

Effects of Graphical Style and Location on Video Game Art

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Video games are an interesting collection of visual elements, ranging from 3D animation to character design and user interface design. Audio-visual aspects are a core part of any video game, since they captivate the player's attention, create atmosphere, and make the game memorable. However, video games are not usually viewed as an art form, and research on video game visual style is limited. This study aims to research art style and visual design of video games, focusing more specifically on character design.

Graphical styles of video games have evolved a lot, from the pixelated shapes of the earliest video games to nearly photorealistic dimensions with modern devices. This study introduces one possible categorization of graphical styles in video games, which includes the stylistic, realistic, and abstract styles. Later, video games are grouped into two sets by their location of origin, followed by analysis on location's effect on the game's art style.

Small research was conducted as a part of this study, where a game was developed using three different art styles. The game was then surveyed by a test group, and results from the survey were analysed from the point of game art style and its effect on player's gaming experience. Due to problems in game development and small sample size, results of this study are not conclusive, but some patterns in players' preference are found.

Keywords: video game art, video game graphics, Asian video games, Western video games, art style

TURUN YLIOPISTO

Tietotekniikan laitos

SAINIO, TUULI: Graafisen tyylin ja sijainnin vaikutus videopelitaiteeseen

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Videopelit ovat kiinnostava kokoelma visuaalisia elementtejä 3D-animaatiosta hahmosuunnitteluun ja käyttöliittymäsuunnitteluun. Audiovisuaaliset näkökohdat ovat tärkeä osa mitä vain videopeliä, sillä ne kiinnittävät pelaajan huomion, luovat tunnelmaa ja tekevät pelistä mieleenpainuvan. Videopelejä ei kuitenkaan usein pidetä taidemuotona, ja tutkimustyö videopelien visuaalisesta tyylistä on rajoittunutta. Tässä tutkielmassa tarkoituksena on tutkia videopelien taidesuuntia ja visuaalista ulkonäköä, keskittyen tarkemmin hahmosuunnitteluun.

Videopelien graafiset tyylit ovat muuttuneet paljon ensimmäisten videopelien pikselimuodoista modernien laitteiden lähes hyperrealistisiin ulottuvuuksiin. Tässä tutkielmassa käsitellään yhtä graafisten tyylien luokittelua, joka sisältää tyyliä, realistisen ja abstraktisen tyylin. Tämän jälkeen videopelit jaetaan kahteen ryhmään niiden maantieteellisen alkuperän mukaan, ja analysoidaan alkuperämaan vaikutusta pelin taidetyyliin.

Osana tutkielmaa toteutettiin pieni tutkimus, jossa luotiin videopeli kolmella erilaisella taidetyylillä. Peli pelautettiin testiryhmällä, jotka vastasivat kyselyyn siitä. Kyselyn tuloksia analysoitiin, keskittyen siihen, miten pelin taidetyyli vaikutti pelaajan pelikokemukseen. Tutkimuksessa ilmenneiden ongelmien ja pienen testijoukon takia tulokset ovat kuitenkin vain suuntaa antavia, mutta joitain havaintoja pelaajien mieltymyksistä löydettiin.

Avainsanat: videopelitaide, videopeligrafiikka, aasialaiset videopelit, länsimaiset videopelit, taidetyyli

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1 Introduction

In modern society, gadgets and technology are everywhere. It is not surprising that video games have also gained more and more audience, as computers have become a necessity and smartphones are powerful enough to run complex games. These days, nearly everyone plays video games, even if it is just a simple mobile version of solitaire or *Angry Birds*.

Visual elements are one of the most important part of a video game, as they are usually among the first things to catch a player's attention and interest. Even a game that has a great core idea and experienced team of developers becomes unattractive if its visual look does not match the quality of the game. Players simply will not be interested in games that look unappealing. Graphical style can also be the reason why a player chooses one of two competing similar games. Marketing a game relies heavily on interesting and eye-catching graphics, so they are important also business-wise (Keo, 2017).

As a regular video game player myself, I notice easily how I am more drawn to games with an art style that interests me, and that I find attractive. This is also true when I think of games that I do not want to play: many have an art style that does not please my eye. Sometimes I may even pick up a game purely based on its art style alone, without knowing much of the gameplay itself. This happened with *Genshin Impact* (see Figure 1), an action role-playing game with an open world environment. The art style is colorful and interesting, and as the game was free to play, I decided to try it out very soon after the game was released, also because of the massive hype the game's launch created. I ended up quickly getting hooked on the game, as it included several features I typically enjoy in a game: fantasy elements, open world for the player to explore, fun puzzles, well designed characters and universe and an interesting quest-based story.



Figure 1. Genshin Impact

Inspiration for this thesis came mainly from video games that I personally like, as well as art, which has been my hobby since I was a little kid. As I am always looking at the art styles in games I play, it felt logical to choose something similar as my research topic. Choosing a topic that has something to do with video games was my first idea also because of the research project, that is part of every computer science thesis work. I have attended a couple of video game development courses here in university, so I wanted to try my hand at making my own game. I draw a lot as a hobby, so making game graphics interested me, but I am not a programmer to develop a game from scratch. Eventually I chose to use a game engine as the base for my game project, so I could focus more on the art.

As someone who consumes both Western and Eastern media in its various forms, I got interested in comparing the two. Things like culture, language and history play a major role shaping the media that is produced in a certain country. This is seen in video games as well: games from Japan, United States of America or Finland are quite different by default. I play games originating from many different countries and I am used to seeing many styles of graphics in the games I play, but I am curious if someone else's location or previous gaming experience affect their views on a game's graphics. Even though I can only write about this

topic from the point of view of a Finnish young adult, I decided this to be my research topic.

1.1 Research questions

Research questions addressed in this study are

(R1) Do game graphics vary depending on the location of origin?

(R2) Does gaming background affect someone's views on a new game's graphics?

Chapters 2 and 3 answer the first research question. Firstly, there is background information on game graphics, and why they are important. Secondly, we discuss differences in games originating from Eastern and Western worlds. In this study, "Eastern" and "Western" are just vague terms to help defining different graphical styles. Countries chosen to represent the Eastern world are Japan, and the United States for the Western world. These two countries were chosen as they are the two biggest gaming industries in the world, and they have major cultural influence in other countries. Chapter 4 and 5 focus on the second research question. I prepared a project, where people with different gaming backgrounds would play a game featuring different art styles. The participants would then answer a questionnaire based on their experience. These answers form the data that I analyze and discuss about in Chapter 5.

1.2 Structure of the thesis

This thesis consists of four main chapters. Chapter 2 provides an overview of graphics in video games. Graphics can be categorized in many ways, but in this thesis, I present four categories of game graphics: realism, stylized realism, stylism and abstractionism. In the end of Chapter 2, we discuss graphics from the

point of character design. Chapter 3 is the second theory chapter, focusing on Eastern and Western games and their graphics. There is a quick look into the history of video games, followed by analysis and comparison of Japanese and American game graphics. Chapter 4 in this thesis is about the research project I carried out. Combining game graphics theory to the differences of Eastern and Western games, I created a small game with three versions. Each version features a different art style. Part of this research was to collect data from participants who would play the game and then answer a questionnaire, which is discussed in Chapter 5. Analysis and discussion of the project results finish this chapter. Finally, the conclusion and reflection chapter close this thesis.

