelas X SMA N 1 Kalasan, (2) peningkatan motivasi belajar fisika pada materi usaha dan energi dengan penerapan model pembelajaran *project based learning* pada siswa kelas X SMA N 1 Kalasan.

Subjek penelitian ini adalah siswa kelas X IPA 2 dan X IPA 4 SMA Negeri 1 Kalasan yang berjumlah 69 siswa. Instrumen yang digunakan dalam penelitian ini berupa soal *pre-test* dan *posttest* untuk mengetahui apakah ada peningkatan pemahaman belajar fisika pada materi usaha dan energi dengan menerapkan model pembelajaran *project based learning*, dan juga menggunakan angket untuk mengetahui apakah ada peningkatan motivasi belajar fisika pada materi usaha dan energi dengan penerapan model pembelajaran *project based learning*.

Hasil penelitian menunjukkan bahwa penerapan model pembelajaran *project based learning* dapat meningkatkan pemahaman dan motivasi belajar fisika pada materi usaha dan energi. Namun tidak ada perbedaan peningkatan antara kelas *project based learning* dan ceramah.

Kata Kunci: model *project based learning*, pemahaman, motivasi, Usaha dan Energi

ABSTRACT

INCREASING LEARNING UNDERSTANDING AND MOTIVATION OF STUDENTS OF CLASS X SMA N 1 KALASAN OF WORK AND ENERGY USING THE PROJECT BASED LEARNING

Melani Takesan

Sanata Dharma University

Yogyakarta

2022

The purpose of this study was to determine: (1) increasing understanding of learning physics in the matter of work and energy by applying the project based learning to class X students of SMA N 1 Kalasan, (2) increasing motivation to learn physics in the matter of work and energy by applying the model in project based learning class X SMA N 1 Kalasan.

The subjects of this study were students of class X IPA 2 and X IPA 4 SMA Negeri 1 Kalasan, totaling 74 students. The instruments used in this study were pre-test and post to find out whether there was an increase in the understanding of learning physics on the work and energy materials by applying a project based learning, and also using a questionnaire to find out whether there was an increase in motivation to learn physics in works and energy materials by applying the project based learning.

The results showed that the application of the project-based learning could improve understanding and motivation to learn physics in the matter of work and energy. However, there is no improvement difference between project based learning and lecture classes.

Keywords: project based learning, understanding, motivation, work and energy.