

**INTEGRATING GAME REPLAY VALUE TO
ROLE-PLAYING FANTASY GAME :
DUNGEON REVIVE**



UNIVERSITI TEKNIKAL MALAYSIA MELAKA

BORANG PENGESAHAN STATUS LAPORAN

JUDUL:

INTEGRATING GAME REPLAY VALUE TO ROLE-PLAYING FANTASY
GAME : DUNGEON REVIVE

SESI PENGAJIAN: 2020/2021

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(TANDATANGAN PELAJAR)


PROF. DR. SAZILAH DINTI SALAM
Profesor
Jabatan Media Interaktif
Fakulti Teknologi Maklumat dan Komunikasi
Universiti Teknikal Malaysia Melaka (UTeM)

(TANDATANGAN PENYELIA)

**INTEGRATING GAME REPLAY VALUE TO
ROLE-PLAYING FANTASY GAME :
DUNGEON REVIVE**



MUHAMMAD AMZAR RAIF BIN AMIR RASID

This report is submitted in partial fulfillment of the requirements for the Bachelor of
Information Technology (Game Technology) with Honours

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA**

2020/2021

DECLARATION

I hereby declare that this project report entitled

INTEGRATING GAME REPLAY VALUE TO ROLE-PLAYING FANTASY GAME : DUNGEON REVIVE

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

Student :



Date : 9.9.2021

(MUHAMMAD AMZAR RAIF BIN AMIR RASID)



I hereby declare that I have read this project report and found this report is sufficient
in term of the scope and quality for the award of Bachelor of Information Technology
(Game Technology) With Honours.

Supervisor :



PROF. DR. SAZILAH BINTI SALAM
Profesor
Jabatan Media Interaktif
Fakulti Teknologi Maklumat dan Komunikasi
Universiti Teknikal Malaysia Melaka (UTeM)

Date : 11 September 2021

(PROF. DR. SAZILAH BINTI SALAM)

DEDICATION

To all those who have supported, encouraged, challenged and inspire me and specially to my beloved parents, honourable lecturers and friends for all their guidance, love and attention which has make it possible for me to make it up this point



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I would like to thank Prof. Dr. Sazilah Binti Salam for giving assistant to complete this project successfully. I heatedly thankful my lecturers and fellows who help me a lot during my project development process.

I am also thankful from the core of my heart to my beloved parents who always support and love me.



ABSTRACT

This project focus on developing a game that integrated with game replay values. This game was developed to keep the player entertained and keep coming back to play the game after the first completion. The genre is rogue-like which is a sub-genre to role playing game(RPG) genre, where the levels are randomly generated and progress of player character after death is lost. Due to the fact that many other games in the same genre having the same issues with the game replay value, most of the game is fun to play but not many that people always play the game again for more experiences. This project is developed to design systems or mechanics to keep player playing the game without feel bored. Thus, the outcome for this project is to design systems and mechanics to integrate it with the game to enhance the game replay values.

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ABSTRAK

Projek ini memberi tumpuan untuk mengembangkan permainan video yang disatukan dengan nilai permainan semula. Permainan video ini dikembangkan untuk menghiburkan pemain dan terus kembali bermain untuk setelah selesai pertama kali selesai bermain. Genre rogue-like merupakan sub-genre kepada genre role playing game (RPG) , di mana tahap permainannya dihasilkan secara rawak dan kemajuan watak pemain setelah kematian akan hilang. Oleh kerana banyak permainan video lain dalam genre yang sama mempunyai masalah yang sama dengan nilai permainan semula, kebanyakan permainan video ini menyeronokkan untuk dimainkan tetapi tidak banyak yang membuat orang rasa untuk bermain semula untuk lebih pengalaman. Projek ini dibangunkan untuk merancang sistem atau mekanik agar pemain terus bermain tanpa merasa bosan. Oleh itu, hasil untuk projek ini adalah merancang sistem dan mekanik untuk mengintegrasikannya dengan permainan video untuk meningkatkan tahap nilai permainan semula.

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CHAPTER 1

INTRODUCTION

1.1. Project Background

This project is to develop a game that integrated with game replay values. The game main focus is to develop systems that enhance game replay values. The game developed is focused on Rogue-lite genre. Rouge-lite is a sub-genre of Role Playing game (RPG) genre but the levels is procedurally generated, having permanent death of player's character and progression mechanics. Gameplay, player controls character to escape from the dungeon. Played on orthographic view. Player can upgrades abilities that suit their play to survive through the dungeon.

