

A SHORT 2D ANIMATION
“EVERYTHING IS THE BEST ARRANGEMENT”

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"EVERYTHING IS THE BEST ARRANGEMENT"

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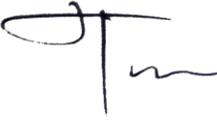
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DEDICATION

I would like to dedicate this report to my beloved parents, who supported me each step of producing this short 2D animation. Great appreciation also goes to my supervisor Mr. Wan Sazli Nasaruddin bin Saifudin, and classmates who made it a success through their constant support supervision, encouragement and moral support.

ACKNOWLEDGEMENTS

I am pleased to express my thanks to my supervisor Mr. Wan Sazli Nasaruddin bin Saifudin who taught me and give us advice that lead me to produce a this 2D animation. It was a genuine pleasure to be his student. He helps me a lot in my project. I really appreciate it.

Besides, I want to thank my beloved parents and friends who fully supported me, gave me inspiration, suggestions or comments during producing this system. I will remember all advice from them for my future success.

ABSTRACT

This project is a short 2D animation that developed to motivate people face the dilemma with an optimistic attitude. At the same time, it guide people to learn to be grateful, and thanksgiving to any failure, any people and things. This is because difficult times always lead to better days. The story of this 2D animation is about a King go to hunt with his soldier and his is bitten by the leopard during hunting, and then how the wound that can rescue himself in once day. Life is full of ups and downs, this 2D animation is a one good medium to remind people face the problem with an optimistic attitude. It is hoped also this 2D animation will be beneficial toward the society.

ABSTRAK

Projek ini dibangunkan adalah untuk memotivasi orang menghadapi masalah yang dihadapi dengan sikap yang optimis. Pada masa yang sama, ia juga membimbing orang belajar bersyukur atas kepada setiap kegagalan dan setiap orang. Ini adalah kerana setiap kegagalan atau kesukaran akan menjadi seseorang itu dengan lebih kuat jasmani dan rohani. Projek ini menceritakan seorang Raja memburu seekor harimau bintang bersama askarnya dan beliau telah digigit oleh harimau bintang tertentu, dan bagaimananya luka tersebut boleh menyelamatkan dirinya pada suatu harinya. Kehidupan manusia kadang-kala baik, kadang-kala sukar, jadi projek ini dibangunkan untuk mengingatkan setiap orang menghadapi masalah dengan sikap positif. Adalah diharapkan dengan terhasilnya projek ini, dapat memberi manfaat kepada masyarakat.

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CHAPTER I

INTRODUCTION

1.1 Introduction

Life cannot be separated from the story, there are so many stories worthy of our treasure, it let our life greatly touched and let us insight into philosophy of life. A healthy people, they are not only needed *self-cultivation*, they are also needed *nourishing the heart*, more necessary is *nourishing the spirit*. This is because the *self-cultivation*, *nourishing the heart*, and *the spirit* are cannot be separated. *Self-cultivation* is relationship with oneself, *nourishing the heart* is communication with people, *nourishing the spirit* is correspond all things in heaven and earth. Only achieve the balance between this three things, then a person will only be a perfect person.

Motivation Story is able to accompany people from any difficult in life. Story with meaningful, wisdom, and a useful simplification of the theory let person increase knowledge and broaden his horizons. At the same time, it guide people to learn to be grateful, thanksgiving to any failure, and all the people and things, this is because it able to honed and empower a person's self-cultivation and emotional quotient.

This project will conduct by using some design tools such as Adobe Illustrator and Adobe After Effect. In conclusion, Motivation Story is want to wonderful for the people mind, make people life full of confidence and enrich people's life.

1.2 Problem Statement

Life is full of ups and downs, people always run into different kinds of difficulties at different stages that need to face and overcome. Thus, when our mood is feeling depressed, we should do something which can relax ourselves such as reading the book or listen to music. These are a good way that can quickly change our mood from negative to positive. Motivation Story exist to remind people to face the problem with an optimistic attitude.

Nowadays, people always meet with setbacks. These setbacks lead them to feel disheartened and loss of confidence. Mostly people will choose to give up or avoid it at this moment. This is what people often said, they encounter the bottleneck. Some people struggle so much with failure, while others seem to take it in their stride. Hence, if they did not changing their mindset to overcome it, they will never to breakthrough it. Every people should train themselves to be more positive just as Richard Nixon (President of United States 1969-1974)” said “Our destiny offers not the cup of despair, but the chalice of opportunity. So let us seize it, not in fear, but in gladness.”

The information and communication technology nowadays is so advanced, the internet has brought us great convenience. However, there has a lot of negative value of animation cartoon in online that promote bloody, violence and cruel value which is not good for kids and society such as cartoon named Happy Tree Friends. Therefore, we should provide the animation that has good moral value to society and kids to let them be a moral and polite person.

1.3 Objectives

This project embarks on the following objectives:

- a. To study animation technique for 2D animation.
- b. To design graphics and characters for 2D animation.
- c. To evaluate the effectiveness of the 2D animation toward society.

1.4 Scope

This 2D animation is mainly developed for the youths and adults whether they are students, office workers or teachers. This is because different stages of people have different pressures no matter he or she already worked or still studying for their future. This 2D animation teach them learning to see things from another's perspective and simulate them to be more on positive.

1.5 Project Significance

This 2D animation is want to motivate every people to look on the bright side and be more positive. This can help them to solve the problem easily when they encounter any difficulty in their future. This 2D animation also want to evaluate the effectiveness toward society based on its exciting text, background, colourful image, audio and the hidden message inside it. Besides that, develop a 2D animation does not required higher cost and it can give huge impact to every sectors of community.

This subject is a must for all 3rd year degree student and it affect to graduate as a student of Bachelor of Computer Science in Media Interactive. Besides, I will learn as I'm

doing this project mostly on Adobe Illustrator and Adobe After Effect. This will be a good opportunity to gain knowledge because I must search answer for every question to complete my project.

1.6 Conclusion

This short 2D animation should give awareness to everyone to look at the problem with a different perspective. In this way, they may have a better reward in their future life. Lastly, I hope this 2D animation will become a good information to all people.

Overall in this chapter, there are several problem statements, objectives and scopes to be achieved to develop 2D animation. Therefore, analysis of the story must not be overpass on getting better ideas. The following chapter will be discussing about literature review and project methodology.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

Main purpose of literature review would be interpret better on how problems should be investigated and give a rough illustration on why it is approached. Reader can move further to any contrasting perspectives and viewpoints. Precise information would strengthen the ideas and objectives of this project. In this chapter, few articles will be compared with this research in aspect objectives, problem statement, methodology, and results.

2.2 Domain

Animation is an art form to be treated as though on the same level as other artistic categories such as Film and Paintings in terms of creativity, and in fact is a combination of the two. Animation follows many the same principles and contains similar characteristics of film; however, it provides an easier means of creative expression in terms of an attached cost of production that a film may have.

The impact and influence of the animation industry as well as its principles and techniques pertaining to character portrayal and story conveyance today permeates every facet of our daily lives, at times in ways that many people least suspect. Sharing its artistic incentive with the world of comic books as well as film, the world of animation has always been an important staple in a consumerist culture that supports itself with visual advertising and media. The industry's contributions towards the art of telling complex stories and narratives through gestures and different perspectives from its early days until now, shows the link that animation has with film, comic books, and also in the present; video games.

Animation has always occupied a special space in the hearts and minds of those that have consumed the media by making it possible to bring to life what would otherwise be impossible. It is because of the spectacle of seeing what otherwise wouldn't be possible that makes animation so magical, and the almost magical effects that can be achieved through animation has captivated the minds of many throughout history and its many different forms. Animation's development went hand in hand with the development of the movie or motion picture which captured real-life, and this interdependence is displayed through the development of shared technology that both mediums utilize.

Animation is an integral part of society, and it's seemingly magical hold on the human mind will forever captivate and excite the imagination with new possibilities.

2.3 Principles of Animation Technique

Principles of Animation Technique were introduced by the Disney animators Ollie Johnston and Frank Thomas to produce more realistic animations. The main purpose of the principles was to produce an illusion of characters adhering to the basic laws of physics, but also dealt with more abstract issues, such as emotional timing and character appeal. The below are 12 principles of animation that may apply in the animation video.

2.3.1 Squash and Stretch

The squash and stretch principle gives the illusion of weight and volume to a character as they move. This is done by expanding and compressing the character's body.

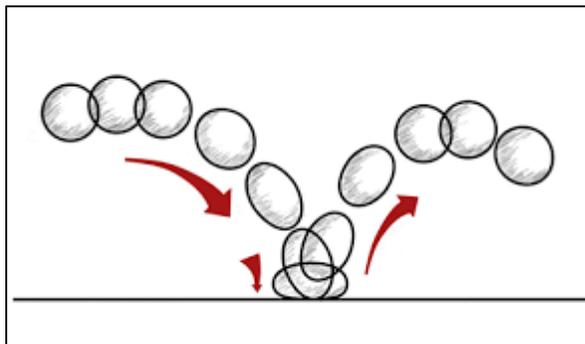


Figure 2.1: Example of Squash and Stretch

2.3.2 Anticipation

Anticipation is used to let the audience know that a major action is about to take place. To do this, animators will often work in a smaller action or two, right before the major action to signal that something is coming.

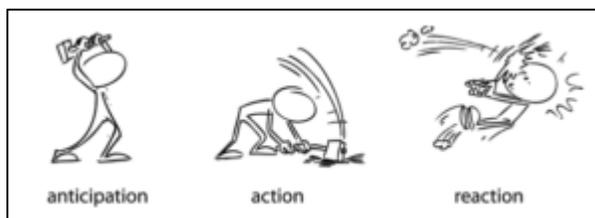


Figure 2.2: Example of Anticipation

2.3.3 Staging

Staging is the principle that every pose or action that a character makes should convey a clear intention. Staging also applies to the movement and placing of the camera.

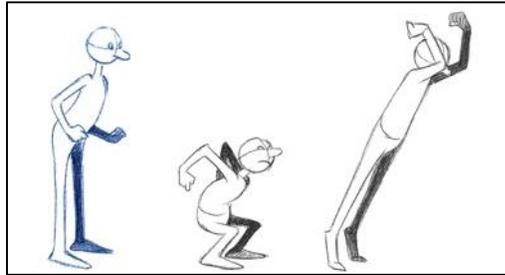


Figure 2.3: Example of Staging

2.3.4 Straight Ahead and Pose to Pose

Straight ahead animation starts at the first drawing and works drawing to drawing to the end of a scene.

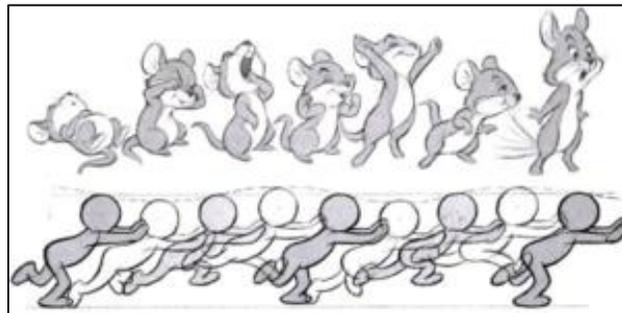


Figure 2.4: Example of Straight Ahead and Pose to Pose

2.3.5 Follow Through and Overlapping Action

The follow through principle argues that when a character is in action and stops, nothing stops all at once. So when a character is running and stops, their main body will stop, but the other parts of their body will keep moving for a bit after.

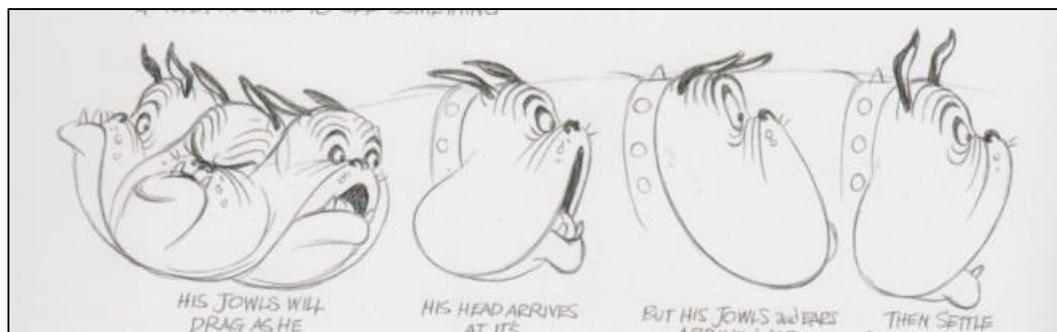


Figure 2.5: Example of Follow Through and Overlapping Action

2.3.6 Slow-In and Slow-Out

Slow-in and slow-out is principle designed to add realism to the movement of characters. When characters are performing actions, animators will draw more frames at the start of the action, less frames in the middle, and more frames again at the end of the action to create this slow-in/slow-out effect.

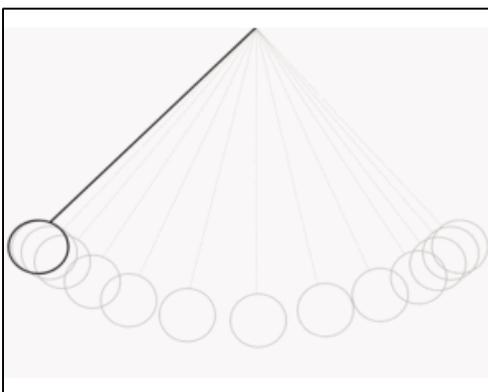


Figure 2.6: Example of Slow-In and Slow-Out

2.3.7 Arcs

The arc principle is that almost all actions in life have a slightly circular motion. When a head turns or an arm moves, rarely will it thrust straight in and straight out. Often it will have a little curve to it.

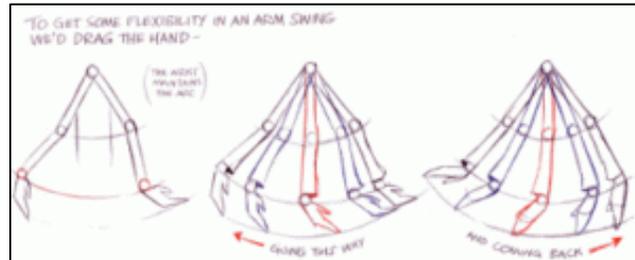


Figure 2.7: Example of Arcs

2.3.8 Secondary Action

A secondary action is an additional action that reinforces and adds more dimension to the main action.

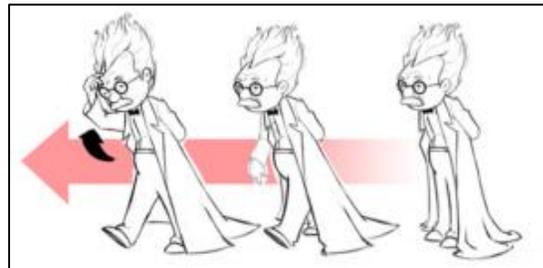


Figure 2.8: Example of Secondary Action

2.3.9 Timing

Timing helps create the illusion that an action is abiding by the laws of physics. By adjusting the timing of a scene, animators can make that scene look either slower and smoother or faster and crisper.

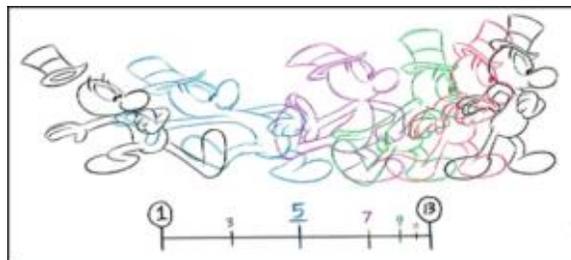


Figure 2.9: Example of Timing

2.3.10 Exaggeration

Exaggeration is all about overstating certain movements in a way that helps evoke a point, yet doesn't ruin the believability of the scene.

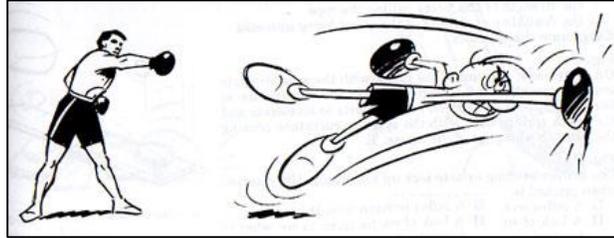


Figure 2.10: Example of Exaggeration

2.3.11 Solid Drawing

The basic principles of drawing form, weight, volume solidity and the illusion of three dimension apply to animation as it does to academic drawing. The way you draw cartoons, you draw in the classical sense, using pencil sketches and drawings for reproduction of life.

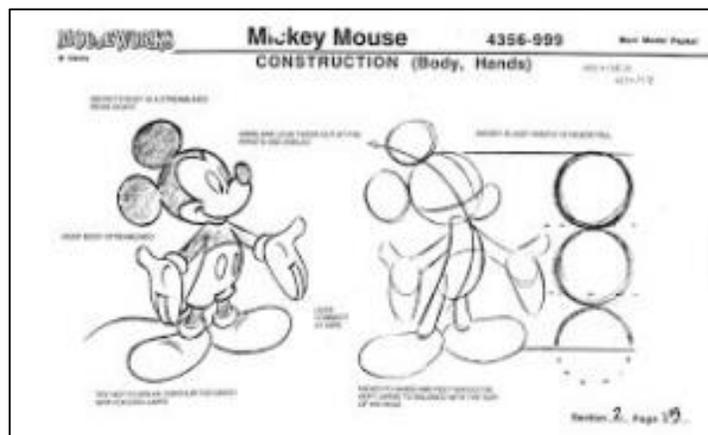


Figure 2.11: Example of Solid Drawing

2.3.12 Appeal

A live performer has charisma. An animated character has appeal. Appealing animation does not mean just being cute and cuddly. All characters have to have appeal whether they are heroic, villainous, comic or cute.

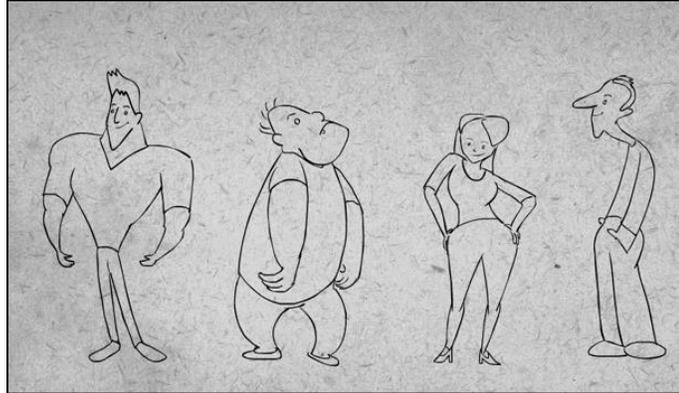


Figure 2.12: Example of Appeal

2.3.13 Implementation Animation Technique to This Project

Good animation video often design or produce by using the 12 principles of animation. There have some animation technique are successfully applied in this animation project, there are Timing, Arcs, Anticipation, Exaggeration, Slow-In and Slow-Out.

2.4 Existing System

2.4.1 Case Study 1: Blessing in Disguise

This is a 3D animation video was based on the Jinxy Jenkins, Lucky Lou video by Ringling college or art from United States. The story depicts how a pessimistic man meet an optimistic woman and how they face the difficulties in front of them. A man meet a woman in a street. Suddenly, there was an accident on them and their life was threatened on road. Both of them are motivate each other during them trying to be safe. In the same time, a man changing their attitude to be more positively. Finally a man rescue a woman.

2.4.2 Case Study 2: Every cloud has a silver lining

This is a 2D animation video that depicts people should never feel hopeless because difficult times always lead to better days. This animation is about a family encounter the death of a husband. His poor wife and his children had to beg for a living. One day, his wife found a golden Swan and a Swan gave her one of his golden feathers each day. Thereafter, the lady became rich and lived happily with her children after all bad times come the good phase of life.

2.4.3 Case Study 3: Initially good may turn bad, vice versa

This is a 2D animation video about once of Idiom story from China. An old man has lose a horse, his neighbours and friends came to comfort him after they know this bad news. An old man tell his neighbours maybe it is a good news. After a few month, a missing horse bring back another horse. An old man tell his neighbours maybe it is a bad news. Soon, son of an old man rising the horse and his fall down from horse and the leg was break. An old man tell his neighbours again maybe it is a good news. Later, the war begin and all the young man are enlisted to be army and they die on the battlefield. Only the old man's son survived and stay at home because of physical disability.

2.5 Comparison between Existing System with This Project

There are some similar animations that existed and those animations implicated the same message behind it. Table below show the comparison between 3 animation with this project.

