Thesis A Report

"Study of Genre: Battle Gameplay in Action and RPG Game"

Video Game is very popular in nowadays entertainment. This is the study of game design, especially in the battle gameplay of Action and RPG game, as from what we see that the boundary between them has thickened. Our research, design mechanisms, and proposal would lead to the question that:
"*is there a common element that is contained in both games, that when set differently could create a different experience, leading to a different genre?*"
We believe it would be a useful study for future game development.

Andre Widjaja, 3234869
Stefanus Arvin, 3215945

Table of Contents

1. Introduction

Video Games have been a very popular entertainment media. People all around the world, young and old, men and women, play games for a recreational purpose. This results in the rise of market sales of video games all around the world. 'Guitar Hero III: Legend of the Rocks' for example, is the first game title ever that exceeds $1 billion in sales (Wikipedia, 2010, Internet). This brings game developer all around the world to create more games, trying different formulas, advancing games in every genre. The advances sometimes are by combining mechanics of different games, adding the element of different genre into the game to create a different feel to the game.

More specifically in the game design of action and RPG genre, in which each genre now tried assimilating elements of the other genre into it, action are more RPG-like, whilst on the contrary RPG games are now more action-like.

In the battle gameplay, especially, both games have begun to be really similar to one another, with each having a lot of common elements contained inside each game. The idea intrigues us; as we wanted to know what those elements are, and is there a different setting of that element in each genre that still distinguish the battle gameplay between action and RPG. If we could find these elements, we could create a game with those set of elements and we could switch a game's genre, between action and RPG, inside the game easily.

This idea drives us in studying this even further, as we take this topic as our thesis project. This report will explain about every single aspect related to this topic, the main concern, and also our proposal on the study of the two genres, especially on their battle gameplay.

2. Background

To understand the concept and the topic fully, we need to first study the characteristics of battle gameplay, starting from the older, more traditional action and RPG games.

2.1. Traditional Action Games

There are 2 kinds of action game, the first being first-person and the later being third-person. The difference are only in the perspective seen by the players when playing the game with first-person is played by having the screen as the player's vision, and third-person being played with avatars that are fully visible to the player's eye.

Action games tends to be more intensive in gameplay, requiring more of the player's attention and concentration, and also motor skills such as the player's reaction time, to be successful in the game (Apperley, T. H., 2006, p.15-17).

A fine example of this game is the game *'Mega Man'*, an action-platformer released in 1987 and developed by CAPCOM for the Famicom and NES console. The game is played in a third-person perspective and like other traditional action games at the time, and requires good reaction and concentration from the player.

In terms of battle gameplay, there are a few characteristics of traditional action games that we found:

i. **Relies Heavily on Motor Skills**

   To be successful in playing action games, the player has to be skillful with their motoric limbs. Action games requires good reaction time of the player and fast input as most action games has, for example, a lot of dodging, blocking and attacking, in which all of them require skills from the player.

ii. **Has a Fast Pace**

   In which action games tends to have a faster pace compared to other genre, as Apperley mentioned above that action games is more intense compared to other genre.

iii. **Has a Fixed Attribute**

   We found that throughout the game, there is a set attributes that almost never changes throughout the whole game. For example: health, damage done to enemies, and also the player skills.

2.2. Traditional RPG Games

A traditional RPG (Role-Playing Game) game, as the name suggest, is a role-playing game in which the player took the role of the character in the game and see the character develop throughout the game. This genre has a strong fantasy and narrative elements inside.

A fine example of traditional RPG game is *'Final Fantasy'* which is a game made in 1987 by Square (now Square-Enix) for the NES console. The battle gameplay of this game is very simple. The battle system is turn-based, in which the player inputs the command for each character and the player and the enemy take turns in doing their action. The game has basic RPG element such as levels, skills, magic, and items.

There are a few characteristics of battle gameplay of traditional RPG games, which are:

i. **Leveling up is Important**

   Leveling up, or increasing the power of the characters, is very important for the player to be able to beat the game. Players could level up their character by accumulating experience points obtained by beating enemies. This is important as no matter how good the player is, they cannot win the game when they are under leveled.

ii. **Rely on Strategy**

   RPG games rely on strategic thinking of the player, as opposed to motor skills in action games. For example, choosing the right attacks, the right set of equipment, the right skills, etc. All of this is essential in beating the game.

iii. **Slow Paced Gameplay**

   RPG games have a slow paced gameplay, especially when compared to action games. An RPG game does not require that much attention compared to action games, and is less intense.

iv. **Has Randomization Mechanics inside**

   Simkins stated in his journal that RPG games incorporate randomness into the game unlike any other genre. Most RPG games tend to use random number generator, or dice-roll like system into the game for things like damage dealt, item drop, etc. The amount of randomization in RPG games are more compared to other genres (Simkins, 2008, p. 8-10).

2.3. Collapsing Boundary between both Genre

As time progressed, games in both genres grew, and they started to lose some of their characteristics. Action games nowadays have strong RPG elements, such as experience-based reward, level up, item usage, item shop, etc.

A fine example of modern action game is *'God of War'*, a PlayStation 2 game made in 2005 by Sony Computer Entertainments. The game is a platformer action game, but it has plenty of RPG elements. The game allows experience-based reward, obtained by beating the enemies. Beating an enemy will randomly give a red, blue or green orb. Blue orbs are used to heal magic points, green orb is used to replenish health, and finally red orbs could be used as a resource to power up the characters, unlocking more skills, stronger attack power, higher hit points and defense, etc.

RPG games on the other hand, assimilate action elements into their gameplay. Modern RPG nowadays has a more active and action-like battle gameplay, in which some of them allow full control of the playable characters to the players, including movement and action, and has a faster pace and higher intensity compared to the traditional RPG games.

