



Augmented Reality Learning Media Based on Understanding by Design: Improving Elementary School Students' Attitudes of Tolerance

Sartika Ayu

Universitas Muhammadiyah Prof. DR. HAMKA

Corresponding author:

Name: Sartika Ayu

Email: sartikaayu16022000@gmail.com

Abstract

The attitude of mutual respect among elementary school students is still in the low category; this is seen from the lack of respect for diversity and the tendency for actions that do not show respect for each other in elementary schools. This study aims to develop an augmented reality learning media based on understanding by design that is feasible, practical, and effective in increasing the attitude of tolerance of students in elementary schools. This study uses a type of development research with the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The research participation of elementary school students in grade IV totaled 30 people. The data analysis techniques used are qualitative and quantitative. Qualitative data were obtained through observation, interviews, expert validation suggestions, and student response questionnaires. Quantitative data were obtained through validation tests, response questionnaires, normality tests, and paired sample tests. The results of the validation of language experts obtained 4.55, the validation of materials obtained 4.49, and the validation of media experts obtained 4.32; all three are categorized as very feasible. Student responses to practicality obtained 4.55 in the convenient category. At the same time, the Shapiro-Wilk normality test is significant. The pre-test value of $0.47 > 0.05$ and the post-test sig. The value of $0.175 > 0.05$ is usually distributed. The paired sample t-test obtained a significant result. Value of $0.00 < 0.05$. This indicates that the augmented reality learning media based on understanding by design is declared feasible, practical, and effective for increasing students' tolerance attitudes in elementary schools.

Keywords: learning media, augmented reality, understanding by design, elementary school, tolerance

