

Universiti Teknologi MARA

**ZabihAR – LEARNING ISLAMIC ANIMAL
SLAUGHTERING USING AUGMENTED
REALITY**

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ABSTRACT

Nowadays the need to enhance the learning environment is very important and Augmented Reality is one of the technologies that can help to improve the learning environment. The Augmented Reality, also known as Mixed Reality can be used to enhance digital information such as text, images, audio and video streams into the physical world through a screen of smartphones and personal computer. The main problem is dealing with animal slaughtering is not something that everyone can easily handle and people eventually lack knowledge in performing it. This research aim is to develop a ZabihAR mobile application to aid people in learning about animal slaughtering according to the Islamic method. The use of Augmented Reality in this mobile application is to improve user experience in the process of learning the Islamic animal slaughtering using Marker-based tracking technique. There are several technologies that capable to increase the user experience which can help to attract people to learn about animal slaughtering. Augmented reality is one of the technologies that refers to existing of the virtual object and interactive element in the real environment through a screen device. AR has revolutionized various domain such as business, education, and entertainment. The implementation of AR technology is capable of influence the user experience. The scope for this project is focussing on Islamic user that participates in the course learning about animal slaughtering. ADDIE model is a methodology that has been used in collecting ZabihAR requirement, designing ZabihAR mobile application, develop and evaluate the ZabihAR mobile application. The limitation and suggestion for future enhancement of this project had been identified based on the analysis of the data collected. As a conclusion, ZabihAR mobile application may be able to help in learning about Islamic animal slaughtering in an interactive way.

Keywords: Augmented Reality, ADDIE model, marker-based, Islamic animal slaughtering

TABLE OF CONTENTS

CONTENT	PAGE
SUPERVISOR APPROVAL	ii
STUDENT DECLARATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF FIGURES	vii
LIST OF TABLES	viii
CHAPTER ONE: INTRODUCTION	
1.1 Project Background	1
1.2 Problem Statement	2
1.3 Objectives	4
1.4 Scope	4
1.5 Significance	4
1.6 Chapter summary	5
CHAPTER TWO: LITERATURE VIEW	
2.1 Chapter Overview	6
2.2 Islamic Animal Slaughtering	6

CHAPTER 1

INTRODUCTION

1.1 Project Background

In Islam, Muslims are commanded to slaughter animal according to the Islamic law because the animal that slaughters without following sharia law is considered as non-halal. In Islam, knowledge is divided into two main division which is *fardhu ain* (obligatory knowledge) and *fardhu kifayah*. *Fardhu ain* is a knowledge that requires every Muslim to know and learn to meet the demands of religion while *fardhu kifayah* is a knowledge which must exist in a group of people in the community. Slaughtering animal fall under *fardhu kifayah* knowledge which means there must be a group of people in the Muslim community that can handle animal slaughtering. Therefore learning animal slaughtering is something that must be done in the Muslim community.

Nowadays the need to enhance the learning environment is very important. With the help of technology, the way of educating people in learning Islamic animal slaughtering can be improved and one of the technologies that can help to improve the learning environment is by using Augmented Reality. The idea of Augmented Reality is to combine or mix the view of the environment from the real world with the addition of virtual content that can be presented through computer graphics. According to Mahale and Yeddu (2016), Augmented Reality has become prominent technology in the digital and virtual world because of the rapid advancement in Internet and Information Technology, and also the adaption to mobile technology and smartphones. The Augmented Reality, also known as Mixed Reality can be used to enhance digital information such as text, images, audio and video streams into the physical world through a screen of smartphones and personal computer. There is some example of the most popular application that uses Augmented Reality technology such as Pokemon Go, Snapchat and JigSpace.