

SOFTWARE COURSES IN INTERACTIVE MALAYSIA MAP FOR CHILDREN

(IMMFC)

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ABSTRACT

Learning material made by a teacher in the classroom sometimes have problems because of the lack of learning materials attract the attention of students. By developing systems directly to student learning can reduce the burden on teachers in preparing teaching materials and enables information to be received without taking a long time. In discussing the project this time Software Courses in Interactive Malaysia Map For Children (IMMFC) where it is illustration approach that has been to facilitate the process of learning map. The project consist of interactive page designed to hlp students to visualize their understanding in Kajian Tempatan subject. During the development IMMFC, methodology used is based on (Analysis, Design, Development, Implement and Evaluate) ADDIE. Each poses in the development process followed by each phase in the ADDIE.

ABSTRAK

Bahan pembelajaran yang dilakukan oleh seorang guru di dalam kelas kadangkala mempunyai masalah kerana bahan pembelajaran yang kurang menarik perhatian pelajar. Dengan membangunkan sistem pembelajaran secara terus kepada pelajar boleh mengurangkan beban kepada guru dalam menyediakan bahan pengajaran dan membolehkan maklumat diterima tanpa mengambil masa yang lama. Dalam projek kali ini membincangkan Software Courses in Interactive Malaysia Map For Children (IMMFC) di mana ia adalah pendekatan ilustrasi yang telah memudahkan proses pembelajaran peta. Projek ini terdiri daripada halaman interaktif yang direka untuk membantu pelajar untuk menggambarkan pemahaman mereka dalam subjek Kajian Tempatan. Semasa pembangunan IMMFC, methodologi yang digunakan adalah berdasarkan (Analysis, Design, Development, Implement dan Evaluate) ADDIE. Setiap proses dalam proses pembangunan diikuti oleh setiap fasa dalam ADDIE.

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LIST OF ABBREVIATIONS

IMMFC	Interactive Malaysia Mp For Children
PSM	Projek Sarjana Muda
HTML	Hypertext Markup Language
ISD	Instructional System Design
PC	Personal Computer

CHAPTER 1

INTRODUCTION

1.1 Introduction

Malaysia's map is usually used in Kajian Tempatan subject. Nowadays student have problems to understand on this subject. Hence, to overcome this problem, a courseware will be developed in interactive and easy way to attract the student's attention on this subject. With the advance technology that our country have, people nowadays prefer to used technology like computer to gain more knowledge because it have many advantages. Besides, people especially students will be more attracted to the learning method that have some entertainment. Hence this project will help students to understand more about principles of Kajian Tempatan.

The main purpose in this project is to develop the courseware for map interactive learning in Kajian Tempatan subject. This courseware is offer interactive learning and easy to use for student. In this courseware extension, element of design represented by buttons, images and texts are blended into the game approaches to improve the interactivity in this courseware.

This courseware will be provided many steps to play. User should start from the first step before play the next step. Game map is able to assess the level of student's knowledge. Therefore, student can improve their knowledge of map in Kajian Tempatan subject.

1.2 Problem Statement

The education in schools especially Kajian Tempatan subject still uses traditional method. Usually the teacher will teach this subject in the slide show. Student cannot understand the map because in this subject student need to study a lot of topic. Therefore, students should refer to the teacher or find other resources to better understand the lessons.

In addition, students are also facing some problems to describe what is in the study, for example, describe the location of the capital of each state. These problems require a long time for students to remember the lessons. This case clearly shows that students need a more effective way to help students better understand in the lessons.

To attract the students to study in Kajian Tempatan subject, the teacher prepare a new teaching plan to solve the problems. With the courseware, it helps the teacher in preparing the teaching plan.

1.3 Project Objective

This objective is very important because it shows the desired goals in the software application. Therefore, the objectives have been identified as follows:

1. To study how to develop a courseware for map interactive learning
2. To develop a courseware for map interactive learning
3. To test the functionality of the courseware.

1.4 Project Scope

The scope is also important to ensure that the learning system is running smoothly. The scope, have been lists as follows:

- i. The project focuses for student Sek Keb Gambang to learn about the Malaysia's map in Kajian Tempatan subject.
- ii. The system produces the Malaysia's map in puzzle game. The system can evaluate the knowledge students about the Malaysia's map. For example, student will match the name of each state at Malaysia map. The system evaluate the student until remember of each state in Malaysia.

