

**UNIVERSITI TEKNOLOGI MARA**

**DESIGNING E-LEARNING USER  
INTERFACE FOR ILLITERATE  
ADULTS USING UNIVERSAL  
DESIGN FOR LEARNING (UDL)**

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Thesis submitted in partial fulfillment of the  
requirements for the degree of  
**Master of Science (Information Technology)**

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## AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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## ABSTRACT

This project is about Designing E-Learning for Illiterate Adults Using Universal Design For Learning (UDL). This e-learning user interface is design for illiterate adults who want to learn alphabets and numbers as a start to learn reading and counting. Most of the current e-learning today focused only for the children's need which is not suitable to the adults. This project is focusing on the designing the e-learning user interface based on the illiterate adult's requirements. Several interview sessions had been conducted to collect information from the illiterate adults regarding their problems on using current e-learning. Universal Design for Learning (UDL) had been used as a guideline to design the e-learning user interface. There are three main principles in UDL, but for this project only apply Principle 1. This project is mainly to complete three objectives that are to identify requirements of e-learning interface design for illiterate adults, to design and develop e-learning user interface for illiterate adults based on the universal design for learning (UDL) and to demonstrate and evaluate e-learning user interface design for illiterate adults in learning how to read by recognizing numbers, alphabets and simple importance signage. To complete this project, there are four phases need to follow, which is Problem Identification and Planning, Data Collection and Analysis, Design and Development and Demonstration, Evaluation and Documentation. After the demonstration session, interview had been conducted to evaluate the project's e-learning user interface design for the illiterate adults. Results show that the e-learning user interface based on UDL is suitable for the illiterate adults needs. In conclusion, illiterate adults satisfied with the new design of the e-learning. Further work is needed to enhance the e-learning user interface design and counter measure the project's limitation.

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