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JUDUL: **BEHIND BAYANG SURVIVAL HORROR GAME**

SESI PENGAJIAN: **SESI 2014/2015**

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BEHIND BAYANG SURVIVAL HORROR GAME

CHEONG SOOK YEE

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

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2015

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DECLARATION

I hereby declare that this project entitled

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

STUDENT: _____ DATE: _____

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SUPERVISOR: 28/8/15 DATE: 28/8/15

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DEDICATION

To my beloved parents, friends and supervisor

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ACKNOWLEDGEMENTS

Firstly, I would like to thank my supervisor, En. Hamzah for giving me this opportunity to explore new game engine and modelling software that I never seen before and let me realize I have to play more games to brush my thoughts in gaming experience.

Secondly, Thanks to Mr Yung from Spacepup Entertainment. He is willing to take the time out of his busy schedule to answer any questions during the interview. His further insights and explanations on game were greatly appreciated.

To all my fellow friends who helped me in solving problems and who always reminded me about some of my schedule as I am big head at remembering things. I would like to thank my beloved family who always support me and gave me so many advices during the development of this game.

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ABSTRACT

Behind Bayang is a 3D first person survival horror game based on Malaysia environment. In this new era of world, almost every household has own at least one computer at home. Games become more than a mainstream entertainment. While, we cannot stop the growing demand in people who always looking for more games. As the demand increases, more games to be developed by those creative industries. However, you can hardly see a game made in Malaysia as it is really made by Malaysian just from the look. Besides local industries, even the country next door gets influence by western culture in game development. Therefore, to develop a Malaysian-style game by one of the popular genre of game becomes a vital importance with a blend of local culture in game production. However, to create mainstream games in 3D consumes a lot of time and money at most of the time. These always lead to heavy losses when it comes to game failures. In this proposed project, open source software like Blender and Unity3D will be used to develop a 3D survival horror game. The affective methods in game design will be evaluated to choose the best and avoid game failures.

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ABSTRAK

Behind Bayang merupakan permainan komputer orang pertama survival horror 3D berdasarkan persekitaran Malaysia. Dalam era baru ini, hampir setiap isi rumah memiliki sekurang-kurangnya satu komputer di rumah. Permainan menjadi lebih daripada hiburan arus perdana. Walaupun, kita tidak boleh berhenti permintaan yang semakin meningkat pada orang yang sentiasa mencari lebih banyak permainan. Sebagai permintaan yang bertambah, lebih banyak permainan yang akan dibangunkan oleh industri-industri kreatif. Walau bagaimanapun, anda tidak boleh bezakan permainan yang dibuat oleh orang Malaysia atau tidak dari rupa. Selain daripada industri tempatan walaupun negara lain juga dipengaruhi oleh budaya barat dalam pembangunan permainan komputer. Oleh itu, untuk membangunkan permainan gaya Malaysia dengan satu genre popular permainan menjadi amat penting dengan campuran budaya tempatan dalam produksi permainan komputer. Walau bagaimanapun, untuk mewujudkan permainan arus perdana dalam 3D memerlukan banyak masa dan wang. Ini selalu membawa kerugian besar apabila ia kegagalan dalam pembangunan permainan komputer. Dalam projek yang dicadangkan ini, perisian sumber terbuka seperti Blender dan Unity3D akan digunakan untuk membangunkan survival 3D permainan horror. Kaedah afektif dalam reka bentuk permainan akan dinilai untuk memilih yang terbaik dan mengelakkan kegagalan permainan.

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LIST OF ABBREVIATIONS

TERM	TITLE
FTMK	Fakulti Teknologi Maklumat dan Komukasi
FYP	Final Year Project
PC	Personal Computer
PSM	Projek Sarjana Muda
RAM	Random Access Memory
UTeM	Univeriti Teknikal Malaysia Melaka

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CHAPTER I

INTRODUCTION

1.1 Introduction

Computer games have become mainstream media. It is developed with net earnings even surpassing that of the film industry. Production values are very high and costs of development are rising partly due to heavy demand, lack of specialized and qualified skilled workers and the pressure to deliver more and more. According to Ramli, a large budget up to RM200 million has been distributed to creative industry in Malaysia as it is believes that it can produce a large turnover as well [11].

