

## BORANG PENGESAHAN STATUS TESIS

JUDUL: LEARNING SOLAT FOR CHILDREN 6 TO 12 YEARS OLD USING 2D ANIMATION

SESI PENGAJIAN: 2007/2008

Saya NORA BT MAMAT

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**LEARNING SOLAT FOR CHILDREN 6 TO 12 YEARS OLD USING 2D  
ANIMATION**

Is written by me and is my effort and that no part has been plagiarized  
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## **DEDICATION**

To my beloved parent, thanks for giving me hopes and supports to finish this project. For all the words and for all the smiles, I thank you. And for the success of this project, it is all because of both of you and always for both of you.

Thanks.

## ACKNOWLEDGEMENTS

First of all, I delighted to express my thanks and grateful to Allah SWT for giving me strength and blessing to finish the Projek Sarjana Muda (PSM ) until the end without any problem. I also would like to dedicate my appreciation to the following for their help and contribution until I finished my PSM .

Thousand thanks to my PSM supervisor Pn. Farah Nadia Bt Azman for giving me support and guidance since I start my PSM and for all the attention she gave through all of these months.

Also a special thanks to my family who gave me the support, inspiration and the strength until the end of my PSM . I also like to express thanks to the people who involve formal or informal in process of finishing this practical training report.

## ABSTRACT

Projek Sarjana Muda is a required subject of the final year of student in Universiti Teknikal Malaysia Melaka (UTem). For PSM, each student needs to come out with a project. The project that has been chosen to be developed is a learning project called "Learning Solat for Children". "Learning Solat" is a learning project because the children can learn the step by step of how to performing the Solat. This project consist of 2D animation which is the target user is the children which age 6 to 12 years old. The knowledge of Solat is obligatory for every Muslim. The education starts from childhood, so this project was developed to allow better education of Solat for Muslim children using the multimedia approach. The children can learn how to performing Solat with step by step and the project come out with doa. The main of Solat is to guide the children in the obedience to Allah S.W.T, which means aberservation of its commandment and restraint from the prohibited. The project was developed using of multimedia technology, which are combined text, audio, graphics and interactive animation. This project was developed using Macromedia Flash MX. There are lots of objectives that want to be achieved from this project such as to show the children perform the Solat and to attract the children to watch because this project is using 2D animation. From the beginning phase of this project, there are lots of activities such as do the researches and analyze the project. This project also has given lots of new knowledge and skills in developing a 2D animation. It is best to be said that PSM will be a great experience for the students to compete in the in the new world after graduation.

## ABSTRAK

Projek Sarjana Muda adalah satu subjek wajib yang perlu diambil oleh pelajar-pelajar tahun akhir di Universiti Teknikal Malaysia Melaka(UTeM). Untuk PSM, setiap pelajar perlu membangun sebuah projek. Projek yang telah dipilih adalah satu projek pembelajaran yang berjudul “Learning Solat for Children”. “Learning Solat” adalah sebuah projek pembelajaran kerana kanak-kanak boleh mempelajari cara-cara melakukan Solat dengan urutan yang betul. Projek ini menggabungkan animasi 2D yang mana pengguna utama adalah kanak-kanak yang berumur 6 hingga 12 tahun. Pengetahuan berkaitan dengan Solat wajib dipelajari oleh setiap Muslim. Pelajaran ini diajar bermula kanak-kanak lagi, oleh sebab itu projek ini dibangunkan agar dapat membantu dalam pembelajaran Solat dengan berkesan untuk kanak-kanak Muslim melalui pendekatan multimedia. Kanak-kanak boleh belajar bagaimana melaksanakan Solat dengan langkah setiap langkah dan projek ini juga mengandungi doa. Dengan ilmu Solat ini ia dapat membimbing kanak-kanak tersebut mentaati Allah dan mengerjakan segala suruhanNya serta meninggalkan segala laranganNya. Projek ini dibangunkan dengan menggunakan teknologi multimedia yang mana menggabungkan teks, audio, grafik, dan animasi berbentuk interaktif. Projek ini dibangunkan dengan menggunakan perisian pengarang multimedia iaitu Micromedia Flash MX. Terdapat banyak objektif dalam mencapai projek ini antaranya adalah untuk mempersembahkan kepada kanak-kanak untuk melaksanakan Solat dan untuk menarik kanak-kanak untuk melihatnya kerana projek ini menggunakan animasi 2D. Daripada awal pembangunan projek ini terdapat banyak aktiviti antaranya adalah melakukan penyelidikan dan melakukan analisis terhadap projek. Kesemua aktiviti tersebut telah banyak memberi pengetahuan dan pengalaman di samping memberi gambaran yang jelas tentang bagaimana sesebuah projek dibangunkan. Projek ini juga banyak memberi kemahiran tentang pembangunan animasi 2D. Sesungguhnya, PSM telah banyak memberi pengalaman dan bekalan untuk digunakan di alam pekerjaan kelak.