Table 2.1: Comparison between 3 animation with this project

Title	Blessing in Disguise	Every cloud has a silver lining	Initially good may turn bad, vice versa	Everything is the best arrangement
Category	3D animation	2D animation	2D animation	2D animation
Screenshot				
Language	-	English	Chinese	English
Duration	4 minutes	1 mins 15 secs	2 mins 24 secs	5 mins 58 secs
Subtitle	-	English	Chinese	English
Moral Value	Yes	Yes	Yes	Yes
Link	https://www.youtube.com/watch?v=QoI2kRNSIKk	https://www.youtube.com/watch?v=g3cK8TkM0_s	https://www.youtube.com/watch?v=nq4FWy_WLbY	-

2.6 Development Model

2.6.1 System Development Approach

A Structured Systems Analysis and Design Method (SSADM) are used as a process where the system development is classified according to specific phases. It is a system approach to the analysis and design of information systems which divides a development project into modules, stages, steps, and tasks, and provides a framework for describing projects in a fashion suited to managing the project. The approach used has several of phases performed sequentially and more structured. Each phase must be completed in sequence to avoid any complications during the system development process. Figure 2.13 represent the waterfall model.

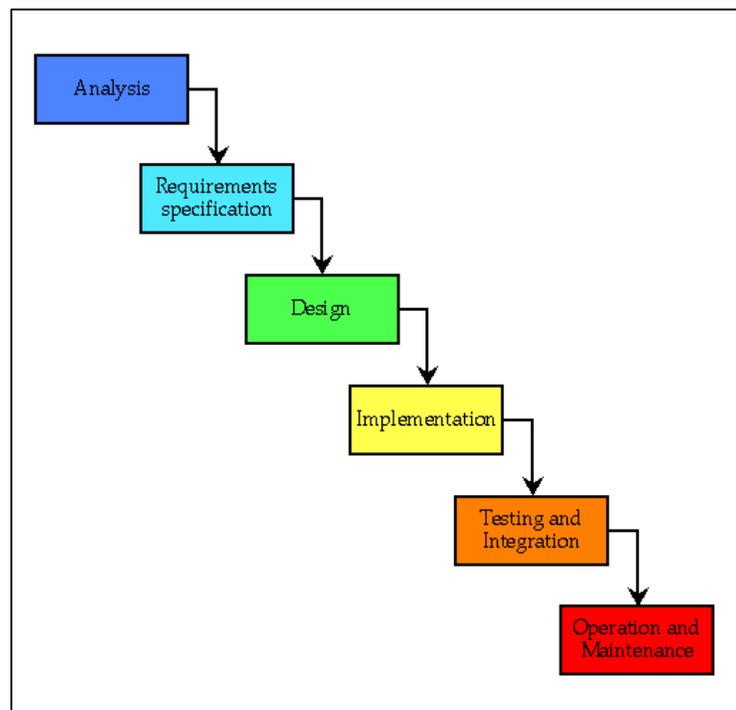


Figure 2.13: Waterfall Model

2.6.2 Multimedia Production Process

Multimedia Production Process have three phase which is pre-production, production, and post-production.

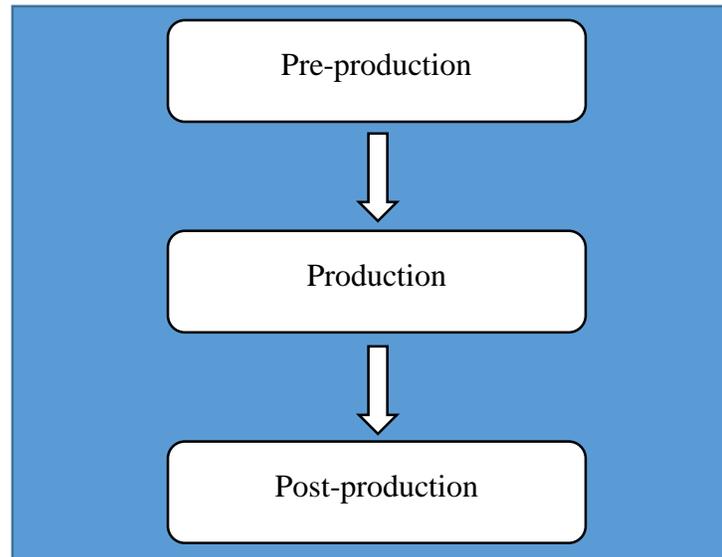


Figure 2.14: Multimedia Production Process

Pre-production is the phase of further developing ideas and planning prior to the process of production. In a live action movie sense it is the period before filming starts. In an animation sense it is the period before any real animating takes place. Pre-production consists a lot of part which is the script, storyboarding, animatic, character, color styling and color model sheet. The pre-production sets the tone for the animation production phase, if it is not well conceived and done, there will be a lot of retakes and corrections to be done in the production phase and it will be very costly in terms of time, effort and money. Like all great projects the success is in the planning. This phase gives an overview of the different steps and each step helps to develop a 'roadmap' on which to base the further production phase.

The production phase is often the longest and busiest phase of the animation project. Under the production phase are the background layout and posting, animation, clean-up-in-between, ink and paint, compositing and export rendering. If the artists are not good, there will be a lot of retakes in the clean-up in-betweening stage. Compositing also will takes a long time, as errors are found out and corrected before the final rendering. The artists need to look at the various role in the production phase.

Post-production is the final phase in the process of creating an animation and involves exporting or rendering out the animation frames and then editing the pieces of animation together using video editing software. The sound track, including sound effects, is also added during the final edit. The Post-production phase may also involve further advanced processes such as compositing and colour correction.

2.6.3 Rapid Application Development

The other technique that also applicable to be use is Rapid Application Development (RAD). There are five main phases in developing this system. The phases are business modeling, data modeling, process modeling, application generation, testing and turnover.

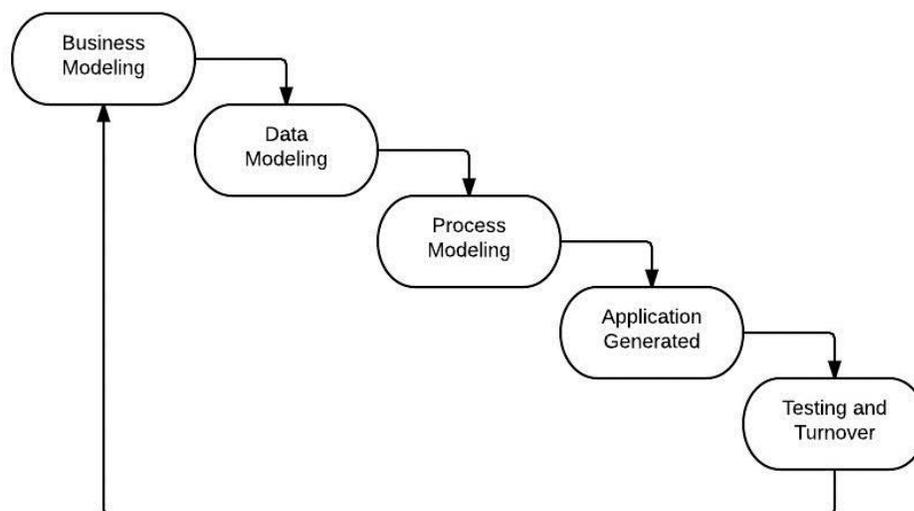


Figure 2.15: Rapid Application Development (RAD) model

Business modeling is to show that the information flow is identified between various business function. This system should choose the best planning from all the plan exists providing a proposal or some draft for client to imagine an outline of the system.

Data modeling is information gathered from business modeling is used to define data objects that are needed for business. This phase need to describe current system and system to be developed followed by problem statement, recommendation on fixing or enhance it. Analysis is needed before proceeding to design phase.

Process modeling is a phase where data objects defined in data modeling are converted to achieve the business information flow for achieving some specific business objective. Designing the system starts here supported by diagram, figure or flow chart.

Application generation started when the automated tools are used to convert process models into code and the actual system. From the diagram or flow chart describe in the previous phase, they are converted into codes. Interface design may be involved.

Testing and turnover applied in the last phase. It is to test new components and all the interfaces. Remove any errors or bugs that exist in this system. Maintain and support the system after certain period of time engaged with the contract between developer and client.

2.6.4 Implementation Development Model to This Project

The development model that have been used in this project are Multimedia Production Process. It included three main phases needed to go through before created a 2D animation which are pre-production, production, and post-production.

2.7 Project Requirements

Requirements are divided into two types; hardware requirements and software requirements. Software requirement is the software that needed to build the 2D animation video while hardware requirement is hardware that necessary for the development of the project. They are important to produce a build a project smoothly.

2.7.1 Software Requirements

- a. Adobe Illustrator CS6
- b. Adobe After Effect CS6
- c. Adobe Premiere CS6
- d. Audacity
- e. Microsoft Word 2013

2.7.2 Hardware Requirements

- a. Graphic Tablet
- b. Tablet Pen
- c. Printer
- d. Laptop Asus
 - Processor : Intel® Core™ i5 3210M Processor
 - Operating System : Windows 7 Professional
 - Memory : DDR3 1600 MHz SDRAM
 - Storage : 500GB 5400/7200RPM

2.8 Conclusion

This chapter clear up the methodology and approaches that applies in this project. The comparison between the existing systems also have mentioned. Software requirements and hardware requirements to build this project are listed down. Next chapter will discuss on analysis of the system.

CHAPTER III

ANALYSIS

3.1 Introduction

Analyzing is a must before proceeding to design. This chapter will explain about analysis phase of this project by presenting problem analysis. The requirements of the 2D animation video is discussed. The requirements analysis also will be discussed include module and function about this 2D animation video.

3.2 Current Scenario Analysis

3.2.1 Blessing in Disguise

This is a 3D animation video was based on the Jinxy Jenkins, Lucky Lou video by Ringling college or art from United States. The story depicts how a pessimistic man meet an optimistic woman and how they face the difficulties in front of them. A man meet a woman in a street. Suddenly, there was an accident on them and their life was threatened on road. Both of them are motivate each other during them trying to be safe. In the same time, a man changing their attitude to be more positively. Finally a man rescue a woman.

3.2.2 Every cloud has a silver lining

This is a 2D animation video that depicts people should never feel hopeless because difficult times always lead to better days. This animation is about a family encounter the death of a husband. His poor wife and his children had to beg for a living. One day, his wife found a golden Swan and a Swan gave her one of his golden feathers each day. Thereafter, the lady became rich and lived happily with her children after all bad times come the good phase of life.

3.2.3 Initially good may turn bad, vice versa

This is a 2D animation video about once of Idiom story from China. An old man has lose a horse, his neighbours and friends came to comfort him after they know this bad news. An old man tell his neighbours maybe it is a good news. After a few month, a missing horse bring back another horse. An old man tell his neighbours maybe it is a bad news. Soon, son of an old man rising the horse and his fall down from horse and the leg was break. An old man tell his neighbours again maybe it is a good news. Later, the war begin and all the young man are enlisted to be army and they die on the battlefield. Only the old man's son survived and stay at home because of physical disability.

3.3 Requirements analysis

3.3.1 Project Requirement

3.3.1.1 Duration

Duration is the total amount of elapsed time of the whole 2D animation video. The total duration of this project is estimate around 5 to 6 minutes. This is because want to ensure

the moral value inside the animation video can fully convey to audience in that duration estimated. Thus the duration cannot be too long or too fast.

3.3.1.2 Frame Rate

Frame rate is the number of frames or images that are projected or displayed per second. Frame rates are used in synchronizing audio and pictures, whether film, television, or animation video. The frame rate that will be choose to this animation project is 29.97fps because it audio match the video more accurately compare to another frame rate.

3.3.1.3 Images and graphics

Images and graphics is the most basic thing in animation. Good colour combination of the image can attract the audience, it will look more interesting on that animation. Besides, it also can make audience impressed on that animation video. Some colours can have different meanings, even opposing meanings. Thus, the good colour combination of the images and graphics will be used in the project.

3.3.1.4 Audio/background music/sound effect

Background music is very important to animation video because it give the animation video look more interesting. The animation video without background music will be very boring. While the sound effect is used to carry out its mood, emotion, or any action to advance the story of the animation video. Choose the right sound for the animation video can make the video more wonderful.

3.3.2 Synopsis

Long time ago, there was a country that has a King and a Courtier. The King did not have any bad habits but he likes hunting.

One day, the King went to the prairie to hunt with his soldiers. They saw a leopard and the King chased after it. The King positioned his bow calmly, aimed at the leopard and released his arrow. In just a few seconds, the leopard shrieked and fell to the ground.

The King was very happy and he dismounted from the horse to have a look at the leopard. Suddenly, the leopard resorted the last effort and jumped to the King. Fortunately, a soldier shoot the arrow right on the leopard's throat in time and the leopard was dead.

The King's little finger was injured because it was bitten by the leopard. Although the wound was not deep, the King no longer had the mood to continue hunt anymore. The King wanted to find someone to vent his anger but he thought and realized that it was him being impulsive at the first place. Hence, he cannot blame anyone else.

After they returning to the palace, the King who was in bad mood, find his Courtier to drink together with him. The Courtier later learned about the incident, smiled and said to the King: "Your Majesty, lose a piece of little finger is better than lose a life, right?"

The King was very angry and bellowed at the Courtier:" How dare you, do you really think everything is the best arrangement?" The Courtier realized the King was angry but his persistence did not stop him from advising the King: "Your Majesty, yes, everything is the best arrangement if we think positively."

The King: "If I put you in jail, is it is the best arrangement too?" The Courtier smiled and said: "If Your Majesty do so, I still believe it is the best arrangement."

The King said angrily: "Soldier, immediately put the Courtier into the jail, now!"

After a month, the King was recovered from his injuries. The King wanted look into the public affairs, thus he went under the disguise as a commoner with the Courtier. However, the King just remembered that the Courtier still being prisoned, the King sighed and he went out alone.

The King was strolling alone until he came to a forest. Suddenly, the savage came out from the forest and hold the King as captive to the tribe. The savage wanted take the King as a sacrifice to worship their god. The God who being worshiped today is a symbol of "perfection", thus the sacrifice cannot be mutilated.

However, the priest found the King's little finger was missing and he was very angry and disappointed. He gave an order to release the King and called the savage to find a new one.

The King was freed from the capture and he returned to palace immediately. The King then released Courtier from prison and they celebrated together as now they are both free from suffer. The King said to his courtier: "Dear Courtier, you are totally right, everything is a best arrangement! If I didn't get bitten by the leopard, I think I will be dead today. Eh, although everything is the best arrangement, but you have been prisoned for a month without any reason, how do you explain this?"

The Courtier explained to the King slowly: "Your Majesty, you put me in the jail is the best arrangement, really. If I'm not being prisoned, I will be going out together with you. Then we will be caught by the savage and I will be chosen as their sacrifice and I will die, right? Therefore, you save my life!"

The King laughed and said: "That's right, cheers! Everything is the best arrangement!"

