THE DEVELOPMENT OF CHEMISTRY TEACHING MATERIAL BASED ANDROID MOBILE TO INCREASE MOTIVATION AND STUDENT ACHIEVEMENT ON BUFFER SOLUTION TOPIC

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Abstract

This study aims to determine the effect of chemistry teaching material based android mobile on students' motivation and student achievement. The population in this study was all class XI Mia of SMA N1 Perbaungan. The sample used was taken by random sampling technique as many 2 classes, namely the control class and experiment class. Others criteria of good instrument such as validity, reliability, difficulty of test, difference power and distractor, were also applied on the instrument. With valid reliable r_{11} is 0.89. Test result that shown data of normalized gain in control class 1.82 and data normalized gain in experiment class is 7.2. Based on the result in experimental class was obtained the average of pre-test score 29.33 with standard deviation 7.51 and post-test score 80.83 with standard deviation 7.08. In control class was obtained the average of pre-test 31.66 with standard deviation 9.94 and post-test score 73.66 with standard deviation 9.90 and the homogeneity test for gain that F_{table} db=20,30 is 2.04 and F_{count} is 3.8. Increasing of students' achievement was calculated by using normalized gain and the percentages gain in experimental class is 73.06% and percentages in control class is 60.43%.

Key word: Chemistry Teaching Material Based Android Mobile, Students' Motivation, Students' Achievement.