A good example of modern RPG game is *'Tales of Abyss'* made in 2005 by Namco Tales Studio for the PlayStation 2 console. The game is the 8th running title of the 'Tales of' video game series, the first one being 'Tales of Phantasia' made by the same company (named Namco at the time) made for the Super Nintendo console and released back in 1995. The 'Tales of' series is a long running popular RPG game that has a battle system called 'Linear Motion Battle System'. The battle system allows the player to directly control the movement and action of the characters during battle. The player could move freely, jump, attack, and use skills and combination attacks like in any other fighting games. The battle gameplay is very intense and require a higher paced compared to traditional RPG games. The game still retains traditional RPG elements such as leveling, equipment, and other traditional RPG elements.

2.4. A Fine Line between the Two

Even though both genres assimilate elements from one another, we can still see a fine line between the two genres.

2.4.1. Modern RPG

Modern RPG games, for a start, even though they have assimilated a strong action aspect to their battle gameplay, winning a battle does not rely heavily on the player's skill. The primary factor that determines the outcome is the **status of the playable characters** (including level, skills, equipment, parameters, items, etc).

A good evidence to back this statement is the gameplay of 'Tales of Abyss'. Inside the game it is simply impossible to beat a higher level bosses in the game if we are under leveled. Often, it occurs that when our character hit the bosses, it only reduce them no more than 1 damage, whilst the boss character has 300,000 hit points and can heal for 30,000 hit points sometimes.

Another interesting aspect of modern RPGs is that the battle **level of intenseness** is not as intense as the battle in action games, even though they have a strong action element in the game. Non-boss battle in RPG games tends to be repetitive and dull, often letting the player just mash 1 or 2 buttons to win the battle. The players don't even need to give attention to the game sometimes.

Another interesting fact is that in Modern RPG games still retain the **level of strategy and self-expression**, as it is still quite apparent in the sense that players do give preparation before important battles, raising their level, or changing and customizing equipments to increase their success rate in the upcoming battle.

2.4.2. Modern Action

Modern action games have the opposite characteristic compared to RPG games. Winning or losing a battle is determined by **the skill that a player have**, not by the level or equipment of the playable character.

As evidence, it is possible to beat modern action games without increasing the parameters of the playable characters at all. In games such as 'Ninja Gaiden' and 'God of War', it is possible to beat the game without leveling up the playable character first. The player's skill alone is enough.

Another aspect is that battles in modern action games is **more intense** compared to modern RPG games. All the battles, be it boss or non-boss battle, require the concentration of the player if the player wants to survive.

Also, unlike RPG games, modern action games are still more **straightforward** in terms of strategy in battle preparation. Often players can't be bothered with doing a battle preparation before important battles (or they simply weren't given the chance to) and so players often just go straight to battles without thinking twice.

2.5. Characteristic Summary

So to sum things up, each genre possesses a few certain characteristics that we could categorize and organize into the following table:

Category	RPG	Action
Pace	Slow	Fast
Strategy	Requires Planning and thinking	Straightforward, most does not require strategy
Success Determinant	Character's parameter and strategy	Player's Motor Skills
Level of Randomization	Very high	Fixed or low
Concentration Required	Mostly low	High
Self-expression and customization	Very high	Low

2.6. The big Question

Having recognized the aspect of RPG and Action games, especially in their battle gameplay,

> **" is there a common element that is contained in both games, that when set differently could create a different experience, leading to a different genre?"**

If yes, we could manipulate those elements and create a game with the said elements, and provide different settings so players could switch between action and RPG genre easily.

Our study will find and analyze the elements of both genre and test them to find their level of impact. We think that this study will benefit the future of the development of games in both action and RPG genre, as the games could be further balanced and that a perfect combination of game between the two genres could be developed.

3. Proposal

Having stated all of the above, we have a proposed method to find the solution to the question. After a few research and incorporation of our idea from 8 kind of aesthetics (see *Appendix 7.1*), we found that there are a couple of possible ideas that we think will solve this problem.

Our proposal is to create several games with different issues that utilize our design ideas. The ideas could be grouped into the following:

3.1. The Level of Real-Time Challenge

In the context of real-time actual difficulties, especially challenge that requires quick reaction time and concentration, action games has a higher level compared to RPG games. We wanted to use this factor as the dividing line between the two genres and as the base for finding the element.

To actually emulate this experience, there are a few factors in our mind that we wanted to test out, they are:

3.1.1. AI of Enemies

We found out that the enemies' behavior in action games is much smarter compared to the RPG counterpart. The behavior of each enemy characters, both boss and non-bosses ones, has more variation and tends to be more aggressive, whilst RPG AI's are more or less dull, as they are less aggressive and has a very small range of behavior.

We think that this idea might be able to emulate the real-time challenge that we wanted when tinkered. Setting the AI smarter will emulate the experience of a harder battle gameplay, making it more similar to action games. Whilst on the other hand, tuning down the intelligent level of the AI will make the battle easier and will match the characteristics of battles in RPG games.

However, the problem with this idea is the fact that the element is ambiguous and that the setting of this element between the two genres has no direct correlation whatsoever.

3.1.2. Level Design

Another element that we think might emulate the experience is level design. Level design in here includes the design of the terrains, number of enemies and placement of the enemies.

We got the idea from action-platformer games such as 'Megaman' where placing enemies at different spot (different height, position, etc) actually will require better skills and reaction time of the player to slay. Placement of enemies near traps also makes a difference. Placing more enemies, as we also realized that action games tend to have more enemies than RPG games is also a factor that we considered to be a possible element.

However, we also realized that the scope of level design is too huge and also ambiguous, making it harder to actually pull out an actual number for us to play around with the setting of the two game genres.