3.3.3 Sample of Background

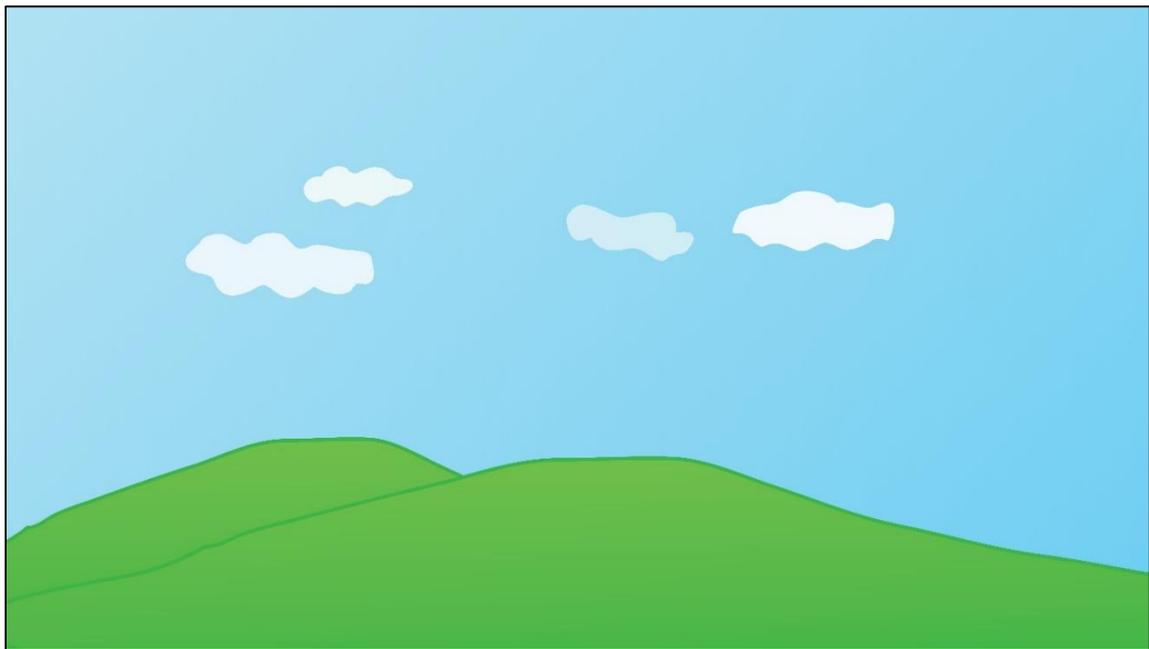


Figure 3.1: Grassland background

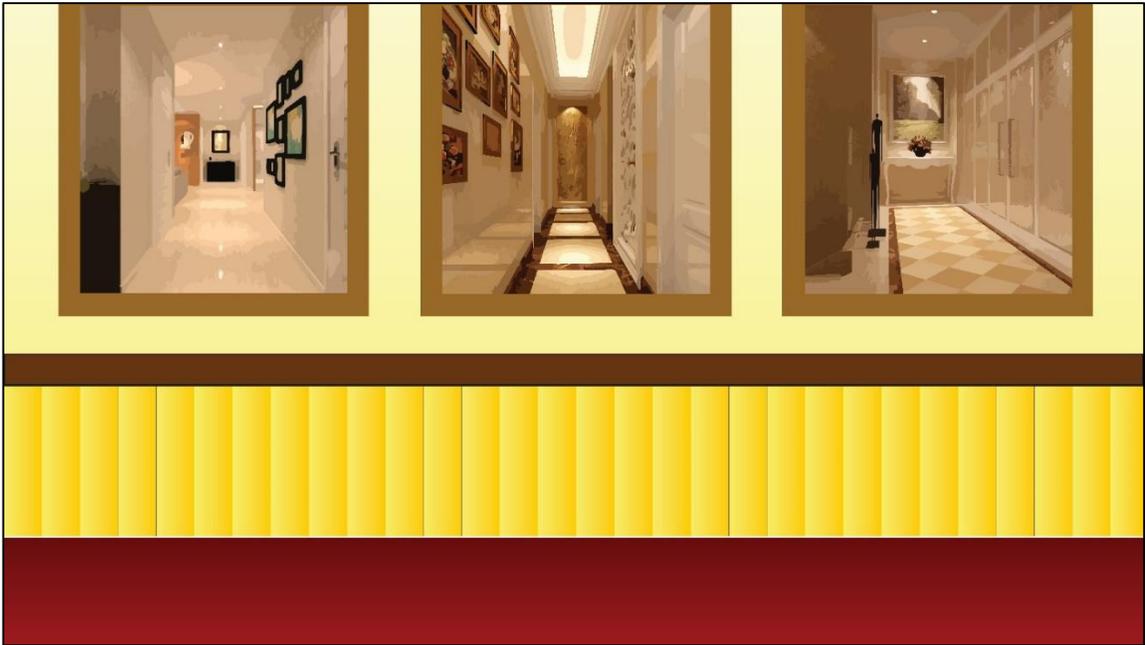


Figure 3.2: Inside palace's background

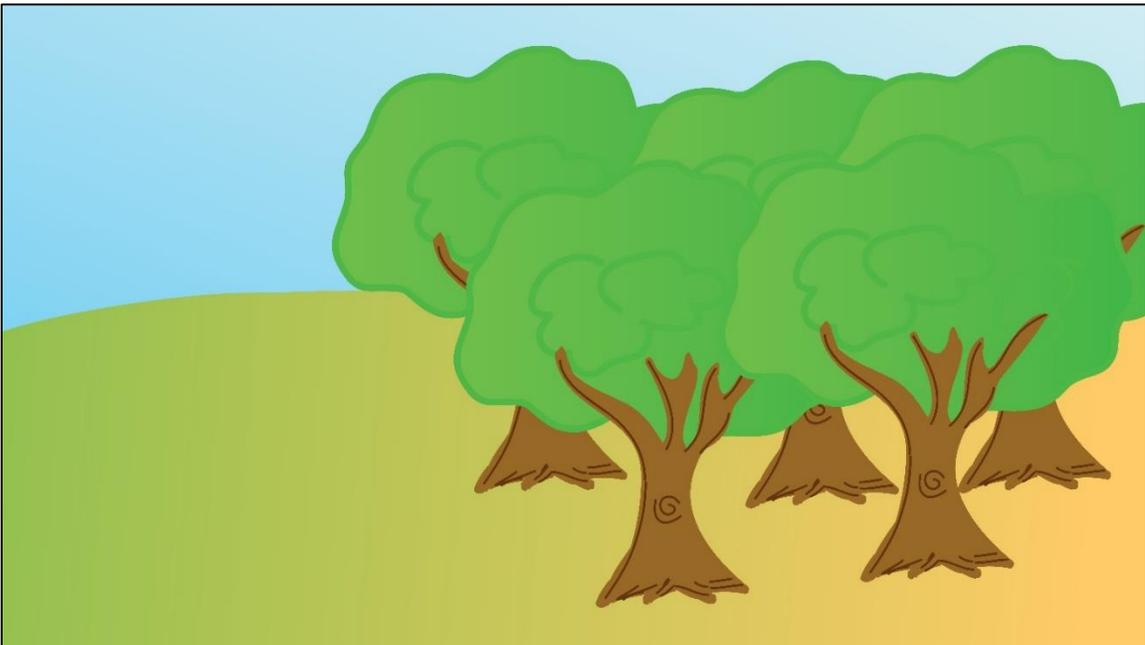


Figure 3.3: Jungle background

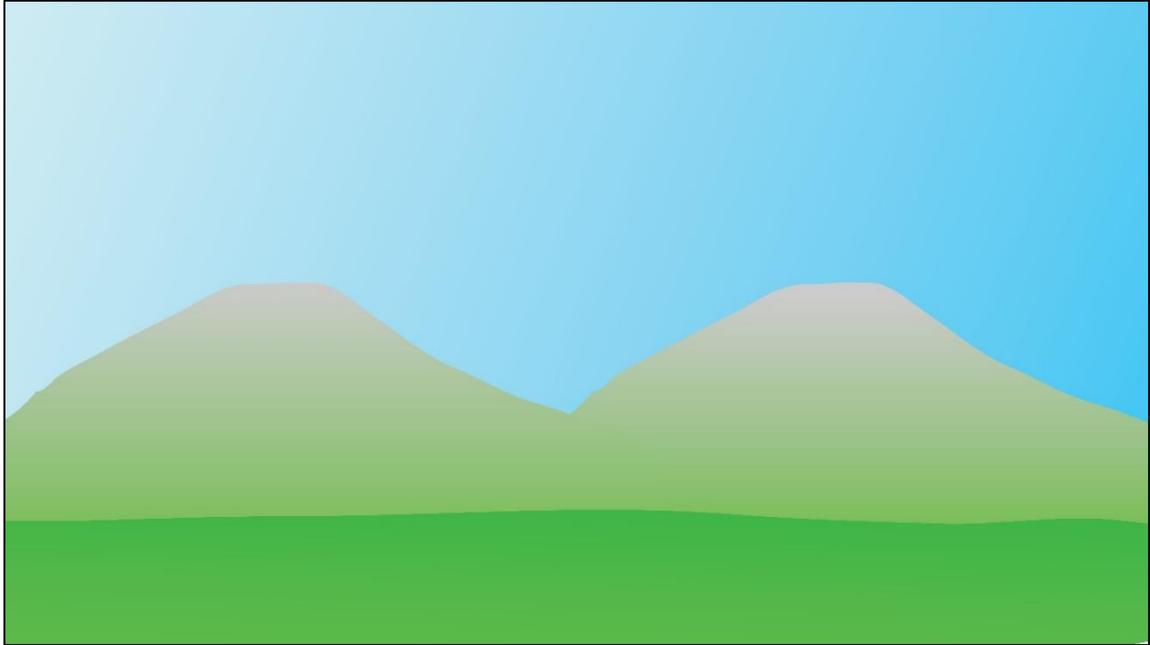


Figure 3.4: Outside Palace's background

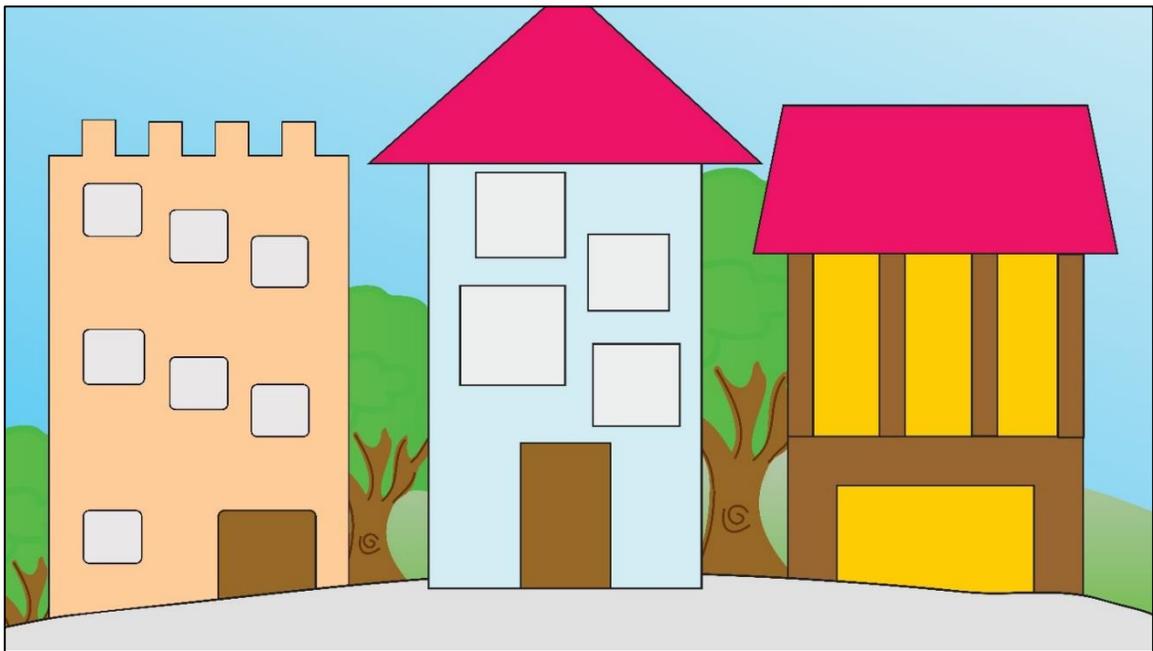


Figure 3.5: Town background

3.3.4 Character Details

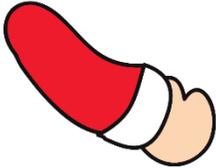
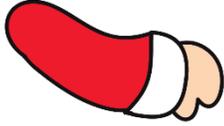
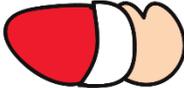
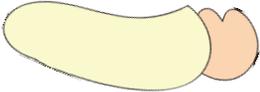
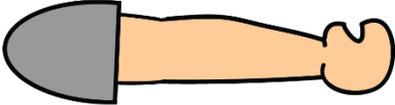
3.3.4.1 Type of expressions

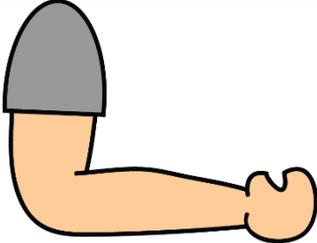
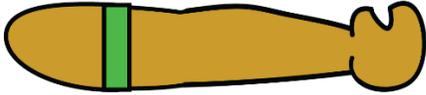
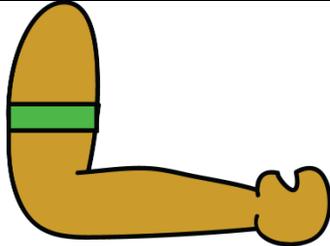
Table 3.1: Type of expressions

Type	Example
Happy	
Angry	
Scary	
Emotional	
Sad	

3.3.4.2 Type of hands

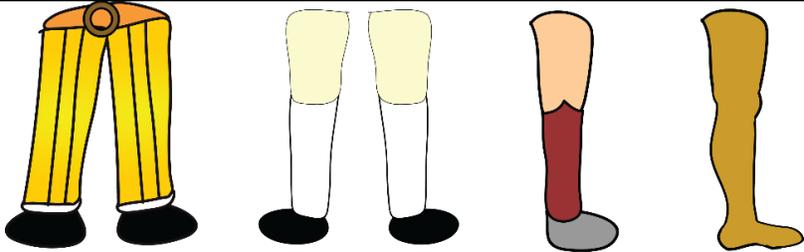
Table 3.2: Type of hands

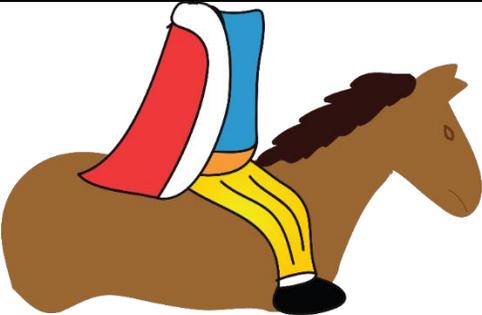
Type	Example
Character: King	
Normal	
Hold	
Shoot	
Injured	
Character: Courtier	
Normal/Hold	
Character: Soldier	
Normal	

Hold	
Character: Savage	
Normal	
Hold	
Character: Priest	
Normal	

3.3.4.3 Type of legs

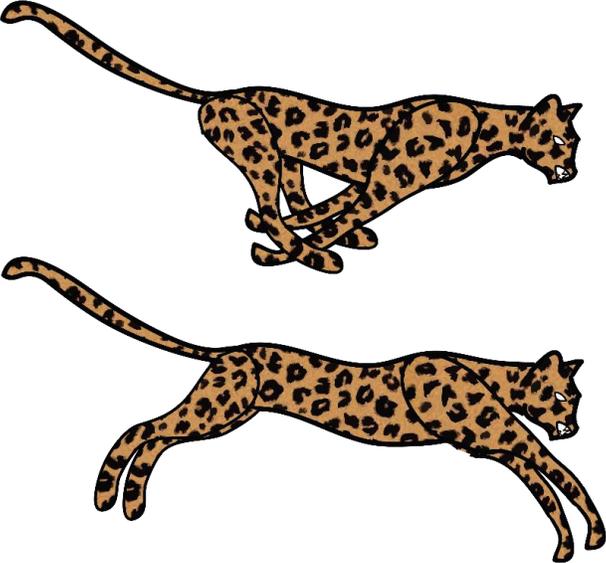
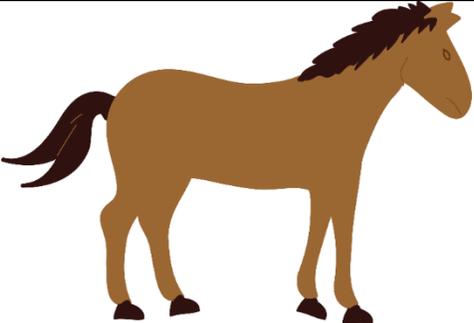
Table 3.3: Type of legs

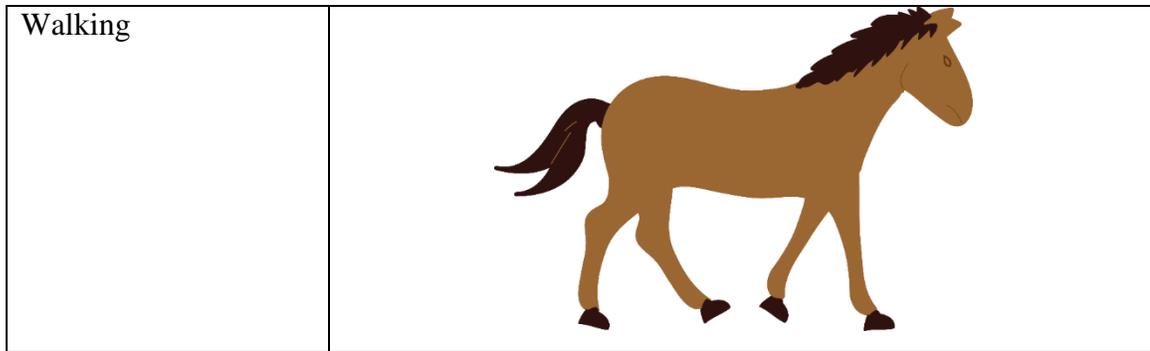
Type	Example
Normal	

Seat on horse	
---------------	--

3.3.4.4 Type of animals

Table 3.4: Type of animals

Type	Example
Character: Leopard	
Running	
Character: Horse	
Stand	



3.3.5 Software Requirement

Software that been use to develop this system are:

- a. Adobe After Effect CS6
This is a software that used to animate all the character poses in project.
- b. Adobe Illustrator CS6
This is a software that used to draw the vector images such as characters, environments, and any objects.
- c. Adobe Premiere CS6
This is a software that used to combine all the composition. It also used to add and adjust the audio or subtitle into project.
- d. Audacity
This software is used to record and normalize all the audio or sound that needed on the project.
- e. Microsoft Word 2013
Used to complete the proposal and report.

3.3.6 Hardware Requirement

Hardware that been use to develop this system are:

e. Graphic Tablet

It is used to draw images, characters, and graphics by hand digitally.

f. Tablet Pen

Tablet Pen is a hand-draw digitally device which used to draw the vector image.

g. Printer

Print out the report and documentation of this project

h. Laptop Asus

This hardware is the most important one as it is required to run all the software needed to develop this project.

3.4 Project Schedule and Milestones

Project Schedule and Milestones is a timetable which is set for the animator to complete the task or activities and continue to a new task. It acts as a guideline for animator to make sure the animator's work will be completed on time.

3.4.1 Project Milestones

Table 3.5: List of activities during development project

Week	Activity
1	<ul style="list-style-type: none"> • Proposal PSM: Discussion • Proposal assessment & verification • Proposal Correction/Improvement
2	<ul style="list-style-type: none"> • List of supervisor/title • Proposal Presentation & Submission via PSM Online System • Chapter 1 (System Development Begins)
3	<ul style="list-style-type: none"> • Chapter 2
4	<ul style="list-style-type: none"> • Chapter 3 • Project Demo
5	<ul style="list-style-type: none"> • Chapter 4 • Project Demo
6	<ul style="list-style-type: none"> • Project Demo • PSM1 Report
7	<ul style="list-style-type: none"> • Final Presentation • Submission of the PSM1 Report onto the PSM e-Repository online system
8	<ul style="list-style-type: none"> • Correction on the draft report based on the comments by the Supervisor and Evaluator during the final presentation session Submit PSM1 Logbooks to PSM Online System • Submission of overall marks to PSM/PD committee

3.4.2 Gantt Chart

No	Task	Week							
		1	2	3	4	5	6	7	8
1	Discussion & submission proposal. Proposal correction & verification	■							
2	Development of Chapter 1		■	■					
3	Development of Chapter 2 Progress Presentation 1			■	■				
4	Development of Chapter 3				■	■			
5	Development of Chapter 4 Progress Presentation 2					■	■		
6	Demonstration of project. PSM 1 Report					■	■	■	
7	Final Presentation							■	
8	Correction of PSM 1 Report								■

Figure 3.6: Gantt Chart

3.5 Conclusion

As the conclusion, this chapter has stated the problem analysis such as describe current scenario analysis. Besides that, this chapter also explained the hardware and software requirement with detailed to develop this project. Next chapter will discuss about the design phase.

CHAPTER IV

DESIGN

4.1 Introduction

This chapter will explain about the design of the 2D animation project. Design phase defines the results of analysis of the preliminary design and detailed design. It include the scene sequence diagram, storyboard design, and character design. Scene sequence diagram show the linear sequence against time to visualize the scenes arrangement. Through this chapter, it will explain and illustrate the 2D animation project in details.

4.2 Scene Sequence Diagram

Scene sequence diagram arrange the linear sequence with time. The table below shown the description for every scene included action, camera shot, audio, dialogue and duration.

Scene	Description
1	Action : Sky moving, Zoom-in to palace Camera shot : Long shot, Extreme long shot Audio : Relax and happy background Music Dialogue/Narrator : Long time ago, there was a country that has a King and

	a Courtier. Duration(seconds) : 33.28s
2	Action : King and Courtier is chatting Camera shot : Full shot Audio : Relax and sentimental background music Dialogue/Narrator : The King did not have any bad habits but he likes hunting Duration(seconds) : 9.15s
3	Action : Soldiers is follow behind the King to go hunting Camera shot : Long shot Audio : Aggressive background music Dialogue/Narrator : One day, the King went to the grassland to hunt with his Soldiers Duration(seconds) : 7.10s
4	Action : A leopard is running on the grassland Camera shot : Long shot Audio : Aggressive background music Dialogue/Narrator : They saw a leopard Duration(seconds) : 2.29s
5	Action : King is ride on the horse and chase a leopard on grassland Camera shot : Medium shot Audio : Aggressive background music Dialogue/Narrator : and the King chased after it Duration(seconds) : 6.22s
6	Action : The King positioned his bow calmly and aimed at the Leopard Camera shot : Medium shot Audio : Aggressive background music Dialogue/Narrator : - Duration(seconds) : 5.01s

7	Action : an arrow is fly Camera shot : Medium close up Audio : Aggressive background music Dialogue/Narrator : - Duration(seconds) : 2.05s
8	Action : The leopard shrieked and fell to the ground Camera shot : Full shot Audio : Aggressive background music Dialogue/Narrator : - Duration(seconds) : 3.00s
9	Action : King is walking to look at the leopard Camera shot : Long shot Audio : Aggressive background music Dialogue/Narrator : - Duration(seconds) : 8.08s
10	Action : The leopard jump to the King suddenly Camera shot : Long shot Audio : Anxious sound effect, Leopard roar sound effect, Suspenseful background music Dialogue/Narrator : Suddenly, the leopard resorted the last effort and jumped to the King Duration(seconds) : 5.16s
11	Action : Soldiers is waiting for King's order Camera shot : Medium long shot Audio : - Dialogue/Narrator : Fortunately, a soldier shoot the arrow right on the leopard's throat in time and the leopard was dead Duration(seconds) : 6.30s

12	Action	: The King is looking on his injured little finger
	Camera shot	: Medium shot
	Audio	: Sentimental background music
	Dialogue/Narrator	: The King's little finger was injured because it was bitten by the leopard and he is no longer had the mood to continue hunt anymore.
	Duration(seconds)	: 11.16s
13	Action	: The King walk to in front of a soldier to vent his anger
	Camera shot	: Long shot
	Audio	: Sentimental background music
	Dialogue/Narrator	: The King wanted to find someone to vent his anger
	Duration(seconds)	: 6.00s
14	Action	: The King realized is him own fault
	Camera shot	: Medium shot
	Audio	: Sentimental background music
	Dialogue/Narrator	: but he thought and realized that it was him being impulsive at the first place. Hence, he cannot blame anyone else
	Duration(seconds)	: 9.29s
15	Action	: The King and his soldiers is returned to a palace
	Camera shot	: Long shot
	Audio	: Sentimental background music
	Dialogue/Narrator	: After they returned to the palace
	Duration(seconds)	: 5.00s
16	Action	: The King was in bad mood and find his Courtier to drink together with him
	Camera shot	: Medium close up
	Audio	: Sentimental background music
	Dialogue/Narrator	: the King who was in bad mood, find his Courtier to drink together with him. The Courtier later learned about the incident
	Duration(seconds)	: 9.24s

17	Action	: Courtier try to comfort the King
	Camera shot	: Medium close up
	Audio	: Sentimental background music
	Dialogue/Narrator	: Your Majesty, lose a piece of little finger is better than lose a life, right?
	Duration(seconds)	: 8.02s
18	Action	: The King was very angry and bellowed at the Courtier
	Camera shot	: Medium close up
	Audio	: Suspenseful background music
	Dialogue/Narrator	: How dare you, do you really think everything is the best arrangement?
	Duration(seconds)	: 5.28s
19	Action	: The Courtier realized the King was angry but his persistence did not stop him from advising the King
	Camera shot	: Medium close up
	Audio	: Suspenseful background music
	Dialogue/Narrator	: Your Majesty, yes, everything is the best arrangement if we think positively
	Duration(seconds)	: 7.22s
20	Action	: The King was very angry and hit the table
	Camera shot	: Medium close up
	Audio	: Suspenseful background music, table hit sound effect
	Dialogue/Narrator	: If I put you in jail, is it the best arrangement too?
	Duration(seconds)	: 5.09s
21	Action	: Courtier continue advising the King with his smiled face
	Camera shot	: Medium close up
	Audio	: Suspenseful background music
	Dialogue/Narrator	: If Your Majesty do so, I still believe it is the best arrangement
	Duration(seconds)	: 7.11s

22	Action	: The King was more angry and order his soldier to put the Courtier in the prison
	Camera shot	: Medium close up
	Audio	: Anxious sound effect, Suspenseful background music
	Dialogue/Narrator	: Soldier, immediately put the Courtier into the jail, now
	Duration(seconds)	: 5.27s
23	Action	: The Courtier was being prisoned
	Camera shot	: Full shot
	Audio	: Door slam sound effect
	Dialogue/Narrator	: -
	Duration(seconds)	: 4.01s
24	Action	: The King was recovered from his injuries and look into the public affairs and under the disguise as a commoner
	Camera shot	: Long shot
	Audio	: Sentimental background music
	Dialogue/Narrator	: After a month, the King was recovered from his injuries. The King wanted look into the public affairs, thus he went under the disguise as a commoner with the Courtier
	Duration(seconds)	: 17.25s
25	Action	: The King just remembered the Courtier still being prisoned
	Camera shot	: Medium shot
	Audio	: Sentimental background music
	Dialogue/Narrator	: However, the King just remembered that the Courtier still being prisoned, the King sighed and he went out alone
	Duration(seconds)	: 10.24s
26	Action	: The King was strolling alone until he in front of a forest and then the savage come out suddenly
	Camera shot	: Long shot
	Audio	: Suspenseful and aggressive background music
	Dialogue/Narrator	: The King was strolling alone until he came to a forest. Suddenly, the savage came out from the forest
	Duration(seconds)	: 9.09s