At Gamescom in 2010, Sony executive Mick Hocking said that he believes 3D enhances the gaming experience, "We've converted quite a lot of games to 3D from different genres, and we've found it enhances just about all of them," . He added his astonishing opinion which sees that the technology enhancing not just one or two particular game genres, but all. "You can imagine a game that's being designed to be 2D may not lend itself to 3D, but certainly racing games, sports games, benefit a great deal from the addition of 3D. Action games and first-person shooters look great in 3D. Pretty much everything we've tried so far looks better in 3D. I think most get enhanced gameplay from the addition of 3D." [9]. Kovavisaruch said, 3D can give complete information from every viewpoint [6].

Hence, there is a need for people who are learned in the ways of game development with very specialized fields of studies. The game industries extend to various types such as serious games, casual games, mobile games, simulations and virtual reality.

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This is not surprising if more and more companies put their work to countries such as Malaysia, due to lower cost and high-quality output [1]. The government and the private sector have been working to let the public aware of the importance of this `creative' economy by developing new creative industries [3].

The proposed game, Behind Bayang is a Malaysian-style First person 3D survival horror game with a blend of strategy involved. A shadow explore through the game to find his separated body. The main aim of the project is to create a Malaysian-style 3D horror game and interactive experiences for teenage using Unity3D, a modern engine for game development with quick and convenient advantage in making high-quality 3D games [12]. Horror is grouped in one of the ten popular genres [20]. Game engine technique used such as FPS carried out the view in character's vision [14].

The computer design itself influences a lot of computer game suitability [2].Since it's a survival horror, an affective fear element shall be taken count in earlier development of the game design. In Vachiratamporn's investigation, it collects player's brainwave signals, heart rate and keyboard-mouse activity to detect the fear of player. The result shows that, players after a surprise were more likely to experience fear from a scary event compared to when they were a neutral state [17]. He also investigated two important aspects of affective gaming, the player's affective states recognition and the game adaptation based on the player's current affective state [16]. Besides rich visual information, an appropriate usage of special audios is another effective method to help affective horror content analysis [18].

Elements of culture are believed to be another factor that may improve the design of game. Designer needs to understand users' preferences and emotion to design a good interface [11][4]. Ramli states that, culture value is one of the contributions that influence users' preferences [11].

Computer games can be considered as a medium for promoting culture and arts whereas the games itself also considered in art form, said Ruiz. He added, the major theories of art in terms of historical, institutional, aesthetic, representational and expressive definitions taken into account to establish that statement further more [13]. Another similar statement in Nusran's effort in promoting the stories to young generation especially on culture and heritage through mobile game approach [8] , Kovavisaruch's project on capturing a sword dancing traditions in 3D [6] and Lim's development of the

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Malaysian folklore heritage game [19]. Game made in Malaysia most of the time might seems too western-like. However, Yuen's Tell No One which was inspired by Malaysian horror stories leads a great advancement in supporting Oculus Rift [15].

Figure 1.1: Screenshot from Tell No One Teaser

The engagement of the player is totally crucial to all game genres and this includes survival horror genre in current project. Engagement and immersion theories already common in general level to be applied to all game genres. For a conventional game design, this has made it impossible to apply only the knowledge for it, which requires more specific guidelines that make it difficult. Langhoff Nielsen has point it out specific theories are required however by dropping the old engagement will generate new applied theory specifically for horror genre games [22]. And, the case is believed to be true by the acknowledgement of researchers such as Boyle and the fellow collaborators [21] indicate that future research should focus on a specific genre.

Filmmakers were described as "practical cognitive psychologists" by Bordwell. Because they take account of the way of audience's everyday thinking while watching the film (for example, beyond the information provided by classification, prior knowledge about real-life or films or prior, forget some elements to remember others, making informal, provisional inferences and assumptions to what is likely to happen next) [24]. Perron refers Bordwell's assertion in movies and agree the terms also happened to be found in game designer. He compared both movie and games which concluded experiential state of players as well as audience, the impact of surprises and tension suspense focuses on the influence of forewarning on emotional reactions to survival horror game [23]. Many researches taken part to collects data based on emotion of player and how player reacts to horror events such as events occur in horror games. To determine what is the affective fear

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element in a game is important in the earlier development of the game. Boyle and the collaborators [21] conducted a series of prior researches to show how emotional reactions of a player physiologically correlated while playing games.