2 Video game graphics

Graphics and visuals are an important part of any video game. All visuals are built from visual grammar, which consists of lines, shapes, value, volume, and color. Arranging, manipulating, and composing these building blocks allow endless possibilities for visual expression (Solarski, 2012). Classical art and video games are both combinations of these visual building blocks, but video games add a whole new technique to the art experience: interaction. With other forms of media, such as sound, animation and special effects techniques, players can interact with the visual world inside the game, enhancing the gameplay experience.

Video Game Metadata Schema (Lee et al., 2017) defines visual style of video games as “the predominant and recognizable visual appearance of a video game as originally intended by its creator, and/or determined in the context of creation.” To understand visual styles in games, one must be first familiar with the visual grammar building blocks and art theory. Taking away the interaction element of games, visual styles are created with classic art theories, such as movement, depth, composition, and gravity (Solarski, 2012). These theories are then used in different visual aspects of the game, such as visual looks and moods, which are explained in section 2.1.

This chapter focuses on a common categorization of different video game graphical styles, as well as visual elements of video games. After this, there is discussion about character design. This chapter provides an overview of common styles in game graphics, and introduces some core elements on character design.

2.1 Graphical styles

Video games as a form of media is a large collection of different styles of art and graphics. Because the range of art styles is so vast, it is difficult to divide them into categories that would include everything. A common way to categorize art styles are the three categories of *photorealism*, *caricaturism* and *abstractionism*

(Järvinen, 2002). Commonly, a fourth category is added to this list called *stylized realism*, which is a mix between the realistic and caricatured art styles. This taxonomy of graphical styles is introduced in this chapter in more detail.

However, Järvinen's (2002) taxonomy of art styles is very broad, and the three categories are mainly umbrella terms to categorize art styles based on how realistic the style is. Another way to categorize graphical styles specifically for video games is to look at different visual elements of the game. The elements in question are the game's visual looks or appearances, visual mood, visual representation of gameplay mechanics, visual techniques, and visual motifs (Keating et al. 2017). *Visual looks* mean the basic look of the items and characters in a game, and can, for example, be classified using Järvinen's taxonomy. *Visual mood* is more like the general art theme of the game, like cute or dark. *Visual representation* of gameplay mechanics can, for example, be the game's camera angle and perspective, or how the characters move on the screen. The technique used to create graphics to the game, such as pixel art for 2D games or cel-shading for 3D games, is the game's *visual technique*. Effects and details, such as blood or gore, are the game's *visual motifs* (Keating et al. 2017). This taxonomy might seem simple on paper, but applying these terms in practice creates several overlaps between the categories.

2.1.1 Realism and stylized realism

Photorealistic art style in video games (see Figure 2) means that characters, objects, and environments emulate reality as much as possible (Keo, 2017). It was born in the 1990s when video game graphics started to become advanced enough to transform from 2D into fully rendered 3D. However, realistic style came with heavy restrictions to hardware and gameplay limitations, and it requires a lot of time and money to model, texture and animate everything (Keo, 2017). Nowadays, realism is the most desired look for games, as computers and gaming consoles have become powerful enough to portray extremely realistic graphics. For mobile and handheld games this style is not yet very common.



Figure 2. Examples of realism in games: character from *The Last of Us Part II* and scenery from *The Witcher 3: Wild Hunt*

Photorealism, even though it is a desired style for modern games, is not possible to be achieved with current technologies. It would require graphic technologies to be at the same level as physical limits of the human eye (Keo, 2017). Photorealism also requires extreme attention to detail, since even a small detail like light being reflected the wrong way can break the immersion. Failed attempt at photorealism can create an *uncanny valley*, where the character is human-like but resembles something like a zombie or a corpse more than a living human. Because photorealism is so hard to achieve, stylized realism (see Figure 3) is used more often as it is easier to manage and is more flexible (Hölttä, 2018). In stylized realism, or semi-realism, proportions and anatomy are not quite realistic, but still more realistic than in a purely stylized style. The characters can also have over the top hairstyles, clothes, or weapons.



Figure 3. Examples of stylized realism in games: characters from Final Fantasy VII Remake, gameplay screenshot from Overwatch

2.1.2 Stylism

Basically, every art style that is not realistic is part of the stylized category, making it obviously a very large group. This is also why addition of the stylized realism category is useful, as it allows the stylized category to be split in half based on how the human characters are portrayed (Keating, Lee, Windleharth, Lee, 2017). In the non-realistic half of stylism, or caricaturism as Järvinen (2002) calls it, people and objects are exaggerated by their prominent features. The style is versatile and flexible, and not bound to the limitations of simulating realistic physics like in realistic style (Keo, 2017). While games in realism and stylized realism styles are often 3D, stylized games can be either 2D or 3D. Examples of stylized games are cartoon-like games, games aimed at children and the 8-bit era games (see Figure 4).



Figure 4. Examples of 2D stylized games: *Super Mario Bros. 3* and *Scribblenauts*

Stylized style rose to popularity in the mid-1980s with the Nintendo Entertainment System and its games, such as *Legend of Zelda*, *Super Mario Bros. 3* and *Mega Man*. Earlier games were made mostly with the abstract style due to hardware limitations, but the 8-bit era consoles had become powerful enough to display more complex graphics and gameplay styles with their increased screen resolution, bigger color palettes and capability of showing more objects on screen (Keo, 2017).

Games made in the 8-bit era were created usually with the pixel art technique, mainly due to screen resolution and color palette restrictions, but later pixel art became a major part in defining the stylized game graphics style. A pixel is the smallest building block of what a screen displays, and arranging them to make images and animation is the basis of pixel art. Characters and environments made in pixel art are often cartoony, due to limited sprite sizes and bright color palettes. It was necessary to design objects to be representative in small image sizes, which led to simplified cartoon style (Keo, 2017). While pixel art is often associated with retro games, some modern games made with the style also exist. While developers are not forced to do pixel art because of graphic limitations anymore, some people find the style to be nostalgic and appealing. Examples of modern games that use pixel art as a style choice are *Terraria*, *Undertale* and *Minecraft*. *Minecraft* (see Figure 5) is an interesting game style-wise, as it brings the 2D pixel graphics into a 3D universe.

While many developers compete on how realistic they can make their 3D rendered graphics, stylized 3D games provide an alternative way to create three-dimensional games without the restrictions of realism. One of the most influential 3D games was *Super Mario 64*, which set a standard for character and camera movement in third-person games. The game was made in a stylized cartoon-like style while staying true to the original *Super Mario* style, despite being the first game in the series to take the leap from 2D to 3D (Keo, 2017). Later games in the series expand this new style even further. The cartoon-like style is still popular in stylized 3D games, such as in *Animal Crossing* (see Figure 5) and *Kingdom Hearts*.



