ABSTRACT

Kevin Fransdyto Siagian, IDN 4173111037 (2021). The Development of Android-Based Interactive Augmented Reality Learning Media to Improve the Student's Conceptual Understanding of Two-Dimensional Shapes.

Since the COVID-19 pandemic, many countries, including Indonesia, have terminated the face-to-face learning process to reduce the spread of the COVID-19 virus, so that the use of educational technology platforms has become a new habit for academic institutions, teachers, and students. However, students have difficulty learning online, because students cannot discuss, collaborate, and practice directly with the teacher, even the teacher only provides video explanations of the material without interacting, causing students' understanding of concepts to be low and students' lack of interest in learning. The purpose of this research is to produce an interactive learning media development product based on Augmented Reality on Android devices that is valid, practical, and effective to improve students' understanding of concepts in two-dimensional shape materials. This research is a development research that uses the ADDIE model. The subjects in this study were class VIII students of SMP Negeri 35 Medan. The results of the media validation show a very valid category with a score of 3.45. The results of material validation show a very valid category with a score of 3.4. The practicality score based on the teacher's assessment is 94.28% or in the very practical category and the practicality score based on the student's assessment is 91.47% or in the very practical category. Based on the results of the total score of students' conceptual understanding, each indicator of students' conceptual understanding, and N-Gain, it shows that there is a high improvement of students' conceptual understanding from pre-test to post-test through the augmented reality learning media. The positive students' response is 91.47%, or in very effective category. So that the resulting Augmented Reality-based interactive learning media on Android devices is valid, practical, and effective on two-dimensional shapes materials. The resulting media can be used as an alternative by the teacher in learning activities and can be used as a guide for teachers and other researchers, in developing learning media in accordance with the characteristics of the applied learning.

Keywords: Interactive Learning Media, Augmented Reality, ADDIE