ABSTRACT

RIFA NURCAHYATI. 2026**. THE EFFECT OF AUGMENTED REALITY (AR) LEARNING MEDIA BASED ON ASSEMBLR STUDIO ON TECHNOLOGY LITERACY AND CRITICAL THINKING SKILLS OF STUDENTS ON REPRODUCTIVE SYSTEM MATERIAL.** Department of Biology Education. Faculty of Teacher Training and Education. Siliwangi University. Tasikmalaya.

In the 21st century learning era, technological literacy and critical thinking skills have become essential competencies that students must have to utilize technology effectively and analyze and solve biological problems critically and systematically, so it is necessary to apply innovative learning media that supports the development of these abilities. This research aims to determine the effect of using Assemblr Studio-based Augmented Reality (AR) learning media on students' technological literacy and critical thinking skills on reproductive system material. The research method used was Quasi Experimental Design with a Posttest Only with Non-equivalent Group Design. This research was carried out in January at SMA Negeri 7 Tasikmalaya for the 2025/2026 academic year with the population being all class XI consisting of six classes and the sample was taken based on purposive sampling so that class The data collection technique was carried out using a technology literacy questionnaire with a Likert scale of 20 statements and a critical thinking skills description test of 10 questions. Data were analyzed through prerequisite tests which included normality and homogeneity tests, then continued with hypothesis testing using the Independent Samples T-Test. The results of the hypothesis test show a significance value of 0.000 (< 0.05) for both technological literacy and critical thinking skills, which means there is a significant influence. Apart from that, the results of the effect size test (Cohen's), obtained an effect size value of 1.12 on technological literacy and 0.71 on critical thinking skills. The results of this research show that the use of Augmented Reality (AR) learning media based on Assemblr Studio can improve students' technological literacy and critical thinking skills through more interactive, visual and interesting learning.

Keywords: *Learning* Media, *Technological Literacy*, *Critical Thinking Skills, Augmented Reality, Assemblr Studio, Reproductive System*