Figure 5. Examples of 3D stylized games: *Animal Crossing: New Horizons* and *Minecraft*

2.1.3 Abstractionism

Before the video game hardware became powerful enough to display complex characters and objects, game graphics were composed of geometric shapes and forms. This style is called abstractionism, as the graphics are abstract and do not represent anything real (Keo, 2017). In the early days of video games, the simplicity of the graphics did not really matter, as the focus was on simple and entertaining gameplay. Games such as *Tetris* and *Pac-Man* feature graphics

made of squares and circles (see Figure 6), but still hold their places in the list of best-selling video games.

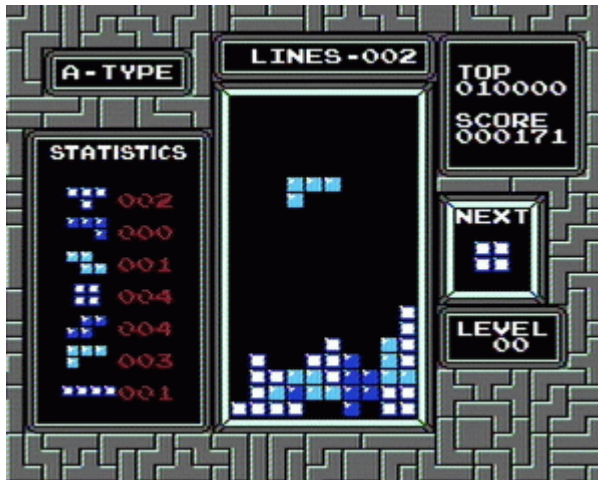


Figure 6. Tetris on the Nintendo Entertainment System

The history of abstract video games begins with the very first games ever made. Abstractionism was the only choice for game graphics due to hardware limitations in the 1970s, and was popular until the end of the 1980s (Keo, 2017). The 1980s is also considered as the golden age of abstractionism, with the success of the Nintendo Entertainment System console and games such as previously mentioned *Tetris* and *Pac-Man*. Nowadays, the abstract style is used quite rarely, and has become an artistic choice rather than a standard style. The game genre it is most often associated with is rhythm games, as it is easier to focus on the rhythm when the graphics are simple. Examples of modern abstract games are the mobile game *Geometry Dash*, where the player taps the screen in rhythm to jump over obstacles, and the virtual reality game *Beat Saber*, where the player slices up blocks using the VR hand controllers (see Figure 7).



Figure 7. Examples of abstract games: *Geometry Dash* and *Beat Saber*

2.2 Character design

Characters are a core part of any video game. They are the mascots which draw attention of the players, and they are usually the most memorable part of a game. Players relate and grow attached to characters they play as or interact with. Especially if the character is playable, it should have features that make players feel connected to it and invoke positive feelings towards it. People are more comfortable when the character behaves and looks like a human, because they can understand the character's behavior better. Consistent behavior also creates a more believable character (Suomela, 2018). Characters are overall one of the components which draw players into the experience of a game (Sabbagh, 2015). A good game with poorly designed characters is simply not going to sell well.

What makes a video game character then? Their physical look, personality, background story, role in the game and characteristics at least. In a well-designed character, all these aspects support one other, and are the building blocks for a finished, fully realized character. To design anything for a game, one must take into account human behavior: how and when the player interacts with the designed object or character. Intuitiveness is one of the core goals of good design, and for character design this means that the character must be easily recognizable and understandable. A good trick to keep in mind is to imagine how the design looks outside of the game's context (Hölttä, 2018).

A process of designing a good character usually starts with the environment or universe of the game. The character should fit naturally to the environment, and these two should co-exist in harmony. Next step is to create a story and role to the character. Shylenok (2019) presents some questions the character designer should ask themselves to structure the process: Where does the action take place? What is the background of the character? Who are they and what do they look like? Who is helping them? How does the story end for the character? All these questions can be summed up to three main points to make a believable character: their legacy, motivation, and attitude. The character legacy includes information about the world the character lives in, their story and life. Motivation explains why the character is doing things they do. Attitude consists of the characters mentality and personality. In the end however, the most important thing is to develop a believable environment with characters that fit the gameplay mechanics (Shylenok, 2019).

Physical look matters a lot in a character's design, because it makes characters recognizable and easy to identify. Solarski (2021) defines a spectrum of shapes that video game characters have: circular shapes mean cheerful and caring characters, rectangular shapes are serious and wise, and triangular shapes can be either villains or fast-moving characters. A simple concept like the silhouette can already tell a lot about the character's traits and distinguish them from each other and against the environment. It is easy to assume that a character who is big, bulky, and muscular is a tank with high defense, and a small, slim character

is fast and mobile. These are called tropes or stereotypes, and rely on the viewer's expectations and previous experience of similar characters. Using tropes and stereotypes are a way to create the right kind of impression of the character, and makes players understand the character's role and abilities easily (Hölttä, 2018). One look at the character should give you a basic assumption on what the character does. Of course, these assumptions can fail, and a small, harmless-looking character can secretly end up being the final boss all along. Tropes do not always relate to a character's physical look, as they can also be about a character's motives, such as "anti-hero", or role, such as "the chosen one" (Lee et al., 2017).

Stereotyping can be useful on giving away basic information of your character, but basing the character entirely on a stereotype or a trope makes them boring and uninspiring. Stereotypes can strip the character of its individuality and reduce them to a set of already known traits, sometimes even exaggerating them for a comedic effect. Sabbagh (2015) calls these types of characters "stock characters", as they are basically cheap shallow shells of a character, that can ruin the game experience. Other points to avoid when designing a character include tokenism and ludonarrative dissonance. Tokenism in video games means doing the bare minimum to include minorities in the game's character roster. This can be adding a single extra character to the game who represents a minority group just for the sake of diversity (Sabbagh, 2015). Ludonarrative dissonance means that a character does something only due to the story that contradicts the character's other behavior (Suomela, 2018). For example, a very peaceful pacifist character should not be wielding a weapon, or a character who slays their enemies all the time should not struggle to kill a single person.

Overwatch is a first-person shooter game with highly praised character design. The cast of characters are inclusive, diverse, and interesting, and are challenging stereotypes that the multiplayer shooter -genre has. The characters are designed in a way that one can already figure out their abilities by just looking at their design, without knowing anything about the gameplay itself (see Figure 8): slim and sporty Tracer is fast and has high mobility, and angel-like Mercy is a healer

who can glide in the air with her wings. You can also identify the character's motives from their design: Tracer, Mercy and Orisa belong in the 'good guys', because their design is colorful with round shapes, and Sombra and Moira represent the villains with dark colors and sharp edges.



Figure 8. Some characters from Overwatch: (left to right) Tracer, Mercy, Orisa, Roadhog, Sombra, Moira

Color has a significant role in character design, as is used to evoke deeply rooted emotional reactions from the audience (Subjectively, 2019). For example, the color red can mean blood and danger, but also love and passion. A further note to remember when choosing colors is that different cultures interpret colors differently. In Western culture, the color black is associated with death and mourning, but in Indian and Chinese culture it is the color white. A 'general rule' to creating a hero or a villain lies in color choices. For heroes, red means strength, blue means focus, and a combination of these two primary colors attract people. A quick look at some of the most well-known heroes from both Western and Japanese pop culture can already clarify this (see Figure 9). Villains on the other hand have typically a color palette consisting of secondary colors green and violet (Batagoda, 2018).