1.2 Problem statements

1. Hard to find for a good Malaysian-style first person survival horror game in market.
2. Develops a 3D game is time consuming and require high-cost.

1.3 Objective

This project embarks on the following objectives:

1. To produce a Malaysian-style first person game based on survival scenarios by using Blender and Unity3D.
2. To develop a 3D horror scenarios to demonstrate and address the story with strategy, allow the target audience to solve the game within these scenarios with blend of strategy involved.
3. To evaluate the affective methods in game design to create a Malaysian-style horror survival game.

1.4 Scope

The survival horror game will be demonstrated in Malaysian-style. All the custom models will refer to things that exist in Malaysia. The game produced according to its targets at range of mid-core to hardcore gamers from the mid-teens to the late twenties. The content of game will deliver and relates familiar theme to young teens. The deliverable will be in standalone to ensure best quality gaming experience to the gamers which is limited in platforms like web and mobile.

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1.5 Project Significance

This project is producing a first person 3D survival horror game with scenarios scoped to demonstrate and address the story, which will gain attention from the young teens. The young teens will be able to solve the game within these scenarios with a blend of strategy involved. This will inspire young teens and thinking flexibly. Another Malaysian-style game can be introduced as an add-on to the gamer choices.

1.6 Conclusion

This chapter highlighting the affective methods in game design to createMalaysian-style first person survival horror game in 3Dthat will leads to the success of game. The comparison of classification techniques in game design will certainly help in providing better quality of game product which will be discussed in the latter chapter.

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CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This chapter is to illustrate the literature review, project methodology and project requirement for this project. At this chapter consists of three sections which are literature review, project methodology and project requirement. Literature review is discusses published information in particular subject area. It is a summary of the source that combine both summary and synthesis to evaluate the journal research on the topic with related to this project. The literature material that used in this chapter is found from relevant material at internet. The second section of this section is project methodology. Project methodology illustrate about how the project will be done from early stage of development until the end of the development of project. The methodology for this project is selected based on the analysis and comparison of the different methodologies which is suitable with the requirement. The project requirement consist the details of software and hardware that required in this project development.

2.2. Domain

The project domain for Behind Bayang is game in PC platform. PC platform is chosen because computer is probably the most common platform that could be found in almost every household. The project is built for the young teens at range of mid-core to hardcore gamers by relating familiar theme in Malaysia. It is a First Person 3D game with local cultures. The game is focus on bringing local survival horror experience to the player by having this project built on an open source basis.

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2.3 Existing System

This section is about case studies in Tell No One Survival Horror Game by Spacepup Entertainment which is still an early development project. The demo of the game has been showcased at the Comic Fiesta 2014 in Kuala Lumpur, Malaysia. The purpose for this case study is to find the best method to develop Behind Bayang. At the end of this section are summaries between case studies based on their own strength and weakness.

Case Study 1: Tell No One

Based on the research done through internet and observation, Tell No One is a first person adventure exploration game that support Oculus Rift where the player explores around and rather creepy events happens [30]. As an open ended adventure game, the game itself explores both storytelling and game design, the high engagement of game also allow players to read when to do interaction as possible. The gameplay aims for simple but meaningful design with blend of puzzle solving and subtraction during the exploration. It requires player to concentrate and observe in the gameplay. Amnesia and Fatal Frame are two popular horror games come with wonderful visual elements which used as reference in Tell No One. The game designed is focus on 'experience-first' which is repayable.

Figure 2.1: Tell No One,environment. (Behind scenes by Star InTech)

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Figure 2.2: Tell No One,house. (Behind scenes by Star InTech)

Figure 2.3: Tell No One,the Woman Ghost. (Behind scenes by Star InTech)

An interview with the game designer of the game Tell No One, Yung from Spacepup Entertainment is carried out. He also gives some further insights and explanations on game which is useful on the game development during the interview.

The video during the interview already uploaded to Youtube for viewing: https://youtu.be/Qf7-5iByRzQ

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