3.1.3. Ratio of Level between Playable Character and the Enemy level

One more factor that we found after observation of several games is that the proportion or ratio of strength between the playable characters (PC) compared to the strength of the enemies. As mentioned above, action games have the tendency of a fixed level of parameters, which includes health, damage, etc. Even though the game increases the strength of playable character as the game progress, the increase is still within a set limit. RPG games on the other hand, has much more character growth, as for example in the beginning the character could only hit for 50 damage, whilst later on in the game, producing 9999 damage is really easy.

The level of strength between the enemy characters and the PC is what we believe to be an important factor in determining the level of real-time challenge. Our idea is to set an option where when enabled, will let the level of the enemies to grow alongside the PC, which will hopefully be more like an action game. When turned off however, the level of the enemy will be at a fixed level, and will hopefully make the game more RPG-like.

Evidence for This Option:

- **In 'Tales of Abyss',** there exist a higher game difficulty option. Setting the game to a higher difficulty, however, doesn't really change anything in the game aside from increasing the level of the enemies. This actually makes those battles a lot harder and more intense.
- **In 'Diablo II',** the multiplayer mode will increase the level of the enemies whenever another player joined the server. This is to maintain the level of difficulties and to maintain the level of intenseness in the game even though the players could perform a group and work together to beat the enemies.
- **In 'Warriors Orochi',** or any other 'warriors' game series made by KOEI (the first of the kind came out for the PS2 console in 2001 entitled 'Dynasty Warriors 3') also has different level of difficulties, but the only thing that changes is the strength, or we can say, level of the enemies. This actually makes the battles more intense as the players actually needed to concentrate and dodge and block incoming attacks more often to survive, not just mashing the buttons as what most player do when playing an easier difficulty.
- **In 'Final Fantasy 8',** the game has a dynamic enemy level, in which all the enemy and bosses has a level that is the mean of the level of the characters in the player's party/group. This actually succeeds in maintaining the difficulty level throughout the whole game.

3.1.4. Our Decision

What we decided to test from all the three options above is the element of 'Ratio of Level between PC and enemy'. The reasons for choosing this option are as the following:

- **Very Feasible to Implement**

  We only need to create 2 different look up level table. First is for the dynamic level up and the other one for the normal level. Therefore it is very easy to switch back and forth between the two.
- **There is direct correlation between the two**

  Which means that the ratio is mathematically has a direct relation, between the number in action and in the number in RPG, we could draw a mathematical conclusion.
- **There is a lot of evidence that point this to be the best**

  In terms of real-time challenge, this option seems to be the best as we have stated many evidence in the above section.

3.1.5. How We Test This

We will be creating 2 games. 1 game will be a normal RPG-like game, where the level of the enemies are fixed (further dubbed **Game 1**), and the other will have a dynamic level up system, where the level of the enemies matches the level of the PC (further dubbed **Game 2**) which hopefully will be more action-like.

3.2. The Level of Self-Expression and Strategy in Battle Preparation

As we mentioned in the above sections, we found that the level of self-expression and strategy in both genres has a totally different type and a totally different strength. We grouped both due to the fact that both elements intertwined with one another.

In terms of Self-expression, RPG is richer compared to Action games. Self-expression here is in the context of how the player customizes their characters so that it reflects themselves. This could include giving them different kinds of appearance, equipments, allocating status points differently, etc.

Self-expression here is connected to strategy and battle preparation as players usually prepares and customizes their character before fighting the enemies ahead to some extent. Customizing playable characters differently, will lead to a different strategy in the battle ahead, and each player has a different play style of their own, and so different strategy.

A good example of this kind of category is from a very famous action-RPG game named 'Diablo II'. The game provides 5 different characters/classes for the player to pick (7 in the later expansion named 'Diablo II: Lord of Destruction'). Each character/class has a different set of skill tree, and every time the player levels up the player have to allocate the skill and status points manually. It is not possible for the character to have a maximum status and skill tree, therefore a planning is required.

Different planning leads to different type of character. The 'Amazon' class for example, could be built to be strong as a bow user or a javelin user, or maybe moderately in both weapons, in which plenty of people used the word 'hybrid' to describe this. Each specific weapon built has their own

subclass again, greatly increasing the amount of self-expression and strategy into the game. Another example in the game is the character 'Druid' in which players could develop the players into a summoner (who relies heavily on his summons for beating the enemies), an elementalist (who relies heavily on its magic), shapeshifter (which is an ability that the druid have, allowing him to turn into a beast with heightened attributes), or maybe any hybrid build with the combination of the above elements.

Modern Action games tried to incorporate this element. 'Dante's Inferno' has 2 set of skill tree, in which the player has to choose to develop either one of the two. The 2 skill tree is basically a choice between 'melee' and 'ranged'. Although it seemingly has an element of self-expression and strategy inside, both elements are not as strong as it appears in RPG games. Players will just allocate points to the character to their liking without thinking twice as the game is pretty straightforward, therefore reducing the strength of self-expression and strategy from the game.

Another fine example is from 'Ninja Gaiden II' in XBOX360 which has an item shop inside. In the item shop, players could choose to use their accumulated points to upgrade weapons that they like, which is another form of self-expression and strategy as the players have to pick which weapons they use best.

This kind of experience is another divisor between Action and RPG genre that we wanted to use as our reference in finding the key element from both genres. Therefore we found 2 mechanics that we wanted to test:

I. **Manual Level up** (further dubbed **Game 3**)

   The element we wanted to test out is the strategically panning by players when developing their characters. We wanted to test how powerful is the addition of this element to the game in terms of self-expression and strategy.

   What we are going to do is, we are going to create a game variation that instead of automatically allocating status points into the playable characters, allows players to allocate the points manually, and giving them the freedom to what means they think is best to beat the game.