Figure 9. Famous characters with similar color palettes: Superman, Captain America, Super Mario, Sonic the Hedgehog

Characters can be fancy and detailed on paper, but an important aspect of the character is also how it looks like in the gameplay itself. Depending on the game, characters can appear small, be in constant movement, or show only partly, like in a first-person view. Some video game companies have designers or artists whose job is to focus purely on the character creation. Their tasks can be to sketch, sculp, animate and study anatomy of the characters. Capturing the character's essence, so it is recognizable in the game's environment, requires focusing on the most iconic elements of the character. In Riot's *League of Legends* has characters appear quite small on the screen, so the player has a bigger view of the map. Since the characters are so small, their models need to be simplified from their concept designs, as it is not possible to capture all the little details without ruining the game's performance. In the case of the character Garen (see Figure 10), the most iconic elements are his sword, shoulder armor and blue scarf. The small in-game model is much more simplified than the original concept design, but preserves the three iconic elements (Riot Games, 2018).



Figure 10. League of Legends's character Garen, concept art and in-game model

3 Western and Eastern video games

Video games are developed all over the world. However, culture of the country or geographical area where the game is developed in affects its story and graphics. Two biggest gaming industries of the world are the United States of America and Japan, where also most video games are developed in. Video games from these two countries have recognizable attributes that clearly reflect the countries' culture. These two countries have a major impact on rest of the world's game development, so I have taken the liberty of dividing video game industry to Western and Eastern sections, depending on if the geographical area is more influenced by cultures of the US or Japan. This division is very informal and does not have strict lines, as all kinds of games are developed everywhere.

In this chapter, I take a quick look into history of video games in the US and Japan, followed by analysis of art and aesthetics of both countries' games. Main goal of the history chapter is to give background information on how the gaming industry came to be split in half, and dominated by the two countries in question. Afterwards, this chapter compares the two countries by character design and discusses some cultural aspects that have an impact on game design. The reason why it is important to understand cultural differences when discussing aesthetics is fairly simple: what people classify as aesthetic design depends on their culture and what expectations that culture has to media. It is also natural for people to prefer things that are familiar to their culture, such as art from Eastern and Western cultures: Western audiences rate Western art higher than Eastern art, and vice versa. Culture affects every aspect of our lives, from how we behave to what we find aesthetic or not (Hölttä, 2018).

3.1 History

Video game development started around the 1960s, however the first commercial games released to a large audience were made in the 1970s. The first commercial home video game console, Magnavox Odyssey, was developed in

the United States in 1972. In the same year, American video game developer Atari released its table tennis -themed arcade game *Pong*, which became the first commercially successful video game. Magnavox Odyssey and *Pong* started the boom of the video game industry because their popularity made many other companies to begin producing games, sometimes simply replicating *Pong* or another existing game (Video Games in the United States, 2021).

Success of arcade games also made its way into Japan, as two companies Taito and Sega started producing their own games. Taito also produced games that were localized in America, as the first localized Japanese games (Picard, 2013). Arcade gaming gained huge popularity in Japan in the 1970s, and resulted in companies such as Namco and Nintendo to become interested in video game development. One of the biggest gaming hits during the period was Taito's *Space Invaders* in 1978, which introduced several nowadays common concepts found in games, such as the player having a number of "lives", having a goal to achieve a high score, and saving the score after playing. Other new concepts introduced in arcade games of this era were color graphics, individualized antagonists and animated sprites. *Space Invaders'* success launched the golden age of arcade gaming, as games such as Namco's *Pac-Man* and Nintendo's *Donkey Kong* also gained massive popularity (Video games in Japan, 2021).

Video game industry in the US suffered a large-scale recession in 1983, called the 'video game crash', which resulted in several companies producing computers and gaming consoles falling into bankruptcy. Same year in Japan, Nintendo launched the Nintendo Entertainment System, or Family Computer, whose popularity made the company grow into one of Japan's most successful corporations. Many of Japan's most famous game franchises originated on the console, such as Nintendo's *Super Mario Bros.* and *The Legend of Zelda*, Enix's *Dragon Quest* and Square's *Final Fantasy*. *Super Mario Bros.* changed Japanese gaming industry, as its huge success helped to bring a specific "personality" into Nintendo's games, which continues to influence video game development to this day (Picard, 2013). Success of the NES helped video game industry to recover

also in America, where the console was released few years later (Video games in Japan, 2021).

Nintendo continued to dominate the gaming console market with the hand-held console Game Boy 1989, and the Super Nintendo Entertainment System in 1990. Sega tried to compete with Nintendo releasing the Sega Genesis console in 1988, and *Sonic the Hedgehog* in 1991. Early 1990s saw the rise of 3D polygon graphics, probably due to success of Sony's PlayStation console, released in 1994. Its successor, PlayStation 2 in 2000, became the best-selling gaming console ever. Nintendo and Sega rivaled PlayStation with their consoles Nintendo 64 and Sega Saturn. PlayStation and Sega Saturn shifted from the old game cartridge-based system to new compact disk (CD) -based system. Games from early 1990s introduced concepts of achievements, capturing and training monsters, several paths and endings in the story, and erotic adult content in games (Video games in Japan, 2021).

Western gaming industry was also back on its feet, and notable studios like Epic Games, Valve and Blizzard Entertainment were founded. *Doom* in 1993 introduced cooperation in games via network, as it allowed up to four players to play together over a LAN. Internet became available for masses in the late 1990s, leading to popularization of online games, such as *StarCraft* (1998) by Blizzard and *Counter-Strike* (2000) by Valve (History of video games, 2021). Mobile phones became common for masses in the late 1990s as well, causing a demand for mobile games. The first big success of mobile games was Nokia's *Snake* in 1997, which came pre-installed in Nokia devices.

In the late 1990s, Japanese companies started to design their games to appeal for foreign markets as well. This meant removal of traits from game design that were deemed too Japanese for foreign audience, making games more easily exportable (Torres Hortelano, 2017). This strategy was called *mukokuseki*, meaning "no state" or "no nationality". One reason why this strategy was created was the *Cool Japan* project, which aims at increasing foreign interest in Japan's popular culture. Cool Japan project has been described as a form of soft power,

influencing behavior and interest through video games, TV shows, art, music, and other cultural aspects (Navarro Remesal & Loriguillo López, 2015). This strategy is most likely one of the reasons why Japanese culture has become so popular in the West as it is today.

