

ABSTRACT

Dwi Suci Rahma Dhani, Reg.Number 4183131052 (2022). Influence of Macromedia Flash Based on Computer Animation Media to Improve Student Learning Outcomes in Haloalkanes Sub-Subject.

Students face some difficulties in understanding abstract chemistry topics during learning. Currently there is no appropriate media to be applied in the learning process to increase student's abilities in achieving goals. Therefore, a study was conducted using macromedia flash based on computer animation to improve learning outcomes in Madrasah Aliyah Negeri 2 Model Medan school. This study aims to determine the effect of macromedia flash based on computer animation media on student learning outcomes in the haloalkane sub-subject and, knowing the correlation between the responses given by students to macromedia flash based on computer animation media in the haloalkane sub-subject. The population of these two samples was taken using random sampling, namely class XII Science 9 as the experimental class and class XII Science 10 as the control class. The type of this research is quasi-experimental using the pretest and posttest models. Data collection was carried out using multiple choice instruments and response questionnaires. The results of the study for learning outcomes showed that the mean value of the pretest in experimental class = 44.97 and the average value of the control class = 44. For the average value of the posttest in the experimental class = 87.7, and the average value in the control class = 85. Chemical normalized N-Gain value of experimental class students with a percentage of 84% and 79% for the control class. Furthermore, the test results for learning outcomes were carried out by processing hypotheses (t-test) at a significant level of 0.05 with 28.27 degrees of freedom, obtained $t_{\text{count}} = 2.08$ and $t_{\text{table}} = 1.93$. For testing the second hypothesis, a simple linear regression test was carried out which obtained the value of $F_{\text{count}} = 1.61$ while $F_{\text{table}} = 1.21$. Based on these data, it was found that there was an increase in student learning outcomes between the experimental class and the control class after the implementation of macromedia flash based on computer animation media in the Haloalkane sub-subject in MAN 2 Model Medan and there was a relationship between the responses given by students to macromedia flash based on computer animation media to improve student learning outcomes.

Keywords: *Macromedia Flash, Learning Outcomes, Student Response, Haloalkane*