

ABSTRAK

Muhammad Reza Maulana, NIM 5192151001. Pengembangan Media Pembelajaran Berbasis Augmented Reality pada Mata Pelajaran Dasar-Dasar Teknik Jaringan Komputer dan Telekomunikasi di Kelas X TKJ SMKS YAPIM Taruna Marelان. Skripsi. Fakultas Teknik, Universitas Negeri Medan, 2026.

Penelitian ini bertujuan untuk mengetahui: (1) kelayakan media pembelajaran berbasis *Augmented Reality* (AR), (2) akseptabilitas penggunaan media pembelajaran berbasis AR, dan (3) efektivitas media pembelajaran berbasis AR terhadap hasil belajar peserta didik pada mata pelajaran Dasar-Dasar Teknik Jaringan Komputer dan Telekomunikasi di kelas X TKJ SMKS YAPIM Taruna Marelان. Penelitian ini menggunakan metode *Research and Development* (R&D) dengan model pengembangan ADDIE yang meliputi tahap *Analysis, Design, Development, Implementation, dan Evaluation*. Subjek penelitian berjumlah 28 peserta didik kelas X TKJ. Teknik pengumpulan data menggunakan angket validasi ahli media, angket validasi ahli materi, angket akseptabilitas pengguna, serta tes hasil belajar berupa pretest dan posttest. Analisis data dilakukan menggunakan analisis deskriptif dan uji N-Gain. Hasil penelitian menunjukkan bahwa media pembelajaran berbasis *Augmented Reality* memperoleh rata-rata validasi ahli media sebesar 4,13 dengan kategori Layak, rata-rata validasi ahli materi sebesar 4,63 dengan kategori Sangat Layak, dan rata-rata akseptabilitas pengguna sebesar 4,69 dengan kategori Sangat Layak. Hasil uji efektivitas menunjukkan bahwa nilai rata-rata pretest sebesar 53,75 meningkat menjadi 85,71 pada posttest. Hasil uji N-Gain memperoleh nilai rata-rata 0,711 atau 70,07% yang termasuk dalam kategori tinggi, sehingga menunjukkan bahwa media pembelajaran berbasis *Augmented Reality* efektif meningkatkan hasil belajar peserta didik. Dengan demikian, media pembelajaran berbasis *Augmented Reality* yang dikembangkan dinyatakan layak, diterima dengan sangat baik oleh pengguna, dan efektif digunakan dalam proses pembelajaran pada mata pelajaran Dasar-Dasar Teknik Jaringan Komputer dan Telekomunikasi di kelas X TKJ SMKS YAPIM Taruna Marelان.

Kata kunci: *Augmented Reality*, Media Pembelajaran, ADDIE, Hasil Belajar, Dasar-Dasar Teknik Jaringan dan Telekomunikasi.

ABSTRACT

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This study aimed to determine: (1) the feasibility of Augmented Reality (AR)-based learning media, (2) the acceptability of using AR-based learning media, and (3) the effectiveness of AR-based learning media on student learning outcomes in the subject of Fundamentals of Network and Telecommunications Engineering in Class X TKJ at SMKS YAPIM Taruna Marelان. This research used the Research and Development (R&D) method with the ADDIE development model, which consists of the Analysis, Design, Development, Implementation, and Evaluation stages. The research subjects were 28 students of Class X TKJ. Data were collected using media expert validation questionnaires, material expert validation questionnaires, user acceptability questionnaires, and learning outcome tests in the form of pretest and posttest. Data analysis was conducted using descriptive analysis and the N-Gain test. The results showed that the Augmented Reality-based learning media obtained an average media expert validation score of 4.13 in the feasible category, an average material expert validation score of 4.63 in the highly feasible category, and an average user acceptability score of 4.69 in the highly feasible category. The effectiveness test results showed that the average pretest score of 53.75 increased to 85.71 on the posttest. The N-Gain test obtained an average score of 0.711 or 70.07%, which is included in the high category, indicating that the Augmented Reality-based learning media was effective in improving student learning outcomes. Thus, the developed Augmented Reality-based learning media was declared feasible, very well accepted by users, and effective for use in the learning process in the subject of Fundamentals of Network and Telecommunications Engineering in Class X TKJ at SMKS YAPIM Taruna Marelان.

Keywords: Augmented Reality, Learning Media, ADDIE, Learning Outcomes, Fundamentals of Network and Telecommunications Engineering