

THE EFFECTIVENESS OF AN ENTREPRENEURY-ORIENTED E-PJBL MODEL IN LEARNING PHYSICS ON PHYSICS APPLICATION ABILITY, CREATIVITY, ATTITUDE TO PHYSICS, AND STUDENT SELF EFFICACY

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ABSTRACT

This study provides treatment for high school students to study project-based physics which leads to the development of the ability to apply physics to create entrepreneurial products. Due to the unknown end of the Covid-19 pandemic, this project-based learning is carried out online (E-PjBL). The research objective was to investigate the effectiveness of this learning process on physics application abilities, attitudes towards physics, creativity, attitudes towards entrepreneurship, and students' self-efficacy. This research is a type of quasi-experimental research. The research was conducted at several high schools in the Special Region of Yogyakarta and in West Sulawesi. The sampling technique was carried out in stages, first with area probability sampling, then with cluster sampling. The main instruments used were a physics application ability test, an attitude scale towards physics, an attitude scale towards entrepreneurship, a creativity test, and a student self-efficacy questionnaire which were all developed by researchers. Descriptive analysis technique using normalized gain and minimum completeness criteria (KKM). While the inferential analysis technique uses multivariate analysis of variance (Manova) and non-parametric analysis with Mann Whitney.

The results showed that the application of the entrepreneurial-oriented E-PjBL learning model could improve the ability to apply physics, creativity, and attitudes towards physics, but was not effective for increasing students' self-efficacy. Another result is in the form of learning support products in the form of learning tools.

Kata Kunci: *E-PjBL, entrepreneurship, physics application, attitude toward physics, creativity, self efficacy*