1.5 Organization

The organization consists of three chapters. Chapter one will discuss on introduction to developed courseware.

Chapter two will discuss on literature review of system well.

In the chapter three will discuss about project running. The waterfall SDLC is used to finish the project. Developer should follow the phase in methodology in progress the project. In the progress, developer will try to analysis the related information in the system, making the appropriated design to meet system requirements and test the system functional. Developer must know the effect of system in the future and prepare documentation about the system facility in the future.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The education field has been expand that related to globalization, information technology blooming, economics of knowledge based, highly competition and the effort towards creating an education system of world standard. Global changing is the addition of interest and effort for the educationalist to use information technology and communication in education. This changing ratio is increase by the enhance of other factor such as lower cost of technology for equipment and software, the using of user friendly multimedia software and the expansion of theory and education model that has been change from teachers concentration to student.

The implementation of new approach in teaching and learning make teachers to change their role from the instructor to facilitator. Teaching based on exposition method has change to student implement their own learning plan and try to attain the specific criteria. While teachers just have to ensure that student success in doing their learning

plan. Besides that, the strategy that could be used by teacher is change the way of teaching and learning at school by integrate the technology into teaching.

2.2 Multimedia technologies in education

The expansion of information technology and its ability to present digital information has become the most convenient communication technique in education field. The most common technology that uses to send the multimedia information and digital besides a website is through a CD ROOM.

2.2.1 The benefit of CD ROM:

- i. Student could read or learn at the required time and place. The size of CD ROM is small enough to get bring to any wise easily. It is also could be copy and keep for security. It makes information free from time and place constraint.
- ii. Permanent and read only: the saving data could not be change or delete. Virus, a small crash or even a fingerprint could not affect the CD ROM.
- iii. Student could get information easily without have to go to the library. They only need a computer that has a multimedia ability.

2.2.2 How to developed game for education

There are two key themes common to the development of games for education, namely:

- i. The desire to harness the motivational power of games in order to making learning fun.
- ii. A belief that learning through doing in games such as simulations offers powerful learning tool.

2.2.2.1 The condition of characterized

- i. The activity should be planned so that player can enlarge or decline the level of challenges faced, in order to match exactly personal skills with the requirements for action.
- ii. It should be simple to isolate the activity, at the perceptual level, from other stimuli, external or internal, which capacity interferes with involvement in it.
- iii. There should be clear criteria for performance; a player should be able to estimate how well or how weakly he is doing at any time.
- iv. The activity should present existing response to the player, so that he can tell how well he is meeting the criteria of performance.
- v. The activity ought to have a broad range of challenges, and possibly some qualitatively.
- vi. Dissimilar ranges of challenge, so that the player may gain increasingly complex information about different feature of her/himself.

2.2.2.2 The reflecting on how to design engaging learning experiences draws:

- i. Task that we can accomplished.
- ii. capability to concentrate on task
- iii. Task has clear objective
- iv. Task provides immediate respond

- v. bottomless but effortless involvement (losing alertness of worry and frustration of everyday activity)
- vi. Exercises a sense of manage over our actions.

2.3 Development tools

This software only needs a pc that using the operation system of window7. It uses a CD to run the system without need an external supported system or an installation.

2.4 Interactive power point courseware

Teaching young children English (7-10 year old) is a fun and challenging experience. Children at this age have a lot of power, so they can be a lot of fun. Though, it is a special challenge to harness that force and focus it on the English tutorial.

As a teacher at school, there are many method of teaching young pupils such as integrate a lot of song, dances, flashcards, visuals and movement together in general. But now, this courseware can use a PowerPoint courseware, that can be mix this up with our teaching period. In other words there are many things user can do in order to gain your pupils knowledge in attraction on learning English better

