APPLICATIONS FOR LEARNING FRUITS AND ANIMALS USING ANDROID-BASED AUGMENTED REALITY TECHNOLOGY

THESIS REPORT

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UNIVERSITAS
MERCU BUANA

INFORMATICS ENGINEERING STUDY PROGRAM

FACULTY OF COMPUTER SCIENCE

MERCU BUANA UNIVERSITY JAKARTA

2024

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Submitted as one of the requirements to obtain a Bachelor's Degree

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OWN WORK STATEMENT PAGE

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Thesis Report Title	: Applications For Learning Fruits And Animals Using Android-Based Augmented Reality Technology

Declare that this thesis report is the result of my own work and not plagiarism, and all sources, both cited and referred to, have been stated correctly. If it turns out that my thesis report contains elements of plagiarism, then I am ready to receive academic sanctions that apply at Mercu Buana University

Jakarta, 05 August 2023

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FOREWORD

Praise and gratitude to the presence of God Almighty who has given His grace and guidance, so I can do this final report to complete my Bachelor of Informatics Engineering in Mercu Buana University. The author is fully aware that in making this Final Report it cannot be completed without any support, therefore I would like to express my deepest gratitude to:

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9. Also My Informatics Engineering Friends who have always been together since the first time starting college at Universitas Mercu Buana.

The author realizes that there are still many shortcomings in this report. Therefore,constructive feedback is allowed and I hope this report will be of usefull to other All Mercu Buana University students and also other students one day.

Jakarta, 20 June 2024

Yoseph Martin Lay

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Judul Tugas Akhir : Applications for Learning Fruits Using Android-Based Augmented Reality Technology

Penggunaan teknologi Augmented Reality (AR) dalam dunia pendidikan menjadi salah satu bidang penelitian yang menarik perhatian dalam beberapa tahun terakhir. Dalam konteks pembelajaran hewan dan buah-buahan, AR berpotensi besar untuk meningkatkan minat dan pemahaman siswa melalui pengalaman interaktif yang menarik. Dengan menggunakan Unity 3D sebagai platform pengembangan dan Vuforia sebagai toolkit AR, aplikasi ini dilengkapi dengan fitur-fitur seperti pendeteksian objek, visualisasi buah dan hewan dalam 3D, serta informasi tambahan tentang nama, deskripsi dan informasi tambahan tentang sifat dan karakteristik. dari setiap objek. Penelitian ini bertujuan untuk mengembangkan aplikasi pembelajaran buah dan hewan dengan menggunakan teknologi Augmented Reality (AR) berbasis Android. Aplikasi ini memanfaatkan kemampuan AR pada perangkat Android untuk memvisualisasikan buah dan hewan secara tiga dimensi (3D) di dunia nyata.

Keywords: Aplikasi Pembelajaran, Teknologi Augmented Reality, Model 3D, Pengenalan Kamera

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ABSTRACT

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The use of Augmented Reality (AR) technology in education has become an area of research that has attracted attention in recent years. In the context of learning animals and fruits, AR has great potential to increase students' interest and understanding through interesting interactive experiences. By using Unity 3D as a development platform and Vuforia as an AR toolkit, this application is equipped with features such as object detection, visualization of fruits and animals in 3D, as well as additional information about names, descriptions and additional information about characteristics and characteristics of each object. This study aims to develop a fruits and animals learning application using Android-based Augmented Reality (AR) technology. This application takes advantage of AR capabilities on Android devices to visualize fruits and animals in three dimensions (3D) in the real world.

Keywords: Learning Applications, Augmented Reality Technology, 3D Models, Camera Recognition

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LIST OF CONTENT

TITLE PAGE ..... **i**
OWN WORK STATMENT PAGE ..... **ii**
ENDORSEMENT PAGE ..... **iii**
FOREWORD ..... **iv**
APPROVAL STATMENT PAGE ..... **v**
ABSTRAK ..... **vi**
ABSTRACT ..... **vii**
LIST OF CONTENT ..... **viii**
LIST OF FIGURE ..... **x**
LIST OF TABLE ..... **xi**
CHAPTER I INTRODUCTION **1**
1.1 Background 1
1.2 Research Objectives 3
1.3 Research Scope 5
1.4 Research Benefits 5
1.5 Research Questions 6
CHAPTER II LITERATUR REVIEW **7**
2.1 Supporting Theory 7
2.1.1 Augmented Reality Technology-Based Education 7
2.1.2 Use of Augmented Reality Technology in Learning Animals and Fruits 7
2.1.3 Use of Augmented Reality Technology in Mobile Applications 8
2.1.4 Advantages and Benefits of Using AR Learning Applications in Learning Animals and Fruits 8
2.1.5 Unity 8
2.1.5 Vuforia 9
2.2 Previous Research 10
2.3 Critical Review 14
2.3.1 Strengths 14
2.3.2 Limitations 15

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2.3.3 Future Implications 15
CHAPTER III METHODOLOGY 17
3.1 Augmented Reality 17
3.1.1 Algorithm 17
3.2 Development Approach 18
3.3 Tools and Materials 21
3.4 Data Collections 22
3.5 Data Analysis 22
CHAPTER IV RESULTS AND DISCUSSION 23
4.1 Application Development and Features 23
4.1.1 Concept 23
4.1.2 Design 25
4.1.3 Material Collecting 27
4.1.4 Assembly 28
4.1.5 Testing 31
4.1.6 Distribution 35
4.2 Learning Process 36
4.2.1 Learning in the Context of AR Applications 36
4.2.2 Bloom's Taxonomy in Learning AR Applications 37
4.3 Evaluation Results 39
4.3.1 Usability and User Experience 39
4.3.2 Learning Outcomes 40
4.3.3 User Feedback 40
4.3.4 User Test Result 40
4.4 Discussion 41
CHAPTER V CONCLUSIONS AND RECOMMENDATIONS 42
5.1 Conclusion 42
5.2 Recommendations 44
5.3 Final Thoughts 45
BIBLIOGRAPHY 46
ATTACHMENT 49

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LIST OF FIGURE

Figure 1. Application Development Stages..... 18
Figure 2. Application Flowchart..... 26
Figure 3. Fruits and Animals Marker……..... 27
Figure 4. UI Element Design……..... 27
Figure 5. Model Design Using Blender..... 28
Figure 6. Texturing Blender..... 28
Figure 7. Vuforia Database..... 30
Figure 8. Main Menu Scene..... 30
Figure 9. Application Scene..... 31
Figure 10. Scripting..... 31
Figure 11. Main Menu Application……..... 32
Figure 12. Application with Marker not detected..... 33
Figure 13. Application Play Fruits Marker..... 33
Figure 14. Application Play Animals Marker..... 34

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LIST OF TABLE

Table 1. Related Research..... 11

Table 2. Application Functionality Test using Blackbox Testing..... 34

Table 3. Bloom's Taxonomy..... 38

Table 4. Children Test Result..... 41

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