THE DEVELOPMENT OF ANIMATION-BASED LEARNING MEDIA USING ADOBE FLASH ON CHEMICAL BONDING MATERIAL TO IMPROVE STUDENT LEARNING OUTCOMES

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ABSTRACT

Research has been carried out to develop an Animation-Based Learning Media Using Adobe Flash with the aims to find out (1) the media feasibility, (2) the students' responses, and (3) the student learning outcomes after being taught animation-based learning media using Adobe Flash. The research samples were obtained using purposive sampling techniques and the selected sample is class of X MIA 5 from SMAN 16 Medan. The results showed that: (1) validation results based on BSNP, the average content eligibility (4.55), language eligibility (4.57), presentation eligibility (4.75), graphability (4.53), so based on validation category with a range of $x > 4.2$ means very feasible and do not need to be revised. (2) The percentage of responses of students who chose very interesting criteria (52.61%), interesting criteria (42.02 %), and quite interesting criteria (5.38%). (3) One-Sample T-test results using SPSS 26 obtained sig (2–tailed)<0.05 (0.00<0.05) and $t_{count} > t_{table}$ (7,069 > 2.032), which means that student learning outcomes taught with animation-based media using Adobe Flash were greater than KKM scores and showed the average student has an increase of N-Gain of 75% where $g \geq 0.7$ which means it fell into the high category.

Keywords: *Animation-based Learning Media, Learning Outcomes, Student Response, Chemical Bonding*