

COURSEWARE IN HOME ECONOMICS (COOKERY)

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**TABLE OF CONTENTS**

PRELIMINARIES	PAGES
TITLE PAGE	i
APPROVAL SHEET	ii
ACKNOWLEDGEMENT	iii
DEDICATION	v
EXECUTIVE SUMMARY	ix
TABLE OF CONTENTS	xi
LIST OF TABLES	xiii
LIST OF FIGURES	xiv
APPENDICES	xv
CHAPTER I INTRODUCTION	
Project Context	1
Purpose and Description	4
Statement of Objectives	4
Scope and Limitation	5
CHAPTER II REVIEW OF LITERATURE	
CHAPTER III TECHNICAL BACKGROUND	
CHAPTER IV METHODOLOGY	
Project Plan	19
Data Gathering Procedure	21
Instrumentation	22

**CHAPTER V RESULTS AND DISCUSSIONS**

Design of Software, Product, and Process	28
Development and Testing	28

CHAPTER VI SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary	46
Conclusions	47
Recommendations	48

BIBLIOGRAPHY 49**CURRICULUM VITAE** 61



Chapter I

INTRODUCTION

Project Context

As technology is being integrated into the curricula and more on-line courses are offered in many educational institutions, there is a need to examine the ways technology is used in these aspects and to recognize the ways technology could positively affect students' learning. Information, computation and multimedia are three popular components found in educational courseware. In many cases, courseware programs include these components by making use of the computer's operational capabilities. However instructional design considerations need to be applied to each one of these components to ensure learning has indeed occurred.

According to Schitai (2016), when using the computer operational capabilities to provide information, computation and multimedia, it is important to recognize three premises: delivering information learning, provide performance computation learning and including multimedia in the course learning.

According to Jing (2016), courseware is an educational material intended as kits for teachers and trainers or as a tutorial for students, usually packaged for use with a computer. Courseware can encompass any knowledge area, but information technology subjects are most common. Courseware is frequently used for delivering education about the personal computer and its most popular business applications, such as word



processing and spreadsheet programs. Courseware is also widely used in information technology industry certification programs, such as the Microsoft certified Systems Engineer (MSCE) and the Computing Technology industry Association's A+ examination.

Courseware can include: material for instructor-led classes; material for self-directed computer-based training (CBT); web sites that offer interactive tutorials; material that is coordinated with distance learning, such as live classes conducted over the internet; and videos for use individually or as part of classes.

According to Schitai (2016), courseware of various types (e.g. linear presentations like PowerPoint, non-linear courseware, web pages used to facilitate class and on-line courses) often provide learners with screens full of information and students are required to scroll down pages or click on buttons to go through the material delivered their way. However, the fact that material was delivered is not enough to assume that learning has indeed occurred; there is no guarantee that students have successfully processed the information and retained it.

According to Schneider (2016), for many educational technologists “courseware” is the production of a computerized learning materials that would fall into one of the following categories: 1) programmed instructions (transfer of content proceeds step-by-step); 2) computer assisted instruction (drills and tutorials); 3) intelligent computer assisted instruction (ITS Tutorials); 4) computer based learning (simulations, hypertext and micro-



worlds); 5) intelligent learning environments (micro-worlds + tutors, helpers, experts); 6) cognitive learning support environments (some hypertexts); and 7) knowledge constructions environments. Currently, the web and other online tools fits in rather poorly (except as far as the Webs distribution quality is concerned). The potential of the Web should be addressed in a more general “course-ware perspective”, understood as: 1) optimizing access to educational “information” via an appropriate interface and structuring of the material, 2) implementation of instructional strategies, i.e. sequencing of teaching materials, and 3) implementation of instructional tactics, e.g.: giving examples, multiple choice questions, asking the student to perform a task, telling what learning strategy to adopt with some material. In this perspective, the learning material contains what has to be learned in a very broad sense. It can be computational ways and the Web has potential for new pedagogies: For teachers, the focus shifts from “information transfer” to “organization of information access” and “organization of collaboration.”

Purpose and Description

The study aims to render a better knowledge in home economics for the students Grade 11 of Laboratory High School of ISPSC-Sta. Maria in cookery.

School Administrators. This courseware will benefit them for additional enrollees in ISPSC Laboratory High School. On the part of distant



learners and workers who want to enhance their knowledge and skills in the field of Home Economics will capture their interests to enroll.

Teachers and Future Teachers. This research will serve as guide the teachers to import knowledge to students.

Students. This research will help students to develop their interest and to have an advanced knowledge towards Home Economics along cookery.

Developers and Future Developers. The developers will be able to apply their knowledge on creating software about e-learning software. The outcome of this project can serve both as a response and as a basis to help future researchers who are interested to undertake the same or related studies. This idea will also give them a general postulation of the requirements to accomplish such study.

Statement of Objectives

This project aimed to develop a courseware for Grade 11 and 12 for the Laboratory of ISPSC students to supplement and complement face-to-face classroom instruction.

This project specifically aimed in achieving the following:

1. Identify and gather the necessary topics to be included in the courseware.
2. Create and develop a courseware in home economics in cookery.
3. To test the usability of the courseware along:



- a. usefulness;
- b. ease of use;
- c. ease of learning; and
- d. satisfaction.

Scope and Limitation

This study covers the topic in cookery based on the module of Grade 11. The main topics that were included on the courseware are: maintain the kitchen premises, cleaning and sanitizing all the times. Also, in the courseware are the different types of kitchen tools, measuring tools and equipment and their maintenance. The courseware uses textual information, sound, photos, and videos. It is patterned in the usual lesson presentation wherein there is a presentation of the topic, exercises and assessment.

