

**3D ANIMATION APPROACH ON HEALTH PHYSICAL ACTIVITY**

**AWARENESS**

**LIM SEOK WOON**

**UNIVERSITI TEKNIKAL MALAYSIA MELAKA**

## BORANG PENGESAHAN STATUS TESIS\*

JUDUL: 3D ANIMATION APPROACH ON HEALTHY PHYSICAL ACTIVITY AWARENESS

SESI PENGAJIAN: 2015

Saya LIM SEOK WOON

(HURUF BESAR)

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       TIDAK TERHAD



(TANDATANGAN PENULIS)

Alamat tetap: 46, Jalan Sungai Keramat 14,

Taman Klang Utama,

42100 Klang

Tarikh: 4/9/2015



(TANDATANGAN PENYELIA)

Miss Saira Hani Binti Musq

Nama Penyelia

Tarikh: 4/9/2015

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

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**3D ANIMATION APPROACH ON HEALTH PHYSICAL ACTIVITY**

**AWARENESS**

**LIM SEOK WOON**

This report is submitted in partial fulfillment of the requirements for the Bachelor of  
Computer Science (Interactive Media)


**UNIVERSITI TEKNIKAL MALAYSIA MELAKA**

## DECLARATION

I hereby declare that this project report entitled

### **3D ANIMATION APPROACH ON HEALTH PHYSICAL ACTIVITY AWARENESS**

is written by me and my own effort and that no part has been plagiarized  
without citations.

STUDENT :  Date: 4/9/2015  
(LIM SEOK WOON)

SUPERVISOR :  Date: 4/9/2015  
(MISS SAIRA HANI BINTI MUSA)

## DEDICATION

I dedicate this thesis to my beloved family, they give me encourage and support to complete my project.

For my supervisor, Miss Saira Hani Binti Musa who guide me a lot from begin until the end of entire my project.

For my evaluator, Mr. Sharil Bin Parumo who always give me better advise in my project.

Lastly, for my friends who help me a lot when I am facing problem.

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First of all I am grateful to my supervisor, Miss Saira Hani Binti Musa who give me a lot of opinion, help and patience to guiding me from the begin until the end of this project.

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I would like to thank to my friends and family who are always give me support and helps in all the time.

Lastly, I special thanks to those who are help me directly or indirectly in completing this project.

## **ABSTRACT**

This 3D animation project name as “3D Animation Approach on Healthy Physical Activity Awareness”. The target audience for this project are primary school children where aged from 7 to 12 years old. The main objective for this project is to give awareness of importance of exercise and improve children physical activity. Audiences are able to learn the moral values with entertain from this 3D animation. The duration of this 3D animation is 2 minutes.

## **ABTRAK**

Projek 3D animasi ini dinamakan “3D Animation Approach on Healthy Physical Activity Awareness”. Sasaran pengguna projek ini adalah kanak-kanak sekolah rendah dalam berumur 7 sampai 12 tahun. Projek animasi ini bertujuan untuk menyampaikan kesedaran daripada kepentingan senaman dan menambah baik aktiviti fizikal kanak-kanak. Sasaran pengguna dapat belajar nilai moral dengan hiburan daripada 3D animasi ini. Masa 3D animasi video ini dalam 2 minit.



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## LIST OF ABBREVIATIONS

MP4	-	MPEG 4
PNG	-	Portable Network Graphics
3D	-	3 Dimensional
DVD	-	Digital Versatile Disk
KHZ	-	Kilohertz
RAM	-	Volatile Memory (Data Storage)
GB	-	Gigabyte
FTMK	-	Fakulti Teknologi Maklumat dan Komunikasi



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## CHAPTER I

### INTRODUCTION

#### 1.1 Introduction

According to World Health Organization (WHO), obesity can be defined as abnormal or excessive body weight that can bring risk to an individual's health. Based on the survey in year 2010, found that Malaysian is sixth in Asia with highest obesity problem among children. One in every three children (31.7%) is overweight or obese.

A research carry by American Academy of Pediatrics in year 2011 have mention that the growing of media such as TV, video games and social media have contribute to children overweight and obesity problem. Because of nowadays children are more spend time on media than other activity. They can spend many hours on screen time per day with a sedentary behavior. The researches have recommend that entertainment "screen time" should be limited to two hours a day for children ages 3-18 and 2 years old below none at all. But according to Environment Research and Public Health (2015) found that Malaysian children are the highest percentage (68%) are exceeded the screen time recommendations. Too much on screen time will effect to individual health such as obesity problem, poor sleep habit, eye injury, behavior problem and lower academic performance.

So this project inspired by this problem, to come out with 3D animation to assist children to improve their physical activity in daily life.

## 1.2 Problem Statement

- The children are spent too much time on screen viewing than other activity.
- The children lack of physical activity in daily life.
- 3D animation are less in promote approach on healthy physical activity for children.

