

**DIFFERENCES IN STUDENT LEARNING OUTCOMES THROUGH
THE USE OF ADOBE FLASH MEDIA BASED LEARNING AND POWER
POINT IN THE MATERIAL SCOPE OF BIOLOGY**

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ABSTRACT

This research aims to knowing the differences in student learning outcomes at class X Science State Senior High School 1 Katapang through the use of adobe flash media based learning and power point in the material scope of biology. The method used is Quasi Eksperiment. The design study is "Pretest-Postest Control Group Design". This research took two sample class that is class X Science 4 and X Science 5. The parameters used are learning outcomes in the cognitive bloom at the level of C1 - C2, as well as psychomotor at the level P1-P2. Instrument on cognitive aspects in the form of objective tests amounted to 30 questions while the instrument on aspects of psychomotor section observation sheet form. The pretest average value of class power point that is 37,86, while the pretest average value of class adobe flash that is 37,64. Based on data analysis pretest of both classes using t-test the obtained results that $t_{hit} 0,12 < t_{tab} 2,65$ in a significant level $\alpha = 0,01$. So, pretest value data in these two classes there is no significant difference because $t_{hit} < t_{tab}$. The posttest average value of class power point that is 77,12, while the posttest average value of class adobe flash that is 83,06. Based on data analysis posttest of both classes using t-test the obtained results that $t_{hit} 4,14 > t_{tab} 2,65$ in a significant level $\alpha = 0,01$. So, the ability of students in both classes after being given the treatment there are significant differences because $t_{hit} > t_{tab}$. While on the aspects of psychomotor obtained an average score on the class powerpoint that is 90,87, and in class adobe flash that is 91,5. On average those included in the excellent category. Both of these media have different effects. It concluded there are differences in student learning outcomes through the use of adobe flash media based learning and power point in the material scope of biology at State Senior High School 1 Katapang Bandung Regency.

Keyword: *learning outcomes, adobe flash, power point*