1.2. Problem Statements

The problem with other video games in the same genre is most of them are lacking of the game replay values depends on how the game is designed. After the first completion the game, it lost all of it value and not interesting to play anymore because the players already knew what will happen. So how the game can be designed to have the game replay value attraction is very important.

Replay value is a term used to assess a video game's potential for continued play value after its first completion. Factors that influence replay value are the game's extra characters, secrets, ability system, alternate endings or achievements. The replay value of a game may also be based entirely on the individual's tastes.

1.3. Objective

This project embarks on the following objectives:

- i. To investigate how existing games integrate game replay values.
- ii. To develop a Role-Playing fantasy game that has game replay value attraction.
- iii. To evaluate the video game potential for continued to be played after the first completion based on player experience.

1.4. Goals and Genre

The game about an adventurer named Atlas who died in a dungeon but somehow, he was brought back to life. Soon he knows that he is trapped inside the dungeon and start to muster his skills to escape from the dungeon. The main goal of the game is to escape from the dungeon. This project is a rouge-like video game set in a fantasy world.

Rouge-lite is a sub-genre of Role-Playing games (RPG) genre where player must go through all the procedural generated levels and player's character having permanent death each run. Each time players play the game; they will face new challenges as the layout of the levels are randomly generated.

1.5. Game Features

The target groups for the game is for player who like challenges and able to improve their skill as longer they play the game.

Player have to survive and find the way out of the dungeon. Find the boss of each level to advance to the next level. Player can upgrade their skills to increase the chance of surviving longer through the dungeon.

1.6. Conclusion

The expected outcome from the development of the game is to produce a game that able to attract people to keep playing the game and being addictive. Thus, the study can investigate the problems on the game replay value system for future recommendation on video game development.

CHAPTER 2

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1. Introduction

This chapter will discuss on the genre of the game, the list of existing games that are related to the project, comparison of the existing games and the project methodology.

2.2. Genre

Rouge-lite is a sub-genre of Role-Playing games (RPG) genre where player must go through all the procedural generated levels and player's character having permanent death each run. Each time players play the game; they will face new challenges as the layout of the levels are randomly generated. Most rogue-lites are based in fantasy world, mostly influenced from tabletop role playing games such as Dungeons & Dragons (DND) .

Meanwhile rogue-lite is slightly different, it focus on reaching the end and not on the run itself and also has carryover between the runs to further improve the player's character.

Every game has and an endpoint, where player defeat the final boss or survive through difficulties, but for rouge-likes is not focus on reaching the end but seeing what happens on the next run, as the next run might be better or worst depend on player's luck.

2.3. Existing Games

1) Hades

Hades is a rogue-lite action dungeon crawler video game developed and published by Supergiant Games. In this game, player play as the Underworld Prince, Zagreus in attempt to escape from underworld which is governed by his father, Hades. Player must survive through all three regions of underworld with the blessings of other gods of Greek mythology before defeating Hades. After defeating Hades, Zagreus find out that he can not survive long on the surface of the earth, so keep on escaping the underworld.



Figure 2.1 Hades logo

- Play as Zagreus to escape from the underworld by surviving through all the regions and bosses.



Figure 2.2 Mirror upgrades

- Use a unique currency to permanently upgrade to help player get stronger and add more chances that benefit the player.

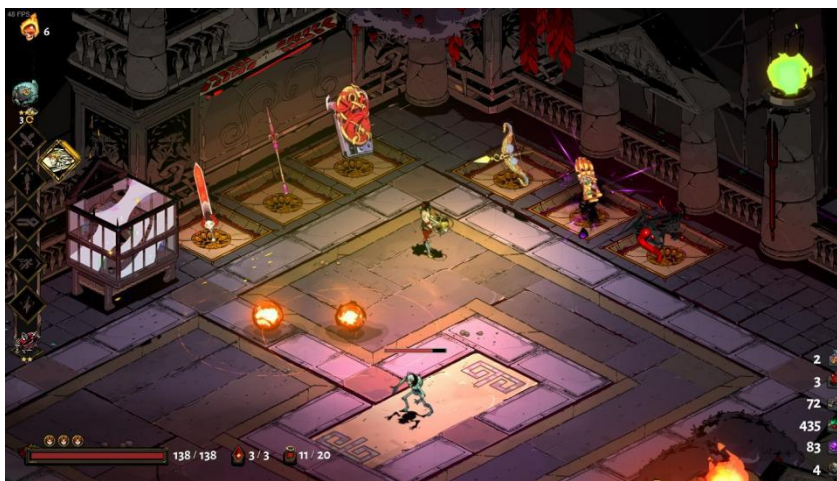


Figure 2.3 Choosing equipment

- Player can choose any weapon and keepsake that they want before starting the run.