## 1.3 Objective

- To study how the animation can improve the children physical activity.
- To encourage children with regular physical activity through an animation.
- To evaluate the effectiveness of campaign through an animation.

## 1.4 Scope

The scope of this project are user scope and media scope. The details have been describe as below:

### i. User Scope

The target user for this animation is age from 7 to 12 children.

### ii. Media Scope

This animation duration length will be in 1-3 minutes and in MP4 format.

## **1.5 Project Significance**

This animation is developed for children to improve their physical activity daily life. The effectiveness and usefulness of this project will engage children to have positive changes to physical activity. A regular physical activity helps build muscle, reduce fat, strengthens bone and decrease the risk of obesity.

## **1.6 Conclusion**

As a conclusion, obesity are related to the physical inactive of children. The irregular on screen time can lead to children stay in unhealthy physical activity. This animation project is produced to engage children into healthy physical activity. In the next chapter, will focus on literature review and methodology where are related with this study.

## **CHAPTER II**

### **LITERATURE REVIEW AND PROJECT METHODOLOGY**

#### **2.1 Introduction**

This chapter will discuss about the literature review, project methodology and project requirement. A Literature review discuss current information including substantive findings in a particular topic. A few of article and journal related to the topic of this project have been found and elaborate. Methodology of multimedia production used in this project. There are two requirement for this project which are hardware requirement and software requirement.

#### **2.2 Domain**

The domain of this project is 3D animation and awareness. In the study of Grafik animasi dalam pengajaran dan pembelajaran (2007), Aminordin found that animation is an effective way to attract attention of children and be able to increase children motivation for learning phase. This is because the learning process is more interesting and fun by providing information in dynamic way. Aminordin state that animation is a combination



of graphic and text presentation which can enhance children's memory as using 'learning by seeing' and able to delivery positive message more appropriate.

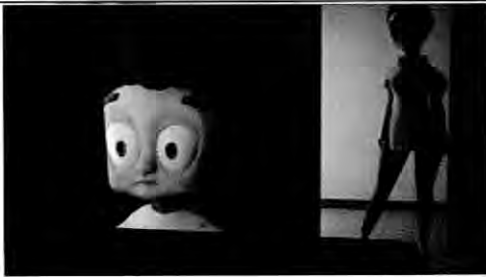

Based on the researches, the latest prescription recommend that entertainment "screen time" should be limited to 2 hours a day for children ages 3-18. And for 2 years old and younger none at all. But according to Environmental Research and Public Health (2015), found that the higher percentage of Malaysian children (68%) are exceeded the screen time recommendations. Whereas the percentage of children in the United States was (44%) and Australia was (59%).

According to Ogunleye and Sanderock (2013) found that children who had spent more than 4 hours of screen time per day were less than half as likely to be physically fit as those who spent less than 2 hours in front of screen per day. Researchers Melkevik, Torsheim, Iannotti and Wold (2010) also state that increased screen time has been associated with increased body fat in children because of decreased physical activity in children.

### 2.3 Existing System

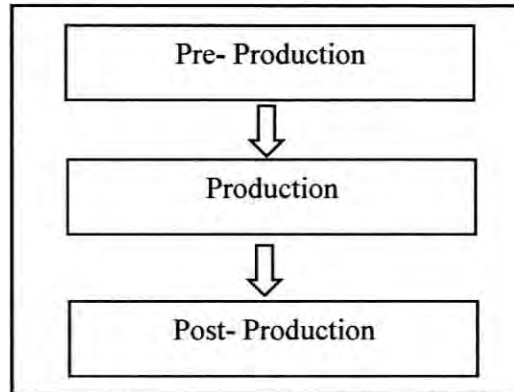
Two different existing system related to the topic of this project are found, which are glued animation and Sedentary Lifestyle video. The table below shows the comparison of these two existing system:

**Table 2.1: Comparison of Existing System**

Characteristic	Glued	Sedentary Lifestyle
Type	3D animation	Short drama
Environment	Nice texture, good lighting and modeling.	Lighting environment are not interesting.
Audio	Good and suitable background music and sound effect.	Cheerful background music
Subtitle	No subtitle	No Subtitle
Message Deliver	Message bring out	Message bring out
Picture		
Link	<a href="https://www.youtube.com/watch?v=Vpk7Eje9ZlQ">https://www.youtube.com/watch?v=Vpk7Eje9ZlQ</a>	<a href="https://www.youtube.com/watch?v=Wp7CckC9BO8">https://www.youtube.com/watch?v=Wp7CckC9BO8</a>

## 2.4 Project Methodology

Multimedia Production Process are chosen as the methodology for this project. There have three phase in this process which are pre- production, production and post-production. Figure below shows the Multimedia Production Process.



**Figure 2.1: Multimedia Production Process**