

**DEVELOPMENT OF THE MATH CROSS PUZZLE USING MDAS
RULE AN ANDROID APPLICATION GAME - BASED
PUZZLE 2D FOR STUDENTS IN CAVITE STATE
UNIVERSITY - MAIN CAMPUS**

THESIS

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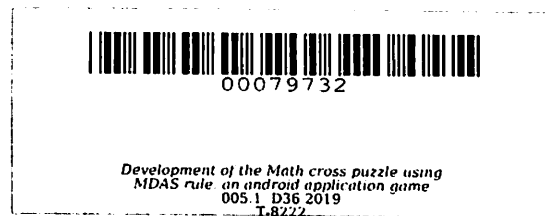
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**DEVELOPMENT OF THE MATH CROSS PUZZLE USING MDAS RULE AN
ANDROID APPLICATION GAME – BASED PUZZLE 2D FOR STUDENTS IN CAVITE
STATE UNIVERSITY – MAIN CAMPUS**

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ABSTRACT

REIVEN LLOYD DE GRANO, ALDWIN DELA CRUZ, and KARL ACE FELIX MADRID JR. Development the Math Cross Puzzle Using MDAS Rule: An Android Application Game – Based Puzzle 2D for Students in Cavite State University – Main Campus. Undergraduate Thesis. Bachelor of Science in Information Technology. Cavite State University, Indang, Cavite. June 2019. Adviser: Marlon R. Pereña.

The system entitled “Development the Math Cross Puzzle Using MDAS Rule: An Android Application Game – Based Puzzle 2D for Students in Cavite State University – Main Campus.” was developed to help the teachers of mathematics to easily teach math operation to their students. The game can capture their interest in solving mathematical problems. The Math Cross puzzle using MDAS rule is a game puzzle in the form of question to be answered by entering the number in the boxes provided both horizontally and vertically. It is a game using number and mathematical operation to solve the puzzle. The challenge in this game will give an effect to the person who will play to every level, a test on how will the player calculate the number of the missing equation to proceed the next level. And of course in every level the challenge will change depends on the level you will play, the higher the level you play the harder the equation and number will be required to solve.

The advantage of the study was the new ideas in disseminating information through Mobile games while at the same time providing an entertainment. Nowadays, android phones created by the technology are current trends that can help them especially in their logic. The development of android games can not only provide entertainment but also use in disseminating information about the four basic mathematical operation and

their provide information that can help student to learn and solve fast without using calculator.

Prototyping refers to an initial stage of a software release in which developmental evolution and product fixes may occur before a bigger release is initiated. These kinds of activities can also sometimes be called a beta phase or beta testing, where an initial project gets evaluated by a smaller class of users before full development.

According to the overall evaluation result, the system was judge to be excellent in all software quality criteria such as functionality, reliability, usability, efficiency and user-friendliness that show the game software is properly finished. The evaluators began with 40 chosen people. The software passed all the given criteria in evaluation and met several expectation of the software.

The overall mean, the system got 4.52 and 0.56 for the standard deviation and for the overall interpretation the system got Excellent interpretation. The overall mean, the system got 4.42 and 0.48 for the standard deviation and for the overall interpretation the system got Excellent.

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INTRODUCTION

Based on the article of Medium, a puzzle is a game, problem, or toy that tests a person's ingenuity or knowledge. It is a type of game primarily based on solving problems. These puzzles usually are constrained by a rule set and are made more or less severe by complexity or time limitations. In a puzzle, the solver is expected to put pieces together in a logical way, in order to arrive at the correct or fun solution of the puzzle. These are different genres of puzzles, such as crossword puzzle, word-search puzzles, number puzzles, relational puzzles, or logic puzzles. Puzzles are often created to be a form of entertainment but they can also arise from serious mathematical or logistical problems. A puzzle game are games in which players must complete progressively harder puzzles to advance through the game. These puzzles can be made more