II. Item Shop

Another element we want to try out is the Item Shop. Item shops act as a 'pit stop' in which the players could use to replenish themselves and prepare for the battle up ahead. Item shops are also used to customize the playable characters, and therefore we wanted to test this element's impact into the genre.

There are basically 2 kinds of item shop that we have in mind that we wanted to try:

- **Money-based Item Shop** (further dubbed **Game 4**)

  The first version of Item shop that we are going to test is an item shop that uses a single trade resource as the trading factor. Money can be obtained from beating enemies, and that money can be used in the shop to buy various items and character upgrade such as status points, new weapons, replenishment items, and new skills.

- **Recipe-based Item Shop** (further dubbed **Game 5**)

  In this version of item shop, we are going to test item shops that use ingredients to trade. Each item in the shop requires a combination on certain items to be manufactured. The items are obtained from beating enemies, in which the enemies will drop items randomly when beaten.

  RPG games have been well-known for its 'grinding' factor, in which players are beating enemies repetitively trying to find various items. This is another kind of 'challenge' characteristics that RPG games possess, as obtaining items requires hard work from the players.

  Recent RPG games also incorporate this system into their games. *World of Warcraft* the famous MMORP game for example, has a profession mechanics in which each player could create items using a certain combination of items/recipe, in which the items needed could be obtained from monsters and quests.

  This is also to add another level of randomness into the game, which is the item drop rate from enemies. This is to match the characterization of traditional RPG games of Randomization as already mentioned in the above section.

4. Working Plan

We have elaborated on the kinds of things that we wanted to test and observe. This section will elaborate further about our plan on our means of observation.

4.1. The Game

We decided to develop a side-scrolling action game called **"Psy-Nin"**. The game is a real-time action game with RPG elements inside including levels, status, experience, etc. The game will be for a computer platform and is played using Wiimote and its Nunchuk extension as the controller.

We decided to choose real-time hack and slash mechanics for the game because in these kind of game the element of real-time challenge is more apparent compared to other battle systems such as turn-based battle system, and so we think it is more appropriate for observing the factor of real-time challenge from the playtest.

We also decided to use Wiimote as the controller of choice because we think it requires more motor skill such as reaction time from the player to be able to successfully play the game using a Wiimote compared to other input devices. The game will be written in C#, using FlatRedBall as the chosen game engine, due to good integration with DirectX SDK.

The game will have different versions, each tweaked for specific observance of different key elements we mentioned above.

For more specific info on the game, please refer to *appendix 7.3* on the game design documentation.

4.2. The Game Versions

There are 5 game versions that we will test, each has a main key element that we wanted to test. The reason for us dividing the game into 5 is to get a more specific feedback on each element from the testers.

The 5 game versions are:

- **Game 1: Normal RPG game**

  This is the normal version of the game without any tweak and any enhancement. Playtesters are required to play this version of the game and give feedback, in which the feedback will be used as a reference on the difference between each game version. This version of game is made to be more RPG like, with each enemy level having a fixed character level, and level up will have an automatic status point allocation.

- **Game 2: Dynamic Level-up**

  In this version of game, the enemy level will match the level of the main character. This is to test out the element of 'Ratio of level between Playable Character to enemy character', and will hopefully be more action like.

- **Game 3: Manual Level Up**

  This version of game is another tweak to the first game, in which players have to level up their character by themselves, as they obtain status points every time the character levels up, and they have to manually allocate it themselves as opposed to the first version in which the game automatically allocate those status points.

- **Game 4: Money-Based Item Shop**

  This version of game will be another tweak of the first version in which in this game, item shops will be available. Players will also sometime obtain a random amount of money from beating enemies, in which the money could be used to buy various things from the item shop.

- **Game 5: Recipe-Based Item Shop**

  This is a branch of the Money-Based Item shop in which instead of getting money from monsters, they will obtain random items. Those items could be used as ingredients to be used to synthesize various items from the item shop.

To easily classify and organize the games' purpose and of what aspect it covers, we summarize them into the following table:

Game	Features				
	Pace	Strategy	Self Expression	Randomization	Level of Concentration
1	X				X
2	X				X
3		X	X		
4		X	X	X	
5		X	X	X	

Game	Tendency
1	RPG
2	Action
3	RPG
4	RPG/Action
5	RPG

And the following are our expectation of each game version, of what aesthetics will be fleshed out by each game:

Game	Aesthetics		
	Challenge	Submissive	Self-expression
1	A bit more strategy	Medium	Low
2	Real-time challenge	More Concentration	Low
3	Strategical	More Immersive	High
4	Strategical	More Immersive	Medium-high
5	Strategical	Very Immersive	High(Higher than 4)

We will be using these tables to base our observation and test, and will be used to determine our theory's correctness.

4.3. Playtesting

After we finished developing and fine-tuning the 5 game versions, we will be testing each game version, letting several gamers to play them and then asking for their feedback. This feedback will then be our base for drawing a conclusion.

4.3.1. Playtesters

The playtesters will have to be a gamer that has experienced and play games from both genre and is pretty knowledgeable in the area. This is to ensure that we get the best data possible. Our target is to have at least 20 playtesters. More samples are desirable to obtain a more accurate research result.

4.3.2. Playtesting Procedures

The playtesters will be briefly explained about the research's objective and about basic controls in the game. The players are then going to play 5 game versions in the following order: Normal RPG, Dynamic Level-Up, Manual Level-up, Money-Based Item Shop, and finally Recipe-Based Item shop. The order is important, as it will influence the player's decision on marking, and so it will determine the accuracy of the test samples.

Each game will have a maximum playtime of 10 minutes. After the playtester is done playing a game, we will give them a questionnaire for them to fill in. We will also have a video recording of them when they are playing the game.

