

Dewi Sangka Buana. 2026. *Pengembangan Game Edukasi TANVenture Berbasis Android Materi Topologi dan Arsitektur Jaringan Kelas XI TKJ SMKN 1 Labang*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunodjoyo Madura. Pembimbing: Prita Dellia, S.Kom., M.Kom.

## ABSTRAK

Kegiatan pembelajaran materi Topologi dan Arsitektur Jaringan kelas XI TKJ SMKN 1 Labang masih menggunakan metode ceramah dan media PowerPoint (PPT), sehingga siswa mengalami kesulitan dalam memahami materi. Penelitian ini bertujuan untuk mengembangkan *game* edukasi *TANVenture* berbasis android materi Topologi dan Arsitektur Jaringan kelas XI TKJ. Penelitian ini menggunakan metode *Research and Development* (R&D) dengan model pengembangan ADDIE yang terdiri dari lima tahapan yaitu *Analyze, Design, Development, Implementation, dan Evaluation*. Produk yang dikembangkan berupa *game* edukasi berbasis android bernama *TANVenture (Topology Architecture Network Adventure)* menggunakan aplikasi Unity. Hasil penelitian menunjukkan bahwa validasi ahli materi mendapatkan skor 93% dengan kategori "sangat layak", sedangkan validasi ahli media mendapatkan skor 89% dengan kategori "sangat layak". Uji coba pengguna terhadap siswa memperoleh skor 88% pada uji coba perorangan, 86% pada uji coba kelompok kecil, 87% pada uji coba kelompok besar, dengan ketiga uji coba termasuk dalam kategori "sangat baik". Berdasarkan hasil tersebut dapat disimpulkan bahwa *game* edukasi *TANVenture* berbasis android sangat layak untuk digunakan sebagai media dalam pembelajaran materi Topologi dan Arsitektur Jaringan untuk kelas XI TKJ SMKN 1 Labang.

**Kata kunci:** ADDIE, android, *game* edukasi, topologi dan arsitektur jaringan, unity.

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### **ABSTRACT**

*Learning activities in the Topology and Network Architecture subject for Grade XI TKJ students at SMKN 1 Labang still rely on lecture-based methods and PowerPoint (PPT), causing students to experience difficulties in understanding the material. This study aimed to develop TANventure, an Android-based educational game for the Topology and Network Architecture subject for Grade XI TKJ students. The study employed the Research and Development (R&D) method using the ADDIE development model, which consists of five stages: Analyze, Design, Development, Implementation, and Evaluation. The product developed was an Android-based educational game called TANventure (Topology Architecture Network Adventure) using Unity software. The results showed that material expert validation obtained a score of 93%, categorized as "very feasible," while media expert validation obtained a score of 89%, also categorized as "very feasible." User testing conducted on students obtained scores of 88% in individual trials, 86% in small-group trials, and 87% in large-group trials, with all three trials categorized as "very good." Based on these results, it can be concluded that the Android-based TANventure educational game is highly feasible for use as a learning medium in the Topology and Network Architecture subject for Grade XI TKJ students at SMKN 1 Labang.*

**Keywords:** *ADDIE, android, educational game, topology and network architecture, unity.*