27	<p>Action : The King was hold by the savage to the tribe</p> <p>Camera shot : Long shot</p> <p>Audio : Aggressive background music</p> <p>Dialogue/Narrator : and hold the King as captive to the tribe</p> <p>Duration(seconds) : 10.00s</p>
28	<p>Action : The savage worship their god. The God who being worshiped today is a symbol of "perfection"</p> <p>Camera shot : Medium long shot</p> <p>Audio : Aggressive background music</p> <p>Dialogue/Narrator : The God who being worshiped today is a symbol of "perfection", thus the sacrifice cannot be mutilated</p> <p>Duration(seconds) : 12.13s</p>
29	<p>Action : The Priest know the King are mutilated and he was very angry</p> <p>Camera shot : Medium shot</p> <p>Audio : Aggressive background music</p> <p>Dialogue/Narrator : However, the priest found the King's little finger was missing and he was very angry and disappointed</p> <p>Duration(seconds) : 10.02s</p>
30	<p>Action : The King was release by the savage</p> <p>Camera shot : Long shot</p> <p>Audio : Suspenseful background music</p> <p>Dialogue/Narrator : He gave an order to release the King and called the savage to find a new one</p> <p>Duration(seconds) : 7.00s</p>
31	<p>Action : The King immediately go back to his palace</p> <p>Camera shot : Long shot</p> <p>Audio : Relax and happy background music</p> <p>Dialogue/Narrator : The King was freed from the capture and he returned to palace immediately</p> <p>Duration(seconds) : 8.02s</p>

32	<p>Action : The King release the Courtier after back to palace</p> <p>Camera shot : Medium long shot</p> <p>Audio : Relax and happy background music</p> <p>Dialogue/Narrator : The King then released Courtier from prison</p> <p>Duration(seconds) : 4.08s</p>
33	<p>Action : The King are and Courtier want to celebrated together as now they are both free from suffer</p> <p>Camera shot : Medium shot</p> <p>Audio : Relax and happy background music</p> <p>Dialogue/Narrator : and they celebrated together as now they are both free from suffer</p> <p>Duration(seconds) : 6.16s</p>
34	<p>Action : The King just realized the Courtier saying are right, and his is very appreciate to the Courtier</p> <p>Camera shot : Medium Shot</p> <p>Audio : Relax and happy background music</p> <p>Dialogue/Narrator : Dear Courtier, you are totally right, everything is a best arrangement! If I didn't get bitten by the leopard, I think I will be dead today. Eh, although everything is the best arrangement, but you have been prisoned for a month without any reason, how do you explain this?</p> <p>Duration(seconds) : 26.00s</p>
35	<p>Action : The Courtier appreciate to the King for put him in jail</p> <p>Camera shot : Medium shot</p> <p>Audio : Relax and happy background music</p> <p>Dialogue/Narrator : Your Majesty, you put me in the jail is the best arrangement, really. If I'm not being prisoned, I will be going out together with you. Then we will be caught by the savage and I will be chosen as their sacrifice and I will die, right? Therefore, you save my life!</p> <p>Duration(seconds) : 25.00s</p>

36	Action : Both of the King and Courtier are laugh together Camera shot : Medium shot Audio : Happy and upbeat background music Dialogue/Narrator : That's right, cheers! Everything is the best arrangement! Duration(seconds) : 10.00s
37	Action : The moral value of the animation video will display Camera shot : - Audio : Happy and upbeat background music Dialogue/Narrator : - Duration(seconds) : 14.60s

4.3 Preliminary Design

Preliminary design is the first phase of the design process. Preliminary design as the guide to help designer and animator to finalize design.

4.3.1 Storyboard Design

Storyboard is a series of diagrams that used to depict the composition of the animation segment. Storyboard basic section consists of sketch and animation description. For this project, the storyboard was prepared by the scene. The flow of the story can be easily understand by animator through storyboard. It also makes animator to do the part of the animate more easier. Figure 4.1 is one of the example of storyboard. While figure 4.2, 4.3, and 4.4 show the flow of the story.

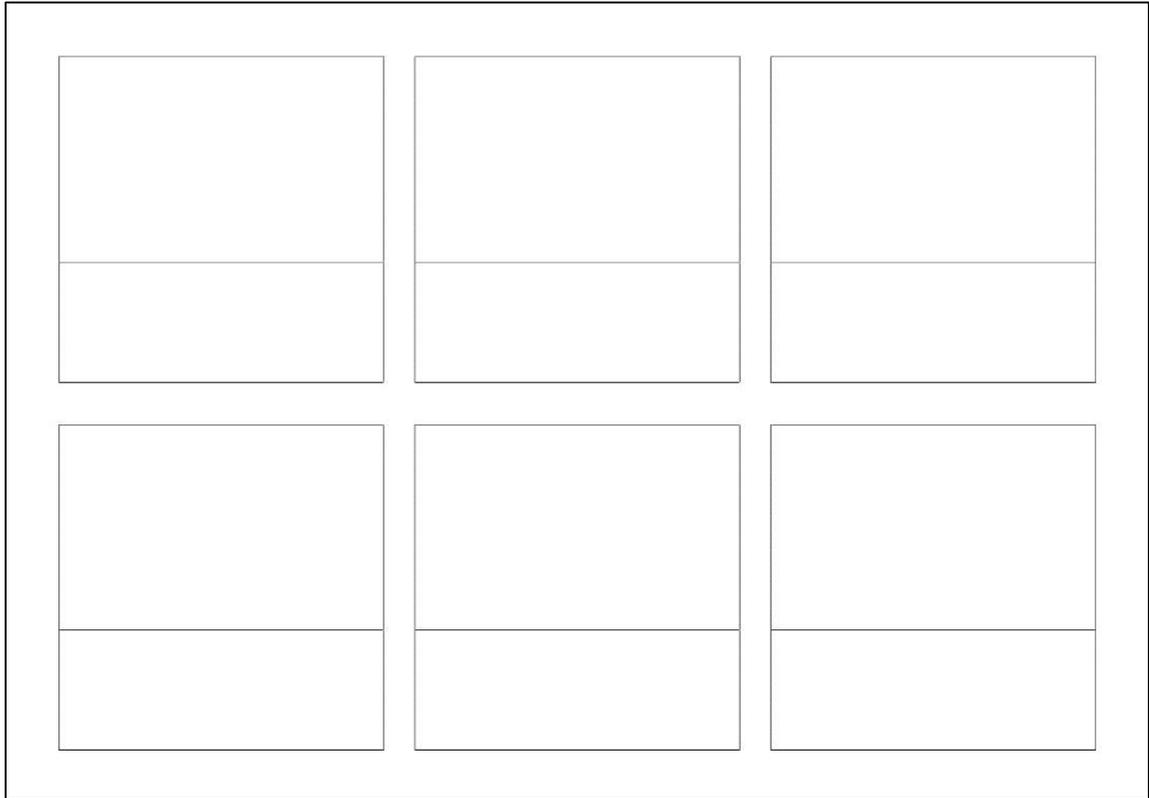


Figure 4.1: Storyboard Template



Figure 4.2: The Flow of the story

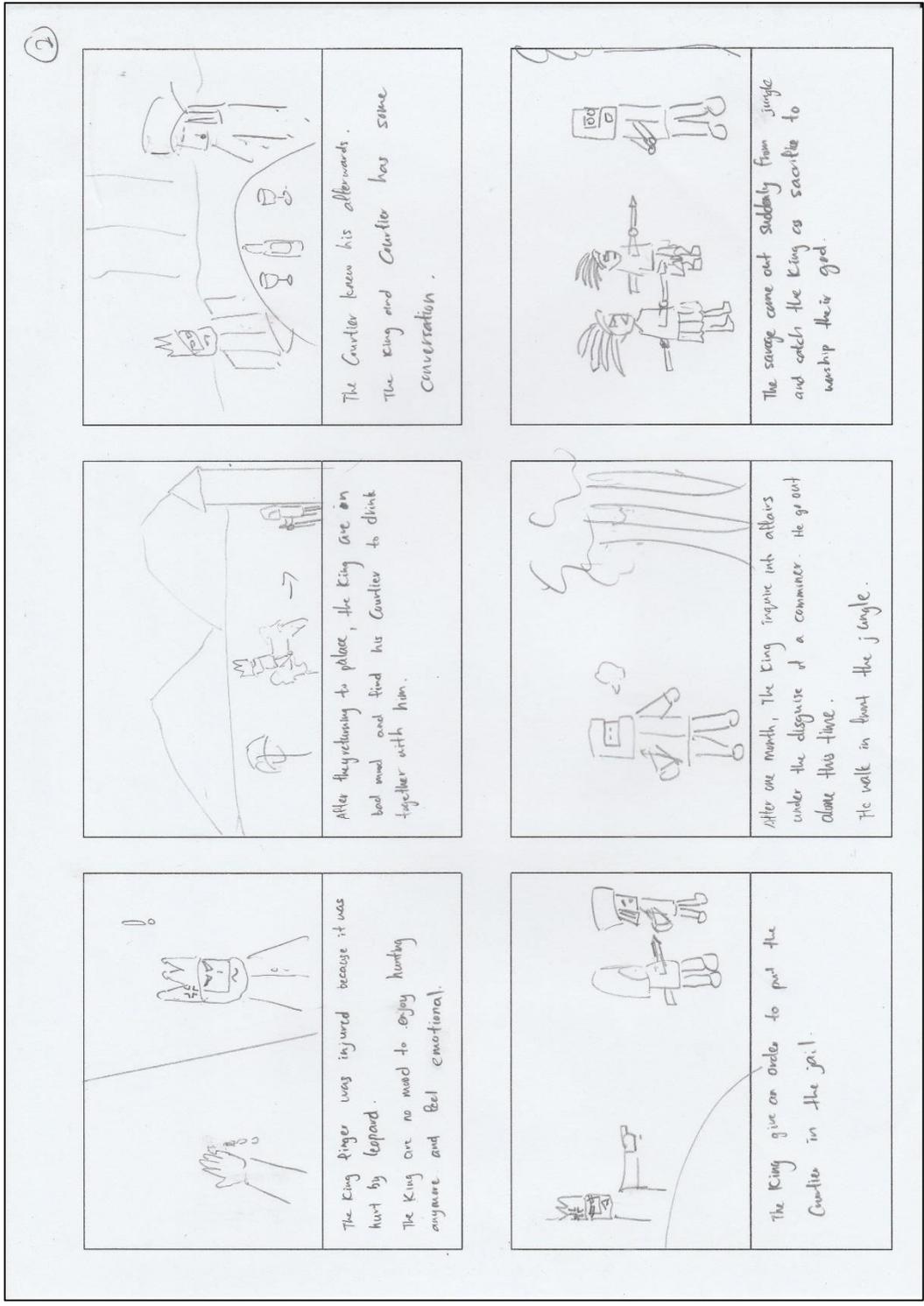


Figure 4.3: The Flow of the story

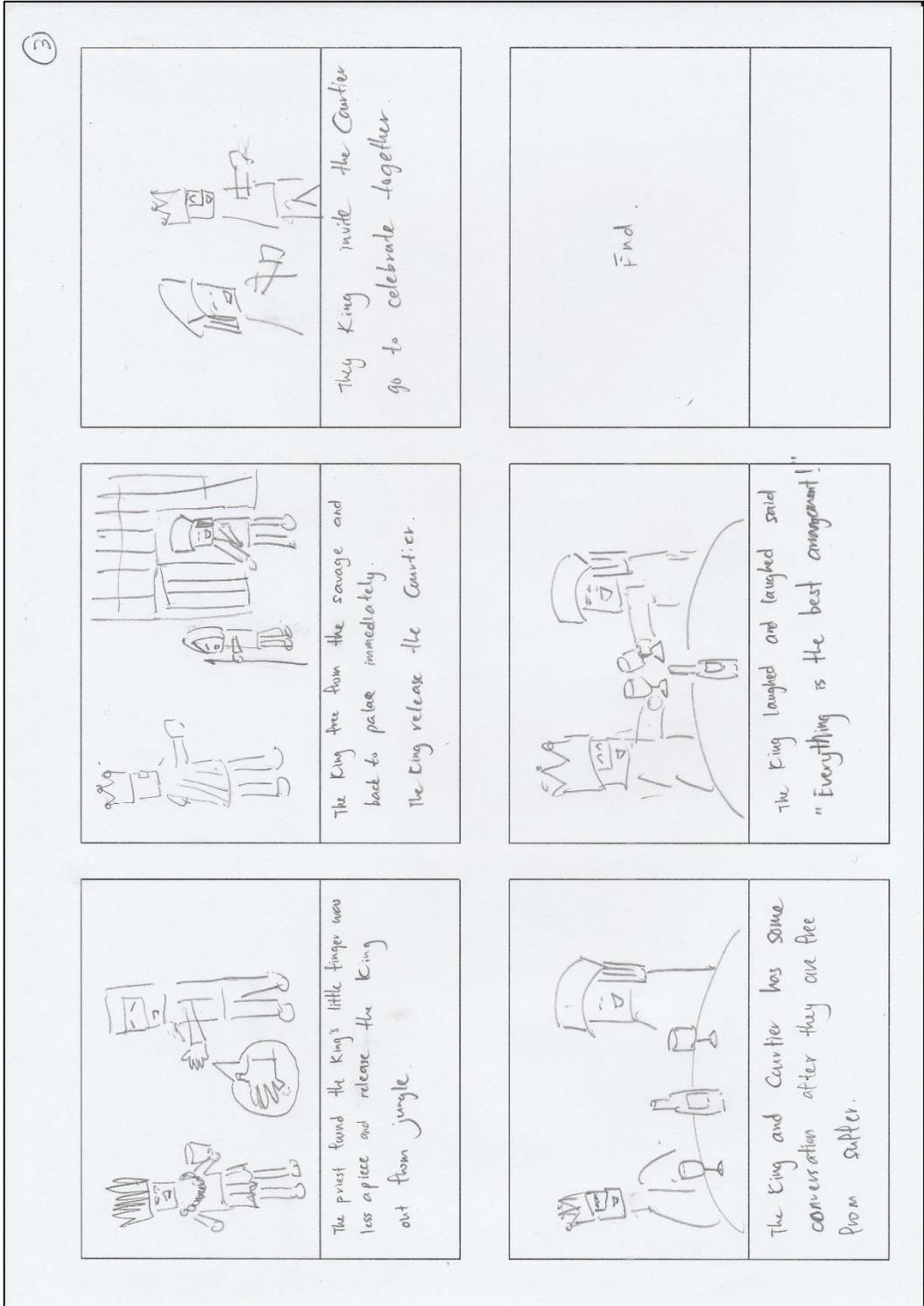


Figure 4.4: The Flow of the story

4.3.2 Character Design

The basis of creating a character design is primary dependent on drawing ability. The characters in this project initialize drawing on the paper with pencil. Once approved, the concept artwork of the character is drawing digitally on a tablet.

