IMPLEMENTATION OF A BLENDED LEARNING APPROACH IN LEARNING LATHE MACHINING TO IMPROVE STUDENT LATHE MACHINING COMPETENCY

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ABSTRACT

The purpose of this research is to conduct an empirical study to analyze the influence of the aspects related to the application of the blended learning approach and individual student characteristics, especially origin school, on learning outcomes of Lathe Machining. This research is a Quasi Experiment using the Treatment by Level design. The research data analysis was conducted using 2-way ANOVA with one treatment variable and one attribute variable. This research was conducted at the Machining Workshop, Department of Mechanical Education, Faculty of Engineering, Universitas Negeri Yogyakarta. The results of this study indicate; 1) The learning outcomes of students who take learning using the Blended Learning approach are higher than students who take learning using the conventional approach; 2) There is an interaction effect between the learning approach and the origin of the school on learning outcomes of Lathe Machining; 3) The learning outcomes of students from vocational high schools who take blended learning approach are higher than students from vocational schools who take conventional approaches; 4) The learning outcomes of senior high school students who take learning with the blended learning approach are not different from those from vocational high school students who take the conventional approach. Implications of research results; (1) Lathe Machine Learning needs to be facilitated to use the Blended Learning approach in order to obtain optimal learning outcomes; (2) Teachers of the Lathe Machining course should pay attention to the individual characteristics of students and accommodate their learning needs; (3) Lathe Machining Teachers use a blended learning approach, it is necessary to provide special services for high school students; (4) Learning Lathe Machining with a conventional approach is more suitable for students from high school.

Kata Kunci: *Blended Learning, Learning Outcomes, Lathe Machining*