

Enhancing role-play in games with a redesigned leveling and skill system without class restrictions

Dennis Godtfredsen

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ABSTRACT

Taking a broad look into role-playing games both within the field of computer games and outside, role-play is being used for a lot more than just recreation some of the prime examples are the area of education. The different fields within this project is Role-play, LARP(live action role-play) and RPGs(role-playing games). Looking into the genre within computer games little research has been carried out into the underlying system but only as a whole. For evaluation purposes it was found that much of the role-playing elements is a result in how well the player identifies with the character and the identity that is created when playing.

A focused system where created with a limited scope to character identification. The main points of interest when dealing with identification are, control and character uniqueness, the different components that will be included in the new leveling and skill systems are, mastery level, skill creation, combine skills, super skilling and the removal of a class system. These aspects were taking into consideration for the implementation. The implementation goals were to create an RPG experience without class and a select amount of skills/abilities, to that end it was decided to use the game Xcom2 as a basis for a mod. the mod's aim is to create a sort of Archetype soldier class, which will replace all the current classes in the game. The archetype class consists of using abilities from all the default classes to allow for as many combinations as possible, secondly the amount of possible perk picks per rank is to be increased, and lastly all weapons should be made available to this archetype class. The final iteration out of three resulted in the use of two mods "Enhanced Perk Tree" and "Field Medic Class" to allow the player to complete freedom in sense of no class and having to pick between seven perks per rank.

The testing was divided into two online groups the first one that tested the implementation and answering a questionnaire, the other group consists of having a focus group based on the mod created, this focus group would explore what the changes meant and discuss the aspects of class and skill in more general sense as well. The first group failed in the recruitment so no results were gained, the second group consists of a veteran/expert group of gamers. This group found that it was more fun to play without classes and the amount of skill should be a balance between usability and amount of choices, secondly they would discard their own way of doing things if a more optimized build was available, even if it meant changing the way they played.

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ACRONYMS

RPG Role-playing game

MMORPG Massively multiplayer online role-playing game

MMOG Massively multiplayer online game

LARP live action role-playing game

PvP Player vs player

MOTIVATION

The following section will explain the difference sources of motivation for the current project into leveling and skill systems within computer games and the genre role-playing games(RPG). Taking a broad look into role-playing games both within the field of computer games and outside, role-play is being used for a lot more then just recreation some of the prime examples are the area of education. In the area of education where role-play is being used to teach in all ages and all subject, as well as being the basics for major training drills/exercises for emergency and relief effort in case of events like terror attacks or natural disasters. Looking at the aspects role-play is being used in the possible applications are many, but narrowing it down to the computer game genre little to no research has been carried out into the underlying system but only as a whole.

The personal interest is the fascination with designing different worlds and systems for RPG's, and attempting to create an new RPG system that will allow players as unique a character/avatar as possible. Secondly the joy it is to play RPG's exploring the many different and varied examples that exists. The desire for creating a new system stems from the realisation that many games use the same underlying system with only minor differences, and being very set in the some approach of using experience points for any character progression.

The aim is to design a framework that should allow for a more engaging system for the players to explore, as well as allowing for every player to have a character/avatar that stands out with more then just the visual. Secondly exploring the underlying system might provide insights into how to improve the players assuming the provide identity and thereby increase the learning outcome as they are more engaged in the experience then before. With this information it is possible to create a engrossing experience for the player, and if it is a learning situation the learning outcome should also increase as the player is assuming more of the role assigned to him or her. With a some of the systems mechanics and effects being explored it becomes possible from a design perspective to selected the appropriate RPG component for the desired effect, instead of building on system where little is know about the individual effect but rather the outcome as a whole.

INTRODUCTION

The main drive behind this project is to continue an earlier work into the leveling and skill systems for RPG's (role-playing games), as many of the current RPG's follow the same recipe with the same progression as well as the same approach to skills. a lot of research has been carried out in context to role-play, like what i can be used for and with the positive and negative things of role-play are depending on different situations. Primarily the positive effects of learning though role-play, and the negative side of RPG's the addiction that can occur, but no direct research have been carried out into the underlying system.

The specific parts of the RPG system that is of interests for the current project is to look into the leveling and skills specifically, where the hope is that this work can be the precursor to other works looking to analysis RPG's more specifically then only looking into the system as a whole. This work will evaluate the changed system by comparing the players virtual identity and character identification, as literature suggest there is a correlation between these parameters and positive and negative things associated with RPG's.

By reviewing several different RPG's and how their leveling and skills are build up, it will be attempted to create a new framework for another system where every part is more depended on each other then in current systems. Based on an earlier version of the before mentioned systems it was discovered that a lot of these systems are boiled down to how the player sets up his/her identity online, as well as how well the player the identifies with their character/avatar. Therefor the proposed framework will be subjected to a test/evaluation the subjects of identity and character identification, the complete leveling and skill system is necessary to test for identity making it impossible within the available time. Instead a smaller more focused system will be created to gauge the effects of removing the a class system by measuring for changes in the character identification.

This report will investigate several different aspects of role-play and role-playing games, the focus is a genre of computer games called RPG's and how the player levels up as well as the skills available the player at any given time, with the aim of creating a new leveling and skill system for RPG's. It was found that some of the big factors within role-play is identity and character identification, therefor these

two concepts will be explored and the different connections to the leveling and skill system within an RPG. In an attempt to further pick apart the leveling and skill systems in RPG's, it will also be beneficial to explore what motivates the players in playing RPG's as this will be some of the more important aspect that should be either included or considered in the new system. Lastly a review of several different RPG's will be carried out with a focus on the leveling and skill system, these systems will then be compared and the unique aspects will be evaluated for possible inclusion in the new system. Based on the investigation into the aspects of RPG's, identity, character identification and motivation a design for a framework for a leveling and skill system will be presented, along with a more focused design into the effects of class and limited choices of abilities. The focused system will then be implemented as a mod for Xcom2 and tested out to see the possible changes to the character identification.

2.1 PROBLEM STATEMENT

Based on the reflection of a previously design framework for a new skill and leveling system, that attempt to provide at much customization and personalization of the character into the hands of the player. It was found that it call came down to the identity the players takes when playing an RPG, as well as how well the player identify with character/avatar itself. These two aspect could provide insights into what aspects of the leveling and skill system that could be improved and what possible effect changes could have in leveling and skill systems. to that end it will be attempted to redesign the leveling an skill system, which will have a focus on identity and character identification as well. This leads to the following problem statement that will be attempted to answered:

Will a RPG with a redesigned leveling system without class restrictions which also allows for the creation of individual and personalized skills, provide a stronger sense of identity and character identification compared too other RPG's

INVESTIGATION

This chapter will focus on the investigation of virtual identity and character identification within role-playing games, if they have an influence on the player and what this influence is, and if the influence of identity can be used to improve a leveling and skill system used in a RPG. Furthermore, the chapter will look into what role-play is and some of the games with a primary focus on role-playing, from the board game that is rumored to have started it all, to Live action role-playing game and role-playing games for computer. After that virtual identity and character identification will be described and how it can be enhanced. Next, it will be investigated what it is that gets us to play role-playing games both alone and online. Lastly, this chapter will present a review of leveling and skill system based on the previous system and new additions, and based on this review, virtual identity, character identification and motivation for playing will be combined into a set of requirements for a new leveling and skill system.

3.1 ROLE-PLAYING

This section explores what role-play is, different types of role-play in relation to games and recreation. Three types of role-play will be explained, pen and paper role-play also called tabletop role-playing with a game master telling or reading a story and players experiencing this story, Live action role-playing game (LARP) where players battle it out and/or construct small societies, and finally role-playing games where the role-play is in the core mechanics and not an add-on

3.1.1 *Pen and paper role-play*

In 1974 Gary Gygax and Dave Arneson finished their work on a new board game called Dungeons and Dragons. This game was to form the basis for a whole new genre of board games called pen and paper role-play or tabletop role-playing. The game consists of a set of rules to govern a fantasy world, rules for movement, combat, injuries and death, but also rules for interacting with characters and a system of morality. This game sparked many different games similar in de-

sign, each with its own unique twist. This game is also credited as the mother of all future role-playing games, as the framework was already present[1].

Later, this board game evolved into a core rule book that consists of a set of tools that can be used by the dungeon master/game master, to create a story on his/her own, At the same time it provides guidelines for how to resolve different situation as they appear in the game, from combat to interactions with the fantasy world created, most situation are handle with either the game masters decision or the roll of a dice. A players hand book that helps players construct a character that follows the rules in the fantasy world, from their race and class to how to level and what gear, is available from the beginning of the adventure. A monsters guide describes all the different monsters and what kind of items they can drop, and finally there is the option that a premade story can be used detailing an adventure so the game master does not make everything up as the game/story progresses.

3.1.2 *LARP*

Live action role-playing games (LARP) are thought to have two different and very distinctive roots. The first is based on reenactment and recreation of historical battles and/or time periods attempting to be as accurate to historical records as possible. The second is found in pen and paper role-play with a special focus on the early Tolkienistic world of fantasy that later evolved as the games did. With the two distinctive roots there are many different types of larps, contemporary and modern history Larp, and conceptual Larp where the focus is on the emotional and/or moral dilemma, rather than on reenactment of a specific event[2].

In some cases larps can also be seen as a form of improvisational theatre as there generally is a focus on role-taking, improvisation, and immersion in the environment and participants of the larp. Besides the recreational value and the enjoyment that most larps provide there is also a serious side to larps. Larps have been used for both crisis training and psychological treatment. Furthermore, Nordic Larp is also rapidly transforming into a form of educational gaming, used in particular in youth schools[2].

Larps can generally be divided into two categories, the pervasive larps and the traditional larps. The pervasive larps. The pervasive, which are played over vast areas and integrated with ordinary life. This category has great potential for both more casual forms of role-play and for serious applications. The traditional larps are played in closed areas that are heavily propped, in recent years there have been examples of Larps with an urban setting[2].

3.1.3 Role-playing games

The genre of role-playing games for computer is difficult to define, the primary reasons is that RPGs are many different things depending on the game. Therefore, the designer Jordane Thiboust suggests dividing RPGs into different sub-genres, each of these sub-genres then has a set of ingredients that make the sub-genre, not all the ingredients are needed to make a good game. The following list shows the different sub-genres and what defines them, the bold elements are the necessary ingredients for the sub-genre and the italic can be added, but will dilute the experience if the complexity is too high[3]:

- The Narrative RPG - Narrative and immersion
 1. **Characters should be three dimensional**
 2. **Every location should tell a story - the physical location the player is exploring**
 3. **Itemization should help immersion - where did this large sword come from**
 4. **Combat mechanics and the powers displayed should feel coherent with the universe**
 5. **Dialog must have multiple answers**
 6. *Enemy respawn*
 7. *Crafting system*
 8. *Character evolution and itemization*
- The Sandbox RPG - Freedom
 1. **Deep character creation, customization and evolution**
 2. **Almost everything that the player would like to do should be doable**
 3. **Navigation should not feel restricted**
 4. **A vast world to explore**
 5. **Non-linear progression**
 6. *Itemization should help immersion - where did this large sword come from*
 7. *The narrative should ensure that the player is feeling important to the world, without making it the only thing that matters.*
 8. *Avoid a contrasted morality system - like Paragon(Good)/Renegade(Evil) in Mass Effect*
- The Dungeon Crawler - Character Progression
 1. **Complex loot system**
 2. **The possibility of customizing the loot/items**

3. **Deep character evolution. A class system, stats system, skills, feats**
4. **Deep and detailed lore and universe**
5. **Enemies must respawn, even the bosses**
6. *Narrative is secondary*
7. *Avoid open worlds*

With these three sub-genres Jordane Thiboust attempts to structure the genre called an RPG, but at the same time does not define the genre of RPGs as many games borrow elements from each other to varying degrees of success. To make matters even more difficult many other genres within computer games have RPG elements included, making it even more difficult to define the genre. To that end the only aspect that might be common for all RPGs is that the player takes control of one or more characters and explores and experiences the universe through their eyes.

