

ABSTRAK

GAME EDUKASI 2D SEBAGAI MEDIA PEMBELAJARAN HAFALAN SURAH SURAH PENDEK DI TK AISYIYAH 11 PALEMBANG

(Muhammad Fharil Destianrulis 2026: 91 Halaman)

Pembelajaran hafalan surah-surah pendek merupakan salah satu materi penting dalam pendidikan agama Islam bagi anak usia dini. Berdasarkan hasil observasi di TK Aisyiyah 11 Palembang, belum tersedia media pembelajaran interaktif berbasis *game* edukasi yang memadukan unsur visual, *audio*, animasi, dan interaksi sesuai dengan karakteristik anak usia dini. Penelitian ini bertujuan menghasilkan *game* edukasi 2D sebagai media pembelajaran hafalan surah-surah pendek di TK Aisyiyah 11 Palembang menggunakan metode *Multimedia Development Life Cycle* (MDLC) yang meliputi tahap *concept*, *design*, *material collecting*, *assembly*, *testing*, dan *distribution*. *Game* dibuat menggunakan Unity dan diuji menggunakan *Black Box Testing*, validasi ahli media, pengujian pengguna menggunakan skala *Likert*, serta analisis performa menggunakan *script* yang disusun berdasarkan parameter Unity Profiler, yaitu *Total Memory*, *Used Buffer*, *CPU Time*, *Frame Per Second* (FPS), dan *Draw Calls*. Hasil penelitian menunjukkan bahwa seluruh fitur *game* berfungsi dengan baik berdasarkan *Black Box Testing*, memperoleh hasil validasi ahli media sebesar 84% dengan kategori Baik, serta memperoleh hasil pengujian pengguna sebesar 94,50% dengan kategori Sangat Baik. Hasil analisis performa menunjukkan penggunaan *Total Memory* sebesar 358,58–378,84 MB, *Used Buffer* sebesar 866,63–916,60 MB, *CPU Time* sebesar 18,20–221,79 ms, *Frame Per Second* (FPS) sebesar 56,11–60,09 FPS, dan *Draw Calls* sebesar 20,10–25,79, sehingga aplikasi dapat berjalan dengan baik pada perangkat yang digunakan dalam penelitian. Berdasarkan hasil tersebut, *game* edukasi RuangHafal: Belajar Surah dinyatakan layak digunakan sebagai media pembelajaran hafalan surah-surah pendek bagi anak usia dini di TK Aisyiyah 11 Palembang serta dapat menjadi media pendukung dalam proses pembelajaran.

Kata Kunci: *Game edukasi 2D, hafalan surah pendek, media pembelajaran, MDLC, Unity.*

ABSTRACT

2D EDUCATIONAL GAME AS A LEARNING MEDIA FOR MEMORIZING SHORT SURAHS AT TK AISYIYAH 11 PALEMBANG

(Muhammad Fharil Destianrulis 2026: 91 Pages)

Learning to memorize short surahs is one of the important learning materials in Islamic religious education for early childhood. Based on observations at TK Aisyiyah 11 Palembang, there is currently no interactive learning media in the form of an educational game that combines visual, audio, animation, and interactive elements in accordance with the characteristics of young children. This study aims to develop a 2D educational game as a learning medium for memorizing short surahs at TK Aisyiyah 11 Palembang using the Multimedia Development Life Cycle (MDLC) method, which consists of the concept, design, material collecting, assembly, testing, and distribution stages. The game was developed using Unity and tested through Black Box Testing, media expert validation, user testing using a Likert scale, and performance analysis using a script based on Unity Profiler parameters, namely Total Memory, Used Buffer, CPU Time, Frame Per Second (FPS), and Draw Calls. The results showed that all game features functioned properly based on Black Box Testing, obtained a media expert validation score of 84% in the Good category, and achieved a user testing score of 94.50% in the Very Good category. The performance analysis results showed Total Memory usage of 358.58–378.84 MB, Used Buffer of 866.63–916.60 MB, CPU Time of 18.20–221.79 ms, Frame Per Second (FPS) of 56.11–60.09 FPS, and Draw Calls of 20.10–25.79, indicating that the application could run properly on the device used in the study. Based on these results, the RuangHafal: Belajar Surah educational game is considered suitable for use as a learning medium for memorizing short surahs for young children at TK Aisyiyah 11 Palembang and can serve as a supporting medium in the learning process.

Keywords: 2D Educational Game, Short Surah Memorization, Learning Media, MDLC, Unity.