THE DEVELOPMENT OF *SOLAR SYSTEM SIMULATOR* TO TEACH ENGLISH VOCABULARY AT ELEMENTARY SCHOOL

THESIS

Submitted in partial fulfillment of the requirement for the degree of Sarjana Pendidikan (S.Pd) in Teaching English

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ABSTRACT

Nagara, Graena Pelangi. (2023*). THE DEVELOPMENT OF SOLAR SYSTEM SIMULATOR TO TEACH ENGLISH VOCABULARY AT ELEMENTARY SCHOOL*. Thesis. English Language Education Department, Faculty of Tarbiyah and Teacher Training, UIN Sunan Ampel Surabaya. Supervisors: Dr. Arbaiyah YS, MA. and Hilda Izzati Madjid, M.A.

Key Words: *Mobile Learning, Simulator, Solar System, English Vocabulary.*

This project aims to build an Android-based application for students at elementary school level. The application is called Solar System Simulator which students can use to better understand vocabulary about the solar system. This research project has two questions; (1) How is the development of a Solar System Simulator to teach English vocabulary at elementary school? (2) What are the challenges that students encounter while using this application? This project research is in the form of qualitative descriptive Research and Development (RnD), which adopts the ADDIE model for the project development process. This project uses guideline interviews as a tool for collecting data. The subjects of this project are 6 students at SDN Klurak Sidoarjo who are in class 6. There are two validators involved in the process of validating learning media and learning materials. The findings from this project are (1) The development of the Solar System Simulator application includes three phases (framework creation, application creation, and application publicity), (2) Analysis of both validation criteria and students' qualitative feedback revealed that students had some challenges related to using this app. The absence of sound effects as well as voice over, a slight lag when switching pages, and the challenge to be brave and get used to communicating and discussing with the teacher regarding the learning material being discussed.

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ABSTRAK

Nagara, Graena Pelangi. (2023*). THE DEVELOPMENT OF SOLAR SYSTEM SIMULATOR TO TEACH ENGLISH VOCABULARY AT ELEMENTARY SCHOOL*. Tesis. Jurusan Pendidikan Bahasa Inggris, Fakultas Tarbiyah dan Keguruan, UIN Sunan Ampel Surabaya. Pengawas: Dr. Arbaiyah YS, MA. dan Hilda Izzati Madjid, M.A.

Kata Kunci: *Mobile Learning, Simulator, Tata Surya, Kosakata Bahasa Inggris.*

Proyek ini bertujuan untuk membangun aplikasi berbasis android untuk siswa pada tingkat SD. Aplikasi tersebut bernama Solar System Simulator yang dapat digunakan para siswa untuk lebih memahami pemahaman tentang tata surya. Penelitian proyek ini memiliki dua pertanyaan; (1) Bagaimana pengembangan Simulator Tata Surya untuk mengajarkan kosakata bahasa Inggris di sekolah dasar? (2) Apa saja tantangan yang dihadapi siswa saat menggunakan aplikasi ini? Proyek penelitian ini berupa Penelitian dan Pengembangan deskriptif kualitatif (RnD), yang mengadopsi model ADDIE untuk proses pembangunan proyek. Proyek ini menggunakan pedoman wawancara sebagai alat untuk mengumpulkan data. Subjek dari proyek ini adalah 6 orang siswa siswi SDN Klurak Sidoarjo yang duduk di kelas 6. Terdapat dua validator yang dilibatkan untuk proses validasi media pembelajaran dan materi pembelajaran. Temuan dari proyek ini adalah; (1) Pembangunan dari aplikasi Solar System Simulator mencakup tiga fase (pembuatan kerangka, pembuatan aplikasi, dan publisitas aplikasi), (2) analisis kedua kriteria validasi dan umpan balik kualitatif siswa mengungkapkan bahwa siswa memiliki beberapa tantangan terkait penggunaan aplikasi ini. Tidak adanya surara efek sekaligus voice over, sedikit lag saat pergantian halaman, dan tantangan untuk berani dan terbiasa berkomunikasi dan berdiskusi dengan guru terkait materi pembelajaran yang sedang dibahas.

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LIST OF CONTENTS

PERNYATAAN KEASLIAN TULISAN ..... **i**
ADVISOR APPROVAL SHEET ..... **i**
EXAMINER APPROVAL SHEET ..... **iii**
LEMBAR PERNYATAAN PERSETUJUAN PUBLIKASI ..... **iv**
ABSTRACT ..... **v**
ABSTRAK ..... **vi**
MOTTO ..... **vii**
ACKNOWLEDGEMENT ..... **viii**
DEDICATION SHEET ..... **x**
LIST OF CONTENTS ..... **xi**
LIST OF TABLES ..... **xiii**
LIST OF FIGURES ..... **xiv**
LIST OF ABBREVIATIONS ..... **xiv**
LIST OF APPENDICES ..... **xvi**
CHAPTER 1 ..... **1**
A. Background of The Study 1
B. Question of The Study 7
C. Objectives of The Study 7
D. Significance of The Study 7
E. Scope and Limitation of The Study 8
F. Definition of Key Terms 9
CHAPTER II **11**
A. Theoretical Framework 11
B. Previous Study 14
CHAPTER III **18**
A. Research Design 18
1. Research and Development Procedure 20
B. Research Subject 25

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S U R A B A Y A
http://digilib.uinsa.ac.id/ http://digilib.uinsa.ac.id/ http://digilib.uinsa.ac.id/

1. Participants 25
C. Data and Source of Data 26
D. Data Collection Techniques 26
E. Research Instruments 27
F. Data Analysis Techniques 30
CHAPTER IV 31
A. Findings 31
1. The development of a *Solar System Simulator* to teach English vocabulary at elementary school 31
B. The challenges that students encounter while using this application. 54
C. Discussion 55
1. The Development of Solar System Simulator to teach English vocabulary at elementary school 55
2. Challenges that elementary students encounter in using the application. 58
CHAPTER V 62
REFERENCES 65
APPENDIXES 70

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LIST OF TABLES

Table 3.1 Research Step 23
Table 3.2 Interview Guideline 27
Table 4.1 Simulator Learning Material 34
Table 4.2 Glossary 37

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S U R A B A Y A

http://digilib.uinsa.ac.id/ http://digilib.uinsa.ac.id/ http://digilib.uinsa.ac.id/

LIST OF FIGURES

Figure 3.1	ADDIE Model	20
Figure 3.2	Button Scheme	21
Figure 3.3	Splash Screen	22
Figure 3.4	Main Menu	23
Figure 4.1	Storyboard	38
Figure 4.2	Certificate	41
Figure 4.2	Certificate	41
Figure 4. 3	Making Icon	41
Figure 4. 3	Making Icon	41
Figure 4. 4	Main Menu Development	43

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LIST OF ABBREVIATIONS

KI KD: Kompetensi Inti, Kompetensi Dasar

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LIST OF APPENDICES

Appendix 1: Code Snippets (Code Button)..... 70
Appendix 2 : Interview Guideline..... 75
Appendix 3 : Surat Tugas Dosen Pembimbing..... 77
Appendix 4 : Surat Validasi Instrument Penelitian..... 78
Appendix 5 : Approval Sheet of Thesis Proposal Examination..... 79
Appendix 6 : Approval Sheet of Thesis Examination..... 80

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