Figure 2.4 Weapon upgrades

- As player play the game, the weapon will unlock new abilities and each abilities can be upgraded.



Figure 2.5 Achievement list

- The Fated List, in other word is a list of achievement of what player can achieve and get reward from.



Figure 2.6 Achievement list

- Pact of punishment, where player can increase the difficulty of the game to get more rare rewards.

2) Enter The Gungeon

Enter the Gungeon are developed by Dodge Roll and published by Devolver Digital in 2016. Enter the Gungeon is a dungeon crawler with a challenging battle and evolving series of floors filled with dangerous bosses. The game follow a band of misfits that descend into the dungeon to find a time machine that have power to travel through time. This game focus on player skill to shoot and dodge bullet.



Figure 2.7 Enter the Gungeon logo



Figure 2.8 Character selection



Figure 2.9 Different ability

- Player can select one from four characters which is named Marine, Convict, Pilot and Hunter. All the characters each having different special abilities that player can use during the run.



Figure 2.10 Health point and economy

- Health point is can not be healed while in the run, can only be upgraded by progressing through the dungeon and buying heal point from a merchant. To buy item from the merchant, player can only use the currency that player accumulates by killing enemies. The upgrades and the economy is not permanent and lost after player exit the dungeon.

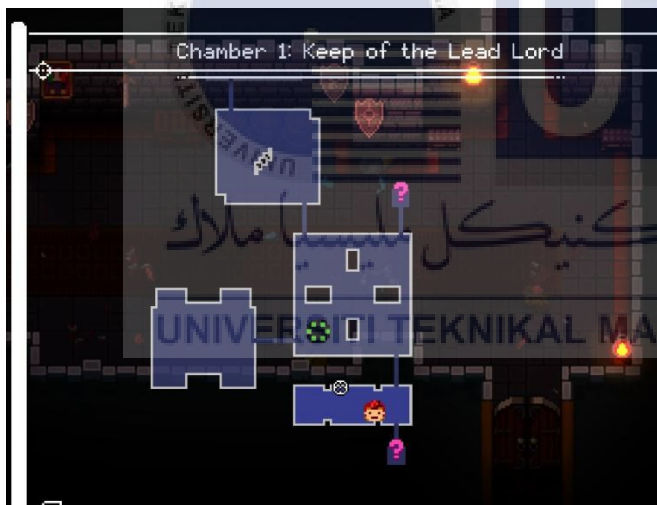


Figure 2.11 Level generation

- The levels are procedurally generated, player need to clear each room to proceed to the next room. Some cleared room enable teleportation to other room. Player can choose to fight the boss early if the boss room founded earlier or just grind for more currency to buy from the shop.

2.4. Comparison of Existing Games

Table 2.1 Comparison of existing games

	Hades	Enter the Gungeon
Gameplay	Play as Zagreus as player battles and survives through three underworld regions and to vanquish Hades with the help of Olympian gods' blessings. Every time player clears an encounter gain a new strength or reward.	Battle and survive through the dungeon. The dungeon is procedurally generated. Discover and gather precious loot that can help player to gain advantages over enemies.
Game Mechanics	Choose different weapons and keepsakes, each weapon and keepsakes can be upgraded to be more powerful. Use combination of weapon and blessing from the gods to battle and survive through the levels. Have currency that lost after the player death and unique currency that carried over to be used for upgrades.	Choose different characters, each character have different abilities such as calling support and lockpicking chests. Shoot and dodge bullet efficiently. Find precious weapon and loots or buy from the merchant. All the economy gain and loots is lost after player death but not for some unique items like a potion to increase player's total health point.
Game Replay Values	<p>Player growth, player start with the default ability and as player complete each run, player can use unique currency which is carried over by the player to upgrades weapons or abilities. Further increasing the chance of player surviving throughout the underworld regions. Upgrades that have increase in statistic is permanent while blessing from the gods is lost after death.</p> <p>Story progression, happen in certain numbers of ways, the most easy is each time player died it unlocks new story progression or depending on how far player can survive it can unlock new story progression or unlock new weapon aspect which is a new way player can use the weapons.</p>	<p>Each time player play the game the dungeon rooms, the spawned enemies, the loots and bosses is completely procedurally generated. So each times is a new experience and not the same from the previous run.</p> <p>Enter the Gungeon is a game focused on player skill instead of growth of the characters. Player can even win the game by facing with enemies or bosses using the basic gun. But each enemies and bosses have different attack pattern so player have to train their skill to adapt to each enemies.</p>

