

Ramadani Maulana. 2024. *Pengembangan Media Pembelajaran Video Animasi Materi Administrasi Infrastruktur Jaringan Berbasis Android Kelas Xii Di Smks Al-Muhajirin*. Program Studi Pendidikan Informatika, Fakultas Ilmu Pendidikan, Univeesitas Trunojoyo Madura. Dosen Pembimbing Muhlis Tahir, S.Pd., M.Tr.Kom.

ABSTRAK

Kurangnya media pembelajaran yang inovatif menyebabkan pemahaman siswa terhadap materi administrasi infrastruktur jaringan, khususnya tentang firewall, menurun. Di SMKS Al Muhajirin, siswa kelas XII jurusan Teknik Komputer dan Jaringan (TKJ) lebih mudah memahami materi dalam bentuk visual, khususnya animasi. Oleh karena itu, penelitian ini bertujuan mengembangkan media pembelajaran berbasis video animasi yang dirancang untuk *platform android* dengan menggunakan model pengembangan *MDLC (Multimedia Development Life Cycle)*. Lokasi penelitian adalah di SMKS Al Muhajirin, dengan subjek siswa kelas XII TKJ. Evaluasi kelayakan media pembelajaran dilakukan menggunakan standar *ISO 25010* yang meliputi aspek *functional suitability, performance efficiency, maintainability, usability, dan portability*. Hasil uji coba oleh ahli media kepada dosen menunjukkan tingkat kelayakan sebesar 99% yang termasuk kategori sangat layak, sementara uji coba kepada guru mencapai 100% yang termasuk kategori sangat layak. Selain itu, uji ahli materi dari dosen dan guru menunjukkan persentase kelayakan sebesar 100% yang termasuk kategori sangat layak sangat layak. Uji coba kelompok kecil dan besar menghasilkan persentase kelayakan 92% dan 89% yang termasuk kategori sangat layak. Dengan demikian, dapat disimpulkan bahwa pengembangan media pembelajaran berbasis video animasi pada materi firewall sangat layak digunakan dan dapat meningkatkan minat serta pemahaman siswa terhadap materi.

Kata Kunci: Video Animasi, *MDLC*, *ISO 25010*, Administrasi Infrastruktur Jaringan, *Android*.

Ramadani Maulana. 2024. *Development of an Android-Based Animated Video Learning Media for Network Infrastructure Administration Material for 12th-Grade Students at SMKS Al-Muhajirin*. Informatics Education Study Program, Faculty of Education, University of Trunojoyo Madura. Advisor: Muhlis Tahir, S.Pd., M.Tr.Kom.

ABSTRACT

The lack of innovative learning media has resulted in a decline in students' understanding of network infrastructure administration materials, particularly regarding firewalls. At SMKS Al Muhajirin, twelfth-grade students in the Computer and Network Engineering (TKJ) program find it easier to comprehend material presented in visual formats, especially animations. Therefore, this study aims to develop an animation-based video learning media designed for the Android platform using the Multimedia Development Life Cycle (MDLC) model. The research location is SMKS Al Muhajirin, with the subjects being twelfth-grade TKJ students. The feasibility evaluation of the learning media is conducted using ISO 25010 standards, covering aspects such as functional suitability, performance efficiency, maintainability, usability, and portability. Results from media expert testing by lecturers indicate a feasibility level of 99%, categorized as highly feasible, while teacher evaluations reached 100%, also categorized as highly feasible. Additionally, material expert evaluations by lecturers and teachers showed a feasibility percentage of 100%, classified as highly feasible. Small and large group trials resulted in feasibility percentages of 92% and 89%, respectively, both categorized as highly feasible. Thus, it can be concluded that the development of animation-based video learning media for firewall materials is highly feasible and can enhance students' interest and understanding of the material.

Keywords: *Animated Video, MDLC, ISO 25010, Network Infrastructure Administration, Android.*