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WEB BASED SHORT COURSES FOR TEACHER TRAINING COLLEGE

A thesis submitted to the Graduate School in fulfillment
of the requirements for the degree
Master of Science (Information Technology)
Universiti Utara Malaysia

By:
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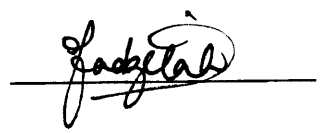
(Signature) : 

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ABSTRAK

Pengajaran individu merupakan satu cabaran yang dihadapi oleh sesebuah negara dalam menangani perubahan transisi dari era industri ke era pengetahuan. Pada hari ini,kita perlu memahami sistem dalam pelbagai konteks, yang mempunyai koloborasi setempat dan global dengan menggunakan internet. Ramai pendidik yang mengenal pasti keupayaan internet untuk pengajaran. Walaupun banyak teknologi internet seperti email, *listservs*, *ftp* dan *conferencing* boleh digunakan untuk pengajaran, *World Wide Web* masih merupakan medium yang popular. Ini kerana, WWW menawarkan antaramuka yang mesra pengguna dan capaian mudah untuk teks, grafik, audio dan video yang biasa digunakan dalam format yang tekal. Satu daripada elemen yang paling berkesan dalam penggunaan web untuk pengajaran ialah keupayaan untuk menarik perhatian pelajar dengan format yang interaktif. Kebanyakan laman Web pendidikan menawarkan informasi kursus yang asas seperti silibus, jadual waktu, pengumuman dan senarai bacaan. Di Malaysia, fungsi institusi pendidikan mesti diluaskan untuk menyesuaikan diri dengan cabaran teknologi yang digunakan dalam bidang pendidikan. Atas sebab ini, Institut Bahasa Melayu Malaysia, salah sebuah Maktab Perguruan, mencadangkan satu Sistem Kursus Pendek berasaskan web untuk mengendalikan kursus pendek secara talian terus yang membolehkan guru-guru mengakses di mana-mana sahaja dan pada bila-bila masa. Manakala kajian ini adalah untuk membangunkan satu kursus pendek berasaskan web iaitu Kursus Kemahiran Tatabahasa Bahasa Melayu untuk guru-guru bahasa Melayu bagi meningkatkan kemahiran mereka. Kursus ini dibina berdasarkan modul yang digunakan dalam kelas tradisional. Projek ini dijalankan dengan tujuan untuk menghasilkan satu sistem pangkalan data yang berasaskan web bagi membolehkan pembelajaran lebih mudah diakses, lebih bermakna, interaktif, kolaboratif, berpusatkan pelajar dan fleksibel. Sistem ini yang dikenali sebagai *Web Based Short Courses System*, telah dibangunkan dengan menggunakan *Database Design Methodology* dan *Web Development Methodology* yang menekankan kepada teknik *Rapid Prototyping Methodology* bagi menghasilkan satu prototaip. Pangkalan Data *MySQL*, *PHP*, *JavaScript* dan Pelayan Web Apache telah digunakan untuk membangunkan sistem ini. Sistem ini akan bertindak sebagai satu model rujukan untuk sistem kursus pendek bagi institusi tersebut. Semasa membangunkan sistem ini, beberapa kekangan telah ditemui dan beberapa cadangan untuk mengatasinya telah diberikan dengan tujuan penambahbaikan sistem ini pada masa akan datang.

ABSTRACT

Teaching individuals how to learn is the challenge faced by the nation as a whole as we negotiate the difficult, momentous transition from the Industrial Age to the Knowledge Age. Today we must understand systems in diverse contexts, and collaborate locally and around the globe using new tools like the Internet. Many educators have recognized the potential of using the Internet for instruction. Although many Internet technologies such as e-mail, listservs, ftp and conferencing can be used to assist teaching, the World Wide Web remains the most popular medium. It provides a user-friendly front end and easy access to text, graphics, audio and video materials that may be used in a common and consistent format. One of the most powerful elements of using the Web for teaching is the ability to engage learners in an interactive format. Most education Web sites provide basic course information such as syllabus, schedule, announcements and reading lists. In Malaysia, the function of the education institution must be broadening to accommodate the big challenge of the technology used in the education milieu. For this reason, Institut Bahasa Melayu Malaysia, one of the Teacher Training Colleges, proposed a Web-Based Short Courses System that will handles online short courses where teachers can access them anywhere and anytime. This study is proposed to develop a web-based short course to handle Kursus Kemahiran Tatabahasa Bahasa Melayu for Malay language teachers to enhance their skill. This course is developed based on module that is used in a traditional classroom. Therefore the aim of the study is to develop a web-based database system to make learning more accessible, interactive, meaningful, student-centered, support collaboration and flexible. The Database Design Methodology and Web Development Methodology are used to build the system. Rapid Prototyping Methodology technique is used to develop a prototype. The MySQL Database, PHP, JavaScript and Apache web server are used to implement the system. The system model is a reference model to the institution's web-based short courses system. During the development of the system, some problems and limitations were discovered and discussed. Finally some recommendations are made to overcome the limitations for the future enhancement and future work of this project.

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CHAPTER 1

INTRODUCTION

The development of autonomous learning skills is the major challenge facing higher education today because a student's success in college, hinges in large measure, on the ability to master new knowledge outside the security of the classroom. Teaching individuals how to learn is the challenge faced by the nation as a whole as we negotiate the difficult, momentous transition from the Industrial Age to the Knowledge Age (Gifford, 1997).

In today's knowledge-based economy, society needs people who can think critically and strategically to solve problems. Individuals must learn in a rapidly changing environment, and build knowledge taken from new sources and different perspectives. Today we must understand systems in diverse contexts, and collaborate locally and around the globe using new tools like the Internet (Reich, 1995; Merrill Lynch, 1999). These attributes of learning contrast sharply with the low-level skills, content, and assessment methods that traditional ways of learning favours.

The function of the education institution must be broadening to accommodate the big challenge of the technology used in the education milieu. Malaysia Malay Language Institute or Institut Bahasa Melayu Malaysia (IBMM) is one of the education institutions in Malaysia. Currently there are 27 Teacher Training Colleges located all over Malaysia to conduct professional training to teachers and trainees. Courses are conducted using common curricular that are provided by the Bahagian Pendidikan Guru, one of the division in Ministry of Education that are engaged with the Teacher Training Colleges.

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