	<p>Pact of punishment, after player first completion of the game, it unlock a new system called “Heat system” where player can manually increase the difficulty of the game. At each level of difficulty player can get rare rewards that only dropped after defeating the bosses. So player can get new experience by player the game while increasing the difficulty.</p> <p>Achievement list where player can see any challenges that player can set what to aim during a run to get more rewards.</p> <p>Cosmetics or decoration, with abundant amount of resources player can use buy house decoration or even modify how the game user interface looks.</p>	<p>Player can experience over 300 different guns and item that can be combined to achieve more powerful effects called "Synergies".</p> <p>As player progress through multiple runs, player unlock new characters and rewards from the bosses can be used for some permanent upgrades.</p>
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- For the proposed project Dungeon Revive, player play as a wizard who is trapped inside the dungeon. Player must survive through the entire dungeon, defeat the bosses and escape from the dungeon.
- The first time playing the player is very weak. As player keep playing the game, player can gain more coins that drop from the enemies that to be used to upgrade health, speed and magic travel time so that player can get stronger if player has enough coins.
- Player also have achievement system where the list of available challenges that player have to complete to gain more rewards for upgrades. Also after the first completion of the game, the game will gain more difficulty and player have to spend more time defeating enemies and bosses.

2.5. Project Methodology

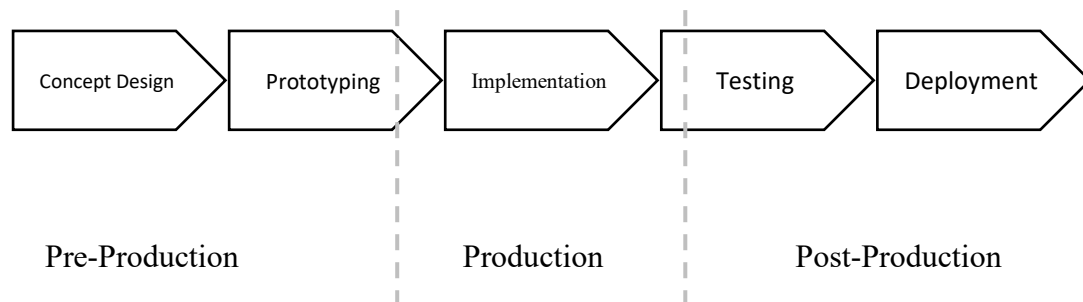


Figure 2.12 Game Development Life Cycle (GDLC)

- **Concept Design**
Brainstorming process on the game replay value and creating the design for mechanic. Planning concept design for the level environments, enemies, character and user interface.
- **Prototyping**
Creating the software prototype for the game, blocking the world environment design and preview on the game replay value mechanics. Creation of the game assets.
- **Implementation**
The process on programming the source codes for game mechanics, game replay value systems, player actions, enemy Artificial Intelligent (AI), currency system, progression mechanics and winning conditions.
- **Testing**
Playable alpha and beta version of the game is tested for improvement. The game is tested by small group of testers. Feedback and information is collected from the response of the testers.
- **Deployment**
Where full complete version of the game which also known as master version is ready to be released to the market to sell to the public or endorse publicly as downloadable free game.

2.6. Conclusion

In the nutshell, this chapter explain why I choose certain type of genre for my game and why it is suitable for the development. I also provide the comparison of my game between the same type of game genre that available in the market. I also provide the methodology use in development of the project which is GDLC .

CHAPTER 3

ANALYSIS

3.1. Requirement Analysis

3.1.1. Project Requirement

TABLE 3.1 Existing Game Analysis

Game	Hades	Enter the Gungeon
Player roles	Battle and survive each encounters with enemies to reach the end. Player can choose to master 6 type of weapons, each aspects of the weapons and upgrade it. Player have to use temporary power-ups that gained from clearing each encounter to help gain advantages fighting against enemies.	Shoot and dodge bullet. Player required to improve their skill to dodge enemy bullets as the game required player to constantly dodge bullet. Player has to practice their timing evading things. Player choose to play up to 4 characters each having different special abilities.
Gameplay	Player required to focus on player skill on using 6 different kind of weapon (sword, spear, shield, bow, gauntlet and gun) and combinations of power ups. Player can also focus on collecting resources for upgrades that increase the chances of player surviving through or increase the chances to get better rewards or power-ups. Use combination of power-ups and weapon to battle and upgrade it through the run. Choosing the option that benefits and suit the kind of player play	Player require to dodge bullets. Player have to find defeat the boss to progress. Defeating a boss unlock new things that player can use for permanent upgrades. Player also focused on finding good weapons and collection resources, then the resources can be used to buy heal or power-ups. Player involve in exploration of the dungeon and using surrounding to block and evade enemy attacks.