EFFECTIVENESS OF CREATIVE RESPONSIBILITY BASED TEACHING (CRBT) MODEL ON BASIC PHYSICS LEARNING TO INCREASE STUDENT'S SCIENTIFIC CREATIVITY AND RESPONSIBILITY

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Abstract. *The Creative Responsibility Based Teaching (CRBT) model is an innovative physics-teaching model designed to enhance students' scientific creativity and responsibility. Therefore, this research aims to analyze the effectiveness of CRBT model to improve scientific creativity and first year students' responsibility on Basic Physics learning in academic year 2016/2017. This research used one group pre-test and posttest design on 144 students divided into 4 groups at University of Lambung Mangkurat, South Kalimantan (Indonesia). The data collection methods were conducted by using: scientific creativity tests emphasized on unusual uses indicator, problem finding, product improvement, creatively science problem solving, creatively experiment designing, and creatively product design; questionnaire of responsibility emphasized on: participatory indicator, respecting others, cooperation, leadership, and delivering opinion; and interviews. The data analysis technique was done by using paired t-test/Wilcoxon test, n-gain, and ANOVA / Kruskal-Wallis test. The results showed that there was a significant increase in students' scientific creativity and responsibility at α = 5%, with n-gain average of moderate category, and both were not different (consistent) for all four groups. Thus, the CRBT model is effective for enhancing students' scientific creativity and responsibility.*

Keywords: *Creative responsibility based teaching, physics learning, responsibility attitude, scientific creativity, first year students.*