High School Physics Game

A Special Problem

Presented to

The Computer Studies Department

College of Science and Computer studies

De La Salle University-Dasmariñas

In Partial Fulfillment
of the Requirements for the Degree
Bachelor of Science in Computer Science

Ayad, Alexander Ibrahim M.

ABSTRACT

The project that is being presented to the readers is one that many could call a game with a sense, where the object of the game is not only to pass through the levels of the game but it also answers physics question in a wide span of different topics related to physics. A project where users have to transverse through an open level littered with enemies and obstacles which the users have to somehow evade the enemies and get over the obstacles to reach the exit. And answer the final question to reach the next level.

The proponent of the study had to not only develop a working game but as well as incorporate sounds and music, plus the gathering of data from twenty willing participants from and a range of ages through the use of surveys. The project not only requires that the proponent makes the project to be entertaining, but also difficult. In a way, it is considered a platform game mixed with a question and answer game and it is also considered an educational entertainment game.

TABLE OF CONTENTS

CHAPTER 1 Introduction

| 1.1 Project Context | 1 |
|--|----|
| 1.2 Purpose and Description | 3 |
| 1.3 Objectives | 4 |
| 1.4 Significance of the Study | 5 |
| 1.5 Scope and Limitations | 5 |
| CHAPTER 2 Review of related literature studies | |
| 2.1 Local study | 7 |
| Asul | 7 |
| Glitchy Escape | 7 |
| Fruit Catcher | 8 |
| Timothy and Titus | 9 |
| Circus Games | 9 |
| 2.2 Foreign Study | 10 |

| Tag: The power of paint | 10 |
|-----------------------------------|----|
| Trine | 11 |
| A boy and his blob | 11 |
| Prinny: Can I Really Be the Hero? | 12 |
| Sly Cooper: Thieves in Time | 12 |
| CHAPTER 3 Technical Background | |
| 3.1 Theories used in the study | 14 |
| 3.2 Conceptual process | 15 |
| 3.3 Conceptual Operation | 16 |
| CHAPTER 4 Design and methodology | |
| 4.1 Screenshots | 18 |
| 4.2 Development planning | 20 |
| 4.3 Evaluation of the project | 21 |
| CHAPTER 5 Implemented plans | |
| 5.1 Resource Requirements | 22 |

| 5.2 Installation Plans | 23 |
|--|----|
| CHAPTER 6 Results and discussion | |
| 6.1 Instrument used to gain data | 24 |
| 6.2 Results of the data | 25 |
| 6.3 Tables | 27 |
| 6.4 Interpretation of data based on objectives | 27 |
| CHAPTER 7 Conclusion and recommendation | |
| 7.1 Conclusion | 28 |
| 7.2 Recommendation | 29 |
| Bibliography | 30 |
| Appendices | 31 |

List of Appendices

| Appendix A |
|---|
| Relevant source code. |
| Appendix B |
| Evaluation Tool. |
| Appendix C |
| Sample Input/ Output Reports. |
| Hierarchical Input Processing Output Diagram. |
| Input Processing and Output Diagram. |
| Appendix D |
| Users Guide. |
| Appendix E |

Curriculum Vitae.