Universiti Teknologi MARA

Mobile App in Learning Mathematics for Secondary School Student Focusing on Geometry Topic Through Augmented Reality

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SUPERVISOR'S APPROVAL

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JANUARY 8, 2018

DECLARATION

I certify that this report and the research to which it refers are the product of my own work and that any ideas 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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ABSTRACT

This project is about designing an Augmented Reality (AR) mobile application for learning geometry topic in Mathematics. The main purpose of this application is to help the students in understanding the geometry concept. AR displays the virtual 3D object of the geometry shapes that help the students to understand the geometry shapes easily. Student will memorize each geometry shapes better by using AR compared to reading and observing through a textbook. This will help the students in memorizing the formula of the geometry shapes such as area and volume. The use of AR in the learning process provides a new learning environment to students. The learning process becomes fun and interesting with AR. In order to ensure the project is successful, SDLC model has been used in the development of this project. There are seven phases involved in the model to make sure that the project runs smoothly. The phases are planning, requirement gathering, requirement analysis, design, implementation, evaluation and documentation. This project was developed using Unity platform. As a result, students improved their skills and knowledge in geometry topic after using this application. Based on the post-survey result, they understand the topic better compared to the result from pre-survey. Future work for this application is by adding more geometry shapes in this application and a database for parents or teachers to measure the performance of their children or student.