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## LIST OF ABBREVIATIONS

PSM	-	Project Sarjana Muda
Utem	-	Universiti Teknikal Malaysia Melaka
FTMK	-	Fakulti Teknologi Maklumat dan Komuikasi
2D	-	2 Dimension
PC	-	Personal Computer
CD	-	Compact Disc
.gif		Graphic Interchange Format
.mp3		MPEG-1 Photographic Experts Group
ADDIE		Analyze, Design, Developed, Implement, and Evaluation
CD-ROM		Compact Dics read-only memory
.swf		Shockwave Flash

## CHAPTER I

### INTRODUCTION

#### 1.1 Project Background

“Learning Solat for children age 6 to 12 years old (using 2d animation)” is the title for my *Project Sarjana Muda*. This project will be developed for children 6 to 12 years old. This project basically using 2d animation technique. The reason for making this project is to show the children about the information how to Solat which is the children will see and learn the step by step of how to do Solat and they can apply what they learn for their life about step how to Solat. From knowledge the children can learn how to Solat with the book “Panduan Belajar Sembahyang” and the CD but this project can give more information and the children can see the action and learn more than that from the book or CD.

To make this project interesting and happening, the project using 2d animation by making creating a character, motion tweening, tracing, controlling sound and so on. Besides that, this project can give a fun to the children because this project will be present by using element of multimedia such as colorful graphics, audio, text and animations. The simplest animation is usually the most effective and often takes detailed planning creativity. 2D animation using Flash and Swish can produce sophisticated presentations, demonstrations, simulations and stories. Producing this learning project is

to attract the children for memories to performing Solat in their life. In other hand, it also can help the children to be a good person.

## 1.2 Problem Statement

Currently, the children are using the book as the materials of teaching to explain the steps to perform Solat. This is not an effective way to explain for the children. Children will find it hard to understand the Solat using words and static pictures from the books, so it makes the children bored to learn more.

One method will be developed be based on this problem. This project will be used for learning Solat letter. For teacher can used as equipment assist teach. Element multimedia such as graphic, audio, text and animation manipulate role important in process learning Solat. With using graphic process learning will be easier and attract the children to learn Solat, picture and word also given simple instructional situations for understand.

In other that, using the book is difficult to understand to learn Solat. The topic regarding the step in prayer is very complicated and hard to learn and understand. The children must memorize all the verse in prayer. By using the book, it cannot guarantee the children understand the step clearly because the target user is 6 until 12 years old. Hence this multimedia project will let the children understand the step of prayer easily since this project will be show in attractive animation and images.

It's hard to find the e-learning CD about the Solat especially at the market value. Most of the current CD or books which give information about Solat which is explain it using the static pictures only. There is no sound or narration involves. This is not an effective way in delivering information about Solat to the children because there is lack of interactively.

### 1.3 Objectives

There are a few objectives that are hoped to be achieved through this project which are:

- To show the children for learning the step by step of performing Solat. This project can be show how to Solat performing and the children can be follow the step how do the Solat.
- To make the learning process about Solat and developed more interesting and interactive to attract the children to use this project. This project can help the children to learn Solat because this project developed by using 2d animation.
- To help the children how to recall the memories to performing Solat using step by step.



## 1.4 Scopes

The main target users and viewers are the young generations (children) aged between 6 to 12 years old. This is because as a learning project, should be exposed to this age level. But, it is suitable to say that this animation is for the children because this project can attract the children by using animation.

“Learning Solat” will be developed on a 2D animation project. This project will be presented for about around 5 to 10 minutes. The project is suitable to be used by the parents for their kids and the teachers can use for their students also. The project will concentrate on the characters only but this project that will be put in this animation where the movement, colouring and other elements will be applied and focused to the characters. Maybe there will be some weakness in the other characters as the result of the research that will be done will not be fully applied to them such as the character design, colouring style, and character animation.

