MDAS WHEEL OF SOLVING: DEVELOPMENT OF 2D ANDROID GAME

THESIS

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ABSTRACT

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The study was conducted from March 2017 to April 2018 at Cavite State University, Indang, Cavite to develop an MDAS Wheel of Solving: Development of 2D game for android. The development of mobile application for MDAS Wheel of Solving: Development of 2D Game for Android was conducted to help the players to enhance their mathematical skills, to give entertainment and at the same time gaining information about mathematics, and alsoto practice their solving skills.

The methodology used was the agile methodology. It consists of six phases: brainstorm, documentation, design, development, quality testing,and deployment.

For the development of the 2D android game, the researchers used a computer system with the following specifications: Windows 10 Enterprise 64 bits Operating System and 4GB RAM. The developers also used Construct2 Integrated Development Environment, Adobe Photoshop CS6 for graphics making, and C2Buildozer.

For the implementation, the minimum specification used for the system requires 16 Android API or Android 4.0, 2 GB of RAM, and 1024x768 pixel screen resolution. It is recommended to exceed with the minimum requirement stated to be able to experience the navigation without any interruption.

The system was evaluated by 30 respondents composed of 20 students coming from Grade 1 students of Holy Redeemer School and 10 IT experts from the Department of Information Technology. The respondents evaluated the system based on its functionality, reliability, usability, efficiency, maintainability, and portability.The results

were tabulated, analyzed, and statistically treated using mean and standard deviation. Based on the results, the system was assessed as excellent which proves that the objectives and requirements of the system were achieved and it can be a solution to the identified problems.

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INTRODUCTION

Smartphone and tablets have become the mobile gaming platforms of this era, competing with classic, dedicated handheld systems such as Nintendo 3DS and the PlayStation Vita. People spent countless hours helping Mario rescue her princess, getting the highest score in Tetris and racing their super friends in Super RC Pro-Am via link cable. People's passion for games made them wants to create their own worlds and share them with their friends. People started programming on PC, but soon realized that they couldn't transfer their little masterpieces to the available portable game consoles. As people continued being enthusiastic programmers, over time their interest in actually playing video games faded.

This development renewed people's interest and they started investigating which mobile platforms would be suitable for their development needs. Apple iOS seemed like a good candidate for game coding skills. However, they quickly realized that the system was not open and they need a Mac in order to develop for the iOS. And then they found Android.