UNIVERSITI TEKNOLOGI MARA

INTERACTIVE COURSEWARE DEVELOPMENT: AUGMETED REALITY FOR MATHEMATIC SUBJECT BY USING ADDIE METHODOLOGY

MOHD SABRY BIN MOHD SAFIQ

BACHELOR OF INFORMATION TECHNOLOGY (HONS) INFORMATION SYSTEMS ENGINEERING

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Interactive Courseware Development: Augmented Reality for Mathematic Subject by Using Addie Methodology

Mohd Sabry Bin Mohd Safiq

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SUPERVISOR'S APPROVAL

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By

MOHD SABRY BIN MOHD SAFIQ
2012938081

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Approved by

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DR Elin Eliana Binti Abdul Rahim
Project Supervisor

FEBRUARY 5, 2015

STUDENT'S DECLARATION

I certify that this report and the research to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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MOHD SABRY BIN MOHD SAFIQ

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ABSTRACT

This project presents an application of Augmented Reality technology for Mathematic subject. Augmented Reality is being considered as a new design approach for education. In an AR environment the virtual objects can be displayed and customize in real-time on the screen. User will have an interactive experience with the virtual objects in a physical environment by using this application. This study proposes is to applying AR technology to enhance learning for mathematical subject where user can view and also interact with 3D virtual objects. This project focused on developing application for students in SK Merlimau 2. The current learning approach is by using traditional approach where text book and board interact with students. The implementation of conventional learning method have arose severals problems toward the students. The first problem is student doesn't have spatial abilities and understanding of spatial features of geometry figures. Besides, student unable to take control of their own learning pace. This is because some students some students required additional learning session with the aid of tools to catching up their own pace. The last problem extracted from the traditional ways of learning is passive role during the class session. This project main goal is to minimize all the problem stated by developing augmented reality for mathematic subject and implementing ADDIE methodology. ADDIE stand for analysis, design, develop, implementation and evaluation and this methodology help in making sure the development is in the right path within resources allocated. This project also perform usability testing and learning effectiveness. Students and teachers involve in the usability testing in order to measure the performance and preference. The process of comparing current learning method with AR is fall under learning effectiveness. The result from both testing indicated that learning using augmented reality enable them to enhance their learning process.