Another aspect of the RPGs are the possibilities of using them as learning tool and example of this behavior Leadership in Multi-player Online Gaming Environments where the author discusses currently used learning tools for leadership. They conclude that the learning tools are too rigid and simple. Especially when compared to MMORPG where a similar experience may be had, as a more varied and flexible tool. The authors conclude that in the future leadership experience might stem from these sources and bring unknown results with it[4].

3.1.4 *Summary*

In 1974 Gary Gygax and Dave Arneson started something huge by creating the tabletop game called Dungeons and Dragons, this game was the first game to structure how to play a role-playing game and provide tools to govern a fantasy world. This game is credited as the mother of all later role-playing games including larp (Live action role-playing game).

Larp has two different roots one root is Dungeons and Dragons and similar games, the other root lies in the reenactment and recreation of historical battles and/or time periods attempting to be as accurate to historical Records as possible. Larp is also a very engaging form for role-play as the participants attempt to create a fantasy world in an area and live and interact based on the rules of the fantasy world. Larps also have a more serious side and have been used for both crisis training and psychological treatment, and are also being used in educational gaming.

Moving into the world of computer games the genre RPG (role-playing game) is very difficult to define, as it contains many differ-

ent elements and other genres also borrow and incorporate RPG elements into their games. Most RPGs can, however, be divided into one of three sub-genres The Narrative RPG, The Sandbox RPG and The Dungeon Crawler, but not all RPGs fall within this classification.

Making the definition of a role-playing game: The player takes control/assumes the role of one or more characters, the player then explore and experience the game universe through the characters eyes.

lastly RPGs might also end up being used as a leadership tool, as it provide a better, more varied and flexible tool then currently otherwise available.

3.2 VIRTUAL IDENTITY

The following section will explore what identity is in a virtual state, and what influences this virtual identity. Besides the virtual identity it is also important to look into character identification, as players hide behind a virtual avatar and not their real appearance.

In the article The Ideal Elf: Identity Exploration in World of Warcraft the authors explore how players form their virtual identity in World of Warcraft (wow). The authors finding showed that some of the main aspects involved in the virtual identity was the look of the character and social interactions. Furthermore, they theorized that even the class that the players picked might have an influence on the virtual identity[5].

Klimmt, Hefner and Vorderer[6] found that the virtual identity the players took while playing, was more similar to their ideal self that the players wished to have. This was, however, offset by how content the player was with his/her own identity, the more content they were the less ideal the virtual self was[5]. Cohen, however, found that the identity players took while playing could be divided into two groups, either it was very close to the their own, or the players were role-playing and assuming another identity[7].

Crowe and Bradford conducted a study that looked into the relationship between identity and young individuals playing MMOG, their study uses the game called Runescape and the participants in the study all played. They found that Runescape offered a safe place for the experimentation of identity, this also consists of playing as the opposite gender without fearing any consequences or alienation. Besides allowing for the exploration of identity the authors found that the virtual identity created also had an impact on the real identity[8, p10 - 11].

Crowe and Bradford found these factors to have an influence on the virtual identity, visual characteristic of the character, gender, the social relations with other players, the interaction with the virtual world and lastly they found that the players choice of profession and skills also had an influence on the virtual identity[8].

All of these studies and others look into how we create an identity in multiplayer RPGs and/or MMOGs, where there is complete or limited freedom in a background story for the character that we control. The following is the findings into what makes up a virtual identity, The most important factors are the visual appearance as well as the gender, the social interactions the players have with both the environment and other player, the choice of which class and skills the player picked have an influence as well as what professions. When looking into these studies it shows that the character identification is also a major factor in the identity the player assumes when playing, based on the importance of the characters looks.

3.2.1 *Character Identification*

To get a complete understanding of how a player identifies with a character a broader look on character identification is necessary. Jonathan Cohen has done research into how the viewer and/or reader identify with characters presented to them, the research focuses mainly on movies and books, but is still relevant for games. There are four different components needed to determine how strongly the viewer/reader identifies with the character, the four components are empathy(happy, sad or scared), sharing the perspective of the character, motivational(shares the same goal as character) and absorption(the degree of how much self-awareness is lost)[7, p256]. furthermore Cohen define identification as:

"Identification is an imaginative process through which an audience member assumes the identity, goals, and perspective of a character."

Cohen measures identification by having the viewer/reader answer the following questions[7, p256]:

1. While viewing program X, I felt as if I was part of the action.
2. While viewing program X, I forgot myself and was fully absorbed.
3. I was able to understand the events in the program in a manner similar to that in which character X understood them.
4. I think I have a good understanding of character X.
5. I tend to understand the reasons why character X does what he or she does.
6. While viewing the show I could feel the emotions character X portrayed.
7. During viewing, I felt I could really get inside character Xs head.

8. At key moments in the show, I felt I knew exactly what character X was going through.
9. While viewing the program, I wanted character X to succeed in achieving his or her goals.
10. When character X succeeded I felt joy, but when he or she failed, I was sad.

But there is no clear method to how each question is weighted compared to each other, or how a final score is reached. But the questions gives a clue into what areas could be investigate to measure character identification within a visual non interactive media

Another article written by Klimmt, Hefner and Vorderer contradicts some Cohens findings. Instead of only identifying with the characters identity they theorize that a merger of identities happened instead, or in some cases a strive towards the ideal identity, ideal as the player sees it. Klimmt, Hefner and Vorderers article is also focused on computer games and agrees with some of the same parameters for identity, as Cohen but there other key parameters involved when dealing with games. These parameters are freedom and personalized characters. Freedom is the sense the players obtain from living out the role assigned to them and how they influence the character. Lastly, the possibility to have some sort of personalization with the character making it true their own character[6].

Looking further into character identification and how it is measured Lewis, Weber and Bowman propose a method with a term called character attachment (CA). CA is defined as:

"as an individuals feelings of (a) friendship and (b) identification with a video game character when an individual (c) is willing to suspend disbelief, (d) feels responsible for the game character, and (e) feels in control of the game characters actions."

Meaning that there is more to how attached a player is to a character than being able to identify with the character. The authors measure this attachment on four different parameters: Identification/Friendship, Suspension of Disbelief, Control and Responsibility. These four parameters together then decide how attached a player is to the character. Each parameter consists of several statements, where player is to rate how strongly he agrees on a scale from one to seven with the statement. The character identification part of the CA is comprised of six questions to get a measure how much the player identifies with the character[6, p516]:

1. I sometimes forget my own feelings and take on those of my character.
2. I enjoy pretending my character is a real person.
3. I consider my character a friend of mine.

4. I enjoy pretending I am my character.
5. I could see myself being attracted to my character.
6. I daydream about my character.

The identification part of the CA is the interesting part for this project, as the entity of the CA takes in too many parameters when it is only the identification part that is needed.

When looking into the multitude of massively multiplayer online games (MMOG) it is of interest how players of these games identify with their characters. An article written by Looy, Courtois, Vocht and Marez looked into what makes up an identity in a MMOG. They also started out looking into how Cohen and others defined character identification and found that several factors were missing when dealing with MMOGs. The factors they identified as missing were the group identification and game identification, beside the social aspects the character identification has been expanded, these factors then influence the character identification which in case influence several other factors[9]. Figure 1 shows how the different factors of character identification is all interconnected.

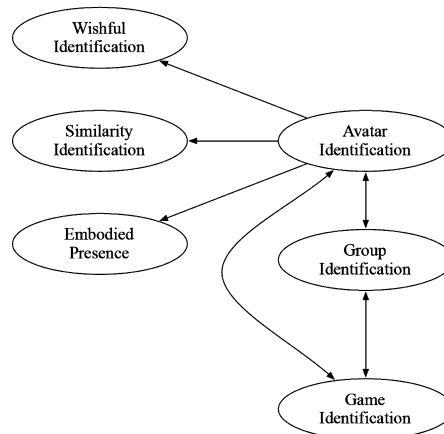


Figure 1: shows the different factors influences character identification (Avatar identification) what it influences[9, p210]

The authors describe the characters identifications as being two fronted, the first is like in traditional media where the player can identity with the character(embodied presence and similarity identification). Secondly, the player has the option and is able to project their own sense of ideal self on the character (wishful identification)[9, p202-203]. Besides the relation with the character identity another factor is the social relationship that forms the group identity. This relationship consists of the social interaction within the game, trough teaming up with others players to complete different challenges, or longer lasting relations as the guild where the group stays together despite having different agendas [9, p202, 204-205].

Figure 2 shows the different parameters and what questions were used to gauge each parameter.

Construct	Item code
Group identification	I feel connected with the members of my guild
	The members of my guild are important to me
	I regularly go online to meet with others from my guild
	My guild can count on me
	I have a lot in common with the members of my guild
	I find it important how the members of my guild see me
Game identification	<i>World of Warcraft</i> means a lot to me
	<i>World of Warcraft</i> is more than a game
	<i>World of Warcraft</i> is more than a hobby to me
	<i>World of Warcraft</i> is a way of life
	<i>World of Warcraft</i> is a part of who I am
Avatar identification	Similarity identification
	Embodied presence
	Wishful identification
Similarity identification	My character is like me in many ways
	My character resembles me
	I identify with my character
	My character is an extension of myself
	My character is similar to me
Embodied presence	I resemble my character
	When I am playing, it feels as if I am my character
	I feel like I am inside my character when playing
	In the game, it is as if I become one with my character
	When I am playing I am transported into my character
	When playing, it feels as if my character's body becomes my own
Wishful identification	In the game, it is as if I act directly through my character
	If I could become like my character, I would
	I would like to be more like my character
	My character is an example to me
	My character is a better me
	My character has characteristics that I would like to have

Figure 2: Shows the different parameters used in measuring character identity and the individual questions in each parameter[9, p211]

How many of the different parameters that is needed to rate a role-playing game that is not MMOG is difficult to say, but maybe a combined evaluation model is needed taking inspiration from all the different proposed systems of measure identity and a final definition of what character identification is.

3.2.2 *Summary*

The virtual identity that players form when playing games, seems to be very depended on if the game is an single player, multiplayer or MMOGs. The factors involved with a multiplayer and MMOGs are:

- Appearance of the avatar
- Gender
- Social interaction
- Class
- Skills
- Professions
- Interaction with virtual world

Furthermore, as for the actual identity assumed were either depended on how content the player is with own identity, as the lower the player confidence is the closer the ideal/wishful identity the player has, or as similar to their own current identity as possible. When looking at identity in single-player games the factors were very different when compared to multiplayer games.

When looking further into which factors promote character identification a broader view on the subject with multimedia characters was taken. It showed that that these factors were predominantly empathy(happy, sad or scared), sharing the perspective of the character, motivational(shares the same goal as character) and absorption(the degree of how much self-awareness is lost). Moving past the broader perspective and looking into games the primary factors were found to be:

- Identification/Friendship
- Suspension of Disbelief
- Control
- Responsibility
- Embodied presence
- Social relationship that forms the group identity

Having an idea of how a player forms or assumes an identity as well as identifying with a character, the next step is looking into what motivates a player to play an RPG.

3.3 MOTIVATION FOR PLAYING RPG'S

Having looked into three different kinds of role-play and how the players form a virtual identity and how the player identifies with a avatar. Another step is to look into what motivates players to play RPGs in general, as these factors could be included into making a new leveling and skill system. As well as looking into if there is a different motivation between single player experiences and multiplayer, and explore how these motivational factors can be included in the system.