4.3.3. Questionnaires

The questionnaires will mainly ask the players for feedback about the game they just played. We will also ask them to give a score out of 10 for each element of aesthetics, for us to know how strong they feel each experience in each game version. A small appendix of explanation of each aesthetic will be included. These marks will let us use it for a reference of studying the impact of each key element we tested.

We will be focusing heavily on **Challenge**, **Submissive**, and **Self-Expression** as these elements are what we think to be the most important to differ the battle gameplay between the two genres. Challenge by itself will be divided into '**Real-time Challenge**' and '**Strategy Challenge**'.

4.3.4. Gameplay Video Recording

While playing, we will ask the player to record them when playing the game. The purpose of this is for us to actually see the emotions that the player felt when playing the game, as seen from their facial expression. This is crucial to see the tension and concentration they gave, in which we have mentioned above that action games have more tension and concentration while RPG games tends to be more relaxed.

4.3.5. Determining Success

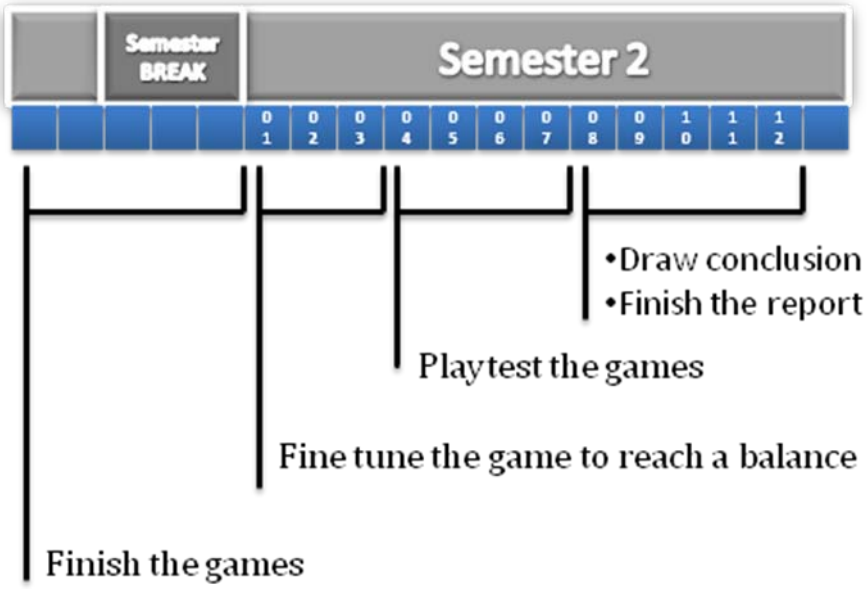
The test result will be compared to our initial expectation, and we will be using the numbers and ratings obtained from the questionnaires to prove our theory of the impact given by each picked elements. If we fail to prove it, we will be reflecting on why we fail, and also possible ways of fixes.

4.4. Working Schedule

We have started developing the game from the start of the semester, and we are nearly finished with the first game version. The game is coded by the both of us, and the artworks are obtained from a graduate digital media student from COFA named Audee Gianda Budiman. He is a friend of ours and has volunteered to us in helping to draw several artworks for the game.

We have the following milestones for our working schedules:

- Finish the games during break.
  As we do not have a lot of exam, we plan to finish the game before the semester break.
- We then have until the end of week 3 in 2nd Semester to finish balancing and fine-tuning the game.
- We then do the playtesting up until the end of week 7.
- And finally we draw our conclusion and formulize our report for Thesis B.



(Our working schedule, see Appendix 7.2 for more details)

5. End Words

As we have mentioned above, we have been prototyping and developing the game since the start of the semester. Although seemingly there are a lot of things to do, we are confident that we could finish each milestone on time and that we could garner good amount of sample for the playtesting procedure.

We are also confident that the key elements we picked will be a good reflection of the crucial difference between both genres and that we could then manipulate them for developing games in both genres.

In the end, we have placed a huge amount of effort into this project, and we are hoping that we will succeed in part B.

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7. Appendix

7.1. Game Design in General

There are 3 main elements that needs to be considered during game design, they are:

7.1.1. Mechanics

Mechanics are the rules of the game, rules that defines the behavior of the world, the environment, and restrictions on how the player could achieve their goal.

7.1.2. Aesthetics

In general, there are 8 kinds of emotions or aesthetics element that game designer needs to consider while developing any games. These elements emerge from the game and are felt by the player when playing the game. The elements are:

I. **Drama/Narrative**

   Drama is an element that emerges when the players found dramatic moments in the game. This is either through the element of surprise or through the feelings contained inside the story of the game.

II. **Fantasy**

   The element of fantasy emerges when the player uses the game as a medium to satisfy their imagination. This is mostly because games have a fictional setting and have 'what-if' feelings inside.

III. **Sensory/Sensation**

   The element of sensory or sensation is felt when the game pleases the senses of the player.

IV. **Challenge**

   Challenge is felt as the player goes through the hardships in the game, as they went through obstacles and trying to overcome them.

V. **Discovery**

   The element of discovery is felt by the players whenever they found something new from the game

VI. **Submissive**

Submissiveness in the game is about how deep the player is sucked in when they are playing the game.

VII. **Self-Expression**

Self-expression emerges out of the game whenever the player uses the game as a medium to express themselves.

VIII. **Fellowship**

Fellowship emerges whenever the player uses the game to socialize with other players, either through competition or through cooperation.

Marc LeBlanc dub these elements as the '8 kinds of fun' (Hunicke R., LeBlanc M., Zubek R., Unknown, p.2).

It is very important to consider the aesthetics as it defines the experience of playing the game, and also it enhance the pleasure and experience felt players (Schell, J., 2008, p. 347-351).

Each different genre has different set and kinds of apparent aesthetics that emerges out of the game.

