3D ANIMATION ON DENTAL CARE FOR CHILDREN

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UNIVERSITI TEKNIKAL MALAYSIA MELAKA

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3D ANIMATION ON DENTAL CARE FOR CHILDREN

POON YEN MEI

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2010

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DECLARATION

I hereby declare that this project report entitled

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

STUDENT : Crystal
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DEDICATION

To all children especially my nephew, Jenson and all students and lecturers of Faculty Information and Communication Technology Universiti Teknikal Malaysia Melaka

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I would like to thank En. Shahril bin Parumo for giving assistant and his supportation to complete this project successfully.

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ABSTRACT

3D animation entitled "Dental Care for Children" is a short animation with duration of three minutes using colorful environment and animation techniques. Serious tooth decay if not treated early can cause disease because everything a human consumed is through their mouth. Therefore, a good hygiene of oral health is important especially to those growing up children. Since there are few awareness advertisements in the market thus this project created in 3D animation will teach children how tooth can decay and the ways to prevent it. The character in this animation had been modified so that the animation will become more interesting.

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ABSTRAK

Animasi bertajuk "*Dental Care for Children*" merupakan animasi 3D pendek dengan jangka masa selama tiga minit dengan mengunakan teknik animasi dan penggunaan warna yang menarik. Masalah kereputan gigi yang serius jika tidak dirawat dengan segera akan mendatangkan kemudaratan kerana banyak penyakit merebak dari mulut. Oleh itu, kebersihan mulut adalah sangat penting terutamanya kepada kanak-kanak yang sedang membesar. Memandangkan hanya sedikit animasi 3D yang berkonsepkan iklan kesedaran, maka animasi yang dihasilkan daripada projek ini dapat mengajar kanak-kanak bagaimana kereputan gigi boleh berlaku dan apakah cara untuk mencegahnya. Watak di dalam animasi ini telah diubahsuai supaya animasi terhasil adalah lebih menarik.

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LIST OF ABBREVIATIONS

AVI - Audio Video Interleave File
BMP - Bitmap
FLV - Flash Video File
MB - Maya Binary
WMA - Windows Media Audio
WMV - Windows Media Video
MPEG - Motion Picture Experts Group
MP3 - MPEG Audio Stream, Layer III
MOV - Apple QuickTime Movie
PAL - Phase Alternating Line
TGA - TARGA Format
TIFF - Tagged Image File Format

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CHAPTER I

INTRODUCTION

1.1 Project Background

The project is related to entertainment industry to produce a short advertisement clip on the dental care among the children. Since the content of the clip is based on dentistry field, therefore information on the children's teeth needs to be collected for analysis to extract those important elements that can be applied in the animation clip. The information will be collected through internet, online journals, books, articles and newspapers.

The most important idea of this project is to teach children about oral health. Thus, the animation will be including the main problem with children's teeth and the ways to protect it. The problem that will be included is how the bad habit among the children results in promoting the growth of germs and bacteria that will leads to tooth decay.

Although there are advertisements on dental care shown in the television but there are all focusing on the oral product and not for children. However, those advertisements are shown in very detail and creative way. As far as concern, there is not any awareness on oral care creating using 3D animation. Therefore, awareness created in 3D animation is quite challenging and analysis must be done with attention at the first plan.

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1.2 Problem Statements

Many advertisements about health care are done using real scenarios. Using real world to create an advertisement is very helpful in promoting the health care products. Examples of oral care advertisement are Colgate, Darlie, Oral-B, Listerine and Kodomo Lion. However, advertising using 3D is another creative way. The reason of why the project is proposed is because there is only few 3D awareness advertisements in the market. Most information on dental care awareness is basically captured using video editing but not in 3D environment.

Besides, 3D animation is able to capture children's attention. Therefore, using 3D to create an awareness advertisement is a good endeavor in entertainment industry. However, in order to make a good content, a proper research is needed to collect the information that is attractive enough to be applied in the animation itself. Since the focus of the content is related to oral care among children, therefore, pediatric dentistry is a good field to start to research from.

Since this project is to be develop in 3D software, therefore, a good skill in animating is a must. A good set of hardware is also a must so that the development process will be done smoothly.

Moreover, good special effect is needed to grab the audience attention to watch the animation until it ends.

1.3 Objective

The main objective of this project is to use 3D animation on oral health field. This is because there are certain concept and condition of the oral health that a video cannot shows.

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The second objective is to develop a 3D animation combining special effects focusing on audio effects and video effects. This could enhances the audiences' understanding and create a memorable animation.

The third objective is to teach children oral health among the children in a fun way whereby they can understand the teeth decay problem in their teeth and know the right way to protect their teeth from decaying.

1.4 Scope

The scope of the project consists of target user, contents and project deliverables.

1.4.1 Target user

The target user for the project is children and young adults aged 2 to 14 years old. However, it is also suitable for public viewing.

1.4.2 Contents

The contents of the project only include why teeth will decay and ways to prevent teeth decay. It does not include how to prevent fears to go to the dentist.

1.4.3 Deliverables

This project will be delivered on DVD. The DVD will be labeled with appropriate graphics on the DVD and its cover.

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1.5 Project significance

In this section of project significance, it states about benefits of the project and its contribution.

1.5.1 Benefits of the project

All children will be benefiting especially those who under 14 years old. (David Rose, 2009).

1.5.2 Contribution of the project

Upon the completion of the project, it will increase the awareness on dental care and will benefit those children and as well as their parents because teeth decaying among the children is a serious problem.

In entertainment industry, it is a new penetration to the advertising market as this is a new way of advertising.

1.6 Conclusion

In conclusion, this project will be definitely a fresh animation product that is suitable to view by children yet to all different age of people. The expectation of this project is to show a development of 3D animation in awareness advertisement.

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1.6.1 Chapter summary

This chapter is the brief of the project plan to get an idea on the project that is going to develop. The project's problems statements, its target objectives and the scopes to be developed are needed to be considered before proceed to the next chapter. This project is mainly developed for children so that they understand the reason of tooth decay in 3D animation environment.

The next chapter will discuss about the literature that related with developing the project and methodology to develop it.

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