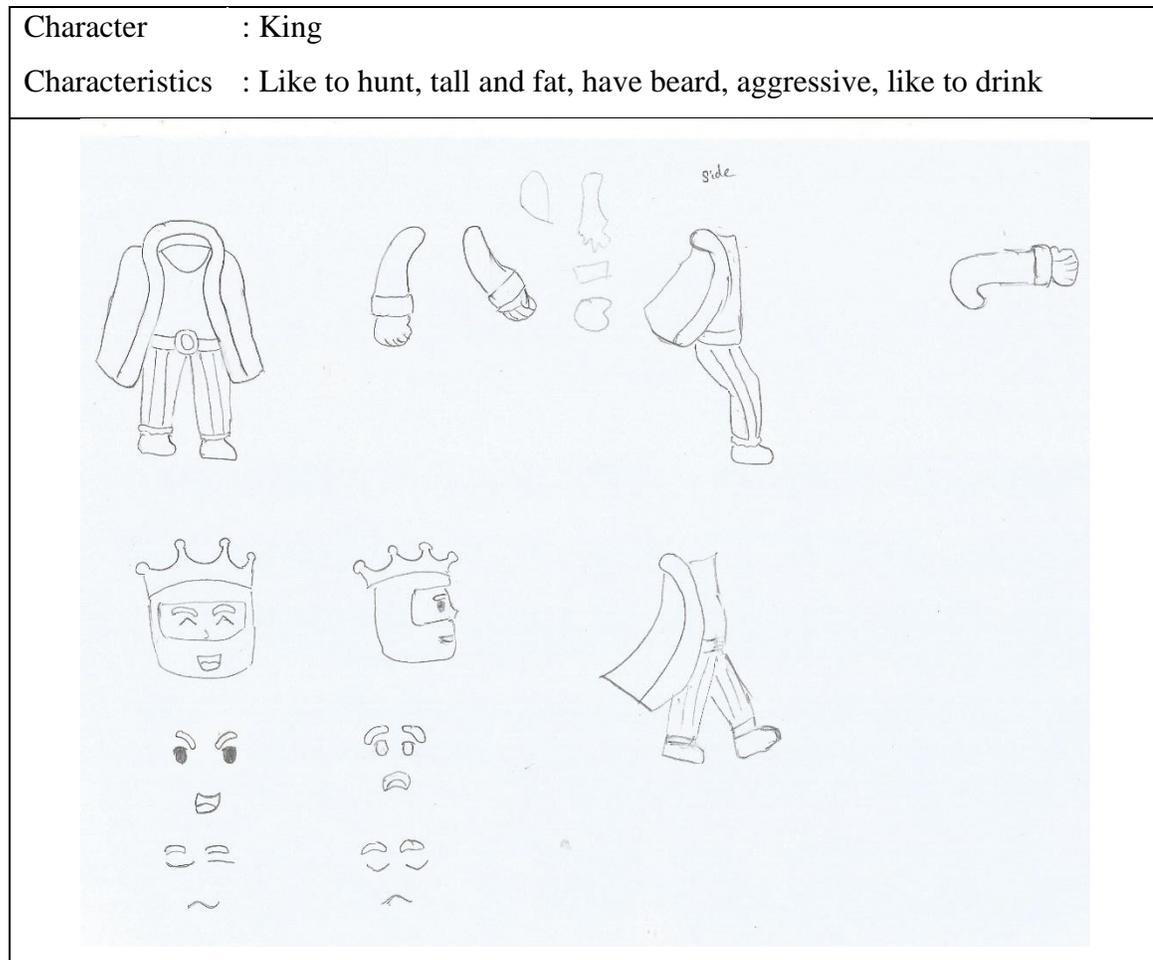


Figure 4.5: Initialize design of the King

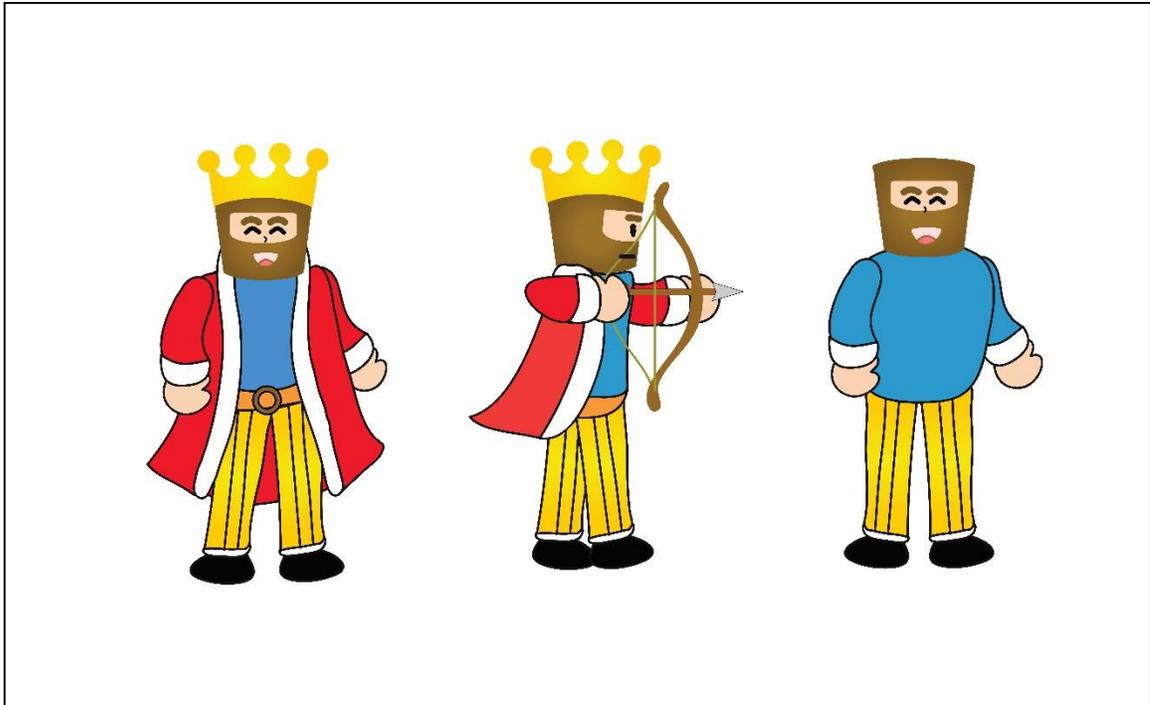


Figure 4.6: Final design of the King

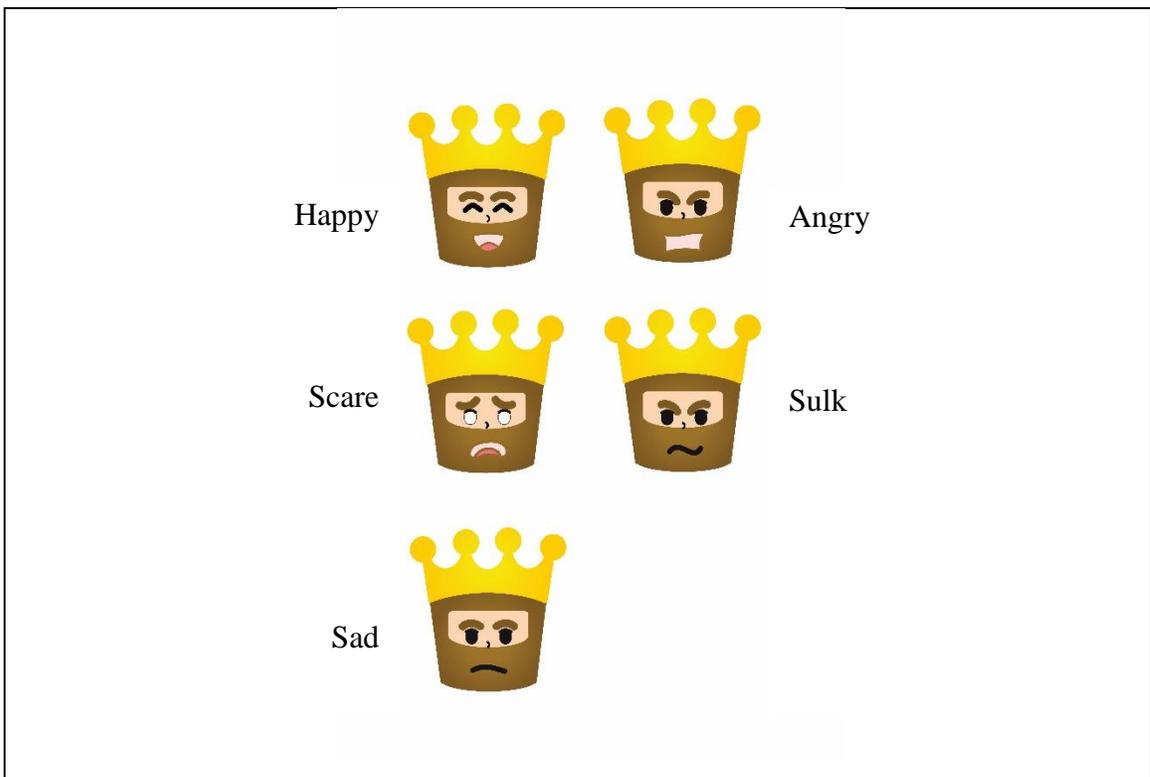


Figure 4.7: Final design of the King's expressions

Character : Courtier
Characteristics : Optimism, was prisoned by King

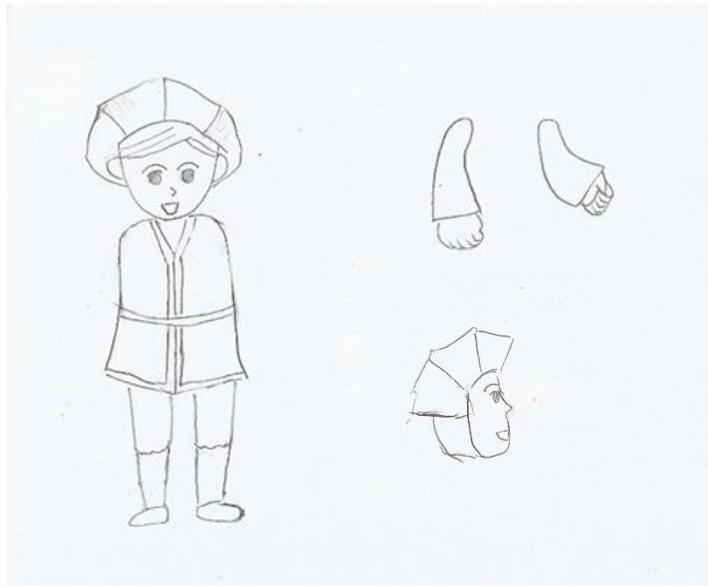


Figure 4.8: Initialize design of the Courtier



Figure 4.9: Final design of the Courtier

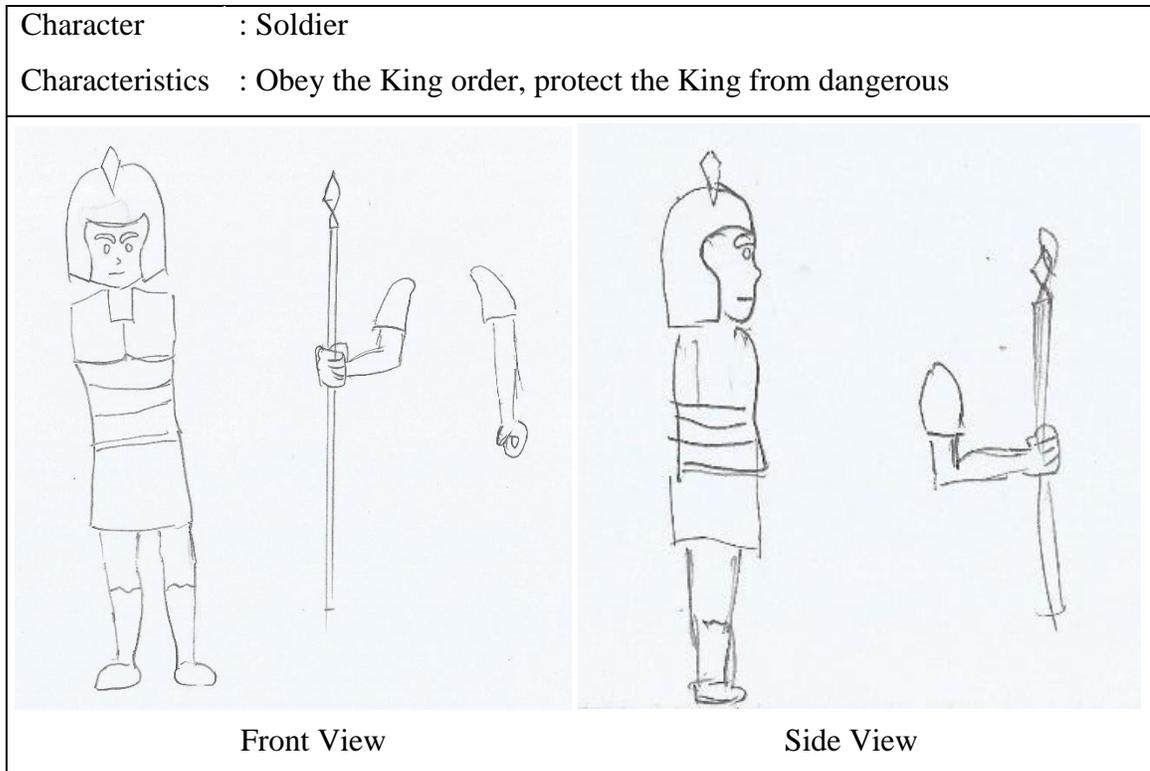


Figure 4.10: Initialize design of the Soldier

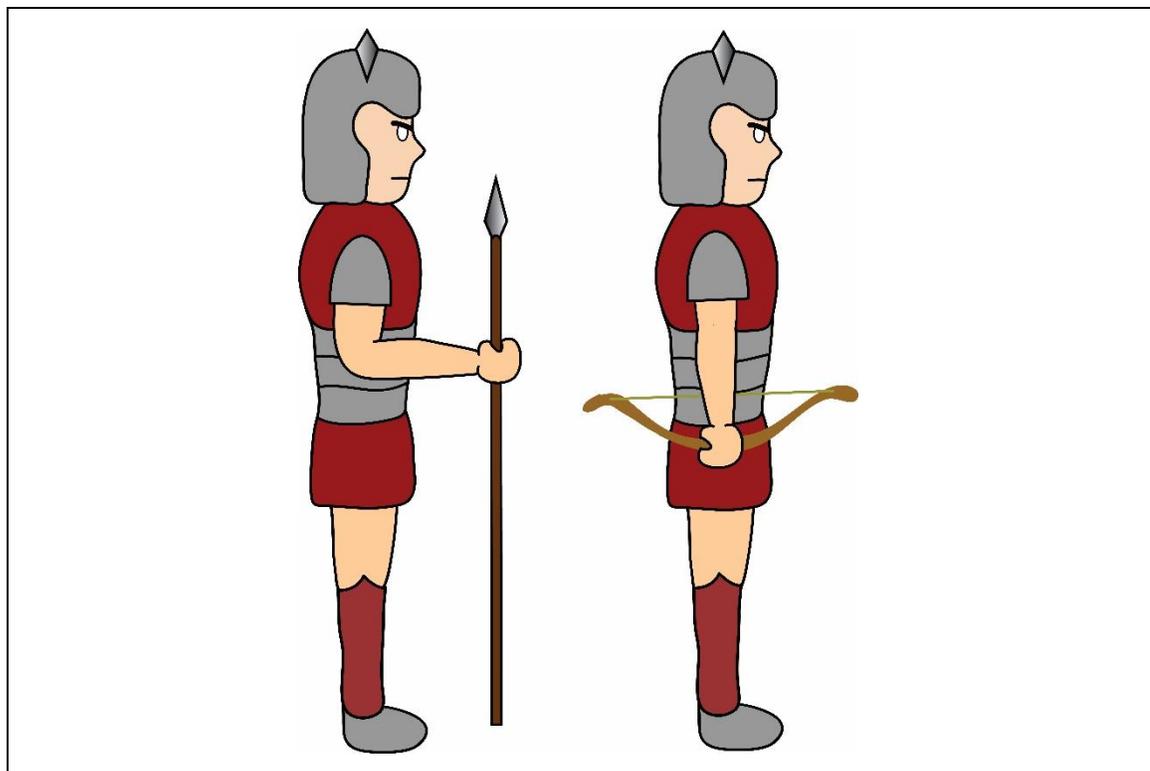


Figure 4.11: Final design of the Soldier

Character : Savage

Characteristics : Vicious, superstition, live in jungle, catch King as captive



Figure 4.12: The design of the Savage

Character : Priest

Characteristics : Live in jungle, superstition, found the King's finger is mutilated



Figure 4.13: The design of the Priest

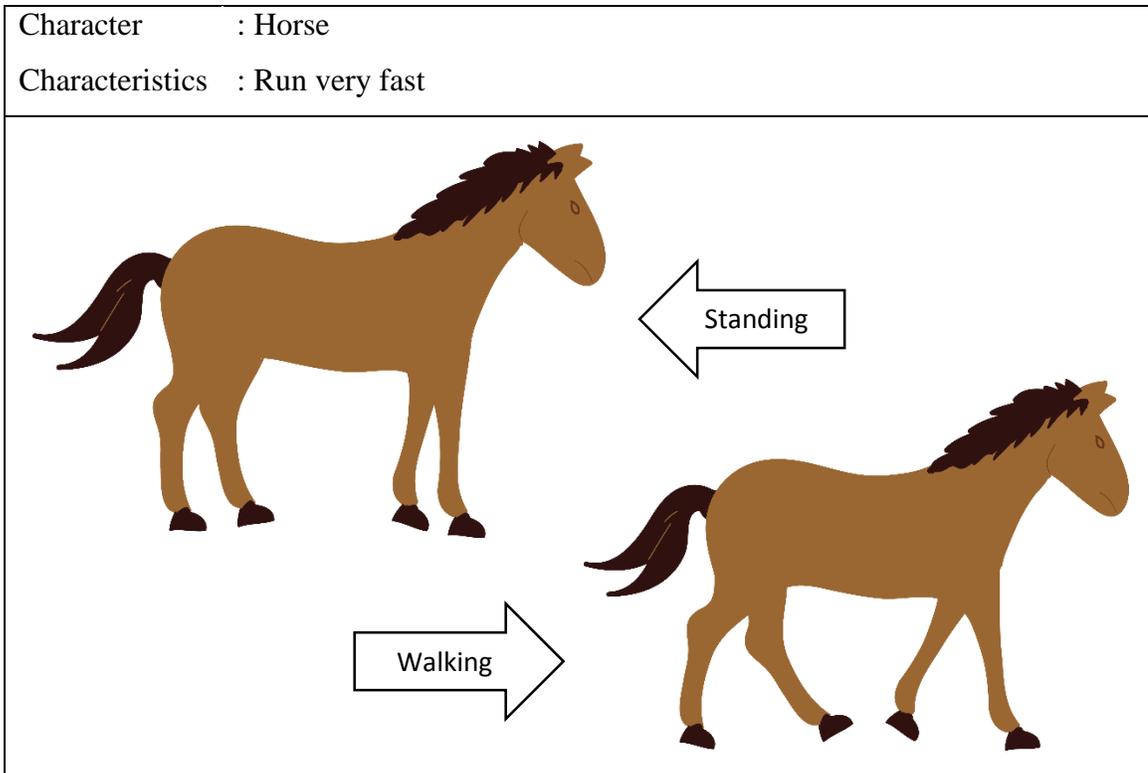


Figure 4.14: The design of the Horse

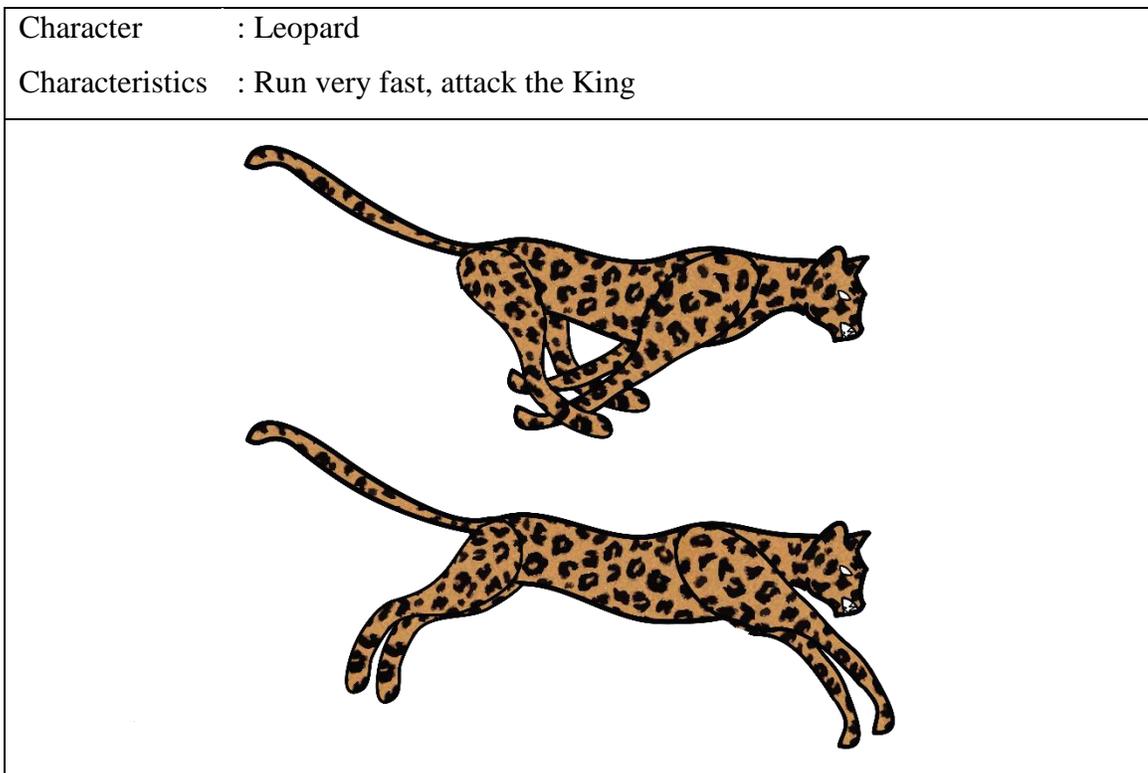


Figure 4.15: The design of the Leopard

4.4 Conclusion

As the conclusion, this chapter had detailed out all the design phase including scene sequence diagram, storyboard design and character design. All the design data will let the animator do the work more smoothly. The next chapter will be describing about the implementation of the system. The topic will be included the media creation, media integration, and configuration management setup.

CHAPTER V

IMPLEMENTATION

5.1 Introduction

Implementation is the realization execution of a plan, idea, and design based on the all the requirements. This chapter is discuss the implementation of this 2D animation project. Media creation includes production of text, graphic, audio, video, and animation will be explained in this chapter. Besides that, media integration and product configuration management also will be discussed. The expected output at the end of the implementation phase is this 2D short animation might run properly according to the objectives.

5.2 Media Creation

Media creation refers to the creation of content in animation elements. There are 5 types of animation elements will be discussed which is texts, graphics, audio, video and animation.

5.2.1 Production of Texts

Text is one of the important element that used to convey and deliver the moral value to the audience. It is also have been used to provide the subtitle to ensure the audience understand the voice actor speak. The texts in this project are created in Adobe Illustrator. The types of font used in this 2D animation are “Comic Sans MS”, “Simplified Arabic” and “Tekton Pro”. Table 5.1 shown the type, screenshot and purpose of each text in this 2D animation.

Table 5.1: Type of text and purpose

Type	Screenshot	Purpose
Comic Sans MS Size : 72pt Style : Bold Colour : White Stroke : Orange Alignment : Center		For the animation title
Simplified Arabic Size : 16pt Style : Bold Colour : White Stroke : Black Alignment : Center		For the animation subtitle
Tekton Pro Size : 40pt Style : Bold Colour : White Stroke : None Alignment : Center		For the moral value of animation

5.2.2 Production of Graphics

Graphic is an image or visual representation that design on an object such as wall, screen, character and others. Thus, computer graphics are the data of image or visual representation that displayed on a computer screen. This project used a lot of colourful graphic which their format is JPEG and PNG. All of the images are vector image. Mostly graphic are drawn and some of them are taken from website and traced. All the characters and the background sample are being design in Adobe Illustrator CS6 in order to produce an aesthetics vector graphics. The workspace size in Adobe Illustrator CS6 is set the width to 2560px and the height is set to 1440px, twice the video size. Then, the graphic have been designed in Adobe Illustrator CS6 will imported to Adobe After Effect for animate purpose. Figure 5.1 shown the Creation Flow of the Graphic.

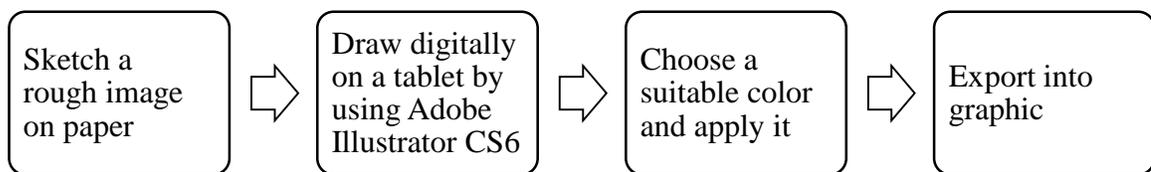


Figure 5.1: Creation Flow of the Graphic



Figure 5.2: Vector character develop by using Adobe Illustrator CS6

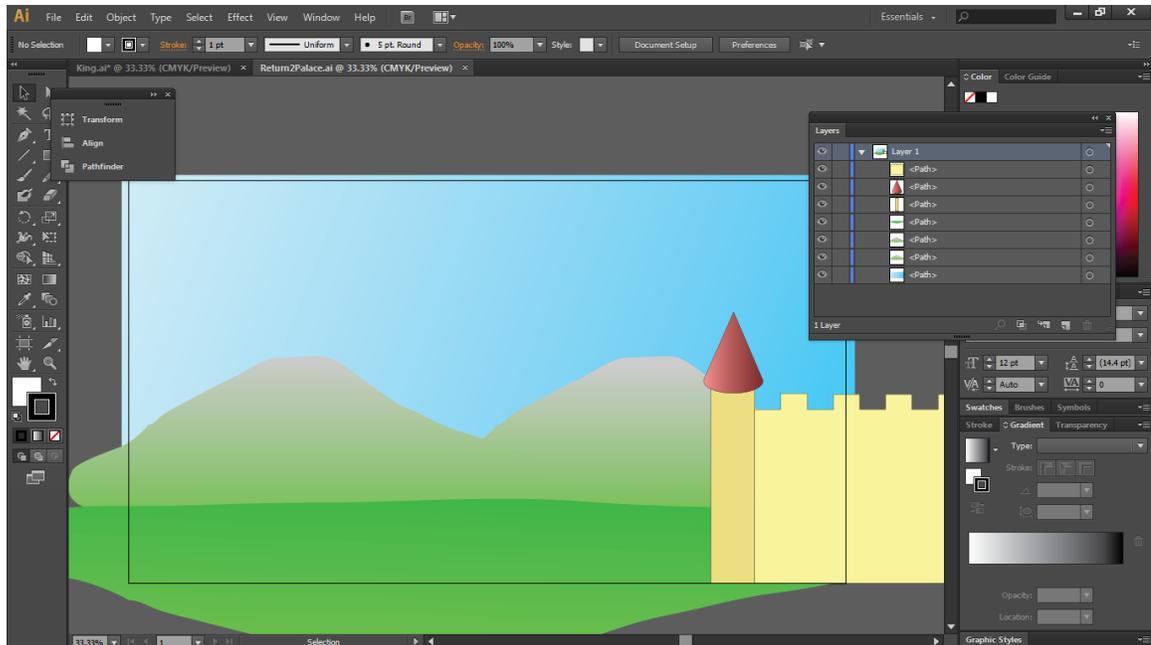


Figure 5.3: Vector background develop by using Adobe Illustrator CS6

5.2.3 Production of Audio

Audio is one of the important element that helps to produce a better 2D animation. The suitable sound effect and background music give audience immerse into animation easily. Besides that, it also want to make the animation more interesting and deliver the moral value effectively. The audio file formats produce are MP3 and WAV. The character voice in this animation has been recorded by using a smartphone in a quiet room to make sure the voice recorded can be edit more easily. The recorded sound then transferred into a software for editing process such as amplify and noise reduction. The software have been used to edit the voice recorded is Audacity. After finish edit, then the recorded voice is convert to WAV format before import to Adobe Premiere Pro CS6.

