



**De La Salle University-Dasmariñas**

**ONLINE COMPUTER ASSISTED INSTRUCTION (CAI)**  
**FOR**  
**DIGITAL DESIGN**

**An Undergraduate Research Proposal Presented to**  
**the Computer Studies Department**  
**College of Science**  
**De La Salle University – Dasmariñas**

**In Partial Fulfilment of the Requirement for the**  
**Degree of Bachelor of Science in**  
**Computer Science**

**Cadavez, Mark Kevin V.**

**Daclag, Jonis E.**

**Paraiso, Michael Kevin S.**

**October 2012**



## Table of Contents

Abstract .....	7
<b>Chapter 1: Background of the Study .....</b>	<b>8</b>
1.1 Project Context.....	8
1.2 Purpose and Description .....	9
1.3 Objectives.....	10
1.4 Scope and Limitation .....	10
1.4.1 Scope of the System .....	11
1.4.2 Limitation of the System .....	12
<b>Chapter 2: Review of Related Literature .....</b>	<b>13</b>
2.1 Local Related Literature .....	13
2.2 Foreign Related Literature .....	17
<b>Chapter 3: Technical Background .....</b>	<b>21</b>
3.1 The Learning Process.....	21
3.2 Types of Learners .....	21
3.3 Factors Affecting Learning Process.....	23
3.4.1 Accessibility and time .....	25
3.4.2 User friendly environment .....	25
3.4.3 Scripting and Database .....	26
3.5 Research Paradigm .....	27
3.5.1 Methodology .....	27
3.6 Concept of the Study.....	30
3.7 Conceptual Process .....	31
3.8 Conceptual Operation .....	32
<b>Chapter 4: Design and Methodology.....</b>	<b>34</b>
4.1 General Diagram .....	34
4.1.1 Admin Diagram.....	36
4.1.2 Teacher/Faculty Diagram .....	37



4.1.3 Student Diagram .....	39
4.2 Conceptual Diagram .....	41
4.2.1 Home Page.....	41
4.2.2 Login Page .....	42
4.2.3 Lesson Management and Quiz Management .....	43
4.3 Development Planning.....	46
4.3.1 Software Suited for development .....	46
4.3.1.1 XAMPP, MySQL and PHPmyAdmin .....	46
4.3.1.2 Notepad++ .....	47
4.4 Project Evaluation.....	47
4.4.1 Respondents of the Study .....	47
4.4.2 Survey Form .....	47
4.4.3 Evaluation Form.....	48
4.5 Data Gathering Procedure .....	49
4.6 Statistical Treatment of Data.....	50
<b>Chapter 5: Implemented Plans .....</b>	<b>51</b>
5.1 Infrastructure/Deployment .....	51
<b>Chapter 6: Result and Discussion.....</b>	<b>54</b>
<b>Chapter 7: Conclusion and Recommendations .....</b>	<b>60</b>

## APPENDICES

## BIBLIOGRAPHY



## Abstract

Computer-based Education (CBE) and Computer-based Instruction (CBI) are the broadest terms and can refer to virtually any kind of computer use in educational settings. Computer-Assisted Instruction (CAI) or Computer Aided Instruction (CAI) is a narrower term and most often refers to drill-and-practice, tutorial, or simulation activities. Computer-Managed Instruction (CMI) is an instructional strategy whereby the computer is used to provide learning objectives, learning resources, record keeping, progress tracking, and assessment of learner's performance. Computer based tools and applications are used to assist the teacher or school administrator in the management of the learner and instructional process.

[http://wikieducator.org/Computer\\_Assisted\\_Instruction\\_%28CAI%29](http://wikieducator.org/Computer_Assisted_Instruction_%28CAI%29); thus the Online Assisted Information (CAI) for Digital Design of De La Salle University – Dasmariñas was proposed to assist the students who are taking up the course in their studies. It was also developed to minimize the number of failing students in Digital Design. This would also support the teachers to provide more information to students through the help of interactive lessons and quizzes.