Nowadays, the largest sector of video game market are mobile games. Smartphones have become the most common gaming platform due to their availability to the masses, and have brought gaming from being an expensive hobby to even people in technologically less-developed areas (History of video games, 2021). Mobile games have popularized some gaming genres, such as casual games, where the objective and gameplay are fairly simple, and free-to-play games, where profit of the game comes from micro-transactions that players can purchase. Computer and console gaming have also profited from improving technology, as current hardware can make video and animation be so high-definition that games can achieve nearly photorealistic graphics. New trends in gaming in the 21st century include virtual- and augmented reality-based games, and increased popularity of independent game development.

3.2 Art and Aesthetics in Japanese games

Japanese game industry is a product of media mix and intersection of other industries like electronics, computers, and entertainment, creating very distinct traits for Japanese games or *gēmu* (Picard, 2013). *Media mix* means relationships between different forms of media. Japanese games overlap a lot with Japanese animation shows or *anime*, comics or *manga*, and other forms of media. Big companies who produce comic books, animation series and games often work under one roof, making these three media forms affect each other even more (Suomela, 2018).

Along with games, Japanese creative industry has successfully used media mix to promote anime. In anime media mix, characters and worlds are developed across different media forms with the goal of creating a loop, where consumers

who are affected by one media form can also get attracted to the other forms (Schules, 2015). This is easy to see in practice, since anime series are often based on a successful manga, and a successful anime can have games based on it to milk more money out of its popularity. It is also common for a series to include direct or indirect references to other series it is connected to by contracts or company ties. For example, Nintendo's big crossover game, *Super Smash Bros.*, features multiple characters from games that are somehow legally connected to Nintendo.

The most popular style of comics and games in Japan are arguably the anime style. The anime style is very broad term as it includes many different art styles, but some most common traits can be found. For human characters, common traits can be unrealistic anatomy, big and glittery eyes, large heads and colorful hair and clothes. Sometimes characters can even be shrunk into a *chibi* form, where their heads are around the same size as the rest of their body. The *chibi* form is often used in RPG games when the characters are moving in the overworld (see Figure 11). It is also convenient to shrink the characters to see a larger area around the character, especially in games for handheld gaming consoles, since they can have small screens and limited capacity (Suomela, 2018).



Figure 11. Chibi version in the overworld and real size version in the battle screen, shown in *Pokémon Omega Ruby & Alpha Sapphire*

The anime style was first born around the 60s when TV show animators figured out how to deliver a character's emotions and feelings through their eyes. This was due to budget limitations and limited time to create content. Relying on facial

language and expressions made it possible to drastically cut the drawings per second ratio in animation (Navarro Remesal & Loriguillo López, 2015). Animation was quick and easy to produce with this new style, as characters mouth movement was simple, and coloring was simple and flat. This style is very common also in video games, in both 2D and 3D forms. As the style was created to be 2D, techniques like cel-shading can are often used to make the 3D models into cartoon-like anime graphics (Suomela, 2018). Many anime style games combine cel-shaded 3D graphics with 2D portraits of the characters to emphasize dialogue (see Figure 12). Another technique typical to anime is emphasized importance of *seiyū* or voice actors. Popular voice actors are idolized by fans of anime much like musicians or actual actors, presumably due to the idol culture of East Asia.



Figure 12. Cel-shaded 3D graphics combined with 2D character sprite in *Fire Emblem: Three Houses*

The *chibi* style is just one of the many ways cuteness is included in Japanese creative media forms. Cuteness, or *kawaii*, has been one of the most successful themes in the Cool Japan branding. *Kawaii* is popularly associated with physical characteristics of characters, such as unrealistically large eyes and big heads, but also behavioral traits such as child-like innocence and energetic optimism (Huber, 2007). A good example of *kawaii* is the anime style's physical traits, but also mascots and non-human characters like Hello Kitty and *Animal Crossing* animals fit into it. Mascots are very common in Japan, so much that almost every company has a cute character representing it (Navarro Remesal & Loriguillo

23

López, 2015). This shows clearly in video games as well, as a big part of a game series' fame is tied to a well-known character from it.

3.3 Art and aesthetics in Western video games

Whereas Japanese games tend to have a common art style, it's not as easy to describe Western game graphics. Suomela (2018) identified Western game graphics to split into two categories, based on is the game 2D or 3D. 2D games have typical art styles among themselves, and it is the same for 3D. Media mix, which was a typical part of Japanese games, is also not usually present in the Western gaming world. Western games tend to be their own unique products without involvement of other media forms, such as comics and animation (Suomela, 2018).

Portraying people, items and environments in a realistic way has been a core part in Western art for hundreds of years. That might be why realism is a popular style in Western 3D video games as well. Commonly realism is found in first-person action games with combat against other players or computer-controlled enemies. Taking a role of a realistic-looking human and exploring realistic environment are aspects that Western players enjoy. Realism can also show in the form of violence, as killing human enemies makes them scream and bleed. This is seen at least in horror and first-person shooter genres. Sometimes gore and violence are emphasized even further, such as making people bleed much more than a real human does, or the infamous scene in *Mortal Kombat* where the player's character rips his opponent's spine out (Romano, 2019).

Shooting, action, war, and survival are some of the most popular genres in Western 3D video games. It is quite common to see these types of games have a dark story as well, such as an army soldier fighting enemy troops in a battlefield or monsters in a ruin of a city. For example, the first *Call of Duty* games were set in World War II battlefields (see Figure 13). Human characters in these games tend to be very realistic, depicting even scars and blemishes of their skin. Typical

protagonist is a white man with a rugged look, showing his experience in combat. Usually, these protagonists are made for the target audience to relate to and make them feel powerful (Suomela, 2018). However, the realism of shooter games has a darker side in how it affects players' mindset and behavior. Majority of players can differentiate violence of games from violence of the real world, but sadly there has been cases where violent games have been influencing people to commit real violence (Romano, 2019).



Figure 13. *Call of Duty: WWII*

Some might say 2D games are dated and not interesting compared to 3D, but they have their audience, especially in Western indie field. Indie, or independent game, means that the developers are not financially tied to any big game companies. Indie games rarely surface from Asia, but Western indie games like *Undertale* (2015) and *Cuphead* (2017) have surely made an impact to the gaming world (see Figure 14). These games have the strength to be completely unique in the mass media, and they have freedom in their art styles as well. For example, *Cuphead* was created in hand-drawn 1930s cartoon style, and its art was highly praised (Suomela, 2018).

Modern computer and gaming console screens can display thousands of pixels, so there is no need to develop pixel-based graphics for video games, like in the 8-bit era. However, pixel art style is still very popular among some game genres, as it is an affordable and simple way to create art. Some developers use pixel art also to pay homage to classic old games, since the style is nostalgic to many

players. Most common games using pixel art style are either mobile games or low-budget indie games (Suomela, 2018). Famous games using pixel art are for example *Undertale*, *Stardew Valley*, *Minecraft* and *Terraria*. These are all Western games, as the pixel style is not as popular in Asia, but for example Japanese *Octopath Traveler* has a unique pixel graphics style.

