

# EFFECT OF PjBL USING THE STEAM APPROACH ON MOTIVATION, ACTIVITY, AND LEARNING RESULTS TAILORING CLOTHES

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## ABSTRACT

Critical thinking skills are part of the 21st century competencies that must be trained through the learning process. Literature review recommends that (PjBL) and STEAM have an effect on critical thinking skills which have an impact on learning motivation, learning activeness, learning outcomes. The aims of this study were to: 1) obtain an overview of the motivation, activeness, and learning outcomes of making women's suits in the tailoring course, 2) obtain an overview of the implementation of the PjBL learning model using the STEAM approach in learning to make women's suits in the tailoring course, 3) find out that there is a whether or not the effect of the implementation of the PjBL learning model using the STEAM approach on motivation, activity, and learning outcomes for making women's suits in tailoring courses, The study was designed using a quasi-experimental design in the form of a Non-equivalent Control Group Design, using two classes. One control class and one experimental class. Furthermore, the control class and the experimental class are compared, if there is a difference it means there is an effect. The population of this study were all students who took tailoring courses in Odd Semester 2022 – 2023 with a total of 109. Sampling used a purposive sampling technique. The sample used was class A1 and A2, each of which consisted of 20 students. Data was collected using validated questionnaires, observation sheets, and performance tests. The data analysis technique uses an independent sample t-test which is carried out on the gain score data (the difference between the values of the control class and the experimental class). The hypothesis was tested using the t-test, after the prerequisite normality test using the One-Sample KolmogrovSmirnov technique assisted by SPSS and the homogeneity test using the Levene's Test. The results showed: 1) The critical thinking ability of control class students was shown by motivation of 81.75% (high), activeness of 70% (moderate), and learning outcomes of 65% (very high). The critical thinking ability of experimental class students is indicated by motivation of 95% (high), activeness of 30 (high), and learning outcomes of 70% (very high) 2). The implementation of the PjBL learning model using the STEAM approach in learning to make women's suits for tailoring courses is carried out by integrating the syntax of the model with STEAM in the core activities; 3) There is no effect of the implementation of the PjBL learning model using the STEAM approach to learning motivation as shown by the result of the t-test  $-2.817 > 0.05$ . There is an influence of the implementation of the PjBL learning model using the STEAM approach on the learning outcomes of making women's suits, shown by the results of the t test  $0.682 > 0.05$ . Thus it can be concluded that the PjBL learning model using the STEAM approach has an effect on learning activity and learning outcomes, but has no effect on the motivation to learn how to make women's suits in tailoring courses

Kata Kunci: *PjBL, STEAM, Motivation, Activeness, Tailoring Learning Outcomes*