

3D ANIMATION - BULAT AND PANJANG

LOW RU SHI

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Alamat tetap: No 15, TAMAN
BAKRI, 84710 KUNDANG ULU,
MUAR, JOHOR

Tarikh: 29/6/2010



(TANDATANGAN PENYELIA)

DR. FAAIZAH BINTI SHAHBODIN
Nama Penyelia

Tarikh: 29/6/2010

CATATAN: *Tesis dimaksudkan sebagai Laporan Akhir Projek Sarjana Muda (PSM)

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:



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DEDICATION

To my beloved parents for their care, concern, continuing support and encouragement, so that I can successfully complete this project.

ACKNOWLEDGEMENTS

First of all, I am very happy and pleased because I am able to finish this final year project. I would like to thank my beloved parents and my family. They have been giving their support and encouragement to me.

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Last but not least, I would like to thank my friends and siblings for giving me a lot of motivation and support during this final year project.

ABSTRACT

This project was developed for Projek Sarjana Muda (PSM) 3D Animation Short Story with titled Bulat and Panjang which depicts the two Malaysian kids. Bulat and Panjang is created based on the behavior and discipline problem of children in Malaysia. The purpose of this short story is to educate children and encourage them to learn the moral values. The target user of this project is primary school children. Teacher and parent can use it as source of reference when teaching to children. This final year project is in 3D Animation domain. Animation principles and camera angles techniques were utilized in this development process. The duration of this 3D animation is three minutes.

ABSTRAK

Projek ini dibangunkan untuk Projek Sarjana Muda (PSM). Projek ini bertajuk 3D Animasi Cerita Pendek, Bulat dan Panjang. Animasi ini menggambarkan tentang dua kanak-kanak Malaysia. Bulat dan Panjang dibuat berasaskan pada perilaku dan masalah disiplin kanak-kanak di Malaysia. Tujuan animasi ini digunakan untuk mendidik kanak-kanak dan menggalakkan mereka untuk mempelajari nilai-nilai moral. Pengguna sasaran untuk projek ini adalah kanak-kanak sekolah rendah. Guru-guru dan ibu bapa boleh mengguna 3D animasi ini untuk mengajar kanak-kanak menanam nilai-nilai moral. Hasil akhir projek ini adalah dalam domain animasi 3 dimensi. Prinsip animasi dan sudut kamera teknik adalah penting dalam proses pembangunan projek ini. Masa 3D animasi ini adalah tiga minit.

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LIST OF ABBREVIATIONS

| | |
|------|---|
| FTMK | Fakulti Teknologi Maklumat dan Komunikasi |
| UTeM | Universiti Teknikal Malaysia Melaka |
| 3D | Three Dimension |
| FPS | Frame Per Second |
| Hz | Hertz |
| PAL | Phase Alternating Line |
| PAR | Pixel Aspect Ratio |
| HDTV | High Definition Television |
| PSM | Projek Sarjana Muda |
| Px | Pixel |

LIST OF ATTACHMENTS

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| I | Curriculum Vitae |

CHAPTER I

INTRODUCTION

1.1 Introduction

Nowadays, Science and Technology has rapidly developed. A lot of people are using MSN, SMS, Facebook, hotmail and others to communicate with each other. With these technologies; people are forgetting the importance of moral value. People especially teenagers and children become churlish in process of time. Recently, there are many reports in the newspapers of teenagers fighting. Although they can learn moral value in the school, the results are unsatisfactory. This is because the entire lessons are being taught theoretically. Students feel bored and have no interest to learn it. So, this 3D animation product is hoped to create awareness among students in regards to the importance of the moral value.

The title of this 3D animation is “Bulat and Panjang”. This is a 3 minutes animation. In this 3D animation, three moral values will be presented to educate children to learn the morals values. Bulat and Panjang are the two main characters in the 3D animation. Both of them are seven years old. They are Malay children. Bulat is cute and he is very fat. Meanwhile, Panjang is tall and very naughty. They are classmates and live in same village. Because Bulat is fat, Panjang always make a trick to bully him. But Bulat is a kind person, he never blame Panjang. First part of story is going to tell people, you will get a lesson if you tease to other people. The moral value of second part is must help each other when your friend meet problem. These moral values are very important to the children and teenagers.