A study looking into what motivates players to play RPGs specifically was carried out by Tyachsen, Hitchens and Brolund. The study consists of 164 participants where the majority were males (88,6%). The results were gathered using a questionnaire using only scales with no open ended, this means that it was not possible for the participants to add other motivational factors than those specified in the survey. Despite these shortcomings this survey is one the few looking at specific game genres and not computer games in general, and both multiplayer and singleplayer instead of only looking into MMORPGs[10].

Tyachsen, Hitchens and Brolund found 12 factor groups which had an impact on the players motivation for playing RPGs. These 12 factor groups were later reduced to five factor groups by using hierarchical factor analysis, the five remaining factor groups are the primary motivational force behind playing an RPG, Figure 3 shows the five factor groups and the different factors that are contained in each group[10].

Higher-order factor group	Factor groups included	Factor loading
Social & Role-Play	Socializing	.738
	Character depth	.688
	Character uniqueness	.634
	Real-Life	.641
Mechanical play	Character optimization	.825
	Mechanics	.734
Self-oriented play	PvP (competition)	.760
	Escapism	.607
	Character impact	.620
Tactical play	Leadership	.809
	Tactics	.737
Discovery & Immersion	Discovery & Immersion	.851

Figure 3: From the left the figure shows the five primary factor groups with the biggest motivational force, what factors is included in each group, and finally the score each factor gained in the questionnaire[10, p61].

The factor group with the biggest motivational force was Discovery & Immersion. The other factor groups are social and role-play,

mechanical play, self-oriented play (Single/solo player) and tactical play. Within the factor group of social and role-play the primary factors were the socializing with other players, character depth which consists of how much the player role-plays as the character, how visually unique the character is compared to others and the time spent achieving this one of a kind look, and lastly how much real-life issues were discussed online with other players. The factor group mechanical play consists of how much the player is into how the entire game design is and how every number is connected to everything, for a deeper analysis of how to improve his/her character as much as possible from loot, skills and resources. Self-oriented play (Single/solo player) consists of the competitive element of battling it out with other players, the escapism consists of why the player plays, from escaping the real world and running from problems or just using it as something relaxing after work. The last factor group, tactical play, consists of the joy a player felt by taking command of what was going to happen and how, and planning down to the smallest detail with group composition and skills available to executing the plan[10].

Tychsen, Hitchens and Brolund also looked into how everything was connected within the 12 different factor groups to see if there were any correlations between them, the results are shown in figure 4.

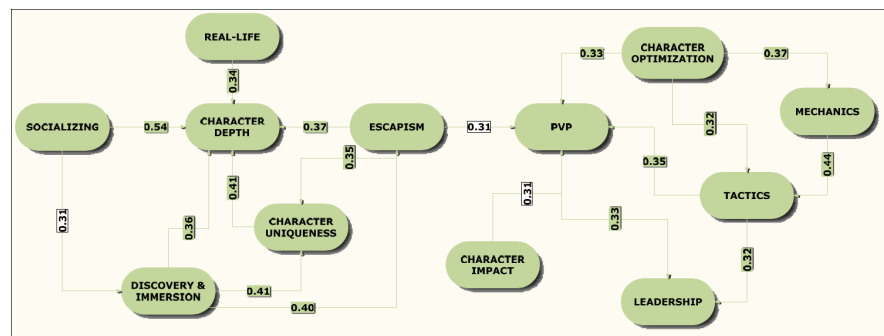


Figure 4: Shows the correlation between the different 12 factor groups, and the p values of the correlation between each factor group[10, p63].

The results showed two different clusters with a single correlation being escapism, this shows that there might be two different motivations for playing RPGs. The first cluster is focused on role-playing, socializing, uniqueness and exploring the fantasy world, the second clusters is focused on the competitive elements with pvp (player vs player) and optimizing the character to maximum potential.

Earlier research conducted by Griffiths, Davies and Chappell examined what players enjoyed in an MMORPG called Everquest, how often they played and with who, and their gaming history, in order to see if there was any demographic influence on their answers. The

interesting part in the study is what the players enjoyed the most and least in the game, as that will have an influence on what motivates the players to play the game. The following list shows the different aspects of the game that players liked based on a sample size of 540 participants[11]:

- Social game (24.6%)
- Being able to group together with others (10.2%)
- Guild membership (10%)
- No end to the game (10%)
- Assisting others who were less experienced (6.9%)
- Being able to play solo (6.5%)
- Being able to use magic (5.7%)
- Hand to hand combat(5.4%)
- Role-play a character (5.2%)
- Player versus player options (3.3%)

The results showed that many played because of social aspects within the game, from grouping up to complete quests and being part of a guild (persistent groups), followed by role-playing, game mechanics and design decisions. The following list shows the aspects the players liked the least [11]:

- Immaturity of other players (18.7%)
- Selfishness of other players (15.4%)
- camping (i.e., sitting around waiting for action; (14.8%)
- Slow levelling for casual gamers (13.3%)
- Player versus player options (13.1%)
- The death penalty i.e., losing experience; (5.9%)
- Hand-to-hand combat (4.4%)
- Solo play (3.7%)
- Role-playing a character (1.9%)

Looking into the aspects the players least liked, it quickly showed that main effects came from other players and how they impeded the players progress. Secondly, the results show some contradiction as some of the negative aspect are the same as what was reported as most liked, this can, however, be by a difference in motivation for playing the game.

Tychsen, Hitchens and Brolund[10] found in their results. Another interesting result is that there is nothing in the like or dislike aspects about being unique in some way, there might be several reasons for this as it might not have been part of the questionnaire, or the Everquest players were not used to the extensive visual customization offered today in the form of character creation and gear.

A study conducted by Nicholas Yee investigates what gets us to play MMORPGs, from the motivation, emotional investment, relationships and the problems excessive can lead to. The study was carried out over the duration of three years and ended up with 30,000 unique participants across several MMORPGs, the games involved in the study were EverQuest, Dark Age of Camelot, Ultima Online, and Star Wars Galaxies. The motivational results from the study showed that there were five different factors, the factors are Relationship, Manipulation, Immersion, Escapism and Achievement[12].

The relationship factor motivation is in forming relationship with others and making them more than skin deep by discussing real life with other players. The manipulation factor consists of manipulating other user for personal gains and satisfaction, other traits associated with this factor are deceiving, scamming, taunting and dominating other users. The immersion factor consists of the role-playing elements, where players enjoy and actively becomes someone else through several avatars and exploring the virtual world. The escapism factor primary motivation is to use the virtual world to temporarily avoid, forget and/or escape from real-life. The achievement factor motivation is to become powerful in the virtual environment through the achievement of goals and accumulation of items[12].

3.3.1 *Summary*

Having looked into three different sources about the motivation behind laying RPGs and MMORPGs there were several common factors found, showing that despite both multiplayer and singleplayer RPGs have different sources of motivation some overlap. The factors that the different authors agree on are social, role-play, escapism, discovery and immersion, other factors that the authors did not agree on are pvp (competitive), leadership and tactics, character uniqueness and manipulation that there are different factors between the studies is down to different games and approaches so all the different factors

can be equally valid, meaning that the following list is what motivate players to play an RPG:

- Social
- Role-play
- Escapism
- Discovery and immersion
- Pvp (competitive)
- Leadership and tactics
- Character uniqueness
- Manipulation

These factors can be used to motivate people to play RPGs, the studies also show that social aspects are a huge deal when it comes to RPGs, by sharing the experience with others as well as connecting to new people though playing a game. Another big factor is playing the RPGs for the role-play and being in someone elses shoes, and exploring a new and possibly alien world by walking in these shoes. Like earlier research, the factors also show that RPGs are a great place to learn and use leadership skills. Lastly, there also is a big emphasis on the characters uniqueness, currently it is based on the looks of the character during creation and the loot found though play. This trait might be possible to expand to include the skills to further allow each player to further customize their character.

3.4 REVIEW OF LEVELING AND SKILL SYSTEMS USED IN ROLE-PLAYING GAMES

Before it is possible to construct a leveling and skill system, it is first necessary to looking into several different leveling systems used in RPGs. The games are chosen based on personal knowledge, some are multiplayer games and others from MMOs (massively multiplayer online). Lastly the game Remember Me is also included despite being a fighting game with a few role-playing elements, as it has a unique way of dealing with combos by allowing the player to construct their own out of available moves. The following is a rundown of the games used most in the creation of the previews system and new additions, with how the individual games handle leveling and skills and how they interact with each other if they do:

Warframe

Warframe is a third person shooter game with RPG elements developed and released by Digital Extremes in 2013, branded as ninjas in

space. The player takes control of a warframe, a robotic suit armed with a wide array of weapons fighting on behalf of the tenno. The player then takes on different types of missions against three factions Grineer, Corpus and the Infested, these missions can be completed investigation solo or in co-op in small groups of up to four players. The unique aspect with Warframe is it the leveling system and how each warframe can be customized despite only having four skills, it is completely reliant on the gear (weapons) and the warframes themselves. By completing missions and killing enemies the player gains affinity, when enough affinity has been gained the weapon or warframe increases in rank. When a weapon or warframe increases in rank it can be modified allowing for greater customization. When the players have ranked up enough weapons and warframes they can take a test to increase in mastery level, the mastery level is the overall level of the player and the mastery level determines what weapons the player can build and use as well as what maps he/she has access to.

The use of a mastery rank instead of having an overall level introduces a more dynamic experience with less focus on the mastery rank as it only poses small limitations on what the player can do and use. Using the concept of the mastery rank it could be possible to allow the player more options from the beginning, and at the same time allow for something else than the overall level to determine what the player has available.

Remember Me

Remember Me is a fighting game developed by Dontnod Entertainment and published by Capcom and released in 2013, but with its heavy emphasis on story and character progression it can be argued that it has some RPG elements. The story is focused on Nilin, a memory hunter that used to work for a resistance group called the Errorists. She was caught and stripped of nearly all her memories by a mega-corporation named Memorize. With the help of a mysterious man named Edge, she has to regain her lost memories.

The interesting aspect of Remember Me is that the player creates his/her own combos instead of tap button in a specific order, and the total amount of possible combos is limited to a few. The player uses a kick and a punch when fighting, and creates the combo based on special kicks and punches available and creates a sequence of kicks and/or punches to be executed to complete a combo. As the games story progresses more different and special kicks and punches become available to use in the combo creation.

The aspect of allowing the players to create their own combos could be introduced in a regular RPG, where each skill is subdivided into components and the player then creates the skills from these components, allowing for a more personalized skill set to be setup for each

player and possibly adding a sense of uniqueness to each character despite having all the same options.

Shin Megami Tensei

Shin Megami Tensei: Imagine (MegaTen) is a free-to-play MMORPG game based in the Megami Tensei universes developed by Cave and published by Atlus in 2007, it is set to close down in 2016. This game is included as it is of Japanese origin and therefore it does not follow many the same patterns as the western RPGs, with the biggest difference being that the player is limited to choose either a boy or a girl when starting the game, with no class restriction or anything else.

The most interesting aspect of MegaTen, besides its origin, is that players gain level like in normal RPGs by killing enemies and completing quests, furthermore, there is no connection between the players level and the skills at his/her disposal, and they do not level when the player does. Instead the skills are divided into three categories melee, guns and magic, within each group there is a basic amount of skills, the player then chooses which to start leveling up by using them in combat. When a skill reaches a certain level a new set of skills within the category becomes available to level up, the player has to make some choices as it is impossible to level up all skills. When the player has trained up two different skills in different categories there it is possible to combine the two different skills to create a completely new third skill. Besides the unique aspect of the skill system and the disconnect between leveling and skill system the player is always accompanied by a demon companion that levels like the player, these demons are charmed or forced to join the players team. These demons can then be fused together in pairs or sets of three and five to create new and unique demons, this feature is a norm within the Megami Tensei franchise.