All the sound effects and background music are free royalty sound that downloaded through online. Mostly of them are MP3 format and the sound is on good quality. MP3 format can maintain good audio frequency quality to provide better animation. Figure 5.4 shown the Process of Voice Over while Figure 5.5 shown the Process of Background Music and Sound Effect.

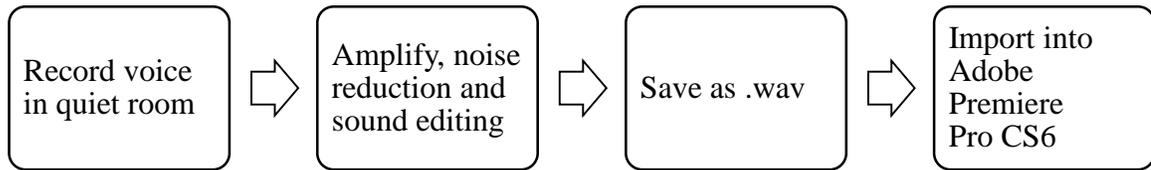


Figure 5.4: Process of Voice Over

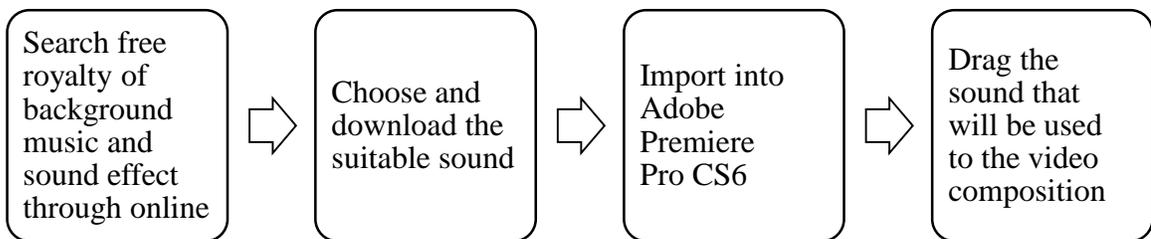


Figure 5.5: Process of Background Music and Sound Effect

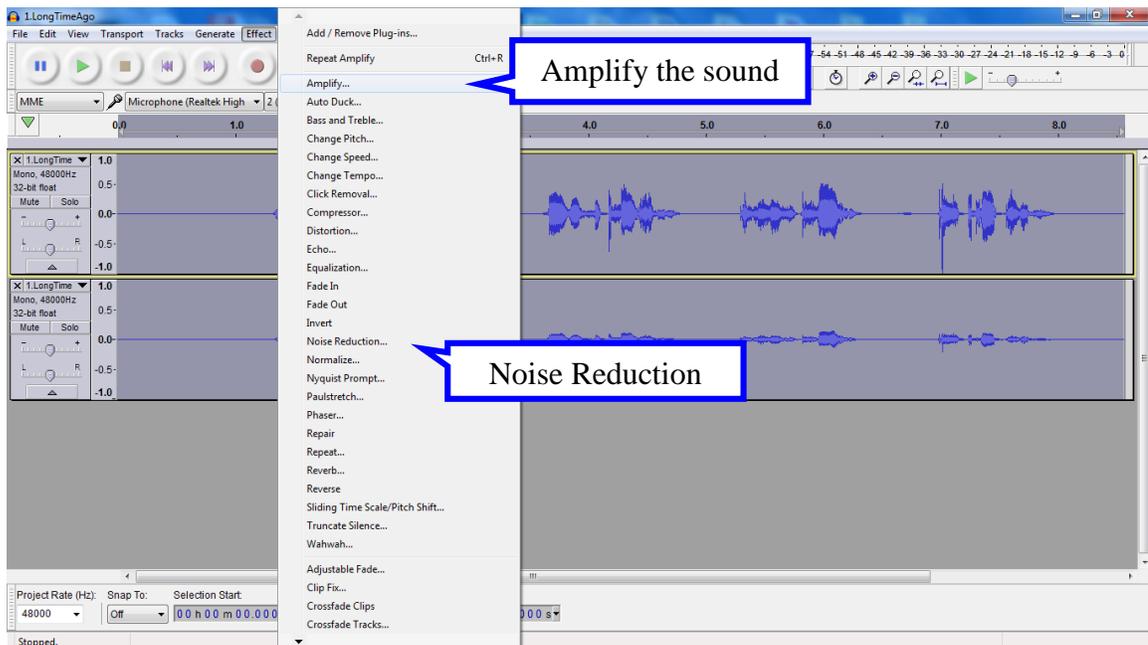


Figure 5.6: Sound Editing by using Audacity

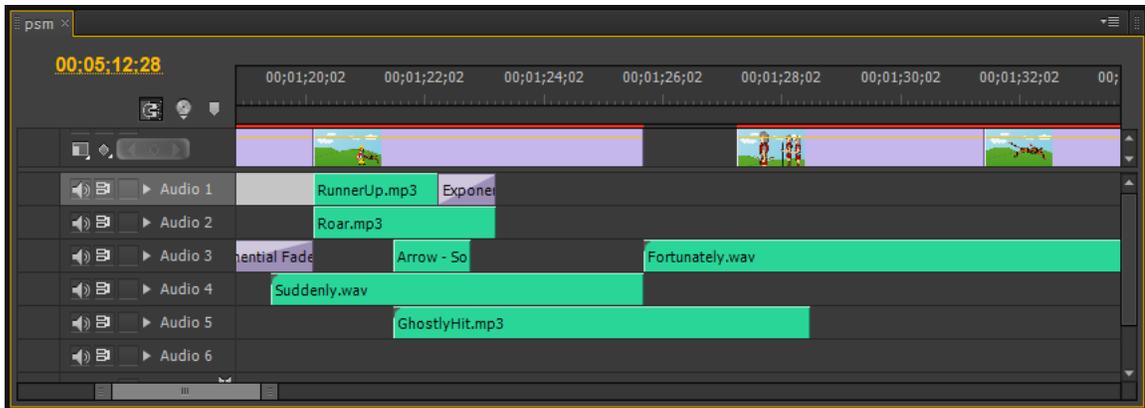


Figure 5.7 Audio Placement in Adobe Premiere CS6

5.2.4 Production of Video

Video in multimedia means visual multimedia source that combines a sequence of images to form a moving picture. Videos usually have audio components that correspond with the pictures being shown on the screen. The final output for this 2D animation was developed by using Adobe Premiere Pro CS6. The width of the video is set to 1280px while the height is set to 720px. The video sequence was imported from Adobe After Effect CS6 after animated. Then the video effect, video transition, sound effect, sound transition, and subtitle are added to the video sequence. After combining the entire scene with effects, the final output of the animation was rendered and saved as H264 video format. H264 is a video codec standard which can achieve high quality video in relatively low bitrates and less space. Mostly video player are support H264 video format such as “Window Media Player”, “Media Player Classic” and “RealPlayer”. Figure 5.8 shown the Process of Video.

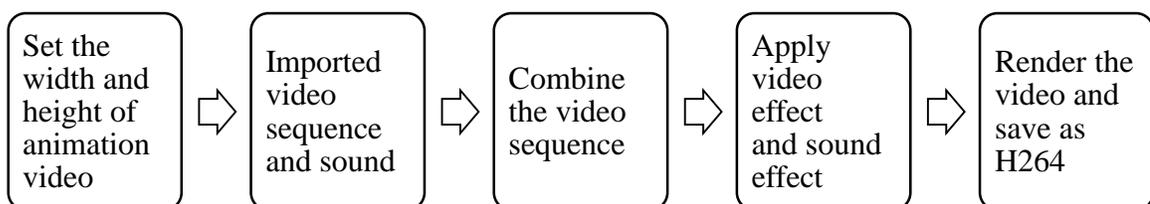


Figure 5.8: Process of Video

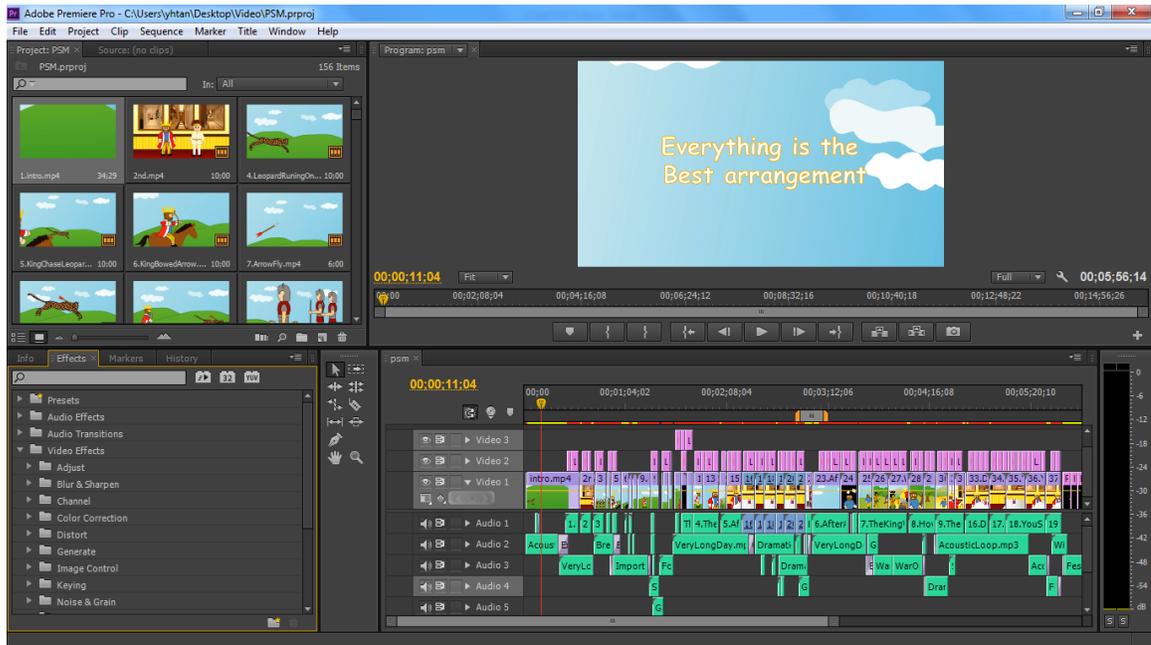


Figure 5.9: Video Editing by using Adobe Premiere CS6

5.2.5 Production of Animation

Animating is one of the important part in 2D animation. Adobe After Effect are used to complete the animate process. First of all, the character body structure such as head, hand or leg are imported into Adobe After Effect and then create new composition with the size 1280px width and 720px height. After that, start animate the character movement and the eye blinking by keyframe. Another part that done by keyframe is the mouth of the character need to be synchronize with the voice actor. Most of the composition in this project are using the method masking and tweening. Masking is revealing portion of your picture or graphic in the layer below. While tweening is process to make first image evolves smoothly into the second image. The composition of the animation will render frame by frame and saved as H264 file format after animated. Then it will be imported into Adobe Premiere Pro CS6 for produce final animation video purpose. Figure 5.10 shown the Process of Animating.

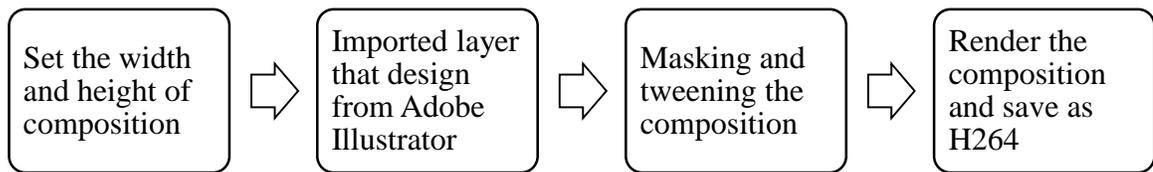


Figure 5.10: Process of Animating

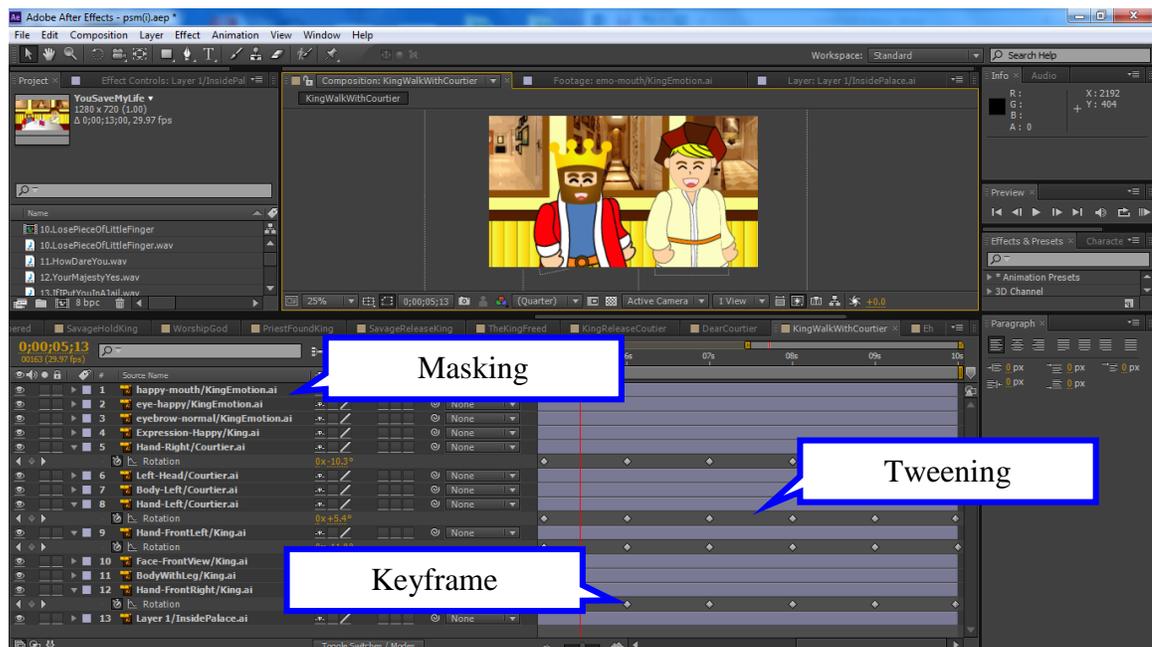


Figure 5.11: Animation techniques have used in Adobe After Effect CS6

5.3 Media Integration

Media integration is the process of combination of five multimedia elements in the multimedia development project. The five multimedia elements are text, graphic, audio, video and animation. All of these five multimedia elements must be done correctly and fulfil the animation requirement to complete this 2D animation.

Text is one of the important element have been used in this 2D animation. It was applied in the opening title. Besides that, it also used to create the subtitle and the moral value explanation. The fonts of text that have used in this 2D animation are Comic San MS, Simplified Arabic and Tekton Pro.

Graphics of this 2D animation are produces by sketching, scanning or printing and then use the software to develop it. The software that have been used in this 2D animation are Adobe Illustrator. Adobe Illustrator are used to create, edit and combine the graphic in order to provide best quality graphic. The graphics that are produced through software were integrated in Adobe After Effect for animating purpose.

Audio elements can give audience immerse into animation easily. The audio which had been added into this 2D animation are dialogue, sound effect and background music. The dialogue are record by smartphone in quiet room while the sound effect and background are download through free royalty website. All of the audio were edited by Audacity to produce better quality audio.

Video is the final output for this 2D animation project. The animated scenes are imported into Adobe Premiere Pro CS6 after rendered from Adobe After Effect. All of the scene are combine with sound and video effect to produce better output. Lastly, the video was compressed to high quality video with low bitrates, which are H264 video format.

Animation are one important elements for this 2D animation. In this phase, the character movement, eye blinking, object animating and the process need to fulfil the requirements of the project. The method masking and tweening also were applied. The animation scene will rendered frame by frame and then imported into Adobe Premiere Pro CS6 for compress final video purpose.

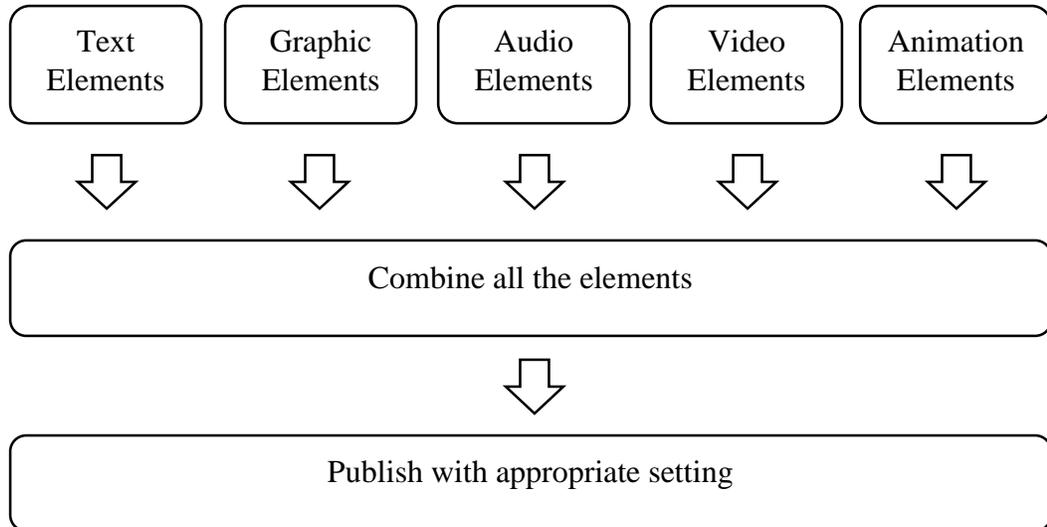


Figure 5.12: Process of Media Integration

5.4 Product Configuration Management

5.4.1 Configuration Environment Setup

A good product always produce in a good environment. Thus, selection of appropriate environment is very important. The Windows 7 Professional operating system is selected to run all the applications including Adobe Illustrator CS6, Adobe After Effect CS6, Adobe Premiere Pro CS6 and Audacity. Table 5.2 shown the configuration environment setup in this 2D animation.

Table 5.2: Configuration environment setup

Software	Configuration
Adobe Illustrator CS6	<u>Stage Configuration</u>
	Size : 2560px x 1440px
	Width : 2560px
	Height : 1440px

Adobe After Effect CS6	Size : 1280px x 720px Width : 1280px Height : 720px Background colour : #000000 (black) Frame Rate : 29.97 fps
Adobe Premiere Pro CS6	Size : 1280px x 720px Width : 1280px Height : 720px Frame Rate : 29.97fps Publish Format : H264
Audacity	Audio Rate : 48000 Hz Audio Channel : Stereo Resolution : 16 bit Publish Format : WAV

5.4.2 Version Control Procedure

Version control procedure is a necessary process to explain the development phase for this 2D animation. Table 5.3 shown the Version Control Process.