2.4.1 How interactive power point courseware running

- a) Part of body



Figure 2.1: starting page

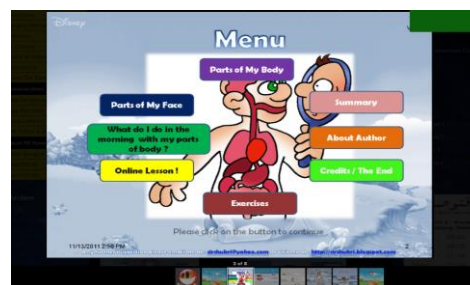


Figure 2.2: main menu

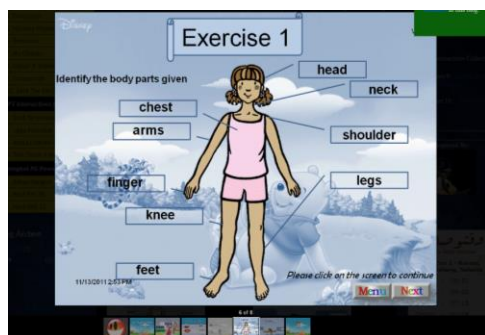


Figure 2.3: exercise 1

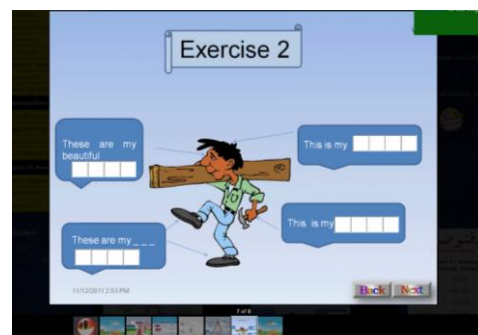


Figure 2.4: exercise 2



Figure 2.5: parts of face

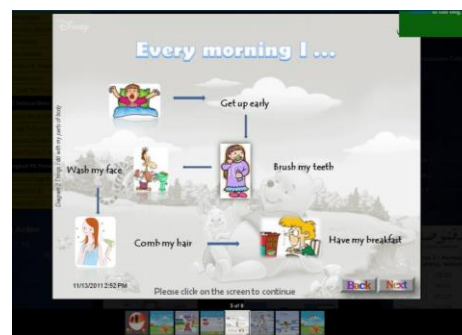


Figure 2.6: Daily routine



Figure 2.7: ending part

b) Comparison

Comparison activities increase an understanding most of mathematical order. Outline identification activities needed pupils/ children to examine and continue prototype preparing them for learning to recognize number. Number identification and counting activities prepare our pupils for grade school level addition and subtraction exercises.