The interesting parts of MegaTen are primarily in the character creation where the only choice the player has is the gender and looks of the character, meaning that there is no class or the normal restrictions a class can cause. Secondly, without classes each character can learn all skills, the unique part with the skills is that the picked skills should be leveled up by use, and only a select amount of skill can then be combined into a third completely new skill once the two basic skills have been level up to a certain point. When the player levels up the basic skill more advanced skills becomes available in the same category, and the player can only level up a certain amount of skill and not all of them. The aspect that will be considered for new systems are the elimination of the class system and creating new skills across different categories.

Diablo 3 Reaper of Souls

Diablo 3 Reaper of Souls is a dungeon crawler with a clear focus on character progression and the gathering of equipment. Like the sta-

ble in the Diablo series the player starts out with picking a class and gender. Then the player starts leveling up the character by killing enemies, as the player levels up more skills become available to the player. Each class has a several attributes each with its own benefit for the character, these attributes, class and level determines what equipment the player can use. But the equipment is not only limited by the characters attributes the character can also increase the attributes the character has making it even stronger.

The interesting part of Diablo 3 compared to Diablo 2 is the switch from many different skills that can be level up, to having only six skills in total active at a time and the selection limited to five categories with 4-5 skills in each category. Each of these skills then has the possibility of being modified to best fit the gear and play style of the player. A play style consists of the player likes to play the game, for instance slowing the enemies with frost magic and kill them before they get to close. This modification of the individual skill comes in the sense of runes, each rune can fundamentally change the way the skill works or just changes it elemental damage. Besides having the choices of skills the player can also pick four different passive talents that will improve the character or provide special abilities, like being able to cheat death one time or being able to use a two handed weapon with one hand.

The parts that are interesting and should be taken into consideration in the new system is the limited amount of skills available to the player at any time, the possibility to modify each skill parameter either its element or even how the skill works. Having the skill influencing the overall character either with attributes changes and/or unlocking different possibilities for the character.

Oblivion

Oblivion is the fourth game in the elder scrolls series, developed by Bethesda Game Studios and published by 2K Games. Oblivion is a sandbox RPG with a main storyline that is secondary to exploring and discovering the world of oblivion. During the character creation the player chooses a race and class, the class in this case is a basic set of skills available for the player from the beginning of the game, later the player can learn all skills in the game regardless of the initial class choice. Levels are gained by completing quests and killing enemies like many other RPGs the first point where Oblivion is unique is with the use of a progressing skill system called Super Skilling where the skill level is increased though use.

The aspects that will be taken into consideration when creating the new system is the Super Skilling, instead of having the rank locked to the overall level. Secondly, the aspect of allowing all classes to learn all the skills available in the game, without any restrictions.

Besides the interesting and unique aspects mentioned for each game, it is also beneficial to compare the different systems and how each aspect is interconnected.

3.4.1 Comparison

By reviewing several different skill and leveling system several unique aspects were discovered, these aspects will be looking into further by mapping out how the different system are interconnected with a focus on the overall level the skills. Figure 5 how the different systems are all interconnected and what has an influence on what part of the system in the reviewed computer games.

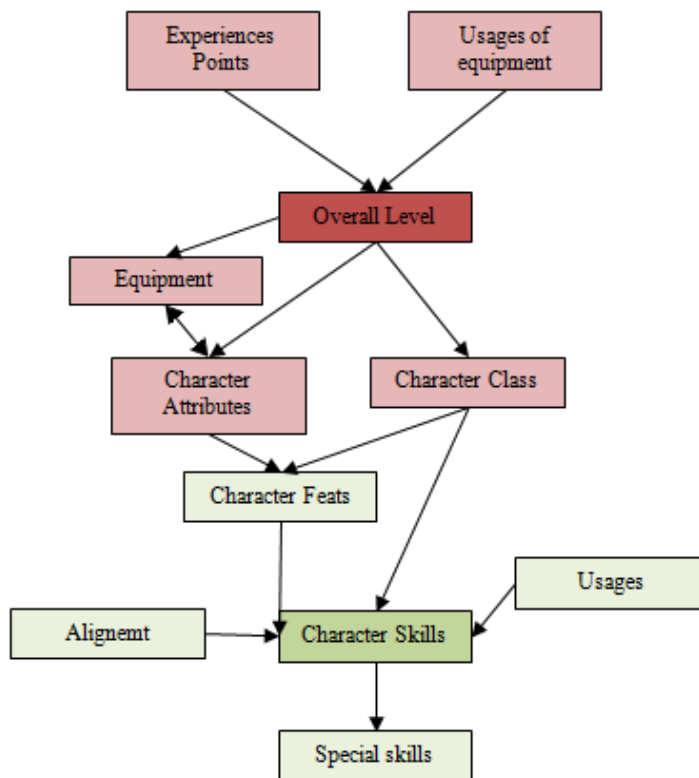


Figure 5: Shows what parts in the skill and leveling system has an influence on what in the reviewed games, and who they are all connected

The figure shows how in the majority of the currently used systems there is a strict hierarchical structure, centered around the overall level of the character. The overall level then has an influence on everything in the system, but is only influenced by the experience gained and the usage of equipment. The following aspects will be considered when making the requirements for a new leveling and skill system, with the aim of setting up a system that is not as hierarchical in nature as the reviewed systems.

The *Mastery level* definition from Warframe, as it provides a twist to what level a character is on and how it is gained and without the use of experience points. The system can still use weapons and the likes to gain affinity to increase in mastery rank, but it can also be focused into skill or other similar components used in a RPG. From Remember Me it is the aspect of having *few active skill*, and the *skill creation* with creating skill from scratch using available moves learned to create an attack sequence. MegaTen use of both *super skilling*, *no class restrictions*, and the possibility to combine skills from different categories will also be interesting additions to a new leveling and skill system. From Diablo 3 there is a further choice of limiting the players to having six abilities ready to use in combat, as well as allowing for *skill modification* of each skill which could add a lot of complexity and character depth to a new skill system, having both equipment and *skills/abilities influence attributes*. Lastly, from Oblivion the aspects of allowing all classes to learn *all abilities and skills*, despite having a class system. Making the following aspects that should be considered when constructing the new leveling and skill system:

- Warframe
 1. Mastery level
- Remember Me
 1. Few active skill
 2. Skill creation
- MegaTen
 1. Super skilling
 2. No class restrictions
- Diablo 3
 1. Skill modification
 2. Skills/abilities influence attributes
- Oblivion
 1. All abilities and skills

Each of these different aspects are interesting and not all of them are necessarily compatible, but at the same time they are different from what has become the norm among leveling and skill systems. Which aspects that are the most important and which will be finally included in the system will depend on the design and the requirements for the implementation.

3.5 REQUIREMENTS

With the aim of creating a framework for a new leveling and skill system promoting increased customization and personalization, several factors should be taken into account from the virtual identity and character identification, motivational factors for playing and the review in current leveling and skill system used. When looking into character identification and motivations for playing RPGs, it shows that the more freedom the player has in influencing the character the bigger the chance is of the player of enjoying and immersing himself in the game. As it would otherwise be based on how well the player can relate to the character that they are presented with like in traditional media characters, and not the character they themselves create.

Some of the major points of interests that should be included in the system based on the virtual identity are skills, classes and the interaction with the virtual world. For increased character identification the major points were how well the player could identify with the character, and if the player could reach a point where he/she felt a suspension of disbelief where the feels real and takes on the responsibility of the virtual character. Secondly, the player should feel in control of the character through choices made in the game when interacting with the virtual world, and at some point feel as if he/she have taken complete control of the character by feeling that they have an embodied presence. When looking into motivational components the biggest factor would be the possibility to create even more character uniqueness based on more than just visuals.

In addition to the factors mentioned above, the following factors would add a unique twist compared to other RPGs. A mastery level changing the normal way of leveling up a character without the use of experience points. Having a limited amount active skill, and creating this skill from scratch, and using super skilling for increasing the effectiveness of the individual components. Removing the notion of class restrictions, and locking items and skills based on the class. The effect of this choice is unknown, as few games do not use classes, so the effect can be both positive and/or negative. Lastly the possibility to combine skills from different categories will also be an interesting addition to a new leveling and skill system.

Based on what factors are necessary to form or assume a virtual identity it quickly becomes clear that it requires a complete and working game, where everything is interconnected and the player's choices have an influence on the virtual world. These aspects are not something that can be accomplished within the amount of time available, due to the sheer amount of content that is to be created. Secondly it would be necessary to create two different tests to see if the changes had an effect, one where the player plays alone with interaction with other players, and one where the player plays with other players, either in a MMOG style of game or multiplayer with a smaller group of players. To that end it would be more beneficial to focus on the what can be achieved and tested, therefore the focus will be on creating a strong connection for the player to the character by attempting to improve how well the player identifies with the character. This means that the following points should be attempted to be included in the new system:

- Character identification
 1. Identification/Friendship
 2. Suspension of Disbelief
 3. Control
 4. Responsibility
 5. Embodied presence
- Motivational factors
 1. Character uniqueness
- Elements from reviewed RPG's
 1. Mastery level
 2. Limited amount of active skill
 3. Skill creation
 - Combine skills across categories
 4. Super skill - increase in level/rank based on use and not overall level
 5. Removing class restrictions

This system aims to allow the player to create as strong a connection to the character as possible, by being able to identify with the character. Secondly, the players should have the options of creating as unique a character as possible, and not just how the character looks, to provide as much motivation for the player to play as possible. Lastly, several different components from other RPGs and MMORPGs will be used and taken into consideration when building a new leveling and skill system, in an attempt to create a more balanced system that is not built on gaining experience points or similar.

DESIGN

The following chapter will show the concept for a complete leveling and skill system, which has a focus on increasing the characters identification and the possibility to create a strong virtual identification. The system will be based on the different games reviewed as well as provide the player with as many possibilities as possible. To that end this system will not use classes in any sense, allowing all players access to all abilities though play time. Furthermore, the structure of this system is not hierarchical, and was made in an attempt to have every aspect influence each other. Secondly, a more focused systems design will be explained, with a focus on testing a small part of the complete system. The focused system will be used for testing the effect of removing character classes, and the restrictions these classes have on skills and equipment.

4.1 COMPLETE SYSTEM

This system will attempt to increase the character identification by using a motivational factor by allowing the player to create as unique a character as possible. To that end the system will allow the players to create their own skills/abilities and not include a class system that might restrict the players options. The proposed system will use a sci-fi setting where science has evolved to the point where magic has become a reality. The players magic usage will cost mana, and any physical attack or action will cost energy. The character will have an overall mastery level. The mastery level will rely on the amount of skills that has been leveled up. The primary to maintain an overall level is that it makes it easier for players to compare characters. Besides the mastery level, each character will also have attributes such as strength and agility. These attributes can be increased when the character increases in mastery level. They will also be used to determine the amount of mana and energy the character has available and how fast He/she regains it. Figure 7 shows the connection between the primary components.

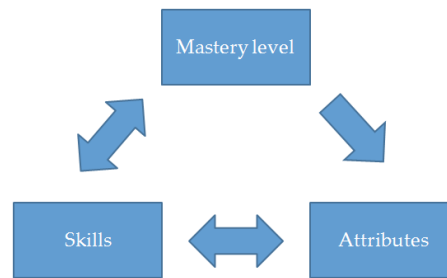


Figure 6: Shows the connection between the three primary components of the character, the mastery level, skills and finally the attributes. As well as what has an influence on what aspects in the system

The system is centered on the mastery level concept where the mastery level determines the amount of skills available, and each increase in the mastery level will provide a set amount of points to be divided among the attributes. Besides being influenced by the of the character, the mastery level, skills and finally the attributes. The figure also shows has an influence on what aspects in the system mastery level the attributes will help determine the amount of damage and other bonuses of the skills, the skills themselves will then increase the mastery level when enough skills are ranked up. The amount of skill available to the player is determined both by the mastery level and what skills are ranked up.

