

ABSTRACT

PUTRI SITI NUR AZIZAH. 2026. *THE EFFECT OF AUGMENTED REALITY (AR) MEDIA ON STUDENTS' RETENTION ABILITY AND LEARNING OUTCOMES IN BIOLOGI LESSONS* (Quasi-Experiment in Class XI of SMAN 1 Tasikmalaya). Biology Education Program, Faculty of Teacher Training and Education, Siliwangi University, Tasikmalaya.

The use of Augmented Reality (AR) innovation media is a strategic step to integrate in-depth conceptual understanding, strengthen retention abilities, and optimize student learning outcomes amidst the demands of modern education. This study aims to determine the effect of using Augmented Reality (AR) media on students' retention abilities and learning outcomes on cell structure material in class XI of SMAN 1 Tasikmalaya. The research method used was a quasi-experiment with a Non-equivalent Control Group Design. The research population included all grade XI MIPA classes at SMAN 1 Tasikmalaya, totaling 8 classes, with the sample determined through purposive sampling. The experimental class used Augmented Reality (AR) media, while the control class used microscope media. The research instrument was a multiple-choice test with 5 options, consisting of 13 questions to measure retention ability and 38 questions to measure learning outcomes. The prerequisite test shows that the data is normally distributed based on the Kolmogorov-Smirnov test and has homogeneous variance based on the Levene's test, so that the hypothesis test analysis can be continued using ANCOVA. The analysis results showed a significant value of < 0.05 in retention ability and learning outcomes, so it can be concluded that Augmented Reality (AR) media has a positive and significant effect on students' retention ability and learning outcomes in Grade XI Biology material.

Keywords: *Augmented Reality, Retention Ability, Learning Outcomes, Cell Structure, Biology Learning.*