

## ABSTRACT

### **DIFFERENCES BETWEEN STUDENTS' ACHIEVEMENT USING THE MODELS OF CONTEXTUAL LEARNING AND PROBLEM-BASED LEARNING WITH DIFFERENT EARLY COMPETENCE IN THE SUBJECT OF PHYSICS OF GRADE XII OF SCIENCE PROGRAM OF SMAN 13 BANDAR LAMPUNG**

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*The purpose of this study is to describe: (1) The interaction between the students' achievement using contextual learning model and problem -based learning model with different early competence in the subject of physics; (2) The difference between the students' average achievement using contextual learning model and problem-based learning model with different early competence in the subject of physics; (3) The difference between the students' average achievement using contextual learning model and problem-based learning model with high early competence in the subject of physics; (4) The difference between the students' average achievement using contextual learning model and problem-based learning model with low early competence in physics.*

*The research method used is ex post facto research. The data was analyzed quantitatively with ANOVA formula and t-test.*

*Based on the above results, the researchers conclude as follows: (1) There is interaction between students who use contextual learning model and problem-based learning and early competence with the students' achievement in learning physics with a value of  $F_{count} = 126.645 > F_{table} = 4.11$  at 0.05 level; (2) The average of the students' achievement in learning physics using contextual learning is higher than that of using problem-based learning with a value  $F_{count} = 26,05 > F_{table} = 4.11$  at 0.05 level; (3) The average achievement in learning physics using contextual learning is not higher than that of using problem-based learning for the students with a value  $t_{count} = 14.974 < t_{table} = 2.101$ , with significance level of 0.05; (4) The average achievement in learning physics using contextual learning is not higher than that of using problem-based learning for the students with low early competence with a value:  $t_{count} = 36,006 > t_{table} = 2.101$  at significance level of 0.05.*

**Keywords: achievement, contextual learning, problem based learning**