The skills themselves are divided into three different categories martial arts (including melee skills), ballistics and magic. The skills themselves will be a bit unique, instead of being complete skills they will be split up and allow the player to create their own combos or sequences, and then use these combos as skills. The skill level is increased though use in the different combos. An example of a skill could be the following: The skill consists of rushing into a group of enemies and damaging them all, the skill is divided into three parts and one is infused with magic. Figure 7 gives a visual representation of the concept:

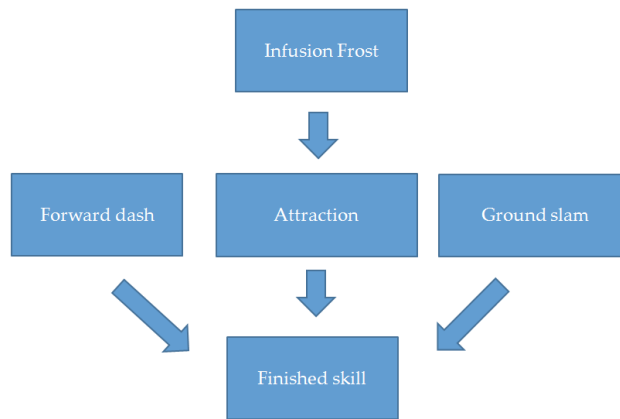


Figure 7: Shows an example of how a skill can be created from different components available to the player

The first part consists of a forward dash to get in between the enemies. The second part consists of a spell called attraction pulling everything towards the caster, this part is then further infused with frost slowing down or freezing the enemies in place. The last part consists of a ground slam damaging everything in range and shattering the frozen enemies. These combos will vary in cost and cast time based on each skill within the combo. Small combos will be cheap and fast to cast but cause less damage, and long combos will have a longer casting time and damage output. Customizing the individual skills will increase casting time as well. The following is an example of how the cast time can be calculated: $\text{Cast time} = (\text{energy cost} + \text{mana cost}) / (X * \text{difficulty multiplier})$. The damage will be determined by the individual components and skill customization. The basic cost for the skill depends on the cost of each skill component, and which of the three categories the skills were chosen from, as the martial arts and ballistics skill will have a set energy cost, and magic will cost mana instead of energy. Meaning that a skill with components from all three categories will cost both mana and energy.

4.2 FOCUSED SYSTEM

The proposed system is too big and complex to be completed within the timespan of the project, as it would require too many assets to make and a lot of balancing of the system. Therefore, it is more beneficial to create and test a small part of the system instead of the whole system. To that end a mod will be created which will remove the character classes and the restrictions these classes have on skills and equipment. Secondly, as before mentioned, it is unknown if the removal of classes will increase or hinder character identification which the following system should show. The mod will be made in Xcom2 a turn based strategy game with strong role-play elements in the creation and leveling up of soldiers, that consists of the player

taking control of a resistance cell. As the command of this cell, the players goal is to fight battles in small teams of 4-6 soldiers and retake the world from alien control. The main reasons for using Xcom2 is that it has a big modding community, with a big community opens up for help and the possibility of having a large audience playing the mod and thereby increasing the number of participants in the testing. Secondly, Xcom 2 has a simplistic leveling system for the soldiers, allowing the player to focus completely on setting up the soldiers equipment and picking a skill/perks for each rank(level).

The current Xcom2 character sheet consists of several aspects: The Equipment, which is restricted based on the class, customization of the looks of the soldier, and finally the perks of the soldier. The class that each soldier gets is partially random and based on the mission and what equipment the soldier was using. Once the class is assigned the players can pick one of two different perks on each rank up, an example is shown in figure reffig:Sharpshooter.



Figure 8: Shows and example of how the Sharpshooters perk tree looks like(left side of the image), and how the tree is divided into two separated columns with three promotions(ranks/level) and a specialisation. Right side consists of the different stats and skills the soldier has

The equipment that a soldier can use is divided into three categories, the primary weapon, the secondary weapon and utility slots. The primary weapons consist of a rifle, sniper, cannon and looks like(left side of the image), and how the tree is divided into two separated columns with three promotions(ranks/level) and a specialization. The right side consists of the different stats and skills the soldier has gun each, the secondary weapons consist of a gun, gremlin(small support robot), grenade launcher, psi amp(boosts supernatural abilities like mind control) and swords. The primary and secondary weapons available to the soldier depend on the class assigned to the soldier. The utility categories consist of medical kits,

grenades and armor plates the only restrictions are on the amount of utility slots and availability of the equipment.

With the focus on this small system the aim is to create a sort of archetype soldier class, which will replace all the current classes in the game. The archetype class should then make it possible to create many different soldiers based on the perks available to the class, meaning that the current system should be changed to allow for more than just a pick between two different perks per rank. The number of available perks should be around 4-10 per rank, this should allow for ample variations for each soldier to specialize in different areas or be all-around soldiers able to do a bit of everything. The challenge in this part lies with the perks themselves, as many of them are dependent on the primary and secondary weapons, and that there are more perks than can be placed, even if the perk tree is expanded to 10 per rank. This means that there should be a focus on picking the right amount of perks from the old class or limiting the available weapons to the archetype class.

The next step is an expansion of the weapons available to the class. The number of weapons available depends on the solution with the perk tree, but as many of both the primary and secondary weapons should be made available to the archetype class.

The following is the changes the mod will make to the core game:

- Removal of the default classes
- Increasing the amount of perks per rank
- Creating a new Archetype class
 1. Pick perks (selected perks from the default class)
 2. increase amount of primary weapons
 3. increase amount of secondary weapons

The primary reason for these changes is to create a situation where the effect a class has on the character identification can be measured, increasing the available weapons and amount of perks per rank is to allow the player to make as unique soldiers as possible without being restricted. The amount of weapons and skills available to the player will be tested to create a balance where the player has enough possibilities without being overwhelmed.

IMPLEMENTATION

The following chapter will explain the implementation of the focused system in Xcom2, giving a step by step guide to the different iterations with their flaws and what changes were made. With the release of Xcom2 the developer Firaxis Games aimed to make the games modding as user friendly as possible, to that end Firaxis made an extension to a visual studio called Modbuddy. Within Modbuddy there are several options when starting out with a mod, among those options are the creation of a standard mod project with all the different ini files needed to make changes to the game.

5.1 ITERATION 1 - ARCHETYPE CLASS

This iteration focuses on creating a custom class that will serve as the archetype with an increase in weapon capacity and testing out different perks variations with different weapons. The primary reasons for focusing on testing out the addition of a new class and the weapons, is that among the modding community there are known issues with using secondary weapons outside their default class. These issues can cause the game to crash or the weapons and abilities not to work as intended, if anything happens at all. In the process of creating the mod, first a default mod was created from the Modbuddy, Figure 9 shows the files needed to start out the mod.

Besides the standard files, two more are needed in order to create the archetype call, the first is a new config file XComClassData. this config file will add the class to the game and define the perks and available weapons. The following code fragment is the first step and adds the class:

```
[XcomGame.X2SoldierClass_DefaultClasses]
+SoldierClasses=Archetype
```

The first line of code specifies that the following changes have an influence on the default classes in the game. In the second line the + means that it is an addition to the core game, the code that follows adds the Archetype class to the list of default classes in Xcom2. With the class now added to the core game the next step is to define the different stats and weapons for the Archetype, the first part of the

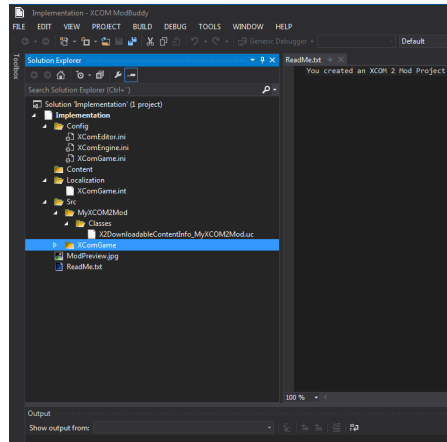


Figure 9: In the left side the Solution explorer shows the different files created and needed for a standard mod for Xcom2

following code (Line 1-8) sets the different stats for the class and adds it to the class template.

```
[Archetype X2SoldierClassTemplate]
+bMultiplayerOnly=0
+ClassPoints=4
+IconImage="img:///UILibrary_Common.class_ranger"
+NumInForcedDeck=1
+NumInDeck=4
+KillAssistsPerKill=4
+SquaddieLoadout="SquaddieRanger"

;Determines which weapons the class can use
+AllowedWeapons=(SlotType=eInvSlot_PrimaryWeapon,
    WeaponType="shotgun")
+AllowedWeapons=(SlotType=eInvSlot_PrimaryWeapon,
    WeaponType="rifle")
+AllowedWeapons=(SlotType=eInvSlot_PrimaryWeapon,
    WeaponType="sniper_rifle")
+AllowedWeapons=(SlotType=eInvSlot_PrimaryWeapon,
    WeaponType="cannon")
+AllowedWeapons=(SlotType=eInvSlot_SecondaryWeapon,
    WeaponType="sword")
```

The last five lines of code defines the different weapons the class can use, with this the class can use all primary weapons and the sword as a secondary weapon. With the stats and weapons set the next step is to select perks and stat increases for each rank, the following example shows how the rank of corporal is set up:

```
; corporal
+SoldierRanks=( aAbilityTree=( (AbilityName="Teleport"), \
```

```

        (AbilityName="Blademaster",
          ApplyToWeaponSlot=eInvSlot_SecondaryWeapon),
        \\
        (AbilityName="InTheZone",
          ApplyToWeaponSlot=eInvSlot_PrimaryWeapon),
        \\
        (AbilityName="Shadowstep",
          ApplyToWeaponSlot=eInvSlot_Unknown),
        \\
        (AbilityName="Stealth"), \\
        (AbilityName="Shadowstrike",
          ApplyToWeaponSlot=eInvSlot_Unknown) \\
      ), \\
      aStatProgression=((StatType=eStat_Offense,StatAmount=3),
        (StatType=eStat_HP,StatAmount=1),\\
        (StatType=eStat_Strength,StatAmount=0),
        (StatType=eStat_Hacking,StatAmount=5),
        (StatType=eStat_CombatSims,StatAmount=0)),\\
    )

```

With this code the player can pick the following perks for the corporal rank: Teleport, blademaster, In the zone, shadowstep, stealth and shadowstrike. Normally there are only two perks available per rank, but, as an attempt, more were added to see if they also made it into the game. There are no changes to the stats that the soldier gains compared to that of the default classes. The last changes to add the class to the is to create a second config file, this file is named XCom-ClassData and will set a loadout of weapons the soldier gets when specialized as an Archetype.

```

[XComGame.X2ItemTemplateManager]
+Loadouts=(LoadoutName="ArchetypeS",
  Item[0]=(Item="AssaultRifle_CV"),
  Items[1]=(Item="Pistol_CV"))

```

With these additions in the two files a new class is added to the core game. Two major flaws were discovered with this mod where the secondary weapon not working, and still only having two perks options in each rank. The flaw with the secondary weapon was hinted at when researching the creation of a new class. The issue seems to be that the secondary weapons only works with the specialization perk, which results in keeping the limit of one secondary weapon. Secondly, just adding more perks to each rank did not work and another solution has to be looked into for the next iteration.

5.2 ITERATION 2 - INCREASED AMOUNT OF PERKS

The aim of the second iteration is to standard perks per rank. Doing research on the subject of increasing the amount of perks yielded

no imitated results, several attempts were made to edit the default ini files to get more room and adding more perks. Later in the implementation process several different attempts were documented on the modding page <https://www.nexusmods.com/xcom2/?>, the issue is that it cannot be achieved with changes ini files like with the class. Instead the suggestion is that it is necessary to create an unreal script that changes how the perks tree is created, with both unreal scripting and modding the different hex parameters used. These obstacles meant that it was no longer possible to create a solution personally, instead another mod was located named Enhanced Perk Tree made by atomicinf from nexusmods. figure 10 shows the changes the mods make to the core game.