Figure 2.8: main page

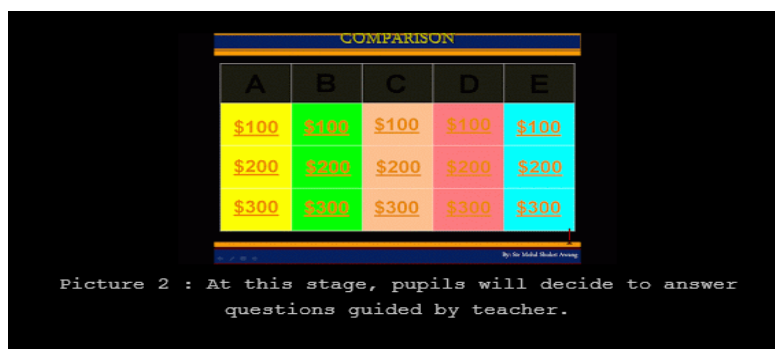


Figure 2.9: Question Guided



Figure 2.10: Quiz 1

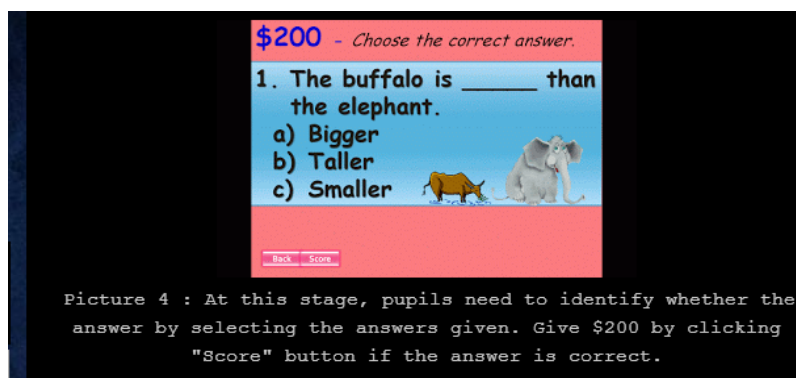


Figure 2.11: Quiz 2

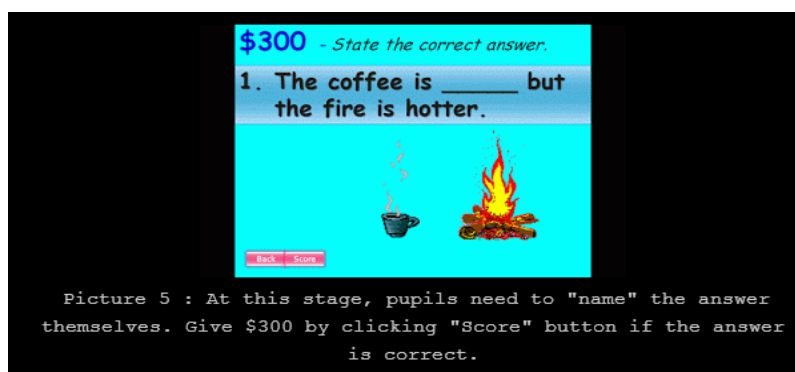


Figure 2.12: Quiz 3



Figure2.13: Team Score

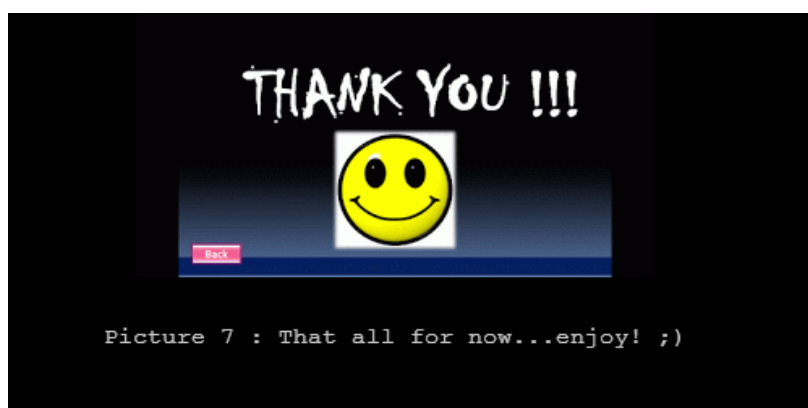


Figure 2.14: End page

CHAPTER 3

RESERCH METHODOLOGY

3.1 Introduction

In this chapter will talk about methodology and the process of developing courseware for the interactive Malaysia map for children. The methodology will guide the system to solve the problem and complete the project. In this project will use methodology ADDIE (analysis, design, development, implementation, and evaluation).

The ADDIE have five Phase Acronyms is Analysis, Design, Development, Implementation, and Evaluation. It is characterize a dynamic, elastic guideline for building efficient training and performance support tools. In building of the multimedia learning system, the IDDIE model of Instructional System Design (ISD) model is one of the most Methodologies. The details of phase will be described in next part. Beside that also rates this chapter describes the software and hardware requirement that will be used for development process.

3.2 ADDIE (Analysis, Design, Development, Implementation, Evaluate)

In 1975, ADDIE model was created by the Center for Educational Technology at Florida State University for the U.S. armed Forces. It was developed in answer to the United States military need to find a way to create more efficient training programs as their defense machinery became more complicated. This resulted in the propose models that are in use today. ADDIE referred to as Instructional Systems Design (ISD), Instruction System Design & Development (ISDD), and System Approach to Training (SAT) or Instructional Design (ID).

Today, many of the instruction models use are variations of the original ADDIE model. ADDIE stands for Analyze, Design, Development, Implementation, and evaluation with each step or phase important into the next and ongoing evaluation throughout all of the phases.

The ADDIE model is a systematic, step by step framework used by interactional design, developers and trainers to make sure that course development and learning occur in a controlled and structures way. The ADDIE model consists of five phase:



Figure 3.1: ADDIE Model

3.2.1 Analysis

This research study has begun with analyzing of interface design characteristics in the existing government guideline, followed by strength of interview with the developers those concerned in the development of the existing courseware. In this primarily data collection, a content analysis technique was used. The interface design characteristics that identified in this existing guideline will be categorizing accordingly to the selected component. This content analysis will define the common interface design characteristic exists in the guidelines provided. In order to get knowing how really the developer developed the boundary design of the presented courseware, a field visit and face to face in-depth interview has been conducted with the chosen courseware developer those involved with the development of the current existing courseware.

3.2.2 Design

Design is the second phase in the ADDIE model. Brainstorming step is a process in design. Besides, it can recognize the details of training materials to assemble the