EF COL

MANAGEMENT OF INSTRUCTION FOR A CAI
ON SOCIAL STUDIES

A Thesis

Presented to

the Faculty of the Graduate School

De La Salle University

In Partial Fulfillment
of the Requirements for the Degree of
Master of Science in Teaching Computer Science

bу

Ofelia G. Mana

December, 1989



THE DLSU-EAC LIBRARY

TABLE OF CONTENTS		
		Page
Abs	stract	4
1.	Introduction 1.1 Statement of the Problem 1.2 General Objective 1.3 Specific Objectives 1.4 Scope and Limitation 1.5 Significance of the Study 1.6 Research Design and Methodology 1.6.1 Sources of Data 1.6.2 Instrumentation 1.7.3 Methodology	6 7 7 8 9 10 10
2.	2.1 Programs by Elementary Grade Levels 2.2 Application Areas	14 15 16
3.	Qualities of Effective Educational Software 3.1 Program Selection 3.1.1 Drill and Practice 3.1.2 Tutorial 3.1.3 Gaming 3.1.4 Simulation	17 18 18 18 18
	3.2 The Evaluation Sheet 3.2.1 Effectiveness of Instructional Design 3.2.2 Appropriateness of Graphics Used 3.2.3 Facility to Generate Sound 3.2.4 User Control Characteristics 3.2.5 Student Sequence Through the Content 3.2.6 Employment of Management of Instruction 3.2.7 Feedback 3.2.8 Minimum Keyboard Interference 3.2.9 Fail-safetiness of the Software	19 20 20
4.	Comparative Analysis of Software Features 4.1 Instructional Characteristics 4.2 Presentation Characteristics 4.3 User Control Characteristics 4.4 Management Characteristics 4.5 Feedback 4.6 Minimum Keyboard Interference	24 25 26 27 28 28



 Geography Teaching for Social Studies Course New Elementary School Curriculum Management of Learning/Instruction Computer Roles in Management of Instruction Building the Student Profile 3.2 Feedback and Routing 3.3 Reporting 	29 30 32 32 33
6. Design and Implementation of Management of	•
Instruction for a CAI	
6.1 Design	34
6.1.1 HIPO	34 35
6.1.1.1 Hierarchy Chart 6.1.1.2 Input-Process Output Charts	39
6.1.2 Screen Display Format	41
6.1.3 Program Flowchart	43
6.2 Implementation	43
6.2.1 Module Description	43
6.2.2 Rehiyon Module 6.2.3 Produkto Module	43 44
6.2.4 Sikreto Module	44
6.2.5 Programming Module	45
6.3 Validation	45
7. Conclusion and Future Recommendations	46
8. References	
Exhibits A - Evaluation Criteria	
B - Definition of Terms	
C - Sample Pre-Test	
D - Sample Post-Test	
E - Evaluation Results for Some	
Educational Software	
Appendix	
A - Program Flowchart	
B - Source Code Listing	
C - User's Manual	



Abstract

The main purpose of Computer-Aided Instruction (CAI) is to assist in the teaching and learning process. The quality learning can be improved directly by tailoring the to the needs of individual students. CAI has matured in the United States. Among the Asian countries, Hongkong and Singapore have embarked on programs to bring to all High School classrooms. the computer Unfortunately, CAI in the Philippines is still in infancy stage. CAI softwares available in the country are, generally, American-oriented. Thus, this research aims to conceptualize the idea of creating a CAI software that is tailored to the needs of Filipino higher software CAI students. The grade elementary specifications will be derived from comparative study and analysis done on several existing CAI softwares. Then a CAI will be written to help facilitate the teaching and learning process specifically for the course on Social the application program, the Studies. performs a series of management functions on behalf of the teacher and the student. Thus, the research will help teachers in the process of integrating CAI into their teaching and help those involved in development work to improve the quality of the product.