## 1.5 Project Significance

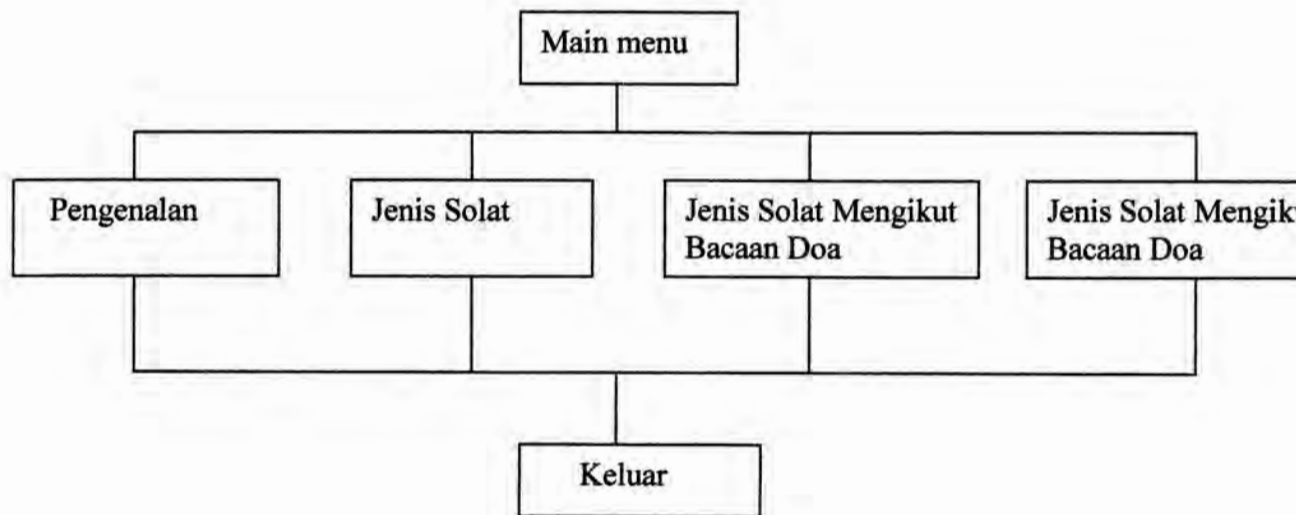
From this project, it can give profit to parent and children itself. This is because, this project is about 2D animation learning for children which between 6 years old until 12 years old by using a Macromedia Flash MX in Malay version, so it can be easier for the children to understand the project with more enjoying in learning the content of output. This project is come out with CD where parent can buy it and children can watched in anytime they want.

This project is not new product in market but new style because this CD contains the learning education and has a benefit to the user. This animation will be a great help for the teachers as a tool to teach their students how to performing Solat. This animation is also suitable to be used by the parents in their children's educational program.

This project can be used as an equipment to assist teaching process. This will be to ease the process learning. This application as tool to assist teacher in teaching process and assist the conventional ways to teaching where the teacher need to write on the blackboard and describe the Solat abstractly. This method is less interaction between the students and subject.

## 1.6 Expected Output

Expected output which plan will be present the follow the flow below:



**Figure 1.1** Expected Output

## 1.7 Conclusion

This introduction part contains briefing on the whole project that will be done. This part will give a clear view on the project that will be developed later on. This part contains the project background, problem statement, objectives, scopes and project significance. As for the conclusion, “Learning Solat” is a new project that is basically based and can be categorized as one learning project. Although it is a new project, it also contains the strength and the weakness. By applying or presenting this project using 2D animation, this project will bring a lot of difference to this project. This project is hoped to be an effective new way to present the value of the learning process and to make the children obtain most of the knowledge and learning that want to be given through this project. This story is not only suitable to give knowledge and learning but also to introduce their life. This project also hoped to have commercial values and can be commercialized so that it can give great incomes to our multimedia sector or industry. Lastly, it is really hoped that this project will bring and give lots of benefits to all of this animation’s users and viewers.

The next chapter will be on The Literature Review and Project Methodology. This chapter will have reviews and researches to be done on related issues about the learning project. There will also be stated the methodology used for the development from the beginning until the end of this project. Apart from that, the chapter will have the requirement of the project which is divided into software and hardware requirements.

