

ABSTRAK

Pamungkas, Johan. 2015. *Efektivitas Metode Eksperimen Bebas dan Eksperimen Terbimbing terhadap Keaktifan dan Prestasi Belajar Siswa Kelas X SMAN 2 Ngaglik dalam Materi Pembiasan Cahaya pada Lensa*. Skripsi. Yogyakarta: Pendidikan Fisika, Jurusan Pendidikan Matematika dan Ilmu Pengetahuan Alam, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Sanata Dharma Yogyakarta.

Penelitian ini bertujuan untuk mengetahui efektivitas metode eksperimen bebas dan eksperimen terbimbing terhadap keaktifan dan prestasi belajar siswa kelas X SMAN 2 Ngaglik dalam materi pembiasan cahaya pada lensa.

Jenis penelitian ini adalah eksperimental kuantitatif dan kualitatif. Subyek penelitian adalah siswa kelas X MIA 2 dan 4 yang terdiri dari 59 siswa. Penelitian ini menggunakan dua kelas eksperimen yang diberikan *treatment* berbeda, yaitu metode eksperimen bebas dan metode eksperimen terbimbing. Instrumen yang digunakan untuk pengambilan data yaitu: tes tertulis (*pre-test* dan *post-test*), serta observasi melalui rekaman video. Hasil prestasi belajar berdasarkan *pre-test* dan *post-test* dianalisis secara statistik menggunakan program SPSS 22, sedangkan keaktifan siswa berdasarkan rekaman video dianalisa secara deskriptif.

Hasil penelitian menunjukkan bahwa penerapan metode eksperimen terbimbing lebih efektif untuk meningkatkan keaktifan dan prestasi belajar siswa kelas X SMAN 2 Ngaglik daripada metode eksperimen bebas.

Kata kunci: metode eksperimen bebas, metode eksperimen terbimbing, keaktifan, prestasi belajar.

ABSTRACT

Pamungkas, Johan. 2015. *The Effectiveness of Free Experimental Method and Guided Experimental Method to Activity and Student Achievement for Class X of SMAN 2 Ngaglik about Light Refraction in Lens*. Thesis. Yogyakarta: Physics Education, Department of Mathematics and Science Education, Faculty of Teacher Training and Education, Sanata Dharma University Yogyakarta.

This research aims to know the effectiveness of free experimental method and guided experimental method to activity and student achievement for class X of SMAN 2 Ngaglik about light refraction in lens.

This type of research is quantitative and qualitative experimental. The subjects of this research were students in X MIA 2 and 4 which totally of 59 students. This research uses two experimental groups given two different treatments: free experimental method and guided experimental method. Instruments used in this research to collect experimental data were written test (pre-test and post-test), and observation uses video recordings. The results of student achievement based on pre-test and post-test have been statistically analyzed using SPSS 22, while students activities based on video recordings have been analyzed descriptively.

The results of this research showed that the application of the guided experimental methods is more effectively to enhance activity and student achievement for class X of SMAN 2 Ngaglik than the free experimental method.

Keywords: free experimental method, guide experimental method, activity, learning achievement.