

Title: MathTuon: A Cross-platform Gamified Mobile Learning Application for Grade 1 in the K to 12 Curriculum

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EXECUTIVE SUMMARY

This study focuses on the development of MathTuon: A Crossplatform Gamified Mobile Learning Application for Grade 1 in the K-12 curriculum. It is a game-based mobile learning application for Grade 1 Math pupils, which uses Unity Game Engine. This mobile application is applied with Gamification technique to engage and motivate learners and is developed using Unity 5 Game Engine as the main IDE, Visual Studio 2017 for creating and debugging C# scripts, Adobe Photoshop CC for creating 2D assets, and Couchbase Mobile for local data storage. The researchers have completed the objectives stated and after a series of validation and verification process, the application passed the testing phase and proved to have met the user requirements.

Keywords: MathTuon, Cross-platform, Mobile Application, Unity Game Engine, K-12, Grade 1, Gamification