

Mihbatur Roziq. 2024. Pengembangan Media Pembelajaran “Simerak Komputer” Berbasis *Markerless Augmented Reality* di SMK Plus Umar Zahid, Program Studi Pendidikan Informatika, Fakultas Ilmu Pendidikan, Universitas Trunojoyo Madura. Pembimbing: Muhamad Afif Effindi

ABSTRAK

Keberadaan teknologi yang semakin maju memberikan peluang bagi dunia pendidikan untuk memanfaatkannya guna meningkatkan efektivitas proses pembelajaran dan dapat mewujudkan tujuan dari mutu pendidikan yang tinggi, beberapa pemanfaatan teknologi tersebut dapat berupa media pembelajaran digital yang menarik bagi peserta didik. Teknologi yang sangat berkembang saat ini yaitu *smartphone* yang dapat diakses dimanapun, sedangkan teknologi untuk media pembelajaran yang dapat menarik siswa yaitu berupa audio visual interaktif dan aspek tersebut terdapat pada teknologi *Augmented Reality* (AR), maka dalam penelitian ini penulis mengembangkan media pembelajaran aplikasi perakitan komputer berbasis *markerless Augmented Reality* yang dapat diakses dengan *smartphone*. Penelitian ini menggunakan model ADDIE (*Analysis, Design, Development, Implementation, Evaluation*). Penelitian ini sudah diuji coba kepada ahli media pembelajaran, ahli materi, serta uji coba pengguna peserta didik di SMK PLUS UMAR ZAHID. Pengujian tersebut dilakukan untuk mengetahui tingkat efektivitas, efisiensi, serta daya tarik dari media pembelajaran yang telah dikembangkan. Hasil uji coba kepada ahli media mendapatkan nilai 96%, kemudian uji coba media pembelajaran kepada ahli materi mendapatkan nilai 82%, selanjutnya uji coba perorangan mendapatkan nilai 84%, dalam uji coba kelompok kecil mendapatkan penilaian 76% dan terakhir kepada kelompok besar mendapatkan nilai 77%. Dengan hasil penilaian yang telah didapatkan tersebut maka media pembelajaran layak digunakan dalam kegiatan pembelajaran.

Kata Kunci: Media pembelajaran, *Augmented Reality*, *markerless*, ADDIE, Perakitan Komputer

Mihbatur Roziq. 2024. *Development of Markerless Augmented Reality Based Learning Media "Simerak Computer" at SMK Plus Umar Zahid*. Thesis, Informatics Education Study Program, Faculty of Education, Trunojoyo University Madura. Advisor: Muhamad Afif Effindi

ABSTRACT

The increasing of advanced technology gave an opportunity for the world of education to utilize it to enhance the effectiveness of the learning process and to realize the goal of high quality education. Some uses of this technology can be in the form of digital learning media that are attractive to students. The technology that is currently very developed is smartphones which can be accessed anywhere, while the technology for learning media that can attract students is in the form of interactive audio visuals and this aspect is found in Augmented Reality (AR) technology, so in this research the author develops learning media for computer assembly applications based on markerless Augmented Reality which can be accessed with a smartphone. This research uses the ADDIE (Analysis, Design, Development, Implementation, Evaluation) model. This research has been tested on learning media experts, material experts, as well as student user trials at SMK PLUS UMAR ZAHID. This test was carried out to determine the level of effectiveness, efficiency and attractiveness of the learning media that has been developed. The results of the trials with media experts got a score of 96%, then the learning media trials with material experts got a score of 82%, then the individual trials got a score of 84%, in the small group trials they got an assessment of 76% and finally the large group got a score of 77 %. With the assessment results that have been obtained, the learning media is suitable for use in learning activities.

Keywords: *Learning media, Augmented Reality, markerless, ADDIE, Computer Assembly*