

A CAI on Computer System Architecture

1878

A Special Problem

**Presented to the Faculty of the Department
of Mathematical Sciences and Computer Studies**

De La Salle University - Dasmariñas

Dasmariñas, Cavite

In Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science in Computer Science

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ABSTRACT

Name of Institution : De La Salle University - Dasmariñas

Address : Dasmariñas, Cavite

TITLE : A CAI on Computer System Architecture

AUTHOR : Marilyn Modesto Lagutan

FUNDING SOURCE: Parents

COST: P10,000

DATE STARTED: December 1996

DATE COMPLETED : May 1997

OBJECTIVES OF THE STUDY:

A. GENERAL : The main objective of this study is to develop an effective tutorial software for Computer System Architecture.

B. SPECIFIC : Specifically, the objectives of this study includes :

1. To facilitate learning and understanding of concepts on Computer System Architecture.

2. To demonstrate CAI as a supplement tutorial for computer science students in their study of the subject.

3. To make the users, such as teachers and students as well, appreciate computers as a tool for learning.

SCOPE AND LIMITATION OF THE STUDY:

This study aims to develop a computer-assisted instruction program which will be based from parts of the course outline on the subject prepared by the department.

Simplification of some terms was observed to avoid confusion. This computer

assisted instruction on computer system architecture will serve as an introduction to a higher degree of learning on the topics related to the study.

METHODOLOGY:

The author used the Systems Life Cycle Approach in creating the system. The program was implemented using Visual Basic v 4.0.

OUTPUT OF THE STUDY:

A CAI on computer System Architecture was developed to demonstrate improvements in the design of CAI. The improvements include a computerized tutorial material in Computer System Architecture which can serve as an additional learning tool for teachers and students. This will also familiarize the students in the use of computer in studying Computer Architecture. The software was made to run in a window-based environment.

CONCLUSIONS:

Computer-assisted instruction belongs to the remote type of teaching. It uses the computer as the main source of instruction. The software consists of an introduction about Computer System Architecture. It facilitates presentation of lessons, quizzes, and students information recording. This software was created using Visual Basic 4.0 system with some diagrams and graphics display created by the system itself. The development of the software was based on the four basic CAI principles by Richmond (1965). The subject was first analyzed and then broken down into its elements.

RECOMMENDATIONS:

The author recommends some revisions for the better use of this study: First, it is best to implement a more extensive review system. The presentation of lessons in this system should be different from the actual lessons. It should provide the student an alternative source of information when he cannot fully understand the topic presented to him in the actual lessons.

Second, additional discussions on system architecture may also be presented. The topics will help the students to be more familiar about the concept. The implementations of flip-flops, registers, counters and memories can be modified.