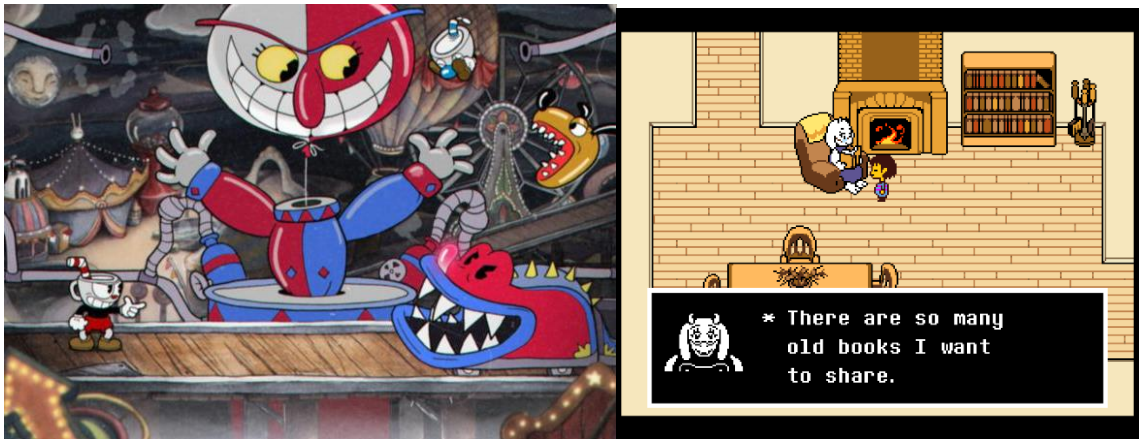


Figure 14. Cuphead and Undertale

3.4 Character design differences and analysis

One major difference in character design between Eastern and Western games is the design of male characters, and how they portray masculinity. To understand this difference, one must understand cultural aspects: masculinity in traditional Japanese culture arguably differs a lot from its Western counterpart. This difference is visible in video games, and it's quite easy to notice when comparing characters together.

The Western heteronormative approach to masculinity defines it with toughness, aggressiveness, strength, and power over others. Like discussed in the previous chapter, protagonists of Western action games serve as good examples of this approach. In this approach, men with soft and delicate appearance place in the opposite side of masculinity, often taken to signify homosexuality. Gamers with this ideology could see Japanese male characters immediately as gay, only based on the character's appearance. One culprit of this homophobic approach

to masculinity is the 20th century Western media, which depicted male villains often as effeminate, having slim and slender bodies, narrow faces, and refined outfits. These villains would then usually suffer a tragic end in the stories (Pelurson, 2017).

Traditionally, the East-Asian approach to gender and sexuality is more fluid and less restricting than its Western version. Japanese pop culture displays a different hierarchy of gender norms, which may confuse a Western viewer. A major point of this hierarchy is that beauty is not tied to femininity. This might be why Western audience can think that Japanese male characters look too feminine and effeminate, but to a Japanese viewer these characters might not appear very feminine at all (Pelurson, 2017).

Pelletier-Gagnon (2011) argues that the division between effeminate Asian masculinity and 'macho' Western masculinity is mainly constructed by media and fans associating elements like androgynous looks to East Asia and muscularity to the West. A look into a Western forum board is enough to prove how some fans can be quick to judge male characters from Asian games for not being masculine enough, but companies who localize games have also contributed their part. Square Enix's action RPG *NieR* was released in Japan in 2010 with two versions called *NieR: Gestalt* and *NieR: RepliCant*, each version having a different protagonist. *NieR: RepliCant*'s protagonist is an androgynous-looking young male, while the protagonist of *NieR: Gestalt* is an older, muscular, and rugged-looking man (see Figure 15). When Square Enix localized the game to North American market, a decision was made to only localize *NieR: Gestalt*, and not the other version. Square Enix defended their decision on the fact that the Western audience would prefer the more masculine main character in an action game. Hence, even large companies support this division of masculinity based on nationality to maximize their profits.



Figure 15. NieR RepliCant and NieR Gestalt boxarts

Aside from male characters, there is also large variation in portrayal of female characters depending on their location of origin. Representation of women has been a hot topic with video game scholars and commentators, as it often drives from the traditional sexist attitudes towards women in other media depictions. Women are often sexualized and portrayed with idealistic, sometimes even unrealistic bodies. In their research, Tompkins, Lynch, Van Driel and Fritz (2020) present two generalized categories of sexism that show in American and Japanese video games, and how portrayal of women differs between them.

The first category in Tompkins et al.'s (2020) research is hostile sexism, which depicts dominant women who are manipulative, dangerous and antagonistic. This trope is especially popular in the West as its origins are in women rising to power post-World War II. In video games, this type of female characters are independent, violent, and powerful fighters who dominate their enemies. These women are often objectified by means of appearance, such as wearing skin-tight or revealing clothing. They are often viewed as mere weapons, and their appearance is designed to bring pleasure and satisfaction for the (heterosexual male) player (Tompkins et al. 2020).

Tompkins et al.'s (2020) second category is benevolent sexism, which is a drastic opposite of hostile sexism. This type is very common in Japanese media, and it

depicts women as sweet, kind, innocent and protective. Overall, these traits are positive, but in its core, benevolent sexism views women as weak and submissive to men. Cute and sweet young girls are popular protagonists in Japanese anime and manga, and directly links to the *kawaii* aesthetic. Unlike in hostile sexism, these characters can be very emotional and show weakness, and their design is not sexualized to the same limits as in hostile sexism (Tompkins et al. 2020).

Of course, these two tropes are only very generalized and do not depict accurately all female characters in American and Japanese games. Both categories are found in games from both locations, and not all characters are designed sexism in mind. In Japan, benevolent sexism traits are usually well-received and sometimes even desired by consumers (Tompkins et al. 2020).

4 Research project

As a part of this study, I prepared a research project related to my topic. Since my thesis focuses on Western and Eastern video games and game graphics, I combined the two into this project. I made an RPG game, where I drew my own graphics and created a small storyworld. The main idea behind this project was to create a Western-like version, Eastern-like version, and a style-neutral version of the same game. Next part of the project was the testing phase, where I would get players for my game, who would then answer a questionnaire about their gaming experience. I would then collect the answers to analyze them. The main points of the questionnaire were to compare the three different versions, and analyze if gaming habits and previous experience with RPG games affected people's opinions about the game.

4.1 Previous research

Gathering research material for my project did not end up being an easy task, as not much previous research has been done on this topic. While I found several studies discussing Japanese culture and art in video games, it was much more difficult to find matching work done for Western games or analysis of game art differences between cultures. Of course, thinking that "Western" in this context means rest of the world excluding Asia, it ends up including multiple very different cultures mashed together. Therefore, I mostly focus on the European-American cultures, and my own perception of them as a European.

To conduct the questionnaire and testing phase of this project, I used three previous studies with somewhat similar research questions as reference material. All of these studies focused on art style differences in games, specifically between Japanese and Western games. Leena Hölttä's (2018) research study has most similar research questions as mine, as she examines art style's effect on player's perception of the story in a game. Hölttä prepared a game with four different art styles to conduct the research, which is also what I did for this project.

However, Hölttä's study focuses on how players experience the story and narrative in different art styles, while this project analyses art style's effect on gaming experience and its relation to player's previous gaming habits and knowledge.