## CHAPTER II

### THE LITERATURE REVIEW AND PROJECT METHODOLOGY

#### 2.1 Introduction

This second chapter which is the literature review and project methodology is the chapter where it will be concentrate more on the researches and development methodology that going to be used for the whole project's development.

The literature review is the part which researches been done. This part is the most important part because the result of this research will be applied into the project that will be done later on and will bring a big influence to the whole outcome of this project. There are a lot of activities involved in this part such as determining the topic that want to be researched on, finding and collecting all the related information, and analyzing all the collected information to come to the conclusion. For this project, which is a learning project, the researches will be basically on the parts of learning itself and there will also be research on other related things too.

The project methodology is a part that will show the methodology that will be used for this project development. As this project is a learning project, which is a multimedia project, the methodology that has been chosen is ADDIE Model Methodology which contains the analysis, design, development, implementation and evaluation.

Another part of this second chapter is the project requirement. For the project requirement, it will be divided into two categories which are the software requirement and the hardware requirement. In the project requirement, there will be stated the lists of software and hardware that will going to be used throughout the whole process of developing this project from the beginning until the end phase of this project.

The other part is the project schedule and milestones. This part is particularly will be concerning on the workflow of the whole *Project Sarjana Muda* (PSM ). This part will show the tasks and the important date such as the delivery date and so on throughout this PSM . The project schedule and milestone will be represented in the Gantt chart that has been drawn using the Microsoft Project.

## **2.2 Facts and Findings**

This part will concentrate on the researches done on relevant subject and issues in this project. The facts and findings research it help the developer to get the best solution to develop the project.

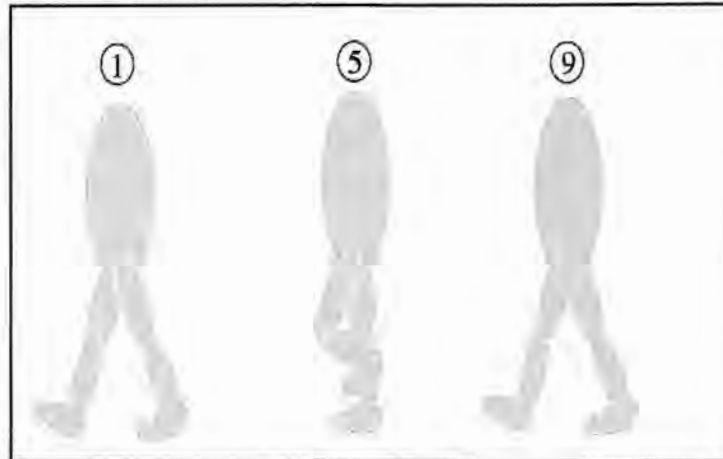
## **Case Study 1: The History of 2D Animation**

### **i) Walt Disney**

Cell animation became the industry standard, (which was patented by Earl Hurd) in part because of the influence of Walt Disney Studio. The founder Walt Disney animated films in Kansas City in 1919 to 1923. He then moved to California in 1923 to work on Alice Comedies his new series. In 1928 he developed Steamboat Willie which featured Mickey Mouse which was his first sound film. This character gained real fame. The Mickey Mouse series of short films, known as simply as shorts gradually incorporated a number of other popular characters and ran for several years. During 1930 Disney produced the Silly Symphony series of shorts. This serves as a venue for experimentation like Technicolor, music and relationship between visuals. After that, appeared Fantasia in 1940, which the animated images serve as interpretations of well-known symphonic music. Then at the later part his studio release Snow White in 1937.

## Case Study 2: Animation Concepts

### a) Legs and Lower Body



**Figure 2.1: Position of upper leg, lower leg, foot and toes**

To understand the positioning of the legs while walking, one of the best exercises that can be done is to watch another person walking and study the positioning of the upper leg, lower leg, foot and toes. It is important to remember that the body weight is always in balance with leg positions unless animator trying to create the illusion of someone being off-balance for example a stumble. The other important note is that the body position is raised in the passing position between the two extremes. The raised body position is the result of the leg being straight directly beneath the body which forces the body upward. The positioning the toes and heel are also important because they serve as balance points preventing the body from falling backwards or forwards.