7.1.3. Dynamics

The dynamics is the connector of both aesthetics and mechanics. For example, the aesthetics of '*Challenge'* is created is created through pressure of time limit and opponent moves (Hunicke R., LeBlanc M., Zubek R., Unknown, p.2). Every single game has different dynamics.

7.2. Working Schedule

7.3. Design Document

PSY-NIN: GAME-DESIGN

1. Background

'Psy-nin' is a Side-Scrolling Action RPG game we made for research purposes. The research topic is: 'Study of Genre: Battle Gameplay in Action and RPG game' and the purpose of this research is to successfully find an element that exist inside both genre that we could easily manipulate and set so that we could easily switch a game's battle gameplay from action to RPG, and also from rpg to action.

That having said, we decided to create a game that fits the research theme, and so we decided to create a side scrolling game. The battle gameplay inside this game is 'Hack and Slash', a real time battle system for RPG games since it is very similar to its action counterpart. This brings us to create a side scrolling action-rpg game that combines elements of both traditional genres into 1.

Also, due because we realize that a player's motor skills (reaction, concentration in playing) is a very important aspect that we need to observe during research, we decided to use a Wiimote and its Nunchuk as the controller device. We believe that playing a game using the Wiimote and Nunchuk requires more motor skills and that it is also more dynamic compared to traditional controllers (such as keyboard & mouse, joystick, etc).

The game has to be short, something that a player could probably beat in 10 to 15 minutes. The reason behind this is because a playtester will have to play through 6 or more times in a playtesting session, and a short game will give us a larger and better sample.

Lastly, we decided to create the game in 2D due to the time limitation we have to finish the game, and also due to the fact that there are only 2 people working for this game. The game will be developed using FlatRedBall, a 2.5d game engine written in C#.

2. Background Story

The main character has a background of an ordinary ninja from the Kouga clan, one that is skillful in the ninja arts. He was happily married to a woman and they lead a happy life for a few years.

The Kouga clan has the responsibility of protecting the world from a vile demon by sealing and guarding the seal for the past few hundred years. One day however, the demon broke free from the seal and wiped out the whole village, killing everyone there including the protagonist's wife.

The protagonist tried to fight but the demon was too powerful. The demon beat him and left the village to wreck havoc to the world. Fortunately, the protagonist survived and become the only survivor of the clan. Anger drove him to seek revenge, but he realized that he cannot beat the demon with his current power, so he went and made a pact with the ancient guardian spirit, granting him a power capable of beating the demon at the cost of his arms. He now possesses and is capable of using his mind to manipulate raw energy at the cost of muscle atrophy on his arms. He then went on to a journey to kill the demon and bring peace once more to this world.

3. The Big Idea

The player assumes the role of Psy-Nin, a psychic powered Ninja. The reason why we choose a ninja for the main playable character for two reasons: first is so that a player could easily familiarize him/herself with the character, and secondly is because of the popularity of ninjas in any game.

But to make the main character less generic, we then decided to make the main character fights without using weapons or using his limbs at all, but using his psychic power, enabling him to generate attacks using his psychic power.

The main character is controlled using the directional pad available on the Nunchuk. Tilting the joystick there would move the character left or right. Tilting the joystick up will make the character jump. The player has 2 basic attacks: melee attacks done by swinging the Wiimote, and also projectile attack done by swinging the Nunchuk.

The player will start at level 1. And during the game, there will be enemies trying to stop the main character on his quest to kill the demon. Killing these enemies will give experience points to the main character, and when enough experience points are obtained, the character will level up.

Leveling up will make the main character grows in terms of status and at certain levels, new abilities will be unlocked. These abilities will require psychic points to use, and will be used when certain button combinations are entered.

Killing enemies will also randomly drop items that could be used to replenish health or psychic points. The player could pause the game to bring out the menu which will freeze the game's state, and then the player could browse through the list of items available and use them.

As the game progresses, the main character will find checkpoints that will save their positions so that if they die, they don't have to start over from the very beginning.

The main objective of the game is to go and find the demon, and kill him. By doing so means that the player has beaten the game.

4. Target Audience

The target audience of this game, since this game will be used for research purposes, will be gamers that are experienced or at least familiar with games classified as both action and RPG, both traditional and modern.

The suitable age range for the audience is 15+ as we are hoping to get feedback from experienced gamer, and so that we could fill in the questionnaires well.

5. Mechanics

As we will be testing 3 different elements, the game will have 6 different settings, each with slight variation in their mechanics. But first, we will cover the common mechanics in the game.

5.1. Common Mechanics

5.1.1. Primary Goal

The game has only 1 goal, which is to beat the demon, who will act as the final boss in the game, while staying alive. The demon's minions will act as an obstacle throughout the journey for the main character to find his way to the demon's lair.

5.1.2. Character Growth and Resources

The game uses a level system, in which every single character has a level to determine their strength. The following are a detailed explanation on the character growth and resources aspect:

i. Levels, Status and Experience

The PC (Playable Characters) starts at level 1. Whenever a player kills a monster, the player will receive a certain number of experience points, in which the amount will be based on the level of the enemy. And when enough experience is accumulated, the PC will level up. Leveling up will increase the parameter of a character, increasing his Attack Power, defense, etc. Leveling up the PC will also unlock some activated abilities which will require the use of psychic points.

The parameters available include:

- *Attack Power* which determines the damage produced when the PC or the enemy does a melee attack.
-*Accuracy* which will determine the damage produced for projectile attacks
-*Defense* which will decrease the damage taken when taking a hit, both melee and projectiles.
-*Maximum Health* which determines the maximum health a character possesses.
-*Current Health* which determines the current health a character possesses. Having a current health of 0 means the character is defeated/dead.
-*Maximum Psychic Points* which determines the maximum psychic points a character has. Psychic points will be used for doing skills.
-*Current Psychic Points* which shows the current psychic points a character have.

