

**Interactive English Reading Tutor and Vocabulary Learning  
with Voice Recognition for Children**

**BY**

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**THESIS SUBMITTED IN PARTIAL FULFILLMENT OF  
THE REQUIREMENT FOR THE BACHELOR OF  
COMPUTER SCIENCE**

**FACULTY OF COMPUTER AND MATHEMATICAL  
SCIENCES**

**UNIVERSITI TEKNOLOGI MARA**

**NOV 2010**

## **Acknowledgement**

First of all, all praises and thanks to Allah, Lord of al-Mighty, for His Guidance and will, for the revelation of some of His knowledge for me in the successful to write this research. Many thanks to my beloved parents who never quit in giving to me full support, understanding and courage throughout the research.

This research would also not be possible and successful without the help and support from coordinator En.Fakhrul Hazman Yusoff and supervisor, Dr Marina Ismail. Many thanks to them for giving instructions, advices, motivation, support and guide the researcher in obtaining a good research. Finally, do not forget to mention and extend thanks to all friends and others who have, in one way or others, given me invaluable help, assistance and advice.

## **Abstract**

In Malaysian educational context, English Language is served as second language. It means English Language is also the important language that should be learned by the students starting from lower levels of schools such as lower primary school. However the problems exist when the children learn how to read a book without understanding the vocabulary and error in the pronunciation. Without knowing the vocabulary, reading alone will not help in understanding the reading materials such as a book. The objectives of this research are to design and to develop computer-based learning application using voice recognition in interactive way, to apply the active learning as learning approaches and test the functionality and usability of the application. The application is a supplement material for helping the children to improve their pronunciation and also their vocabulary on the English learning. This application will give a lot benefit to the children and educational field.

**Keywords:** Multimedia Learning Tool, Interactive English Reading Tutor, Speech Recognition, Vocabulary Learning.

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# **Chapter 1 – Introduction**

## **1.1 Introduction/Background**

Vocabulary is a critical part of reading. In English Language, vocabulary will help us understand on reading. According to Junior English Dictionary, vocabulary means words in general. Without knowing the vocabulary, reading alone will not help in understanding the reading materials such as a book. Reading tutor may help the student to improve their understanding in English. Meanwhile interactive English reading tutor that used computer-assisted oral reading help the children learn to read and also learn the vocabulary (Aist, 2000). Interactive English reading tutor will be a better application by adapting active learning as learning approach. Active Learning such as clickers and voice as an input can integrate a “game approach” that may attract the students better compared to traditional method. Active Learning can also provide a mechanism to make the children fully participate on learning (Martyn, 2007).

Voice Recognition also known as Automatic Speech Recognition (ASR) is the technology that enables computer to receive and accept human voice or spoken language as input and respond with human as output (Zhao, 2007). The input can be produced by capturing voice input using microphone. The application will then analyze the input, convert into meaningful form and produce an output (Umami, 2008).

Therefore, a learning tool application has been developed for English reading tutor and vocabulary learning in interactive way using voice as an input. Interactive English Reading Tutor and Vocabulary Learning with Voice Recognition for Children is an interactive application that works with the offline system. This application includes the