Universiti Teknologi MARA

Game Based Learning App Math for Kindergarten Using AR

Nik Humairah Putri Binti Jamilin

Thesis submitted in fulfillment of the requirements for Bachelor of Computer Science (Hons) Faculty of Computer and Mathematical Sciences

January 2022

DECLARATION

I certify that this report and the research to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

NIK HUMAIRAH PUTRI BINTI JAMILIN

2020985433

JANUARY 30, 2022

ABSTRACT

Today, technology plays and important role in people's daily life. Almost everything we do, we use technology whether it is just normal daily task or working. In existing studies, it showed that mobile devices are one of the most successful learning methods as they are considered attainable and easy to use. Research on the use of mobile apps by children can be traced back to studies on the use of e-books in the literacy growth of young children. However, there is little research on what makes a good learning app for pre-schoolers. According to a report conducted in 2012, the number of applications aimed at preschool and primary school aged children rose to 72 percent from 47 percent in 2009. There are few examples of well-designed educational apps for young children available at the moment. To select a perfect learning apps for kids is very important because kids at the age of 4-6 years old usually are easily influence. Therefore, this project will create an interactive learning apps that is suitable for preschooler in mathematics. The problem occurred is the apps that the kids are using currently, does not help them with their cognitive skills. The market's massive development of mobile apps, with frequent advertising references to them as "educational" and promoting them as providing educational value to children, represents a research opportunity for studies investigating children's interaction and engagement with mobile apps, While there are thousands of apps available today, selecting the best educational apps for children is difficult and problematic for both teachers and educators

TABLE OF CONTENTS

CONTENT	S	PAGE
SUPERVIS	SOR'S APPROVAL	i
DECLARATION		ii
ACKNOWLEDGEMENT ABSTRACT TABLE OF CONTENTS		iii
		iv
		vi
LIST OF FIGURES		vi
LIST OF TABLES		vii
CHAPTER	ONE: INTRODUCTION	
1.1	Introduction	1
1.2	Background of Study	2
1.3	Problem Statement	3
1.4	Project Question	4
1.5	Project Objective	4
1.6	Project Scope	4
1.7	Significance of Study	4
1.8	Conclusion	4
CHAPTER	TWO: LITERATURE REVIEW	
2.1	Overview of Domain	7
2.2	Overview of Research Area	11
2.3	Techniques	17
2.4	Summary	20

CHAPTER THREE: METHODOLOGY

3.1	Introduction	21
3.2	Project Methodology	22
3.3	Development Methodology	27
3.4	Application Architecture	30
3.5	Data Collection Strategy	32
3.6	Software & Hardware Requirement	32
3.7	Conclusion	33
CHAPTER	FOUR: DESIGN AND DEVELOPMENT	
4.1	Analysis Requirement	35
4.2	Project Design	35
4.3	Project Development	41
4.4	Project Implementation	42
4.5	Testing	50
4.6	Summary	54
REFERENCES		58