Figure 10: shows how the mod enhanced perk tree increases the amount of perks per ranks to a maximum of 7

With this mod the possible number of perks per rank increases to a maximum of seven, it also adds the possibility to selected more than one perk per rank, this will, however, not be used. The mod itself does not come with any expanded perk trees, therefore the previously created Archetype class will be added to this mod. With these two mods the Archetype class is added which can use all primary weapons and one secondary, on all but the first rank the specialization now allows for a choice to be made between six different perks.

Testing this mod found several areas that warranted consideration for the final iteration. First, limiting the secondary weapons to only the pistol presented some problems, the primary being the removal of the support class that uses the gremlin secondary, meaning no healing and remote hacking or stat increase to hacking, which is very useful in the game. The next is that not all perks for the primary weapons work with all weapons, but none of the abilities gained through the perks crash the games if used with a weapon it was not intended for, instead nothing happens, meaning that the perks picked should either provide a universal bonus or work on all weapons or a special notification should be made for the player to be aware to pay attention to what perk works with what weapons.

5.3 ITERATION 3 - FINAL COMBINATION

With the second iteration it was clear that the loss of the secondary weapon gremlin meant an unacceptable loss of support abilities. To correct this imbalance the Archetype class will be replaced by another mod from nexusmode called Field Medic Class made by Rumrunner711. This class introduces several new support perks making up for the loss of the gremlin, the loss of the hacking stats will be added to increase automatically with each rank up.

The Field Medic Class is made to work with the standard two perks per rank, so this area needs to be expanded with perks from the default class to reach the maximum of seven perks per rank. Secondly, all the primary weapons should be made available to the class, and lastly disabling all the default classes.

The first step is to modify the XcomClassData within the Field Medic Class to allow for the use of all primary weapons, which is accomplished in the last three lines of code:

```
[FieldMedicClass X2SoldierClassTemplate]
+bMultiplayerOnly=0;
+ClassPoints=4
+IconImage="img:///UILibrary_FieldMedic.class_fieldmedic"
+NumInForcedDeck=1
+NumInDeck=4
+KillAssistsPerKill=4
+SquaddieLoadout=SquaddieFieldMedic
+AllowedWeapons=(SlotType=eInvSlot_PrimaryWeapon,
    WeaponType="rifle")
+AllowedWeapons=(SlotType=eInvSlot_SecondaryWeapon,
    WeaponType="pistol")
+AllowedWeapons=(SlotType=eInvSlot_PrimaryWeapon,
    WeaponType="shotgun")
+AllowedWeapons=(SlotType=eInvSlot_PrimaryWeapon,
    WeaponType="sniper_rifle")
+AllowedWeapons=(SlotType=eInvSlot_PrimaryWeapon,
    WeaponType="cannon")
```

The next step is to pick the different perks at each rank and expand the perk tree to allow the maximum amount of perks per rank, and increase the stat gained in hacking. The following code is an example of the lieutenant rank with seven perks selected:

```
; lieutenant
+SoldierRanks=( aAbilityTree=( (AbilityName="Stealth"),\\
    (AbilityName="RunAndGun"),\\
    (AbilityName="DeathFromAbove",
        ApplyToWeaponSlot=eInvSlot_PrimaryWeapon),\\
    (AbilityName="Quickdraw"),\\
    (AbilityName="HeavyOrdinance",
        ApplyToWeaponSlot=eInvSlot_Unknown),\\
```

```

        (AbilityName="HoloTargeting",
        ApplyToWeaponSlot=eInvSlot_PrimaryWeapon),\\
        (AbilityName="Aptitude" ),\\
        (AbilityName="DefensiveTreatment" ) ,\\
        aStatProgression=(
            (StatType=eStat_Offense,StatAmount=2),
            (StatType=eStat_HP,StatAmount=0),\\
            (StatType=eStat_Strength,StatAmount=1),
            (StatType=eStat_Hacking,StatAmount=10),
            (StatType=eStat_CombatSims,StatAmount=0)), )

```

and lastly an increase in the hacking start to 10 by changing the number from 0 to 10 in StatType=eStat Hacking,StatAmount=10, this means that the Field Medic Class now has all the same capabilities as the Archetype class, but without having lost the support abilities due to the new perks introduced with the class. The last step needed to fulfil all the requirements in the design is to disable all the default classes in the core game, this is accomplished by adding all the default classes to the XcomClassData ini file:

```

[XComGame.X2SoldierClass_DefaultClasses]
+SoldierClasses=Ranger
+SoldierClasses=Sharpshooter
+SoldierClasses=Grenadier
+SoldierClasses=Specialist

[Ranger X2SoldierClassTemplate]
-NumInForcedDeck=1
-NumInDeck=4
+NumInForcedDeck=0
+NumInDeck=0

```

Followed by removing and setting the deck number within the SoldierClassTemplate of each class to remove the possibility of a soldier being specialized in that class. The example shown above is for the Ranger class.

The installation of these two mods, Enhanced Perk Tree introduced in the second iteration and the modified Field Medic Class in the third iteration, results in the complete removal of the class system leaving only the Field Medic class which serves as the class archetype. The class can use all primary weapons and the pistol secondary weapon, it was not possible to solve or prevent issues with using the other secondary weapons, so they were excluded. Lastly, the amount of perks the player can pick at each rank is increased from two to seven. This will allow for the testing into how big of an impact the class has on character identification and if the removal of a class system is either positive or negative.

5.4 SUMMARY

Following the iterative process the implementation went three major iterations, the first focused on creating a new soldier class "Archetype" that could use all primary weapons. But it was found impossible to use more than one secondary weapon due to issues with the specialization perk, meaning that the weapons were not working as intended and could cause the game to crash. Secondly it was attempted to see if adding more perks to the soldier class would enable more perk options, this was found not to be the case and will be the primary focus on the second iteration. In the second iteration it was found that it would require specialized knowledge to increase the amount of perks per rank, as it would require to change of the game build up the window used in perk selection. Due to technical shortcoming with programming in unreal scripting and using changing hex code, it was decided to use a recently released mod called "Enhanced Perk Tree". With this mod installed alongside the Archetype soldier it was not possible to use all primary weapons and at the same time picking between seven different perks per rank, it was however found during testing that the loss of support abilities was too big with the exclusions of the gremlin (a small flying robot), leading to the third and final iteration. In the final iteration the Archetype class was replaced with another class called Field Medic from the mod "Field Medic Class". This class provides a lot of new support abilities and perks. Resulting in a situation where with small modifications to the Field Medic class it would be possible to use all primary weapons and with "Enhanced Perk Tree" mod as well allowing to serve as an Archetype soldier during testing.

TESTING

The following chapter will look into if the changes made by modding the game Xcom2 did increase the players character identification with the soldiers. The changes involved removing the class system and increasing the amount of perks available at each rank (level) to seven. The test participants are asked to install the two mods and then change one file before playing Xcom2 again, when the test participants have played the amount of time they want they are asked to answer a questionnaire. This questionnaire is divided into three parts, the first part consists of general data, age and so on, the second part consists of questions about how they usually play, and how well the participants identify with their soldiers, and the last part consists of the same questions as the second part, but are about the modded version of Xcom2 that the participants, but this time about the modded version the participants just played of Xcom2.

The test will be conducted in two different ways, the first way consists of small focus groups who either play Xcom2 or played the original Xcom, to insure that all participants have a common reference point for the discussion. Furthermore this group will be more exploratory in nature and focus on aspects of class and skills within RPGs with a point of reference in the Xcom games. The second way consists of posting on modding site <http://www.nexusmods.com>, asking for help in conducting some research by playing Xcom2 with two different mods installed and answering a questionnaire afterwards.

6.1 ONLINE TEST GROUP

This section will explain how the experiment for the online test group is put together, and the reasoning behind the different decision made with this experiment. The sampling(recruitment) method is going to be a convenience sampling, where everyone that visits the modding site <http://www.nexusmods.com> are possible test participants, the recruitment happens through a post under a general discussion about Xcom2. Using the convenience sampling allows for faster collection of test participants, secondly it is possible to aim towards a target group based on the recruitment location.

The experiment design is going to be a within-group, being within-group the participants will experience both the conditions being the vanilla version of Xcom2 and the modded version Xcom2. The primary reasons for choosing this experiment design is to get as much data out of as small a group of test participants as possible. The normal issues with using the within-group experiment design is not major in this case, the biggest one is that the participants learning for the experience and thereby gets better[13, p48-49]. In this case it is not an issue as it is already expected the test participants have completed the game, so they are already expected to know the game and have tactics for completing it. The biggest influence would be the difficulty the test participants plays on, if it is too low they might not connect as well with their soldiers as they are never in danger of dying (If a soldier dies in Xcom2 the soldier is removed for the game).

Another area that is usually of concern with the within-group experiment design is that test participants become tired and fatigued[13, p48-49], by using a game and one that the test participant starts playing on their own accord this factor should be minimized, and therefore not have a huge impact on the testing.

The primary testing group consists of the test participants recruited online from the modding site <http://www.nexusmods.com>, which has a section with Xcom2 mods and a forum for talking Xcom2 mods. This group will be unsupervised as the participants will perform the testing at home, for this reason there will be included some control questions in the questionnaire to determine the participant progress and if the data can be used or not. The only requirements for this group is that they should have played 2 or more hours of Xcom2, Be willing to participate in the experiment, be familiar with how to use mods in Xcom2, willing to play 1-2 hours with the two mods and finally answer the questionnaire. It was attempted to create one mod that the test participants should download instead of two and then change a file out with another, but one of the original modders did not want to give consent to the use of his mod in another.

6.1.1 *Experiment Procedure*

The Experiment procedure will vary based on several points between the groups of tester. For the online test group the procedure can not be guaranteed to be the same nor in the same order, but within the post on the forum the participants are asked to follow the following procedure:

1. Download the two different mods links and names are provided
2. Change the "XComClassData" file within the Config folder of the Field Medic Class mod
3. Launch game

4. Active the mods "Enhanced perk three" and "Field Medic Class", and disable all other mods of possible
5. play 1-2 hours
6. answer the questionnaire

The questionnaire that the test participants are asked to fill out is divided into three parts, the first part consists of general data age and so on, second part consists of questions about how the play Xcom2 normally and how well the participants identify with their soldiers, the last part consists of the same questions as the second time around but this time about the modded version the participants just played of Xcom2.

The Demographical data questions consists of:

- Gender
- Age
- Country
- Do you play RPG's?
- Do you like playing games with role-playing elements?

These data will be used to subdivided the data into groups of necessary and to check if the participants even like to role-play as i will have an effect on their answers.

Secondly the participants will be asked almost the same questions two times over, one for the vanilla version of Xcom2 and one for the modded version. the small variations in the questionnaires are meant as controls, the primary source of inspiration for rating how well the test participants identify with their characters/soldier are that of Jonathan Cohen[7, p13]. As it is the best fit for the type of game Xcom2 is. The primary reason is that the player primarily sees the soldier in a top down view, and is therefor at create distance form the character then the other studies where the player was playing in either first person or third person mode. Where as Cohen where a more broader perspective. The questions Cohen used to measure character identification with are:

1. While viewing program X, I felt as if I was part of the action.
2. While viewing program X, I forgot myself and was fully absorbed.
3. I was able to understand the events in the program in a manner similar to that in which character X understood them.
4. I think I have a good understanding of character X.

5. I tend to understand the reasons why character X does what he or she does.
6. While viewing the show I could feel the emotions character X portrayed.
7. During viewing, I felt I could really get inside character Xs head.
8. At key moments in the show, I felt I knew exactly what character X was going through.
9. While viewing the program, I wanted character X to succeed in achieving his or her goals.
10. When character X succeeded I felt joy, but when he or she failed, I was sad.