Lastly, due to the fact that the game is short, we will limit the maximum level of the characters to be 20.

ii. Usable Items and Monster Drops

When a monster is killed, there is a chance that it will randomly drop an item. The dropped item will be stored in the player's inventory and can be used by accessing the menu. There are 2 types of usable items which are health potions, used for replenishing health, and psychic potions, which will be used to replenish psychic points. There is a limit of 10 for each item in the inventory. This is to prevent players from easily beating the game by stocking up too many items in their inventory.

5.1.3. Enemies

There are 2 kinds of enemy that the player will encounter during the course of the game. The first one being normal enemies, which players will commonly found throughout the whole game. There are 2 kinds of normal enemy which are:

- **Close-Ranged enemy**

  This enemy will attack players using close proximity attacks.

- **Long-Ranged enemy**

  This enemy will attack players using long-range projectile attacks.

The second kind of enemy is boss enemy. There is only 1 boss in this game which will appear at the last part of the game.

5.1.4. Battle Gameplay

The battle system of the game will be in real time where the movement and actions of the characters occurred in real time, and commands given to the PC by the player will be executed in split second. The following are the main aspects of the battle system:

i. **Basic Attacks**

   The PC has access to 2 basic attacks from the start of the game. They are:
   -*Melee Attacks* which is done by swinging the Wiimote. The basic attack is an energy blade generated by the ninja's psychic power. The damage output is determined by the attack power parameter that the PC currently possesses.
   -*Projectile Attacks* which is done by swinging the Nunchuk. This will create an energy ball that will shoot towards left or right depends on where the ninja is facing. The damage output is determined by the 'accuracy' parameter that the PC possesses.

ii. **Skills**

   As mentioned in the passage above, as the PC reaches certain levels, new skills will be obtained. These skills will be used for combat purposes, and each requires psychic points to use. The skills will be activated by doing certain combinations and buttons on the Wiimote and Nunchuk. The list of available skills and abilities that the PC has could be seen in the in-game menu.

iii. Maneuver

To survive in the game, the player must be adept in evading enemy attacks. The playable character will be maneuvered using the joystick on the Nunchuk. The player could either run left or right, or the player could make the PC jump up by tilting the joystick up.

5.1.5. Checkpoints

Throughout the course of the game, there will be checkpoints which will act as a save point that marks the player's progress. These checkpoints will be activated when touched by the player.

The checkpoints serve as spawn points, in which every time the PC dies, the PC will be re-spawned to the latest checkpoint that the player triggered. We decided to put spawn checkpoints into the game to make the game more forgiving to the players, and to make sure player is able to prepare for upcoming battle.

5.2. Variation in Mechanics: Dynamic enemy level

This mechanics only appears in games which will be meant to be used for researching 'ratio of player level and enemy level' as an element that divides action and RPG genre.
If we turn on this option, the level of the enemies will grow in according to the PC's level. This is used to maintain the balance throughout the whole game, and hopefully this will make the game to be more action-like.

If this option is turned off, the enemy will then stick to their respective level, and this will hopefully make the game to be more RPG like.

5.3. Variation in Mechanics: Manual Level up System

This mechanics will only appear in the version of game that will test out the 'Manually leveling up your character' as an element that divides action and RPG genre. Normally, when the main character levels up, the game will then automatically increase the parameters of the PC. If this option is turned on, however, every time the PC levels up, the player has to then manually allocate the status points they accumulate to the character on their own.

This will hopefully flesh out the element of strategy and self expression into the game, making this game more RPG like.

5.4. Variation in Mechanics: Shopping System

This mechanics will only appear in the version of the game that will test out the 'Item shop' as an element that divides action and RPG genre. In this version of the game, the players could access item shops through checkpoints.

There are 2 versions of shops, each placed in their own version of game. They are:

- *Money-based shop*

  In this version of game, enemies will randomly drop a random amount of money. This money will be used as a resource to purchase various items from the shop.
- *Recipe-based shop*

  In this version of the game, the enemies will drop random collectable items. These items are used as a resource for buying items from the item shop. Each buyable item has their own requirements to fulfill, each requiring different combinations of items before the player could purchase it.

The buyable items will include new skills for the players, replenishment items, upgrade for status parameter, and possibly some other items like gears for the PC.

5.3. Secondary Goal

The secondary goal in this game is possibly for the player to make the playable character to be as strong as possible. This can be achieved by the player through leveling up the PC, or by purchasing various items in the item shop to increase the strength of the character.

This is to bring out the element of self-expression and fantasy from the game.

6. Player Setup

The game will be a single player.

7. Player Controls

7.1. Nunchuk

The Nunchuk has 2 functionalities, first is to do a projectile attack, and secondly is to maneuver the character. The joystick is used to maneuver the character, and it is done by tilting the joystick left and right. Tilting it upwards will make the character jumps.

The projectile attack is achieved by swinging the Nunchuk. The Nunchuk and the Wiimote could be used together to execute skills.

7.2. Wiimote

The Wiimote is used for close proximity attacks. Swinging the Wiimote would let the PC execute a basic melee attack, swinging the sword to where the main character is facing.

The Wiimote also has buttons. Pressing the plus button will let the player pause the game and enter the menu. In there, the player could navigate through the menu by using the Nunchuk's joystick, and selecting the desired options by pressing the 'A' button on the Wiimote. The player could exit menu by pressing the 'B' button on the Wiimote.

The Wiimote buttons could also be used to activate skills that requires PP (psychic Points) to activate, combined with the Nunchuk.

8. Resources

There are a few resources available in the game, which are:

8.1. Experience points

An experience points is obtained by killing enemies. Beating enemies will grant the player experience points, and when the player has accumulated enough experience points, they will level up.