Table 5.3: Version Control Process

Version	Description of Version
Version 1.0	Synopsis <ul style="list-style-type: none"> • Write the storyline • Create scripting and dialogue • Draw the storyboard
Version 2.0	Preliminary Design <ul style="list-style-type: none"> • Design character design • Draw the artwork of the character

Version 3.0	Voice Record <ul style="list-style-type: none"> • Find suitable candidate • Record actor voice
Version 4.0	Animation <ul style="list-style-type: none"> • Animate character • Apply some animation technique
Version 5.0	Demo version
Version 6.0	Final Product <ul style="list-style-type: none"> • DVD in H264 format

5.5 Implementation Status

Implementation status is used to describe the progress of the development status for each of the task based on Gantt chart. Through the implementation phase, animator can precede their work based on the schedule and finished it on time. Table 5.4 shown the Implementation Status and Duration of this 2D animation.

Table 5.4: Implementation Status and Duration

Task	Duration	Date Complete	Status
Detail Design <ul style="list-style-type: none"> • Character sketches • Character design • Develop character with Adobe Illustrator CS6 • Character colouring 	2 weeks	30 July 2017	In time

Audio Recording <ul style="list-style-type: none"> • Dialogue and Narrative • Sound effect • Background music 	1 week	23 July 2017	On time
Animation <ul style="list-style-type: none"> • Animate character • Masking • Tweening 	2 weeks	8 August 2017	On time
Integration <ul style="list-style-type: none"> • Combine animation and audio • Effects • Subtitle 	1 week	12 August 2017	On time
Modification <ul style="list-style-type: none"> • Improve the animation 	2 days	14 August 2017	On time

5.6 Conclusion

As a conclusion, this chapter has explained the media creation and media integration. The configuration environment setup is also stated. This chapter also explained the implementation status of this 2D animation. Next chapter will discuss about the testing phase.

CHAPTER VI

TESTING

6.1 Introduction

This chapter will explain about the last phase in development process which is the testing phase. In this phase, the system will be test based on test strategy. Test implementation will also discussed to find out how well the product works and their functionality. The test data later will be analyzed to prove whether or not the product has fulfilled the objectives and requirements.

6.2 Test Plan

Test plan is a planning that carries out the testing approach based on the testing schedule. It is one of the phases that use basic of project management control throughout the testing process and contains the information specifying. Activities in the test plan involves test user, test environment and test schedule.

6.2.1 Test User

This part will describe the respondents who are involved in the testing phases. There are two testing that need to execute which is functionality testing and user acceptance testing. Functionality testing are more on technical evaluation and it is test by multimedia expert who know about the multimedia. All of the multimedia experts are from Universiti Teknikal Malaysia Melaka. While the user acceptance testing is test by the youths and adults whether they are students, office workers or teachers. Table 6.1 shown the Test User Group and Description.

Table 6.1: Test User Group and Description

Test User	Description
Multimedia Experts (Lecturer from UTeM with multimedia background)	Given their professional opinion. Evaluate more on technical part such as visual aesthetics, flow of the story, animation principles technique and sound effect.
Youths and Adults (18 – 30 years old)	Evaluate based on their acceptance . Evaluate based on the moral values of animation.

6.2.2 Test Environment

Test environment is a setup of the environment which consists of hardware and location of testing that needs to be carried out. The hardware that use to watch this 2D animation is only a laptop with “Windows Media Player”. For the multimedia experts, the testing was implement in their office. While for the public testing, the testing was implement either in FTMK, UTeM or in theirs house. The questionnaire was distributed to them after they watched the 2D animation. Figure 6.1 shown the Public Users Testing.



Figure 6.1: Public Users Testing

6.2.3 Test Schedule

Test schedule describes the location, responsibilities, time and date to done testing activity. Table 6.2 shown the Test Schedule to be conducted for this 2D animation.

Table 6.2 Test Schedule

	Pilot Test	Public Test
Type of testing	Multimedia Experts Testing	Public User Testing
Location	FTMK, UTeM	FTMK, UTeM. Bukit Beruang, Melaka.
Respondent	Lecturer with Multimedia background	Public user aged range 18 – 30 years old
Number of Respondents	6	36
Average Duration	25 minutes	10 minutes
Date	21/8/2017 – 25/8/2017	28/8/2017 – 1/9/2017

6.3 Test Strategy

These test strategies are used to make sure this 2D animation project has meet its objective and can bring out the intended message to the target users. Test strategy is divided into 2 parts, which are functionality testing (only for multimedia experts) and user acceptance testing (only for public user).

For multimedia experts testing, there are total 6 lecturer with multimedia background participate in this testing phase. The questionnaire they are answer is most on technical part. The questionnaire will give them answer based on their profession after they watched the 2D animation video. Then, the experts give some constructive feedbacks which can help in this 2D animation. Refer to Appendix I for the questionnaire.

For public user testing, there are total 36 respondents participate in this testing phase. The questionnaire is given by face to face instead of online questionnaire. They will watch the animation before they fill the questionnaire. After the questionnaire is filled, they will give some feedback based on the 2D animation video. Refer to Appendix II for the questionnaire.

6.4 Test Implementation

Test implementation is one of testing stage in this 2D animation. It will cover the test description and test data. Test description discuss the test cases and expected result while test data is the data that used in test of this 2D animation.

6.4.1 Test Description

Test description explains the test case identification, test cases and expected result for each module that is designed. There are two part of testing which is functionality testing

that only for multimedia experts and user acceptance testing only for public user. Table 6.3 and 6.4 shown the description for both multimedia experts and public user testing.

Table 6.3: Test Description for Multimedia Experts

Test Case	Description
2D graphics	To evaluate the 2D graphics has the good quality.
Audio	To evaluate the audio matches the story flow.
Transitions	To evaluate the suitable transitions of the story.
Animation Techniques	To evaluate the animation techniques has right applied.
Story flow	To evaluate the flow of the story are well organized.

Table 6.4: Test Description for Public User

Test Case	Description
Storyline	To evaluate the story is attractive and understandable
Moral Value	To evaluate the moral value are deliverable
Colour	To evaluate the animation is attractive
Attitude	To evaluate the optimistic perception based on 2D animation

6.4.2 Test Data

The data for the testing phase is collected by using questionnaire. Different test user have different questionnaire. The test user are multimedia experts and public user. The questionnaire are distributed to them after they watched the 2D animation video. Then, they will give some feedback based on the 2D animation video.

The questionnaire list that answer by multimedia experts are more technical evaluation. While the questionnaire list that answer by public user are based on their perception. All the collected data will be revealed for analysis purpose. Their advices and opinion also have been written down which able to enhance in this 2D animation video.

6.5 Test Results and Analysis

This section defines the test results and analysis that cover on test case identification. The purpose of the testing is to find out the weakness of this project and then find the better solution for it. The results are gathered and analyze by the multimedia experts. Based on a result, the multimedia experts can approved whether the project may proceed to next stage or cannot.

6.5.1 Pilot Test

Pilot testing is a testing that make small adjustments from usability studies in order to achieve the more reliable result. There are total 6 multimedia experts participate in this pilot test of this 2D animation project. The questionnaire provided to them are more on technical evaluation. All the question is answered based on the Level of Evaluation as shown in Table 6.5.

Table 6.5: Level of Evaluation

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

After the data is collected and gathered, the data have been calculated to find the Cronbach's alpha value. The purpose to calculate Cronbach's alpha value is want to test this 2D animation project whether can proceed to next stage or cannot. The higher Cronbach's alpha value, the higher reliability of the data. Figure 6.2 shown the formula to calculate the Cronbach's alpha value. Table 6.6 shown the rule for interpret Cronbach's alpha value.

$$\alpha = \frac{n}{n-1} \left(1 - \frac{\sum Vi}{V_{test}} \right)$$

α = Cronbach's alpha value
 n = Number of questions
 Vi = Variance of score on each question
 V_{test} = Total variance of overall scores on the entire test

Figure 6.2: Cronbach's Alpha Formula

Table 6.6: The rule for interpret alpha value

Cronbach's alpha value	Interpret
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

6.6 Analysis Testing

After all the data is collected and gathered from both multimedia experts and public user, the data have been used for analysis purpose. The figure and chart or graph are generated. The mean, median and mode also is calculated. Those results is obtained from pilot testing and public testing.

6.6.1 Pilot Testing

Pilot testing is only implement by multimedia experts only. There are total 6 multimedia experts involves in this testing. The results of this testing are used to identify the animation whether can proceed to next stage or cannot. Table 6.7 shown the all result from multimedia experts. Refer to Appendix I for the questionnaire.

Table 6.7: Result from Multimedia Experts

		Multimedia Expert					
		1	2	3	4	5	6
Question	1	3	2	4	3	4	5
	2	3	3	4	3	4	4
	3	3	4	4	4	3	5
	4	3	4	4	3	4	4
	5	3	2	4	3	4	5
	6	4	4	4	3	4	4
	7	4	3	4	4	4	5
	8	3	4	4	3	4	4
	9	3	3	4	2	3	4
	10	3	5	3	3	4	4
	11	4	5	4	4	4	3
	12	4	5	5	4	4	3
	13	3	3	4	3	3	4
	14	3	4	4	3	3	4

The questionnaire list from question 1 to 6 are related with multimedia elements. Figure 6.3 shown the results of pilot testing from question 1 to 6.

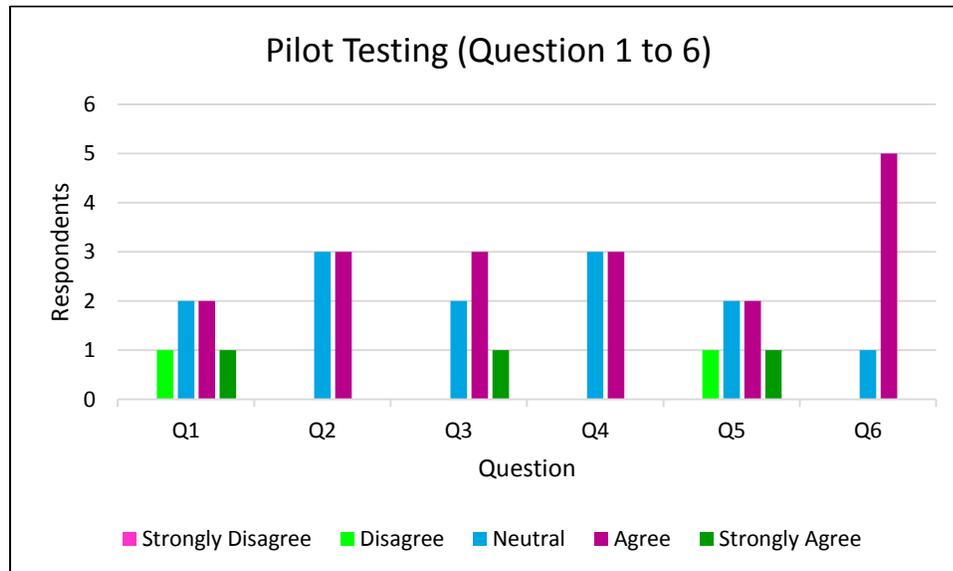


Figure 6.3: Results of Pilot Testing from Question 1 to 6

Below are the result details:

Question 1

There are 2 expert agree that quality of the 2D graphic are in good quality and there have 1 expert strongly agree that the quality of the 2D graphic is good. Another 2 expert show neutral about it. Whereas there have only 1 expert disagree the 2D graphic is not good because the color selected is not follow the color wheel.

Question 2

There have 3 expert satisfy the visual aesthetics of this 2D animation while another 3 expert show neutral about it. Different people can look at the same situation and come away with completely different perspectives

Question 3

There have 2 expert accept that the voice of character is clear. Another 4 expert provide positive feedback with 3 expert agree and 1 expert strongly agree that the voice of character is clear.

Question 4

There have equal number of expert which have 3 expert agree that the sound effect of this 2D animation are suitable whereas 3 expert shows the low confidence about it.

Question 5

There have 1 expert does not satisfy with the color combination because the color applied are not attractive and there 2 expert show neutral about it. Whereas there have 3 expert provide the positive feedback which 2 expert agree and 1 expert strongly agree the color combination are suitable applied.

Question 6

5 out of 6 experts are agree that the transitions of this 2D animation is managed well. Only 1 expert shows neutral about it.

While the questionnaire list from question 7 until 14 are more related with animation principles technique. Figure 6.4 shown the results of pilot testing from question 7 to 10 and Figure 6.5 shown the results of pilot testing from question 11 until 14.

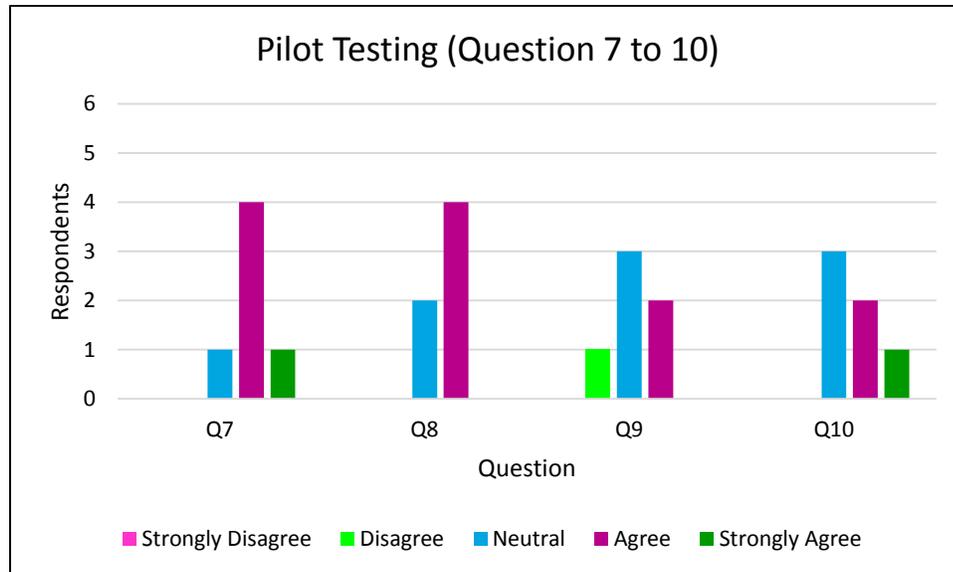


Figure 6.4: Results of Pilot Testing from Question 7 to 10

Below are the result details:

Question 7

5 out of 6 experts provide the positive feedback which 4 expert agree and 1 expert strongly agree that the lip sync are accurate in timing. This is because the Timing principle are apply well in this animation. Whereas there have only 1 expert shows neutral about it.

Question 8

There have 4 expert agree that the movement of character are look more vivid. This is because the Arcs principle was applied in the animation. But there have 2 expert shows low confidence to this matter.

Question 9

There have 2 expert agree that the sound effect sufficiently represent the pulling string action because it have related with Anticipation principle. Whereas there have 3 expert shows neutral and only 1 expert disagree to the statement.

Question 10

Half of an expert are not confidence to indicate the expression of the character are expressive. This is because the Exaggeration principle was applied are not sufficient. But there have 2 expert agree and 1 expert strongly agree that the character's expression effectively conveying the message.

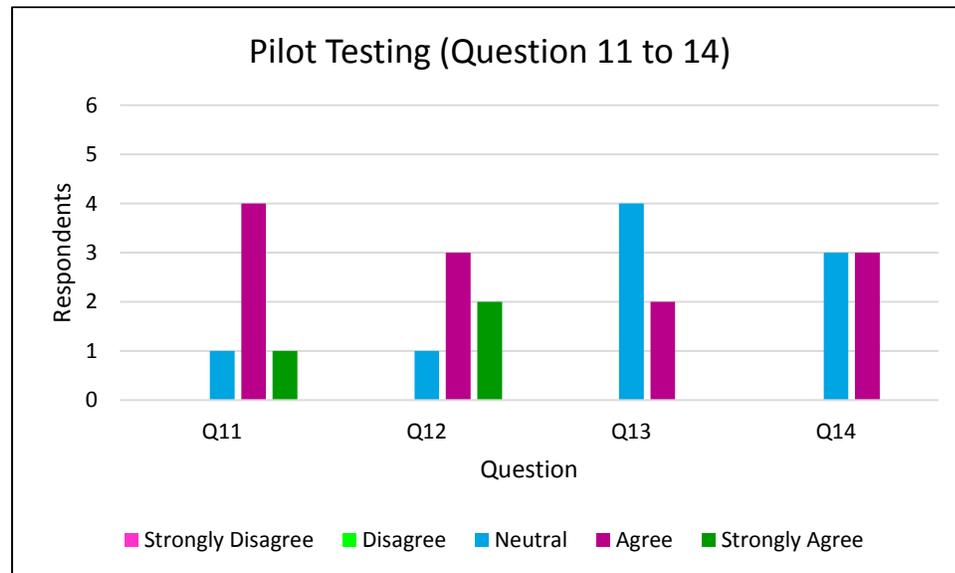


Figure 6.5: Results of Pilot Testing from Question 11 to 14

Below are the result details:

Question 11

There have 1 expert strongly agree and 4 expert agree that the plot of this 2D animation are well organized. This is because they can clearly understand what the message that want to bring it out from this 2D animation. Whereas there have only 1 expert shows neutral about it.

Question 12

Most of the experts are enjoyed with the story of this 2D animation. There have 2 expert are strongly agree and 3 expert agree with the statement. Only 1 expert shows neutral about it.

Question 13

There have 2 expert satisfy with the quality of applied animation principle while another 4 expert only shows neutral about it.

Question 14

There have 3 expert agree that diversity of animation principle was applied in this 2D animation but another 3 expert shows low confidence with it.

From the table in the test result, a graph and chart has been created to make the evaluation and analysis become clearer. Thus, all data have been calculated to find the mean, median and mode. Table 6.8 shown the result of mean, median and mode for the data collected based on the pilot testing.

Table 6.8: Mean, Median, Mode from Pilot Testing

Question Number	Mean	Median	Mode
1	3.5	3.5	3,4
2	3.5	3.5	3,4
3	3.83	4	4
4	3.67	4	4
5	3.5	3.5	3,4
6	3.83	4	4
7	4	4	4
8	3.67	4	4
9	3.17	3	3
10	3.67	3.5	3
11	4	4	4
12	4.17	4	4
13	3.33	3	3
14	3.5	3.5	3,4

In conclusion, the findings shows the integrated multimedia elements are appropriate applied but still can be improve. While the animation principle technique that have applied in this 2D animation are not sufficient but is acceptable. Most of the multimedia experts are satisfy and enjoy with the plot of the animation and the message that want deliver to audience are successfully conveyed.

6.6.1.1 Cronbach's Alpha Value

After the pilot testing is done, the collected data from pilot testing will be used to analyze and calculate the Cronbach's Alpha Value. The Cronbach's Alpha Value are calculated to identify whether this 2D animation project can proceed to next stage or cannot. Table 6.9 shown the Cronbach's Alpha Value from pilot testing.

Table 6.9: Cronbach's Alpha Value from Pilot Testing

Number of Question	Cronbach's Alpha Value
14	0.801

The result from pilot testing have been analyzed and calculated by using Cronbach's Alpha formula to get the Cronbach's Alpha Value. Based on the Figure 6.9, the Cronbach's Alpha Value are above 0.6. This result indicate this 2D animation are in good stage which the project are acceptable and working well. Therefore, this 2D animation is able to proceed to next stage which is Public testing.

6.6.2 Public Testing

After the Cronbach's Alpha Value are achieved successfully through pilot testing, it proceeds to the public testing. Public testing is implement by youths and adults whether they are students, office workers or teachers. There are total 36 public users aged range within 18 to 30 years old, which 20 males and 16 females respondent involves in this testing. The questionnaire is distributed to them by face to face and their feedbacks also is recorded

for future improvements. Table 6.10 shown the all result from public user. Refer to Appendix II for the questionnaire.