Cohen does however not specify how each question is rated and how to directly measure/calculate how much the participant is identifying with a character, instead the approaches done by Klimmt, Hefner and Vorderer[6] will be used, where the participants are to rate the statement on a seven points scale from strongly disagree to strongly agree, the scales are then translated to point and a average is taken among the questions to get a final character identification score. The following is the questions used in the second and their part of the questionnaire

These are the resulting question:

- How long did you play Xcom2 with the mods? /Control Question
- What was the rank of your best soldier /Control Question /Modded version only
- What mods did you play with if any? /Control Question /Vanilla only
- I enjoy pretending my soldiers are real persons
- While playing Xcom2, I felt as if I was part of the action.
- At key moments in the game, I felt I knew exactly what my soldiers was going through.
- I often reload a save game before or during a mission to save one or more soldiers
- I enjoy speeding time on customizing the appearance of my soldiers
- There is a sufficient amount of choices in perks per rank

- The game was challenging to play
- Did you feel the removal of the class system changed your attachment to the soldiers? /Modded version only
- Did the removal of the classes add anything to the game? /Modded version only
- How did the changes influence the game? /Modded version only
- Dividing the soldiers into class feels restricting /Vanilla version only

The finally question asked in if the participants have any comments before finishing up the experiment.

6.1.2 *Data analyses*

The data is going to be analysed in a similar manure to that of Klimmt, Hefner and Vorderer[6] will be used, when it comes to measuring the general character identification score. Then the character identification score of the modded version of Xcom2 and the vanilla version of Xcom2 will be compared with a wilcoxon test, to see if there is any significant difference between the two version of Xcom2 when it comes to character identification, The wilcoxon test is used instead of a student test (T-test) as it requires the data to be normalized.

6.1.3 *Pilot test*

Several smaller pilot tests were carried out before the final testing, the majority of the testing consists of play testing the two mods with the modified field medic class. The concerns were that with the increased amount of perk choice, many of which are powerful abilities, the game would become unbalanced and too easy. The play testing showed that the game did not become too easy despite the increase in powerful abilities, instead the game became a challenge in some places as some of the dynamic support abilities were lost with the gremlin. This possible increase in difficulty will not be attempted to be corrected, as it might contribute to the player adjusting to the changes made to the core game and effect will then degrees as the player plays.

Secondly, the removal of the class systems made it difficult to distinguish the individual soldiers from each other in the roster, as the classes gave a clear indication of the role the soldier took in a squad. Instead they are all listed as Field Medic and not giving an indication as the role it fulfils in a squad. This issue cannot be changed currently,

as it would require yet another modification of the interface, to add the possibility to assign a role to each soldier.

The questionnaire was tested on several individuals who play Xcom2. They found that some of the questions needed a better description. From the testing of the questionnaire, it was also found that it would make more sense on the scales if the strongly agrees was equal to the biggest number(seven) instead of the smallest(one) on the scale. Other than the before mentioned flaws the remaining questions were understandable and was understood as intended.

6.2 FOCUS GROUP

The following sections is about the small focus groups that is more exploratory in nature then that of the online test group. The aim of the focus groups are to explore the aspects of character classes and skill. The topics that will be explained are the sampling method, what kind of different groups it will be attempted to recruit. Followed by a topic guide with the different themes that will be discussed and what specific questions which is to be explored. Once the focus group has been completed the participants are asked to fill out a short questionnaire with basic demographic information.

6.2.1 *Sampling method*

the sampling method is going to be a combination of convenience sampling and snowball sampling. The convenience part will consists of recruiting anyone that has played either Xcom2 or played the original Xcom, this will insure that all participants have a common reference point for the discussion. The snowball samplings usually consists of having one test participant recruit another once they have completed the experiment, this sampling method is primarily used when it is difficult to get in contact the desired target group. In this case getting in touch with other Xcom players. For the focus group one test participant will be recruited first, then he or she is asked to look within their own network and attempt to recruit the remaining three to four test participants for the focus group. The primary reason for this approach is that it can be very beneficial to use already established groups, as there will already be an established set of norms for the group.[14, p137]. It is not certain that everyone in the group will know each other but the possible is increased with this approach.

6.2.2 *Online focus group*

The focus group will be held on Skype with sound only and the discussion will be recorded, the choice of having the discussion online instead of meeting up is primarily down to increasing the possible

amount of participants, as it will be possible to complete focus group not matter where the participants are located in the world. The choice of only using having a sound only meeting on Skype, is that not everybody has web-cam and many prefer not to use it with individuals their unfamiliar with. meaning it was left out as to not alienate possible test participants. Secondly the amount of possible data gained though a web-cam can be limited, as it is not normally possible to see the participants entire body, making it difficult to get any useful data on the participant state of mind during the focus group.

6.2.3 *Groups*

When preforming focus group within the field of game research it is common to compare to different groups of people with each other, in order to a as nuanced a response as possible for the comparison. these groups are adult players with full-time jobs with younger players still in school who have ample free time on their hands. This two groups will have a very different pattern in their gaming behavior, as well as what is gained with playing computer games. Another common sampling choice is comparing veteran/expert gamers with new players, as both games and game features are interpreted differently by these two groups[14, p138].

The focus groups will attempt to gather three different groups of players, the requirements are simple that they have played Xcom or Xcom2 secondly is that the participant should be familiar with the RPG genre. The point of familiarity will then be the dividing factor in the three different groups. It will not make sense to divide the participants into different groups based on their gender

The first group will consists of veteran/expert gamers, this group will have the biggest familiarity with RPGs. Using veteran/expert gamers will allow for a more indepth decussion as they have a lot experience with RPG's, and have intiment knowlegde of how these systems works. With this knowlegde the system could be broken down into more subcomponents. Using experience from different games using similar or different components then used in this example. Furthermore this could provide insight into games new games which could further improve the framework. This group should be able to compare many different games with each other, as well as provide concrete example in their reasoning behind the opinion they have. Secondly they might be able to view the possible issues or challenge that might be with having a class system a being without it, as how it influence the skill available to the player to pick.

The second group consists of experienced players, this group will be familiar with many different RPGs as well but it will not necessary be their favorite genre. This will allow for a perspective that will maybe not look as deeply into the underlying system, and possibly

more critical as they spend less time on the genre, allowing for the possible to provide example and experience from other games outside the RPG genre.

The last group will consists of players new to genre of RPG, this group will have no to little familiarity with RPGs and the established norms that the genre have. Leaving room for questions and considerations a more experience player will not have.

6.2.4 *Topic guide*

The focus group will be carried out following a topic guide, Eklund suggests using a topic guide to insure that every topic is covered and as memory aid for the moderator to insure everyone gets the same information[14, p141]. Eklund topic guide consists of fomulating the questions as broad and open as possible, in the guide there are then several area of interest that should be coverede. The area of intereste and themes are then expaned with ad hoc questions based on what the participants dicusses, it will be attempt to follow this approach with the topic guide[14, p141]. The topic guide for the focus groups is divided into two different parts, the first one is the greeting, introduction and explanation of the that focus group is all about. The second part consists of the two different themes that groups is to explore and discussed, each theme has several underlying questions that should be answered if possible before moving on the next theme.

The following is the introduction:

Hey everyone and thanks for participating First off this conversation will be recoded, the recoding will be use for a data analysis once the focus group has ended. Secondly the focus group aim is to explore the meaning of different elements used in a RPG, the primary focus will be on classes and skill, with what these systems are what it means to you as players and how they two different aspects are connected. For examples and clarification of any aspects of these systems the game Xcom and Xcom2 will be used as everyone have played these two games. If you at any time fell that you no longer wish to part of this focus group you welcome to leave, and let me know if you would like me to remove your data from the study. Now with that out of the way I would like each of you quickly introduce yourself with your first name and what your favourite game is, so that I can identify who is who when the recoding is analyzed. If your prefer to use a nickname instead that is also acceptable.

with the introduction the participants should have a complete idea about what is going to happen, what is going to be discussed and what the results will be used for. The next step is to introduce the two different themes and their underlying questions:

- Classes

1. What is a class?
 2. What does it added?
 3. Are they necessary?
 4. What is needed to do without classes?
 5. If looking into RPGs in general what would be the preferred classes or not? and why?
- Perks/abilities/skill
 1. What is perks and what does it provide
 2. Does the effect changes if the classes are removed
 3. Limited selected (one perk per rank)
 4. Increased selection possibilities
 5. Is the same true for other RPGs (skills, abilities and so on)

Once all the themes have been explored and the underlying questions answered, the participants will be asked if they have anything to add before stopping the focus group and answering the questionnaire.

6.2.5 Questionnaire

The questionnaire consists of basic demographic data, as well as confirmation about which group the participants in each focus group belong to. The choice of using a questionnaire compared to asking for it at the focus group is to allow for as much anonymity for the participants as possible, and some of the information in the questionnaire might not be something the different participants what the other participants to know. The following is the questions used, below each questions are the possible answer if there is any restrictions on the answer:

- Focus group number
 1. a number between 1 and 10
- First Name
- Age
- Gender
 1. Male
 2. Female
- Do you play role-playing games?
 1. Yes

2. No
 - What types of Role-playing games do you play?
 - Would you consider RPG to be your favorite genre?
 1. Yes
 2. No
 3. Other
 - Indicate how experienced you are with RPGs
 1. First timer (Played one or more RPGs for couple of hours)
 2. Novice (Tried a handfull of different RPGs)
 3. Experienced (Tried many different RPG's and completed several)
 4. Expert (Played and completed numerous RPG's)

The questions are meant as a verification of which group they belong in, as well as a identification of what participants stats what doing the focus group.

6.3 SUMMARY

This chapter consists of the explanation of the two different experiments that will be carried out, the aim of both experiments is to figure out what a class systems and a limited amount of skills/abilities has on the player. The first experiment consists of have test participants play a modded version of Xcom2 where the class system is removed, and there is an increase in the possible choices of skills/abilities(perks). The mods will evaluated using a questionnaire that measures the player identification score, the score gain in the modded version of Xcom2 will then be compared to the score without the mods. The test participants will be recruited by using the forums on <http://www.nexusmods.com>, where Xcom2 has it own general discussion subsection.

The second experiment is more exploratory in nature and consists of several focus group, the focus group with explore the same areas of class and skill system. The point of entrance into the two themes will take examples from the Xcom games, as every participants have played one the Xcom games and therefor familiar with them. The discussion will the be broaden out to include other RPGs and RPGs in general, with the aim of taking a boarder view the focus groups will be divided into three different groups. The first one consists of the expert with the biggest knowledge and familiarity with the genre of RPGs, the second group consists of the experienced player and lastly the new players without much experience with RPGs.

RESULTS

The following chapter should have present the results gained during the experiment with the online group, as well as the findings in the different focus groups. But the recruitment failed completely in the online group resulting in zero test participants, and the few participants that could be located could be better utilized in the focus groups. The recruitment for the online group was attempted for a total of tens days, with updating the post providing more detailed information about the experiment and what the data would be used for, and monitoring the forum post for any other post. Secondly each day a "bump" was added to the post, moving the post up to the top of the forum again as to not getting lost in numerous posts on the forum. The main failure might lay in the forum not being optimal for recruitment using forum post, and secondly the post about the experiment was done by a new member of the forum with 1 post and not anyone known on the forum, having been know on the forum and possibly getting the endorsement from some of the active users might have improved the possibility of recruiting participants. Therefore this chapter will only shown the finding found in the focus group, as for clarification about why the recruitment failed will be handle in the next chapter. The findings of the focus group will be divided up into two categories the Demographic data, followed by the finding during the focus into the classes and skills/abilities/perks.

7.1 DEMOGRAPHIC DATA

A total of one focus where carried out, with a total of 3 participants. All of the participants where males between the ages of 31 to 34.