8.2. Replenishment Items

The enemies will sometimes drop potions that could be used to replenish the player's state. There are 2 kinds of potion which are health potion, used to replenish health, and psychic potion, used to replenish psychic points.

8.3. Status Points (Manual level-up version only)

Status points are only available in game version that have the ‘Manual level up’ mechanics. Status points are used for increasing the status parameter of the main character. The points are achieved by leveling up the PC, where each level up will net the player 10 status points to spend.

8.4. Money (Money-based shop version only)

Money is a resource that is exclusive to the game version that has a ‘Shopping System’ mechanics, specially the money-based shop version. Money is obtained by killing enemies, in which enemies will randomly drop a random amount of money. Money can be used in the shop to purchase items.

8.5. Recipe Items (Recipe-based shop version only)

Recipe items are resources that is exclusive the game version that has a ‘Shopping System’ mechanics, specially the recipe-based shop version. In this version, instead of money, enemies will randomly drop random items. These items are used to purchase items from the item shop. Each item in the shop has their own item requirement, and by trading the required items, the player could obtain the item.

9. Aesthetics

There are different aspects of aesthetics that we thought would emerge from the game. Each category might be different in strength and might vary depending on the version of the game.

9.1. Drama

The drama might come out of the battle gameplay. For example, beating the enemy at the state where the player has more chance to die, bringing the unexpected and making the element of drama to emerge.

It might also emerge from the player trying to hunt items, especially in the ‘Recipe-based shopping system’ version. Players trying so hard to find required items might feel a sense of frustration or probably relief when hunting the required items, depending on the success.

Suddenly appearing boss and enemy might also give the players a surprise, and will flesh out this element.

9.2. Fantasy

The fantasy element came out from the whole depiction of the game, as it is fictional. The game will also satisfy some of the player's fantasy of power and magical battle.

9.3. Sensory

The game is played using part of the player's body, more specifically the player's arm movement while playing the game using the Wiimote. The game's success is determined by the player's motor skill, especially the player's reaction capability. This will bring out the element of 'sensory' from the game.

9.4. Challenge

There are different kinds of challenges in the game. The first one is beating the enemies. Beating the enemies (including the bosses) requires high motor skill from the player, requiring them to react and give input on the right time. This will hopefully rises as the game is set using the 'dynamic level up' settings, as it will hopefully make the game more action like, and action games have a strong element of motor challenge emerging.

The second kind of challenge is to plan the distribution of status points to the PC that will allow the player to survive the game, and beat the game. The players have to think about of a proper status point distribution that matches their strengths. Wrong status point distribution will hinder the progress of the players.

The last kind of challenge is to customize and upgrade the PC to its best. This will be very apparent in version of the games that has 'shopping system' mechanics inside. The players need to collect resources to be able to buy the appropriate items in the item shop. This will be much harder in the game with recipe-based item shop, as it is much harder to find the appropriate item dropped by which monsters.

9.5. Discovery

The element of discovery will emerge every time the player found new things inside the game. The new things including different terrain, different kinds of enemies, different items to be dropped, items in the item shop, boss enemy, etc.

9.6. Submissive

We expect the game to have 2 different level of submissive, battle gameplay-wise. Hopefully the action-like game version (specifically the one that has dynamic level mechanics) will be more submissive, as it should require more attention from the player, therefore making the players more submissive when playing the game.

Aside from the battle gameplay, in terms of battle preparation and after battles, the players should be feeling submissive when playing the game in terms of customizing the player's character either by distributing status points, by item hunting, or also by buying items in the item shop. This kind of submissive should emerge more from game version that is more RPG like, including the recipe-based item shop.

9.7. Self Expression

The element of self-expression is an element that emerges much stronger in RPG games. The element will emerge from the game as player customizes their character to their likings, either by distributing status points (in game version with 'manually leveling up your character' mechanics) and buying items from the item shop. This will make the PC as the reflection of the player him/herself.

9.8. Fellowship

This is the only element that we think will not emerge from any part/aspect of our game. The reason is that the game is a single player game and there is no competition or teamwork with other players necessary.

10. Graphics

This section will elaborate on the graphical aspect of the game, including the sprites, level, and also user interface. The graphics are made by our friend, a COFA Digital Media graduate, Audee Gianda Budiman. As w are lacking in skills are resources for creating graphical designs, Audee has kindly offered us help by creating most of the necessary graphics. It has to be noted though, that due to the size of the game, time restriction, and also the purpose of the game, we decided not to overly pursue graphical success too far so that we will not steer away from our main purpose.

10.1. Sprites

The sprites are created in png format, and are then broken down to different parts: head, body, left arm, right arm, legs. This is to help us in programming the animation easily and more dynamically.

A sample of the initial design of the PC, Psy-Nin

10.2. Level and Terrains

The level and terrains is made mostly by Arvin and sometimes Audee. The terrains are tile based, in which we fill it into the game later on.

An example of the ground tile

An example of the sky tile

10.3. User Interface

The user interface, especially the menu navigation, is currently text-based, in which the players will move up and down and left and right using the Wiimote to navigate through the menu.

The prototype pause menu

The prototype gameplay

11. Sound

So far, we have not produced on anything in this department for the game. We have decided, however, to insert background music and sound effects into the game.

11.1. Background Music (BGM)

The background music will be self-developed by Andre, using music-composing software.

11.2. Sound Effects

The sound effects will mostly be obtained free from the internet.

12. Task Division

The game will be developed/programmed by both Arvin and Andre. The game will be programmed together or sometimes each person will develop different game version.

Audee, our friend, will be in charge of graphical designs.

Sounds will again be the responsibility of Arvin and Andre.

13. End Words

As the game has not been completed yet during the writing of this documentation, nothing much can be said or reflected through the game. But we do expect that our game will satisfy the requirement of our research, and we are confident that we could deliver the game on time, with the best quality possible.