

The Development of a Folklore Inspired PC Role Play Games for Teens: The Legend of Puteri Gunung Ledang

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ABSTRACT: This paper discusses the creation of a Role-playing Game (RPG) with storyline inspired by a famous folklore in Malaysia - the Legend of Puteri Gunung Ledang (PGL). It was created to promote the famous folklore to teenagers as the folklores are slowly being forgotten by the younger generation. The application used to promote the folklores is PC platform game. The development of this game was based on The Purposed GDLC methodology, where the game contents were evaluated by experts. Unity Engine 2019.3.10f1 was used to develop the game with Aseprite software for character's creation. The objective of this paper is to present the development process of a game inspired by a local content using Unity engine for PC platform. The game is expected to promote the local folklore to the young generations while enjoying the gameplay.

Keywords: Role Play Game; Folklore; Puteri Gunung Ledang, Games for teens

INTRODUCTION

Role-playing Game (RPG) is a genre in a game which player controls a character (or characters) in the game while completing the quests in a fictional world. This genre also allows the player to explore the game world while completing the quests. The characters will evolve through gaining experiences and choices that were made.

RPG games allow player to play through the character's point of view in order to maximize the player's experience of the game [1]. RPG represents narratives and storytelling experiences for player during gameplay. Such game can allow the players to expressed happiness as they play an active role in the game, hence stimulating active participation in all the game's activities [3]. As teens nowadays are immersed in digital world via a variety of digital space and platforms, video games proved to be an interactive visual media able to incorporate virtual heritage in amazing and highly appealing ways [4]. The idea to link games to cultural heritage is not new as many researchers are finding ways to communicate cultural content through a narrative-based game that can better engage players while inducing real facts as they play it [5].

GAMEPLAY AND GAME MECHANIC

The overall game design includes the gameplay, core mechanics that are involve, the flow of the game, rewards obtain as level progress, the storyline, and the user interface of the game. The description of each quests is provided at the beginning of game scenes for player to search and collect the items. In Figure 1, the quest's structure is shown for better understanding.

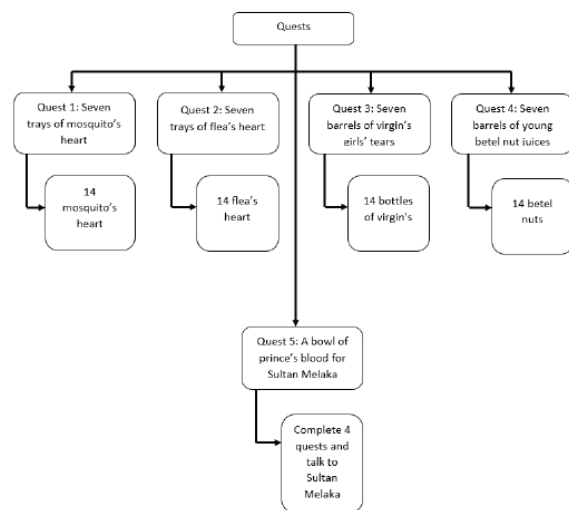


Figure 1 The Gameplay for PGL RPG

Player plays as Adam, a student researching about the Legend of Puteri Gunung Ledang, embark on journey to complete five conditions requested by Puteri Gunung Ledang to Laksaman Hang Tuah's entourage. Player are given 3 hearts at the start of the game. It is a game over if player dies before completing the conditions and player have to play the game again from the start. If the player manage to save the game progress before dying, the player can continue the game from the saved progress. The game will end when the player completed all five conditions and an ending scene will show marking the end of the game.

The storyline of the game is reflected in the level progression. Players will begin to complete the quests

after meeting Puteri Gunung Ledang by the order of Sultan of Melaka for marriage proposal. Players will be given option to complete 4 quests without in order before proceeding to the final quest which is the trigger in ending the game. The completed quests will reward different amount of golds that can be used to purchase items at the shop.

USER INTERFACE AND GAME ART

The start menu as shown in Figure 2 consists of New Game button, Load Game button and Quit Game button. The New Game button allows player to start the game from the beginning. The Load Game button will allow player to start the game from where the player has saved the progress. The Quit Game button allows player to exit the game.



Figure 2 The main menu of PGL RPG

The game world as depicted in Figure 3 and 4 are replicate a Malay medieval fantasy world. The setting of the game follows the era of Kesultanan Melayu Melaka that focus on Melaka state and Gunung Ledang, Johor with similar environment in certain map.



Figure 3 The Palace of Melaka Sultan



Figure 4 Malay Village environment

The idea of the character's design involves in referring to a few images related to the musical show of Legend of Puteri Gunung Ledang [2]. Figure 5 below shows the

character developed for Adam, Puteri Gunung Ledang, Sultan Melaka and Laksamana Hang Tuah.

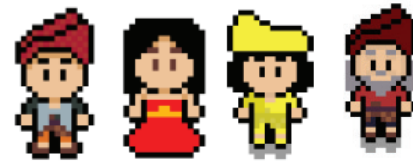


Figure 5 The Game Characters

The cutscenes were then created using Unity Engine built-in timeline. The animations of the character were done using the character's sprite. In Unity Engine, the codes are coded fully in C# language.

CONCLUSIONS

In conclusion, this game is able to educate gamers about the legend of Puteri Gunung Ledang folklore. In a preliminary analysis, this game has received positive feedbacks from testers and gamers alike. In the future, this game is to be further extended with more quest and difficulty level including more characters and equipments.

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REFERENCES

- [1] Lee, G.H., & et al. (2014). 'Learning History Using Role-Playing Game (RPG) on Mobile Platform'. *Advances in Computer Science and its Applications*. 279.
- [2] Scobie. (2018). 'Kisah dan Asal Usul Nama Gunung Ledang di Johor, accessed 2 March 2021', <<https://www.sejarah.my/kisah-dan-asal-usul-nama-gunung-ledang-di-johor>>
- [3] Rosita, T., Nurhayati, S., Jumiatin, D., Rosmiati, A., & Abdu, W. J. (2020). Using Traditional Role-Play Games By Adults To Nurture A Culture Of Cooperation Among Children Amidst Wide-Spread Engagement In Online Games Within Today's Technological Society. *Journal of Critical Reviews (JRC)*, 7(7), 183-186.
- [4] Bontchev, B. (2015). Serious games for and as cultural heritage. *Digital Presentation and Preservation of Cultural and Scientific Heritage*, (V), 43-58.
- [5] Malegiannaki, Irini & Daradoumis, Thanasis & Retalis, Symeon. (2020). Teaching Cultural Heritage through a Narrative-based Game. *Journal on Computing and Cultural Heritage*. 13. 1-28. 10.1145/3414833.