#### UNIVERSITI TEKNOLOGI MARA

# AN EVALUATION OF MOBILE APPLICATION FOR DYSLEXIC STUDENT DEVELOPED BASED ON GOLDEN RULES DESIGN PRINCIPLE

#### WAN NUR SYAHIRA WAN OTHMAN

BACHELOR OF INFORMATION TECHNOLOGY (HONS.) INFORMATION SYSTEMS ENGINEERING

**JANUARY 2015** 

## Universiti Teknologi MARA

# An Evaluation of Mobile Application for Dyslexic Student Developed Based on Golden Rules Design Principle

Wan Nur Syahira Wan Othman

Thesis submitted in fulfillment of the requirement for Bachelor of Information Technology (Hons.) Information Systems Engineering Faculty of Computer and Mathematical Sciences

January 2015

#### SUPERVISOR'S APPROVAL

# AN EVALUATION OF MOBILE APPLICATION FOR DYSLEXIC STUDENT DEVELOPED BASED ON GOLDEN RULES DESIGN PRINCIPLE

By

## WAN NUR SYAHIRA WAN OTHMAN 2012310269

This report was prepared under the supervision of project supervisor, Elin Eliana (Dr.) Abdul Rahim. It was submitted to Faculty of Computer and Mathematical Sciences and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Information Technology (Hons.) Information Systems Engineering.

Approved by
Elin Eliana (Dr.) Abdul Rahim
Project Supervisor
JANUARY 26, 2015

## STUDENT'S DECLARATION

I certify that this report and the project 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.

.....

WAN NUR SYAHIRA WAN OTHMAN 2012310269

JANUARY 26, 2015

#### **ABSTRACT**

Education is the key to one's success in entire life. Youth and children need the education in achieving Vision 2020. Nevertheless, there are some gap that occurred in our education systems that do not become the center of attention which is the lack of education for student with learning disability. This project focused on the dyslexic student at Dyslexia Association Malaysia (DAM). The current approaches of learning are being done by using paper-based materials and existing courseware which there are some limitations in the current courseware. By using conventional method, it could lead to tedious and limited ways of learning. On top of that, there is mobility issue arose as they only have one personal computer to use. This project aims to minimize the problem by developing a mobile application for dyslexic student based on Golden Rules design principle and evaluate the mobile application to the stakeholders to assess its usability and learning effectiveness. There are four main objectives of this project, which are to explore the learning behavior of dyslexic student and identify the content of the courseware, to study the related design guidelines for developing the mobile application, to develop a mobile application by using Golden Rules design principle and to evaluate the mobile application to the stakeholders to assess its usability and learning effectiveness. Furthermore, ADDIE model framework was used as a guideline in completing this project which consists of five phases, Analysis, Design, Development, Implementation and Evaluation. Each phase consists of several tasks or activities in order to complete it. The results are extracted from the findings that were done by conducting usability testing and learning assessment. Overall, the results indicates that proposed learning method promotes better learning than conventional learning method and user are satisfied with it. Hence, this project introduced new additional learning material for dyslexic student and expected to give benefits for developers whom wish to develop similar application. On top of that, this project allows more individual consideration of dyslexic and may direct future research about dyslexia.