Aside from Hölttä's research, other previous studies I found were by Brückner, Sato, Kurabayashi and Waragai (2020), by Brückner, Kurabayashi and Waragai (2019) and by Suomela (2018). First study by Brückner, Sato, et al. (2019) analyzes the difference between Japanese and German players' reception and opinions on two Japanese RPG games. Second study is a case study on German players' gameplay experience on four Japanese RPG games (Brückner, Kurabayashi, et al. 2020). Suomela's study includes a questionnaire on Japanese and Finnish people's reactions on different characters from both Western and Eastern video games and animation series. The questionnaire was part of a bigger project focusing on localization of a Japanese game to the Finnish market (Suomela, 2018). All three studies were interesting to read and influenced my own project, as they handled both graphical look (Suomela, 2018) and gameplay experience (Brückner, Sato, et al. 2019 & Brückner, Kurabayashi, et al. 2020).

4.2 Methods

This chapter is about how I made my project, and ideas behind my decisions. First, I introduce RPG Maker MV, which is the video game engine tool I used for my project. I had no previous experience with working on RPG style games, but I have drawn graphics for other types of games on different course projects. I selected RPG Maker to be my platform, as it looked simple enough to learn, and did not focus on programming too much. I am not a programmer, only having studied the basics, so finding a beginner-friendly engine was a big relief.

I also introduce the three different game versions I made for this project. First up are the idea and inspiration for each version, with some art style examples that I based my designs on. Art style examples I used came from different sources,

such as comics, video games and TV shows. After that I discuss about the design choices I made for my self-drawn graphics, and present the sprites used in the game.

4.2.1 RPG Maker MV

As the platform for my RPG-style game project I used RPG Maker MV. RPG Maker is a video game engine for role-playing style games. The version I used, MV, was released in 2015. I have encountered RPG Maker engines previously, since as a big fan of the RPG genre, I have played games made with RPG Maker programs. However, I was completely new to creating my own game with RPG Maker, so I spent the first few weeks learning the basics of the program. It featured built-in tutorials for the beginners, so getting started was made easy. I also used several online tutorials for specific parts of the game, like the cut-scenes or the style selection at the start of the game.

RPG Maker MV has a lot of sample maps and tile sets. As the focus of my project was on the human characters, I edited the sample maps instead of creating completely new maps. The program has a character sprite generator tool for human characters, but I made all my characters' sprites from scratch. I used the program's sample battle animations for the characters as a base for my own characters. I also created the enemy characters from scratch. Importing my own graphics happened through the program's resource manager.

The main features I needed to learn about RPG Maker MV are its database and events. The database stores all information about the characters, classes, enemies, weapons, items, spells, animations, tile sets and more. Each entity in the database has a page with all its statistics in a chart for further editing. For example, an enemy's statistics include its health points, attack, defense, skills, experience points the player gains when defeating it, and possible item drops.

Events in RPG Maker MV are all action that happens in the game. Actions can, for example, be starting a fight with an enemy, opening a chest, talking to a character, or walking in or out from a building. Events are written in a form that represents a simple programming language (see Figure 16). Events which have branches such as conditions or yes/no questions, can use if-else statements or a self-switch, which can be set on and off. For example, if you win an enemy in a fight, you can set the enemy to disappear from the map, but if you escape the fight, the enemy will stay on its place. You can also create your own content in the game using JavaScript.

```

Contents
◆Wait : 60 frames
◆Plugin Command : BUST LEFT
◆Text : Actor1(0), Window, Bottom
:   : \C[01]Connie:\C
:   : hmm what to do
◆Wait : 10 frames
◆Plugin Command : BUST RIGHT
◆Text : Actor1(2), Window, Bottom
:   : \C[01]Syo:\C
:   : idk man
◆Shake Screen : 5, 5, 60 frames
◆Play SE : Battle3 (90, 100, 0)
◆Text : None, Window, Bottom
:   : AAAAAAAA
◆Plugin Command : BUST LEFT
◆Wait : 10 frames
◆Text : Actor1(1), Window, Bottom
:   : \C[01]Connie:\C
:   : What was that?!
◆Wait : 10 frames
◆Plugin Command : BUST RIGHT
◆Text : Actor1(3), Window, Bottom
:   : Syo:
:   : lets go outside, now!!
◆Control Self Switch : A = ON
◆

```

Figure 16. Example of RPG Maker MV's event script

Scripting the cutscenes and events were a bit confusing for me to learn, but after I figured the basic structure out, it became easier. Hardest part was to figure out the exact order of things in each event, since I did not want to complicate things

more by adding unnecessary loops or branches. Another difficult part was to study how switches work in the program. A switch is technically a boolean true/false variable. In my project I used RPG Maker MV's self switch mechanic, where a switch automatically switches itself on when its turn comes in the list of events. It is important to define what happens when a self switch turns itself on in an another event page. This system was hard to figure out at first, but later I found out that it is very useful in situations where I do not want an event to replay itself. For example, at the start of my game the heroes talk inside a house. When they go outside but afterwards return inside, the beginning dialogue would play again if I did not stop the event using a self switch.

I downloaded a plugin which allows me to use bigger sprites for my characters, because the focus of this project lies heavily on art styles of the different versions. It took some time to adjust my drawings to be usable with the plugin and show up in a desired size. I also downloaded a plugin to adjust the battle system of the game. I wanted the characters' profile images to show in the battle screen, which was not possible in the vanilla version of the program. I cut out the battle sprites from my game and made combat happen in first-person mode instead of third-person, since editing all of the battle sprites would have been too much unnecessary work.

4.2.2 Art style 1: Comic style

The first art style I chose for my game is a basic comic style. The goal was to create a style that would mix Western comic style and Japanese manga style. I also tried to imitate RPG Maker MV's default style (see Figure 17), because it is designed to fit different types of RPG games regardless of where in the world they are developed in. RPG Maker is however a Japanese software, so some of the default characters' style does lean towards the manga art style. The character creator tool allows the player to create quite versatile characters in this style.



Figure 17. Some default character portraits from RPG Maker MV

Other inspiration to the first style I got from animation, comics, and games. See Figure 18 for art style inspiration examples for this game version. A major source of inspiration for this is *Avatar: The Last Airbender*, an American animation series that takes heavy inspiration from Asian art and culture. Its art style is a mix between Western comic style and Japanese anime style, and its unique style is sometimes even called 'Western anime style'. Children in the show have large eyes and comedy is added with over-exaggerated facial expressions, much like in anime. The series' environment is based of real Asian locations, and the show includes several tropes commonly seen in Japanese series. Another example that I found of a Western comic style mixing with anime style is a comic called *Heavy Vinyl*. Its art is created by an American and a Russian illustrator.

