

**DEVELOP A MULTIMEDIA WEB BASED LANGUAGE
COURSEWARE FOR CHINESE AND PRONUNCIATION**

A thesis submitted to the Graduate
School in partial fulfillment of the
requirements for the degree of Masters
of Science (Information Technology)

Universiti Utara Malaysia

by

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ABSTRACT (BAHASA MALAYSIA)

Perkembangan teknologi telah membuka peluang kepada penghasilan pelbagai teknik pelajaran dan pembelajaran baru. Tujuan kajian ini ialah menghasilkan satu aplikasi multimedia laman web bagi bahasa Mandarin dan sebutan sebagai alternatif kepada alat bantuan pelajaran dan pembelajaran konvensional.

Aplikasi ini telah dibangunkan dalam bentuk laman web supaya sesiapa sahaja boleh melayari dan menggunakannya pada bila-bila masa dan di mana jua mereka berada. Aplikasi ini juga memasukkan unsur-unsur multimedia seperti teks, gambar dan bunyi demi menyediakan suasana pembelajaran yang interaktif bagi mempelajari bahasa Mandarin. Demi tujuan di atas, satu sistem *prototype* telah dihasilkan dengan menggunakan kaedah *Instructional System Design*.

Kajian ini juga membincangkan kekurangan dan kekangan yang dihadapi dalam proses pembangunan aplikasi. Justeru itu, cadangan-cadangan telah dikemukakan untuk mengatasi kekangan tersebut bagi kajian pada masa hadapan.

ABSTRACT (BAHASA INGGERIS)

The evolvement of communication and information technologies provides opportunities for a wide variety of new and innovative approaches to teaching and learning. The purpose of the research is to create a multimedia web-based language courseware for Chinese and pronunciation as an alternative to conventional teaching aided tools (videocassettes, audio tapes, flash cards etc).

The application is developed on a web-based basis to fulfill the requirement of being able to be delivered to any computer connected to the Internet anywhere in the world. Furthermore, the application embraces the multimedia elements such as text, graphic, animation and audio to create a better mental picture for learners and enable them to learn Chinese in an interactive environment. To achieve this, a system of the application has been developed using prototyping method.

Finally, this research discusses some limitations and constraints that were discovered during the development of the application and proposes some recommendations to overcome the limitations for the future development of this research.

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Chapter 1

INTRODUCTION

This project is initiated upon the request of course TZ6996 as one of the graduation requirements of MSc (IT). The main purpose of the research is to use the multimedia and web-based technologies as aided mechanism for full time and distance learning students in third language learning/ teaching. To achieve this, a multimedia web-based language courseware entitled Tutor Mandarin is developed to fulfill the requirement.

Knowing third language is important for an individual. It is an added value to an individual in socialization and working environment. However, students occasionally face difficulties when learning third languages.

Conventionally, instructor uses videocassettes, audiotapes, flash cards and etc to meet different learning styles. However, these instructional aided tools have limitations such as lack of interactive function, the requirement of large storage space, and difficulty in distributions of materials.

Therefore, the Tutor Mandarin is developed on a web-based basis to fulfill the requirement of being able to be delivered to any computer connected to the Internet anywhere in the world. Furthermore, the application embraces the multimedia elements such as text, graphic,

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