ABSTRAK

Howard Thomson Sihite: Pengembangan Media Pembelajaran Topologi Jaringan Berbasis *Augmented Reality* Untuk Model Pembelajaran *Problem Based Learning*. Skripsi. Fakultas Teknik Universitas Negeri Medan. 2024

Penelitian ini dilakukan di SMK Tritech Informatika Medan, khususnya jurusan Teknik Komputer dan Jaringan di kelas XI. Penelitian ini dilakukan karena terdapat permasalahan pembelajaran yang ditemukan di kelas XI pada mata pelajaran Administrasi Infrastruktur Jaringan. Permasalahan pembelajaran yang ditemukan adalah, masih kurangnya variasi media pembelajaran serta belum maksimalnya sarana dan prasarana dalam kelas yang menyebabkan guru terkendala dalam menyampaikan materi dan konsep pembelajaran, akibat masalah tersebut berdampak langsung terhadap kemampuan pemahaman siswa. Alasan adanya permasalahan tersebut adalah, karena masih minimnya media pembelajaran yang digunakan serta metode pembelajaran yang cenderung membosankan oleh siswa.

Oleh karena itu, dirancanglah sebuah media pembelajaran yang dapat digunakan sebagai suplemen tambahan dalam penggunaan media pembelajaran dengan berbasis android agar bisa diakses kapan saja dan dimana saja serta menerapkan model pembelajaran *Problem Based Learning* dalam kegiatan pembelajaran, sehingga diharapkan dapat membuat siswa lebih memahami pembelajaran serta meningkatkan minat dan motivasi belajar siswa.

Pada pengembangan dan penelitian ini digunakan model penelitian 4D (*Define, Design, Development, Disseminate*) yang dikolaborasikan dengan model pembelajaran Problem Based Learning pada bagian *Disseminate*. Setelah media selesai, dilakukan uji kelayakan oleh 2 ahli media serta 2 ahli materi dengan diiringi akseptansi siswa. Hasilnya, pada uji kelayakan materi memperoleh skor 4.50 dengan kategori "Sangat Layak", pada uji kelayakan media memperoleh skor 4.14 dengan kategori "Layak" dan pada uji akseptansi siswa memperoleh skor 4.63 dengan kategori "Sangat Layak".

Kata Kunci : Media Pembelajaran, *Augmented Reality*, *Problem Based Learning*

ABSTRACT

Howard Thomson Sihite: *Development of Network Topology Learning Media Based on Augmented Reality for Problem Based Learning Models. Thesis. Medan State University Faculty of Engineering. 2024*

This research was conducted at Tritech Informatics Vocational School, Medan, specifically the Computer and Network Engineering department in class XI. This research was conducted because there were learning problems found in class XI in the Network Infrastructure Administration subject. The learning problems found were that there was still a lack of variety in learning media and inadequate facilities and infrastructure in the classroom which caused teachers to have problems in conveying learning material and concepts, as a result of these problems had a direct impact on students' understanding abilities. The reason for this problem is that there is still a lack of learning media used and learning methods that tend to be boring for students.

Therefore, a learning media was designed that can be used as an additional supplement in the use of Android-based learning media so that it can be accessed anytime and anywhere as well as applying the Problem Based Learning learning model in learning activities, so that it is hoped that it can make students understand learning better and improve learning. students' interest and motivation to learn.

In this development and research, the 4D research model (Define, Design, Development, Disseminate) was used which was collaborated with the Problem Based Learning learning model in the Disseminate section. After the media is finished, a feasibility test is carried out by 2 media experts and 2 material experts accompanied by student acceptance. As a result, in the material feasibility test, they got a score of 4.50 in the "Very Feasible" category, in the media feasibility test they got a score of 4.14 in the "Decent" category and in the acceptability test the students got a score of 4.63 in the "Very Feasible" category.

***Keywords**: Learning Media, Augmented Reality, Problem Based Learning*