The module was divided into four different topics: 1) types and uses of cleaning tools and supplies, 2) safety practices on the use of cleaning agents, 3) procedures in cleaning, sanitizing (three bucket method) and storing equipment, and 4) kitchen tools and equipment: their usage and maintenance. It has evaluation exercises includes pretest, quizzes every topic and a final test.



Chapter II

REVIEW OF LITERATURE

Courseware

According to Mulligan (2002), courseware is often referred to as CBT (computer based training) or CAL (computer aided learning) and is essentially multimedia materials (text, graphics, animation, video, and audio) designed for learning. It could be described as a set of linked information screen that present materials to a student and which also include activities that allow the student to respond to what they are learning in such a way as to allow the system to assess the student's grasp of the materials and react appropriately.

At its simplest, courseware is a set of screens that the student reads and moves from one to the other. At first glance, this might seem to have no extra benefits beyond a book. However, if good quality animation or video is included, or if audio is superimposed it could be considered to be more useful than straight text.

Where courseware becomes of more benefit than text or video is where some interaction is asked of the student. Good courseware should ask the student to do something and then assess the response and act appropriately depending on the assessment of the student's understanding. Present an exciting lecture interspersed with checks to see if the student understands alternative strategies if certain misunderstandings are detected and possibly



even the ability to answer questions. However, if enough effort is put into the design and creation of courseware it can be very effective. At a very simple level, it can ensure that you not fall asleep while watching the presentation (or not concentrate as you are reading) by asking you multiple choice questions about the material and forcing you to go back over materials if your score is too low. A more sophisticated approach might branch to additional extra material given certain expected incorrect answers. It should be noted from the above description that the path a student takes through a course (ie. the material that is presented to the student) may vary and is determined by the student's interaction with the course.

Advantages of Using Courseware

According to Mulligan (2002), in talking about the advantages of courseware it should be noted that each advantage is probably an advantage over another specific learning method but not all other methods. The advantages are cost, individualization and monitoring. Cost of a courseware is usually designed to be standalone. That is that it should be sufficient in itself to teach the student without any teacher intervention. If it is successful in this regard, it can be duplicated and used over and over again at very little marginal cost. For topics where there are a very large potential number of users, this will make it very cost effective. Of course it



may be cheaper than a teacher but it is more expensive than a book or video.

Individualization is another good aspect of a courseware that will adopt itself better to the individual student either simply in terms of the pace the student chooses to learn at or the materials presented to the student on the basis of the interaction. Of course this is when compared to a large class or to a book or video. Monitoring of a good courseware monitors the students' activities and to some extent their grasp of the material. This information can be used to control the materials presented to the student or so that a teacher can look at it later. Again, this is in comparison to a large class or a book or a video.

According to Lu (2013) Yale University's OCW only offers 42 courses, but the streamlined, easy-to-navigate platform provides a rich environment for learning. There is a wide variety of humanities and sciences, from a philosophy class on death to an economics class on financial markets. Each course is equipped with downloadable video lectures, notes and searchable transcripts for each class. Skip within video lectures to a specific chapter, too.

According to Lu (2013), Open.Michigan, University of Michigan's OCW initiative, features a giant collection of courses from 19 of the university's schools, colleges and units. Ranging from literature to dentistry to public policy, the extensive list hosts a variety of courses all complete with syllabi,



course lectures and supplementary material. There's also a useful guide for sharing and using openly licensed content. Access all of the course files in a categorized list; each file has links for downloads or YouTube videos alongside Creative commons licensing information. View materials by session or all at once.

How a Courseware is developed

According to Mulligan (2002), nowadays, courseware is developed using an **Authoring System**. An authoring system can do several things. At its simplest it can allow you to create pages of text and graphics and even to create animation or to include video and audio materials. However, a more important function is that it allows a non-programmer to define the structure of a non-linear course (ie. one that doesn't always take the same route from start to finish), as well as define the interaction with the student that will control the student's route through the course. A good authoring system will also allow you to take a 'top-down' approach to defining this structure, often in the form of creating flowcharts that outline the course structure, into which you can place the actual course content and interactions later.

Instructional Design

According to Mulligan (2002), it might seem that all you needed to be able to do to create courseware was to be able to use an authoring system. This is of course be like saying that to be a teacher all you have to be able to



do is to be able to present your course materials on a blackboard or an overhead projector. To succeed, you need to have some plan of how you will get the students to think about the topic in such a way that they will understand and hopefully remember. In a classroom, we use whatever techniques we can and we are limited by our own abilities and knowledge of learning theories, and the technologies we have available (if I can call a blackboard a technology). Similarly, when we are planning courseware we must consider the abilities of the technology we have available (the authoring system and any other facilities available), and design the courseware with reference to some idea we have of how the student will learn.

Authoring Tools

According to Beal (2016), authoring tool is also known as authorware, a program that helps you write hypertext or multimedia applications. Authoring tools usually enable you to create a final application merely by linking together objects, such as a paragraph of text, an illustration or a song. By defining the objects relationships to each other, and by sequencing them in an appropriate order, authors (those who use authoring tools) can produce attractive and useful graphics, applications. Most authoring systems also support on scripting language for more sophisticated applications.

The distinction between authoring tools and programming tools is not clear-cut. Typically, though authoring tools require less technical knowledge



to master and are used exclusively for applications that present a mixture of textual graphical and audio data.



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