ABSTRACT


This research is aimed to investigate: (1) whether or not there is a difference in the student’s cognitive ability between discovery learning model between experimental method and demonstration method, (2) whether or not there is a difference in the student’s cognitive ability between high and low level of student’s learning creativity, (3) whether or not there is an interaction discovery learning model between experimental method and demonstration method with a student’s learning creativity toward their cognitive ability. This was an experimental research with 2x2 factorial design. The population was student’s of class X Ototronik SMK Negeri 2 Karanganyar in academic year 2016/2017. The sample was chosen from cluster random sampling technique. There were two classes of the sample in this research, X OA as first experiment class and X OC as the second experiment class and both of those classes consist of 36 students. The data were collected through test and document analysis. Those were analyzed with two-way analysis of variance with different cell content that preceded the hypothesis test, those samples had been tested by normality and homogeneity test as a pre-analysis test. The conclusion of this experimental research were: (1) there was a difference in the student’s cognitive ability discovery learning model between experimental method and demonstration method (F_{obs} = 50,41 > F_{α} = 3,98), (2) there was a difference in the student’s cognitive ability between high and low level of student’s learning creativity (F_{obs} = 8,92 > F_{α} = 3,98), (3) there was no interaction between discovery learning model between experimental method and demonstration method with a student’s learning creativity toward their cognitive ability (F_{obs} = 2,05 < F_{α} = 3,98)

Key words: discovery learning, experimental method, demonstration method, students learning creativity, students cognitive ability