

ABSTRAK

PERANCANGAN PERMAINAN EDUKATIF SEJARAH PERJUANGAN RADIN INTEN II MENGUNAKAN KONSEP TOWER DEFENSE GAME BERBASIS ANDROID

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Penurunan pemahaman generasi muda terhadap sejarah dan budaya lokal, khususnya perjuangan Radin Inten II, menjadi perhatian dalam penelitian ini. Tujuan penelitian adalah merancang dan mengembangkan permainan edukatif berbasis Android dengan konsep Tower Defense sebagai media pembelajaran interaktif sejarah. Metode yang digunakan adalah Game Development Life Cycle (GDLC), yang terdiri dari enam tahap: initiation, pre-production, production, alpha testing, beta testing, dan release. Permainan dikembangkan menggunakan Unity, Visual Studio 2019, CorelDRAW X7, dan Krita. Dalam permainan ini, pemain memahami perjuangan Radin Inten II melalui strategi bertahan membangun menara, serta fitur edukatif seperti visual novel, kartu informasi, buku sejarah, dan video animasi. Hasil pengujian menunjukkan bahwa permainan ini efektif meningkatkan pemahaman siswa SD Negeri 30 Gedong Tataan, terbukti dari peningkatan nilai post-test dibandingkan pre-test. Permainan ini menjadi media belajar yang menarik dan menyenangkan. Rekomendasi bagi penelitian selanjutnya mencakup perluasan perangkat agar permainan dapat dimainkan di PC, iPhone, atau platform lain, penambahan materi dan cerita untuk memperkaya konten edukatif, serta peningkatan visual dan animasi agar tampilan permainan lebih menarik.

Kata Kunci: Game Edukasi, Radin Inten II, Tower Defense, Android, GDLC

ABSTRACT

DESIGN OF AN EDUCATIONAL GAME ON THE HISTORY OF RADIN INTEN II'S STRUGGLE USING TOWER DEFENSE CONCEPT BASED ON ANDROID

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The decline of understanding among young generations regarding local history and culture—specifically the struggle of Radin Inten II—has become the focus of this study. The objective of this study was to design and develop an Android-based educational game using the Tower Defense concept as an interactive learning medium for history. The method was the Game Development Life Cycle (GDLC), which consisted of six stages: initiation, pre-production, production, alpha testing, beta testing, and release. The game was developed using Unity, Visual Studio 2019, CorelDRAW X7, and Krita. In the game, players learn about Radin Inten II's resistance efforts through strategic tower-building gameplay, complemented by educational features such as a visual novel, informational cartoons, a history book, and animated videos. The testing results indicated that the game effectively enhanced understanding among elementary school students at SD Negeri 30 Gedong Tataan, as evidenced by improved post-test scores compared to pre-test scores. This game offers a fun and engaging learning medium. Future research is recommended to expand device compatibility to PC, iPhone, or other platforms, enrich the educational content with additional materials and narratives, and improve the visual design and animations to make the game more appealing.

Keywords: Educational Game, Radin Inten II, Tower Defense, Android, GDLC

