ABSTRACT

Lili Yuliyati. 2019. *The Implementation of Android based Mobile Learning Using Interactive Multimedia to Improve Understanding of Cell Concepts. Adviser* I. Dr. H. Riandi, M.Si. Pembimbing II. Fitri Aryanti, S.T., M.Pd.

The background of this research was conducted based on the increasingly of rapid technology however the teacher and students were not optimally to utilizing the advance of technology in the learning process. Based on the result of observations, the concept of students understanding to learning about cell material still relatively low in the previous school year at SMAN 16 Bandung. Because of the cell material are abstract, the lack of lesson hours and the limited ability of teachers to take advantage of technological advances, especially in using of smartphones as learning media for students.This research aims to analyze the transformation of students understanding concepts of cell material in the experimental class by implementing Android-based mobile learning while in the control class using conventional learning methods. The method in this research is the Quasi Experiment method with the nonequivalent control group design. The instrument used in this research was an objective test (multiple choice) of 20 questions as the main data. Research of data obtained by pretest and posttest. Based on the results of the analysis of hypothesis data from the posttest is using independent sample t-test, the significance value on Sig. (2-tailed) that is equal to 0.006, so the ½ significance value <0.05 then the null hypothesis (H0) is rejected and the hypothesis (Ha) is accepted. It shows that there are significant differences in the final abilities of students between learning with the implementation of Android-based mobile learning with conventional learning methods. Thus, it can be concluded that learning by implementing Android-based mobile learning can improve the concept of students to understand the cell material.

Keywords: *Technology, Cell Material, Android Based Mobile Learning, Understanding Concept*