1.2 Problem Statement

People are immersed with online, SMS, MSN and Facebook cause neglectfully about the important of moral value. People especially teenagers and children nowadays are more rude and churlish. Besides that, the conventional way like text book, newspaper or magazines are getting mundane. Most of the parent didn't realize that children must cultivate the good moral value from young age. So, people become more selfish and not willing to help other people when people meet the problem. The animation and rendering technique need to be enhancing in the story. People will feel boring and no interest to the story if pay no regard to the animation and rendering technique.

1.3 Project Objective

The Project objective of this project is to produce a 3D animation edutainment to influence the teenagers and children with interest to regard the important of the moral values. Next objective is to apply realistic point of view of the camera angles into this 3D animation project. The third objective of this project is to apply some animation principles technique such as anticipation technique, follow through technique, arcs technique, secondary technique and appeal technique.

1.4 Project Scope

This 3D animation is especially created for children and teenagers. The story consists of two moral values to influence children and teenagers in cultivating the moral value. First part of story is going to educate people that those who fool others will be duly punished.

The moral value of second part is needed to help people when they are in trouble. With this 3D animation, children and teenagers will understand the importance of moral value and they can tolerate with each other no matter what. Some animation principles technique such as anticipation technique, follow through technique, arcs technique, secondary technique and appeal technique.

1.5 Project significance

Children will get the benefits from this 3D animation. Teachers and parents can use it as source of reference when teaching to children. In this 3D animation, they will realize the importance of moral value. This 3D animation is to tell children about the lesson if they tease other people. So, they cannot bully people because of people's appearance. Besides that, we must always help others when people are in trouble. After children and teenagers watch this 3D animation, they will understand more clearly the importance of these moral values. Malaysia is a multiracial country, so these moral values can remind us must tolerate with each other to build a peaceful and harmonious country.

On the other hand, this project is also significant in terms of upgrading the skill in drawing the storyboard and carrying out creativity to create a 3D animation. Besides that, creating a 3D animation could enhance skill in modeling, animating, rendering and so on using Maya. This final year project can also enhance the video editing skill in editing an animation video using Adobe Premier.

1.6 Conclusion

As the conclusion, the project background, the problems that appear in this project and the objectives of this project have been defined in this chapter. Besides that, the range and every scope that covers in this project also had been explained and described. The expectation in this final year project is to complete the 3D animation product successfully and at the same time children can gain knowledge about the good moral values. The literature review and project methodology analysis will proceed in the next stage.

CHAPTER II

LIRERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

Chapter II discussed about literature review in the 3D animation and also the methodology that will be used in this project. This is 3D animation project, so multimedia production methodology will be discussed in this chapter.

2.2 Domain

The domain of this project is to bring out a message to the children and teenagers of how important it is to learn the good moral values. Malaysia is a multicultural country. So, as a Malaysian, we must tolerate with each other to build a harmonious and peaceful country. The moral values must be cultivated and learned by the children and teenagers since they are young. With the good moral values, the people of Malaysia can work hand in hand with each other.

2.2.1 Definition of 3D Animation

“Three dimensional animations involve the movement of models in three perpendicular planes, conventionally labelled the x', y' and z' planes. Whilst 2D animation involved the motion of shapes, 3D animation makes use of models which not only have length and breadth, but also an element of depth. It is important to note that three dimensional animations involve the animation of models, and not shapes. This means that not only can the objects rotate (in two dimensions); but they can also twist and transform. Nowadays, animated movies are typically rendered in three dimensions, as this introduces an element of depth and therefore realism, into what is by definition an artificial production. Movies such as Dreamworks' Bee Movie' or Ratatouille' by Pixar and Disney are recent examples of three dimensional animated movies.” (Anthony Khoo, 2006)

Based on M. Sparga (2002), through 3D animation, “models of characters and environments are rendered in three dimensions, with width, height, and depth, and thus can be animated from a variety of angles. Just as a film director would be able to explore a set and focus on different parts of it, with quick changes in camera angles and adjusted lighting, so too can an animator interact with a 3D environment on the computer to create a rich, realistic piece of animation”.

According to Bernadette K (1992), the definition of 3D or three dimensional animations is “manipulation of image and 3D objects in the shape or form of animation which is using some kind of process such as modeling, mapping, lighting, camera, animation, rendering and compositing process. The definition of 3D or three dimensional animations is manipulation of image and 3D objects in the shape or form of animation which is using some kind of process such as modeling, mapping, lighting, camera, animation, rendering and compositing process”.