The first focus group consists of expert gamers, with a large experience pool within role-play. All of the participants plays a lot of RPGs on the computer and regularly play different types of pen and paper role-play games.

7.2 FINDINGS

The classes where primarily seen as a balancing act, in the sense that it felt like the class where there to make it easier for the developer

control the players options. As they would have a limited amount of options and each class could then be compared to each other so not one class become more power full then the other. Secondly the classes where sense as a help to player as to which role this character had compared to another.

Initially there where a disagreement in if classes where needed or not, but with further deliberation the group agreed that it would be more fun if each character where a blank slate, and that this slate could made into what ever the player wished for. Allowing for the biggest amount of freedom, but at the same time the game should be designed to without classes as to avoid overpowered(something that is almost unbeatable) character. the example put fourth by the participants where from World of Warcraft with a combination class

"here is a small rogue that can cast fireballs, has armor like a tank, being able to heal as i am part cleric and preforming back stap"

this combination three classes rogue is an stealth assassin type character with high damage but is easy to kill, with a warrior allowing for heavy armor instead of light, a cleric allows for the possibilities of healing as well as being able to cast the most damaging mage ability the fireball. Cementing the idea that the game should be made for working without a class system and balanced the skills to void these sort of situations.

The participants felt that using classes will on a general note also allow for a greater replay-ability, as they will play the game again to try a different class and explore a new part of the game. but this function could be replaced by focusing on race or choices that was made within the game universe, instead of have the difference be in the class that was picked at the start of the game.

When it comes to the aspect of skills/abilities the participants noted that it is positive thing to have options to pick from. But at the same time they found that usually there would be one to two skills that worked the best, these skills would then be the only once used as anything else would not make sense. This way of thinking was then continued throughout the game with optimizing the character to best possible extent, this also meant there where no focus personalizing the characters skills to a certain play style, as it would degrees the possibilities of joining groups for difficult areas. This was however only the case with computer games, for some of the participants this behavior would change if playing a pen and paper type role-playing game. There they would pick less functional skills if it fit their play style better, or if it would give them an edge outside of combat.

When having to pick one skill among a set of possible skills, the participants found it important to have an ample amount of possibilities with at least 3-5 possible choices. Secondly they found the concept frustrating if they where locked to pick only a few if the possible skill, and thereby being unable to get the others. As there in

some cases where several of skill they like but not being able to get them all, and the frustration would increase if the where tiers with no usable skills to pick. The participant suggested that a better solution could be that it was possible to selected skill from both the current tier, and tiers below but still have the same total amount of points to use.

With skills/abilities in general the participants found that is a positive thing to open up for the possibility to changes their choice again, is it would allow them to experiment with their options, and they would not fell depressed and/or frustrated by picking something that did not work as expected. In games where it was not possible to make changes the participants would fine something that works, and then they would stick to that approach without attempting an alternative solution.

Despite the positive attitude for having as many option as possible, the participants also noted that to many would be overwhelming and could result in stopping to play the game. As a example the participants mentioned a game called "Path of the exile" where the player passive skill tree is massive, see figure 11 for a point of reference.



Figure 11: Shows the passive skill three used in Path of the exile, where the player starts by selecting skills from the center and works his/her way out from there [15]

The sheer amount of possibilities and the way the passive tree is present, resulted in some participants to stop playing the game as it would take to much time to understand this part of the game compared to what they where will to use. A with the amount of possible options it was not possible to make a clear goal for the participants as to where they would like to end up, as there is no clear distinction in what does what.

7.3 SUMMERY

As mentioned before it was not possible to recruit any test participant to the online experiment group, so instead of having 3 - 5 participants in the online experiment group it was decided to use them in the focus group instead. The finding in the focus group showed the following:

- Class
 1. it was found that it was preferred the character as blank slate character, where they have the maximum amount of freedom and influence.
 2. Classes were seen as a help as to what role the character as assigned (Healer(Cleric), tanker(Warrior) and damage dealers), and as balancing tools for the developers
 3. Having classes allowed for replaying the game several times by choosing another class, but this aspect could be changed something else then depending on the class
- Skill/Abilities
 1. The amount of available skills should be balanced so there is room for enough variety, but not too many to overwhelm the players
 2. If the skills/abilities are divided into tiers it is beneficial allow the player to pick for both current tier and lower tiers.
 3. Allowing for the player to either retrain or changes the skills selection, as it will decrease frustration if skills/abilities does not perform as expected, and motivate the player to try out new combination instead of sticking to known combinations.
 4. Normally players will pick the solution in skills/abilities for their class to maximize the effectiveness, despite personal preference.
 5. Once an effective skills/abilities is found that skill will be used repeatedly

The veteran/expert gamers were almost completely in agreement on all topics, and instead of disagreeing they each build further on each others opinions and elaborated with some of their own experiences. The major agreement of the group when it comes to the class and skills is how important it is that they are balanced, as to insure that neither one class or skill is too powerful compared to the others. It was also preferred to avoid using classes as it took away much of

the freedom from the player, and that class where seen more as guiding post as to what role this character was assigned within a group. When talking about the skills it was found that it was not always a good thing to have choices, if the amount of possible choices where to create the player would fell overwhelmed and stop playing the game. When picking skills the choice always fell on the most effected, even if meant changing the play style the player preferred, this also meant the using the same build as everyone else where the character is optimized for one type of play.

DISCUSSION

The follow chapter will discusses several area where another solution then what was taking might have been beneficial and why. the discussion will be divided into several parts, the first part is how the computer game analysis/review of currently used RPGs could be improved and where it limitations lies. followed by a discussion into what aspect of the testing that could have done better and why, lastly the results of the testing will be discussed and what the results can be shown and what area it is lacking in.

Analysis/review of RPGs For the analysis into current RPGs it could have been beneficial to use a more structured framework from the beginning, instead of the focusing on two individual parts of the system and seeing how they are connected. One example could have been to use formal analysis[16], the method consists of breaking the system down into as many individual component as possible and dividing them into three categories. The first category is "components" which consists of elements the either the player or the game system can manipulate, these components also provide a set of boundaries that can not be broken. Some examples could be Ship, aliens, UFO, bullets, and bunkers in Space Invaders, beside the individual components it can also be used to define game spaces like for example the chess board and the maze walls of Pacman[16, p25]. The second category is "Actions", this category consists of all actions the player can take like move up, down, left and right. Beside the player actions there is also a two subcategories "Component actions" and "System actions" where the actions is preformed by either the component and alien shooting or the system spawning a new alien[16, p25-p26]. The last category is "Goal" which consists of what the player needs to in order to win the game or game state. There is the possiblity of several different goals the player has to complete in a certain order, and some situation where not all the goals are mandatory[16, p26]. Using this type of formal analysis might have provided more insight into each individual system instead of current results gained with the analysis/review of RPGs leveling and skill systems.

Lastly the games chosen to be review could have been expanded to contain a broader range of games, currently the majority of the games are primarily mainstream games that are big in western parts

of the world. Leaving out big parts of the Asian RPGs like Blade and Soul, or other games in RPGs genre named JRPG(Japanese role-playing games). JRPG consists of role-playing games released and made in the Japan, these games is it own unique genre but still with it rotates deeply within role-play. This genre should also have been investigated and included introduction section into role-play and role-playing games.

Design With the current design of the complete system there is a focus on creating as unique experience and possible to each player, but at the same time updating the leveling and skill system to allow room for more player control. This approach does not however change that some players will feel out of place, this feeling can be seen with the amount of mods that is being create for most popular games. Where one or more individuals tweak the games more to their liking, usually it cosmetic changes cases have been seen where there have been made huge changes to the game. One possible solution and provide the player with even more control could be to implemented the RPG system as suggested by Lenhart [17], where all of the games element are cut up into individual pieces and player picks whatever he/she wants to use in "their" game. This approached could provide interesting possibilities of it is up to player to choose how the system should be connected, and what parts should have influence on each other. But using this kind of approach would mean letting go of the idea of creating a game, but instead a tool for games creating games.

testing During the testing it was found that method chosen for the online test group was not successful, it was not possible to get even a single participant using the method chosen. The primary reason lies with how the user of the Nexusmod forum was approached, the post made on the forum was made from a new account with only 1 post. Meaning that it was completely ignored by the normal user of the forums, another aspect this post looks to be the first and only post seeking the users help. Another possibly more beneficial approached could be that used by Trevor Owens in his investing into RPG Maker[18], Owens is also using a forum as his primary means of recruitment. The primary difference is that instead of posting on the board asking for help, private messages where sent to the most active users on the forum. This private message consists of a small introduction accompanied by a questionnaire, based on the responses a group of participants where selected to be interviewed. Using this approach it might have been possible to get some test participants, but it would possibly also require a different kind of forum dedicated strictly to Xcom and not to mods created for Xcom. Secondly trying to recruit for two different experiment in the final phases of the project proved to be to much, resulting in recruitment difficulties for both experiment. The time spend on recruiting for both experiment could have been used better by focusing on only one of the experiments. The

difficulties in recruiting for the focus group was in the sense that the majority of the possible test participants consists of small groups of 1-2 individuals, making it to little for a group on their own. Followed by scheduling issues where one or more of the different participants where unavailable, this effect could be less restricting if the was not attempted to recruit participants for one of the three RPG experience groups(experts, experienced players and new players).

results Focusing on the findings made during the focus groups showed that the players like the idea of being in complete control of all aspects of their character/avatar, from not being locked into a class framework and picking among all the possible skill in the game. This aspect contradicts many aspects found when dealing with Identity as class was a major factor in the creation of the player identity, the main reason for this discrepancy might lay in the fact that most games used during these investigation was using a class system. The focus group did however not provide any insights into what parts of the systems is responsible for character identification, the primary reason is that none of the questions nor decisions approached the topic.

It was however found that the players like to be in complete control of every aspect character/avatar, which is part of the character identification factor. The mean area of concern with providing the player with complete control, is the balance in the amount of options as to not overwhelm or scare the player away. One possible option of allowing room for more content is to unlock it slow as the player plays, but at the same time the total amount should not become to much as in the case of the game called Path of the Exile, where the passive tree is so massive it that lead to player leaving the game.

On of the primary motivational factors for the players in playing is having as unique character as possible, this was however found not to be case when it comes to the skill/abilities of the character. As the players would follow patterns others found and mirror it get the best outcome for the character, also if it meant letting go of the players own possible unique play style. Secondly with skill it was found that players would stick to one a or selection of skills that worked, instead of trying out different combination and using other skills available to the player. This could however be avoided if all the other skills where as viable as once they picked, unless it is not possible to change the skill/abilities.

The findings gained though focus group are by no means saturated as there where only one group consisting of veteran/expert players, secondly with only one group it is not possible to see if there is anything new to gain by doing another focus group. In the current case it would so be necessary to reach saturation three times, one of each group(veteran/expert, experienced and beginner) as each group should provide insights based on their experience and familiarity with RPGs.

CONCLUSION

It is not possible to draw an conclusion as the size of the sample used during testing where as small as it was, the size was 0 for the online experiment group which would provide data on character identification. Furthermore the focus groups was limited to only one group of veteran/expert gamers. the findings did however point out some places where the experts in identity and character identification differs.

Furthermore it was found that is was impossible to create a situation where it would be possible to test for identity, as it would require a complete game where everything have had the same amount of attention and not just the leveling and skill systems. To that end it was decided to focus on how the removal of class restriction and increase in amount of available skills would affect the players character identification.

It was showed that removing the class restricting made the players feel more in control, as they where free to build the character as they liked. In the area of skills it showed that a balance should be attained, meaning on with enough choices to satisfies the player but not many as to overwhelm the player. Secondly the amount of skill should all be just as viable, as the player would otherwise stick to one or two different skill. Lastly it does not appear that allowing the player complete control of their skill will provide an increase in character identification, as the players will pick the most optimized build available and not play based on how they like to.

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