Table 6.10: Result from Public Users

		Public User (Age range within 18 to 30)																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Question	Q1	5	5	5	4	4	5	4	5	4	5	4	4	5	5	4	5	4	5
	Q2	5	4	4	4	3	5	5	5	4	5	4	3	4	4	5	4	3	5
	Q3	5	5	5	4	3	5	5	5	5	4	5	4	5	4	4	4	4	5
	Q4	4	5	4	3	4	5	4	4	4	5	3	3	4	4	3	2	2	3
	Q5	5	5	5	4	5	3	4	4	5	3	2	3	4	1	3	4	4	3
	Q6	4	4	5	5	5	4	5	4	5	4	3	4	4	5	4	5	5	4
	Q7	5	4	4	4	4	5	5	5	4	5	4	5	5	5	4	4	4	4

		Public User (Age range within 18 to 30)																	
		19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Question	Q1	5	4	4	4	5	5	5	5	5	4	4	3	5	4	5	5	5	4
	Q2	4	5	5	4	5	4	4	4	5	3	5	4	5	3	4	5	5	5
	Q3	4	5	4	4	5	4	5	4	4	4	4	4	5	5	5	5	5	5
	Q4	4	3	4	4	5	5	3	4	4	3	5	2	5	3	3	4	4	4
	Q5	4	4	5	3	5	4	3	3	2	3	4	3	4	4	4	5	4	5
	Q6	5	5	5	4	5	4	5	3	4	3	4	4	4	4	5	5	5	5
	Q7	4	4	4	4	5	4	4	5	5	4	5	3	5	4	4	5	5	5

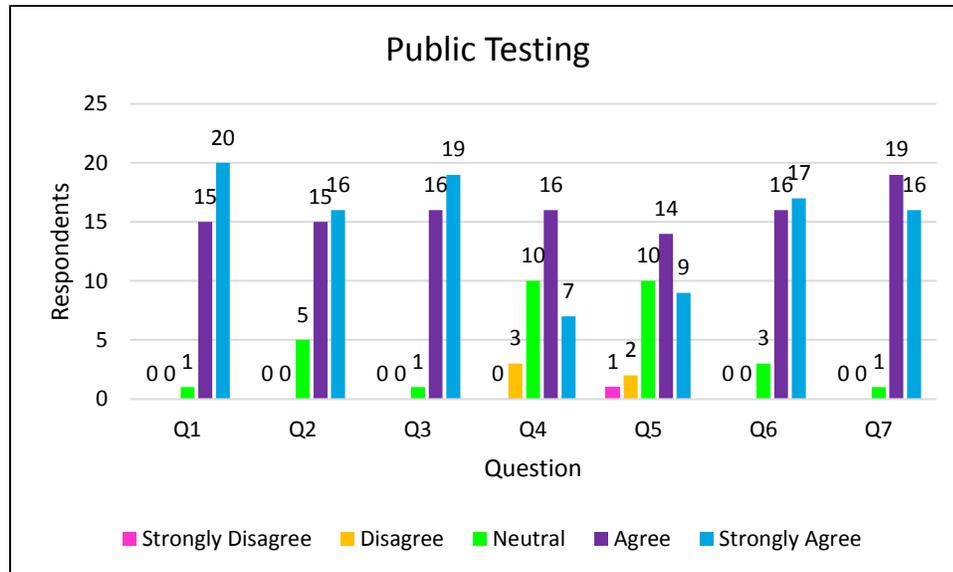


Figure 6.6: Results of Public Testing

The public testing is want to evaluate the effectiveness of this 2D animation toward society. Figure 6.6 shown the results of public testing. Below are the result details:

Question 1

35 out of 36 respondent shows the positive feedback which 20 respondent strongly agree and 15 respondent agree that the story of this animation is easy for them to understand because the animation's pace are slow and the audio is clear. Only 1 respondent show neutral about it.

Question 2

There have 15 respondent like the story of this 2D animation and 16 respondent very much like the story of this 2D animation. This is because the story is motivate people to be more optimistic. But there have 5 respondent shows neutral to this matter.

Question 3

There have 19 respondent strongly agree and 16 respondent agree that the moral values of this 2D animation is understandable. This is because it can reminds them try to look on different perspective. Only 1 respondent show neutral about it.

Question 4

There have 3 respondent disagree that the visually of the animation are attractive. This is because the color applied are not 100% follow the color wheel. However, there have 16 respondent agree and 7 respondent strongly agree with the above statement. Another 10 respondent provide low confidence about it.

Question 5

There have 14 respondent agree and 9 respondent strongly agree that this 2D animation reminds similar incident happened in their life. Hence, this animation can aware them to be more positive. But there have only 1 respondent show strongly disagree and 2 respondent show disagree about it. Another 10 respondent are shows neutral to this statement.

Question 6

Mostly respondent are provide positive feedback which has 17 respondent strongly agree and 16 respondent agree that this 2D animation motivates and made them to be more optimistic. Whereas 3 respondent provide low confidence with it.

Question 7

There have 16 respondent strongly agree and 19 respondent agree that they would recommend this animation to their friends because the moral values inside this 2D animation are related with the meaning of life. Only 1 respondent shows neutral about it. Table 6.11 shown the Mean, Median, Mode based on Public Testing

Table 6.11: Mean, Median, Mode from Public Testing

Question Number	Mean	Median	Mode
1	4.53	5	5
2	4.30	4	5
3	4.5	5	5
4	3.75	4	4

5	3.78	4	4
6	4.39	4	5
7	4.42	4	4

In conclusion, the public testing is successfully tested by 20 males and 16 respondents. The findings shows mostly audience are agree that the story of this animation is easy to understand. This is because the animation are using simple vocabulary which common used in real life. Besides that, mostly audience are like the story because it can motivates and made them to be more optimistic. From the results, mostly audience indicate the visually of the animation are able to be improve to more attractiveness to make the animation more perfect. However, all of the respondents are show positive feedback which they would like to recommend this animation to their friends. Majority of the audience are understand the moral values of this animation. Meanwhile, the moral values is successfully delivered and conveyed to the audience.

6.7 Conclusion

As the conclusion, this 2D animation have been successfully tested. Through the testing phase, the result of testing have fulfilled the objectives and requirements. The intended message and moral values have been conveyed to the target users. The next chapter will be the last chapter of the report. There have a lot of feedbacks from the audience which able to enhance in this 2D animation will be discuss. It also comprise the system's weaknesses and strengths, propositions for improvement and project contribution to the society.

CHAPTER VII

PROJECT CONCLUSION

7.1 Observation on Weaknesses and Strengths

This section defines the weakness and strengths of this 2D animation. A good project certainly will have its short place. Table 7.1 shown the Weakness of the project while Table 7.2 shown the Strengths of the project.

Table 7.1: Weakness of the project

Weakness	Description
2D graphics	The 2D graphic of the animation are not applied well. The poor and unbalance colour make this 2D animation become low attractiveness. Thus, the color applied in this 2D animation should be select from the color wheel such as complementary, analogous, monochromatic and so on.
Character's movement	The character's movement in this 2D animation look not vivid. These movement lead the audience feel weird. Need study some character's motion to make the animation more realistic.

Character's expressions	The character's expressions are the hardest part in this 2D animation. Character's expressions in this 2D animation are not sufficiently expressive the emotion that want convey. The audience may confuse to the character emotion.
Voice actor	The voice actor are lack of emotion lead audience cannot fully immerse in the situation of the animation.

Table 7.2: Strengths of the project

Strengths	Description
Storyline	Story of the animation is easily to understand by audience. The story of the animation are related with meaning of life which can motivate audience to be more positive.
Pace of animation	The pace of animation are slow to let audience immerse into the story scene by scene. It also let audience enjoy in this 2D animation.
Voice's narrator	The voice of the narrator are recorded in good condition to let audience listen and enjoy the narrative of this 2D animation.
Background music	The selected background music are suitable with the mood and let audience immerse easily in the situation of this 2D animation.
Moral values	The moral values in this 2D animation are very simple but not everyone can do it. Thus, the moral values of this 2D animation reminds them to look more on bright side and to be more optimistic.

7.2 Propositions for Improvements

This 2D animation project still have a space for improving purpose in order to make it more interesting. This animation would try to integrate camera movement with the camera shot instead of applied transitions in order to provide freshness, enjoyable and interesting animation. Besides that, subtitle in this 2D animation should provide more language such as Malay subtitle or Chinese Subtitle, rather than just English subtitle. In this way, audience that whose do not understand English may watch it and understand what the moral value or message that want to deliver to them. Since this 2D animation story are related with meaning of life, therefore it can create more episode with different story to motivate more people. Lastly, this 2D animation may advances even evolves to 3D version since 3D animation can enhances the illusion of depth perception and make the animation more interesting.

7.3 Project Contribution

The purpose to create this 2D animation is want to motivate people to look more on the bright side and think on more positive when they encounter the problem. Through this animation, people can look the problem from different perspective, then they may face with the problem more easily rather than feeling stress. The moral values that want to bring out is want people learn to be grateful. People have the habit of being grateful can lead them to be more happy and more easy to achieve the contentment. In this way, they may have a better reward in their future life. Lastly, hope this 2D animation can become a good motivation story to all people.

7.4 Conclusion

Last but not least, the objectives that set earlier in this report had been achieved successfully. This can be seen clearly through the first six chapter of this report where all the requirements analysis and designs are done according to what is needed in this project development. Hopefully this 2D animation teach them learning to see things from another perspective and simulate them to be more optimistic. In the future, this 2D animation is hoped to be expanded and improved more such as create a collective episode and also in 3D version to make it more attractiveness and let more audience watch it.

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APPENDIX I
(Questionnaire for Multimedia Experts)

MULTIMEDIA EXPERT TESTING

Title : 2D Animation – Everything is the best arrangement

Name : _____

Position/ Specialty : _____

Department : _____

“Everything is the best arrangement” is a 2D animation that want to motivate people to look more on the bright side and think on more positive. The purpose of this questionnaire is to provide the feedback for the advance improvement of this project.

Technical Evaluation: Please circle your choice.

Figure below shown the level of your evaluation with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Technical Evaluation						
1	Does the quality of the 2D graphics is good?	1	2	3	4	5
2	Do you satisfy the visual aesthetics of this animation?	1	2	3	4	5
3	Does the voice actor of the characters is clear?	1	2	3	4	5
4	Does the sound effect of this animation is suitable?	1	2	3	4	5
5	Does the colour combination of this animation is suitable?	1	2	3	4	5
6	Does the transitions of this animation manage well?	1	2	3	4	5

7	Does the character's lip sync accurate in timing?	1	2	3	4	5
8	From 00:44 to 01:08, does the movement of character look more vivid after Arcs principle is applied.	1	2	3	4	5
9	Does the sound effect from 01:01 until 01:06 sufficiently represent the pulling string action?	1	2	3	4	5
10	Does the expression of the character effectively conveying the feeling?	1	2	3	4	5
11	Does the plot well organized?	1	2	3	4	5
12	Did you enjoy the story?	1	2	3	4	5
13	Please rate the quality of applied animation principles.	1	2	3	4	5
14	Please rate the diversity of applied animation principles.	1	2	3	4	5

What is the best part you have found?

What improvements do you think should be made?

Thank You.

Signature

Name:

Date :

APPENDIX II
(Questionnaire for Public Users)

USER TESTING

Title : 2D Animation – Everything is the best arrangement

Gender : Male/ Female (Please Circle)

“*Everything is the best arrangement*” is a 2D animation that want to motivate people to look more on the bright side and think on more positive. The purpose of this questionnaire is to provide the feedback for the advance improvement of this project.

User Acceptance Evaluation: Please circle your choice.

Figure below shown the level of your evaluation with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

User Acceptance Evaluation						
1	The story of this animation is easy to understand.	1	2	3	4	5
2	I like the story of this animation.	1	2	3	4	5
3	I understand the moral value of this animation.	1	2	3	4	5
4	The visually of the animation is attractive.	1	2	3	4	5
5	This animation reminds similar incident happened in my life.	1	2	3	4	5
6	This animation motivates and made me to be more optimistic.	1	2	3	4	5
7	I would like to recommend this animation to my friends.	1	2	3	4	5

Comments : _____

APPENDIX III
(Questionnaire answered by Multimedia Experts)

MULTIMEDIA EXPERT TESTING

Title : 2D Animation – Everything is the best arrangement
Name : HAMDAN ASYRANI BIN SUAIMAN
Position/ Specialty : SENIOR LECTURER
Department : MEDIA INTERACTIVE

“Everything is the best arrangement” is a 2D animation that want to motivate people to look more on the bright side and think on more positive. The purpose of this questionnaire is to provide the feedback for the advance improvement of this project.

Technical Evaluation: Please circle your choice.

Figure below shown the level of your evaluation with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Technical Evaluation						
1	Does the quality of the 2D graphics is good?	1	2	3	4	5
2	Do you satisfy the visual aesthetics of this animation?	1	2	3	4	5
3	Does the voice actor of the characters is clear?	1	2	3	4	5
4	Does the sound effect of this animation is suitable?	1	2	3	4	5
5	Does the colour combination of this animation is suitable?	1	2	3	4	5

6	Does the transitions of this animation manage well?	1	2	3	4	5
7	Does the character's lip sync accurate in timing?	1	2	3	4	5
8	From 00:44 to 01:08, does the movement of character look more vivid after Arcs principle is applied.	1	2	3	4	5
9	Does the sound effect from 01:01 until 01:06 sufficiently represent the pulling string action?	1	2	3	4	5
10	Does the expression of the character effectively conveying the feeling?	1	2	3	4	5
11	Does the plot well organized?	1	2	3	4	5
12	Did you enjoy the story?	1	2	3	4	5
13	Please rate the quality of applied animation principles.	1	2	3	4	5
14	Please rate the diversity of applied animation principles.	1	2	3	4	5

What improvements do you think should be made?

→ AUDIO VISUAL USAGE IN ANIMATION COULD BE IMPROVED
 - THE QUALITY OF CHARACTERS CAN ALSO BE IMPROVED.

Thank you.

strength?

- STORY IS GOOD
- PLOT
- SIMPLE AND CAN ATTRACT YOUNGER AUDIENCE



Signature

Name: HANISAH ASYRAF
 BIN SUAIMAN

Date : 23/8/2017

MULTIMEDIA EXPERT TESTING

Title : 2D Animation – Everything is the best arrangement
Name : NARREEN BIN ABDULLASIM
Position/ Specialty : LECTURER
Department : MI

“Everything is the best arrangement” is a 2D animation that want to motivate people to look more on the bright side and think on more positive. The purpose of this questionnaire is to provide the feedback for the advance improvement of this project.

Technical Evaluation: Please circle your choice.

Figure below shown the level of your evaluation with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Technical Evaluation						
1	Does the quality of the 2D graphics is good?	1	2	3	4	5
2	Do you satisfy the visual aesthetics of this animation?	1	2	3	4	5
3	Does the voice actor of the characters is clear?	1	2	3	4	5
4	Does the sound effect of this animation is suitable?	1	2	3	4	5
5	Does the colour combination of this animation is suitable?	1	2	3	4	5

*use of
Color
Wheel*

~~lip~~ lip sync.

6	Does the transitions of this animation manage well?	1	2	3	4	5
7	Does the character's lip sync accurate in timing?	1	2	3	4	5
8	From 00:44 to 01:08, does the movement of character look more vivid after Arcs principle is applied.	1	2	3	4	5
9	Does the sound effect from 01:01 until 01:06 sufficiently represent the pulling string action?	1	2	3	4	5
10	Does the expression of the character effectively conveying the feeling?	1	2	3	4	5
11	Does the plot well organized?	1	2	3	4	5
12	Did you enjoy the story?	1	2	3	4	5
13	Please rate the quality of applied animation principles.	1	2	3	4	5
14	Please rate the diversity of applied animation principles.	1	2	3	4	5

What improvements do you think should be made?

- 1) Color selection - based on theme.
- 2) List of references - 2d animation, Paper & lyc
- 3) Animation referenc "leopard running" - how leopard running "Rotoscoping" ..

Thank you.

What is strengths of the animation?

- I like the story, msg clear
- Ambient although a bit loud, but overall ok.
- transition of song suitable with mood ^
- good !!


Signature

Name: NAZREEN BIN ABDULLASIM
Pensyarah
Fakulti Teknologi Maklumat dan Komunikasi
Universiti Teknikal Malaysia Melaka (UTeM)

Date : 23/8/2017

more like 2d animation

MULTIMEDIA EXPERT TESTING

Title : 2D Animation – Everything is the best arrangement
Name : Mohamad Lutfi Dolhalif
Position/ Specialty : Lecturer
Department : Media Interaktif

“Everything is the best arrangement” is a 2D animation that want to motivate people to look more on the bright side and think on more positive. The purpose of this questionnaire is to provide the feedback for the advance improvement of this project.

Technical Evaluation: Please circle your choice.

Figure below shown the level of your evaluation with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Technical Evaluation						
1	Does the quality of the 2D graphics is good?	1	2	3	4	5
2	Do you satisfy the visual aesthetics of this animation?	1	2	3	4	5
3	Does the voice actor of the characters is clear?	1	2	3	4	5
4	Does the sound effect of this animation is suitable?	1	2	3	4	5
5	Does the colour combination of this animation is suitable?	1	2	3	4	5
6	Does the transitions of this animation manage well?	1	2	3	4	5
7	Does the character’s lip sync accurate in timing?	1	2	3	4	5

MULTIMEDIA EXPERT TESTING

Title : 2D Animation – Everything is the best arrangement
Name : Dr. Ahmad Naim B. Che Pee
Position/ Specialty : Lecturer
Department : Interactive Media

“Everything is the best arrangement” is a 2D animation that want to motivate people to look more on the bright side and think on more positive. The purpose of this questionnaire is to provide the feedback for the advance improvement of this project.

Technical Evaluation: Please circle your choice.

Figure below shown the level of your evaluation with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Technical Evaluation						
1	Does the quality of the 2D graphics is good?	1	2	3	4	5
2	Do you satisfy the visual aesthetics of this animation?	1	2	3	4	5
3	Does the voice actor of the characters is clear?	1	2	3	4	5
4	Does the sound effect of this animation is suitable?	1	2	3	4	5
5	Does the colour combination of this animation is suitable?	1	2	3	4	5
6	Does the transitions of this animation manage well?	1	2	3	4	5
7	Does the character’s lip sync accurate in timing?	1	2	3	4	5

8	From 00:44 to 01:08, does the movement of character look more vivid after Arcs principle is applied.	1	2	3	4	5
9	Does the sound effect from 01:01 until 01:06 sufficiently represent the pulling string action?	1	2	3	4	5
10	Does the expression of the character effectively conveying the feeling?	1	2	3	4	5
11	Does the plot well organized?	1	2	3	4	5
12	Did you enjoy the story?	1	2	3	4	5
13	Please rate the quality of applied animation principles.	1	2	3	4	5
14	Please rate the diversity of applied animation principles.	1	2	3	4	5

What is the best part you have found?

It's a moral story which is very good to convey to young audience

What improvements do you think should be made?

future - recommendation : Made a collective moral stories . (episodes)

Thank You.

Signature

Name: DR. AHMAD NAIM BIN CHE PEE @ CHE HANAP
Senior Lecturer
Faculty of Information and Communication Technology
University Teknikal Malaysia Melaka (UTeM)

Date : 28/8/2017

MULTIMEDIA EXPERT TESTING

Title : 2D Animation – Everything is the best arrangement
Name : SHAHIRIL BIN PARUMO
Position/ Specialty : LECTURE
Department : MT

“Everything is the best arrangement” is a 2D animation that want to motivate people to look more on the bright side and think on more positive. The purpose of this questionnaire is to provide the feedback for the advance improvement of this project.

Technical Evaluation: Please circle your choice.

Figure below shown the level of your evaluation with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Technical Evaluation						
1	Does the quality of the 2D graphics is good?	1	2	3	4	5
2	Do you satisfy the visual aesthetics of this animation?	1	2	3	4	5
3	Does the voice actor of the characters is clear?	1	2	3	4	5
4	Does the sound effect of this animation is suitable?	1	2	3	4	5
5	Does the colour combination of this animation is suitable?	1	2	3	4	5
6	Does the transitions of this animation manage well?	1	2	3	4	5
7	Does the character’s lip sync accurate in timing?	1	2	3	4	5

8	From 00:44 to 01:08, does the movement of character look more vivid after Arcs principle is applied.	1	2	3	4	5
9	Does the sound effect from 01:01 until 01:06 sufficiently represent the pulling string action?	1	2	3	4	5
10	Does the expression of the character effectively conveying the feeling?	1	2	3	4	5
11	Does the plot well organized?	1	2	3	4	5
12	Did you enjoy the story?	1	2	3	4	5
13	Please rate the quality of applied animation principles.	1	2	3	4	5
14	Please rate the diversity of applied animation principles.	1	2	3	4	5

What is the best part you have found?

- Storyline

What improvements do you think should be made?

- should use multiple angle of shoot.
 - remove scene drink → bad influence

Thank You.



Signature

Name: SHAIFUL PARUND

Date : 25/8/2017

MULTIMEDIA EXPERT TESTING

Title : 2D Animation – Everything is the best arrangement

Name : _____

Position/ Specialty : DR. SITI NURUL MAHFUZAH BINTI MOHAMAD
Pensyarah Kanan
Fakulti Teknologi Maklumat dan Komunikasi
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Department : _____

“Everything is the best arrangement” is a 2D animation that want to motivate people to look more on the bright side and think on more positive. The purpose of this questionnaire is to provide the feedback for the advance improvement of this project.

Technical Evaluation: Please circle your choice.

Figure below shown the level of your evaluation with the following statements.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Technical Evaluation						
1	Does the quality of the 2D graphics is good?	1	2	3	4	5
2	Do you satisfy the visual aesthetics of this animation?	1	2	3	4	5
3	Does the voice actor of the characters is clear?	1	2	3	4	5
4	Does the sound effect of this animation is suitable?	1	2	3	4	5
5	Does the colour combination of this animation is suitable?	1	2	3	4	5
6	Does the transitions of this animation manage well?	1	2	3	4	5
7	Does the character’s lip sync accurate in timing?	1	2	3	4	5

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12	Did you enjoy the story?	1	2	3	4	5
13	Please rate the quality of applied animation principles.	1	2	3	4	5
14	Please rate the diversity of applied animation principles.	1	2	3	4	5

What is the best part you have found?

What improvements do you think should be made?

- add few fact at beginning of the story.
- choose suitable sound effect

Thank You.



Signature: DR. SITI NURUL HUDA
Name: DR. SITI NURUL HUDA
Fakulti Teknologi
Date: 10/10/2020
Universiti Teknikal Malaysia Melaka (UTeM)