There are many Western comics which have directly taken influence of Japanese manga, but not so much the other way around. One big source of art inspiration for me comes from one of my personal favorite manga series, *JoJo's Bizarre Adventure*, which has taken a lot of inspiration and influence on Western pop culture. Many characters in the series are direct references to Western music and musicians. The series originally started in the 1980s, when the creator Hirohiko Araki was inspired by Western action films and the muscular actors in them. The art style in the series has changed a lot during its long runtime, but the current style has a lot in common with Western comics in regards of human characters and action. The series still has the over-the-top fighting scenes, expressions, and

gimmicks of its genre in manga, which is *shōnen* (adventure- and action-based series directed at young male audience).



Figure 18. Inspiration for the first style: *Avatar: The Last Airbender*, *Heavy Vinyl*, *JoJo's Bizarre Adventure*

For my game project itself I wanted to create a classic RPG world with adventure and fantasy themes. I tried to keep the fantasy elements only in magic attacks as the third style is more focused on fantasy. The enemies in this style are based on real life animals rather than fantasy creatures. I am quite pleased on how the character sprites turned out since they reflect the classic RPG style but also my personal drawing style. These sprites were also the base for the two other styles, as I tried to match the poses, color palettes and expressions for all the three characters throughout the different styles. See Figure 19 for finished artworks for the first game version.



Figure 19. Character sprites and enemies of game version 1

4.2.3 Art style 2: Apocalyptic Western style

The second art style I chose is a dark, apocalyptic, and very Western style. Instead of fantasy elements in the two other styles, I wanted to make this one focus more on edgy and science fiction themes, as I associate those more with Western movies, games, and other media. Of course, there are also Eastern sci-fi games like *Astral Chain* and the *NieR* series, but the first games to come to my mind when I think of the sci-fi genre are *Halo*, *Destiny* and the many *Star Wars* games. Some common aspects for sci-fi games are the destruction of humans or planet Earth, robots, exploring space, aliens and survival.

Video games that inspired me with this style are *Apex Legends* and *Borderlands*. Both games take place in futuristic science fiction environments in fictional planets in space, where humanity has migrated to. I did not want to set my game into a super high-tech place since that would have been hard to create, so instead I made an environment that would look like ruins of a city where a small community of survivors would live in. *Borderlands* also feature ruin-like environments, which were for example used as testing grounds for experiments. For character design, I took inspiration from *Apex Legends*, as the game's characters are designed as futuristic warriors with armor, weaponry, and muted dark color palettes. See Figure 20 for art style inspiration for this version.



Figure 20. Inspiration for second style: *Borderlands 3*, *Extremity*, *Apex Legends*

Main points I tried to capture in my drawings are the dark and muted colors, battle gear on the characters and more realistic faces. I also tried to create harsher shadows and rougher edges to fit the theme. Inspiration for this comes from *Borderlands* and its unique art style, that highlights the details of the characters by adding 2D comic-like dark lines on the 3D models. Since my sprites are all 2D,

I also looked up a 2D art sources, and found a comic called *Extremity*. It takes place in a sci-fi post-apocalyptic world and has character designs that fit right in with my other inspiration sources.

I really liked creating character art in this style, since it is so different from my normal drawing style. Coming up with clothes and equipment was a bit challenging, so I ended up having to stare at my reference pictures a lot. I also created zombie-cyborg hybrid enemies that I have never drawn before, so it was both an interesting and a challenging experience to design and draw them. The map and environment for this game version were very different from the previous two styles, so I had to figure out how to make all three versions still seem similar enough. This art style meant that I had to step out of my art comfort zone quite a bit, as I do not use harsh shadows or that strict realism in my own art, but after all I like how these sprites turned out. Figure 21 presents finished artworks for the second game version.



Figure 21. Character sprites and enemies of game version 2

4.2.4 Art style 3: Fantasy anime style

The third style I chose is inspired by Japanese RPGs (JRPGs) and anime, and popular character tropes in them. JRPG games usually take place in a magical fantasy world, and characters fight monsters using magic and weapons such as swords and bows. I am personally a big fan of Japanese RPGs and have had a lot of experience playing them, so this style was not very hard to create. One of my favorite game series ever is a tactical JRPG series *Fire Emblem*. It was a major inspiration for me to create an RPG game in the first place. It also was a big influence on my characters and their designs. The series has multiple games that I have played, but art-wise my favorite is probably *Fire Emblem Echoes: Shadows of Valentia*, which shows in my art. Another tactical JRPG with art that inspired me especially in character design in *Regalia*. Its art style with comic-like bold lines and vibrant colors inspired me in drawing and designing my own characters.

The three main characters were designed after typical character designs in Japanese games and anime. Syo's design was created based on a common male protagonist, with armor, spiky hair, and a sword as a weapon. The girls are magic users who both carry a staff and have more colorful and detailed outfits. The girls' designs were heavily inspired by the magical girl genre that is popular in anime and manga. The outfits and weapons were influenced mostly by *Sailor Moon*, a magical girl series that is also possibly one of the most well-known anime series ever. Its story is about a schoolgirl who transforms into a magical soldier who defends Earth from evil forces. She uses different kinds of magical weapons in battle, so I also gave my characters weapons inspired by them. Figure 22 below shows art style inspiration for this version.



Figure 22: Inspiration for third style: Regalia, Fire Emblem: Shadows of Valentia, Sailor Moon

A challenge with this style was to make a clear difference between style 1 and this. The world in both cases is similar, but I tried to make the style 3 have more magical feeling with the enemies and replacing the cave dungeon with a deep forest and a lake. The enemies I created are magical spirit-creatures that do not resemble any real animals like in the first style. Overall, the sprites I created for this style were probably my least favorite, even though I have had a lot of experience drawing in the anime style. The magical girl style and the JRPG style were a bit too distant in my sprites, and maybe adding a fourth character or re-designing one of the girls would have fixed this issue. Adale's sprite was also the last one I created for this project, so it may show that I did not have that much motivation to draw anymore. See Figure 23 for this version's finished artwork.

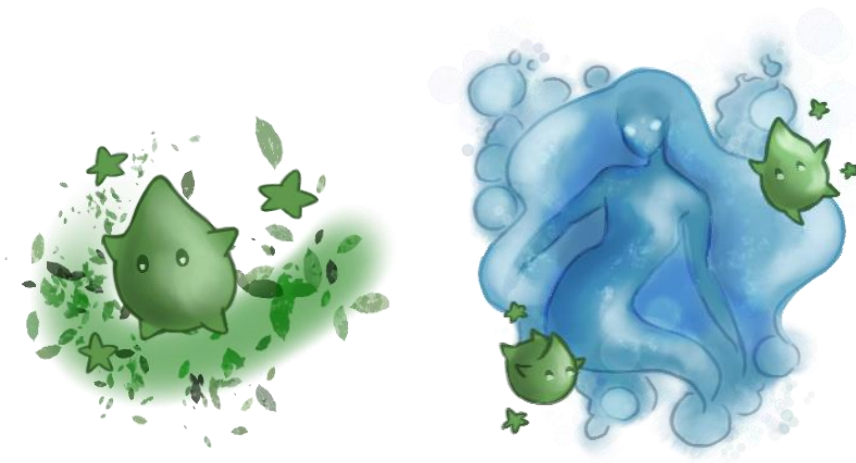
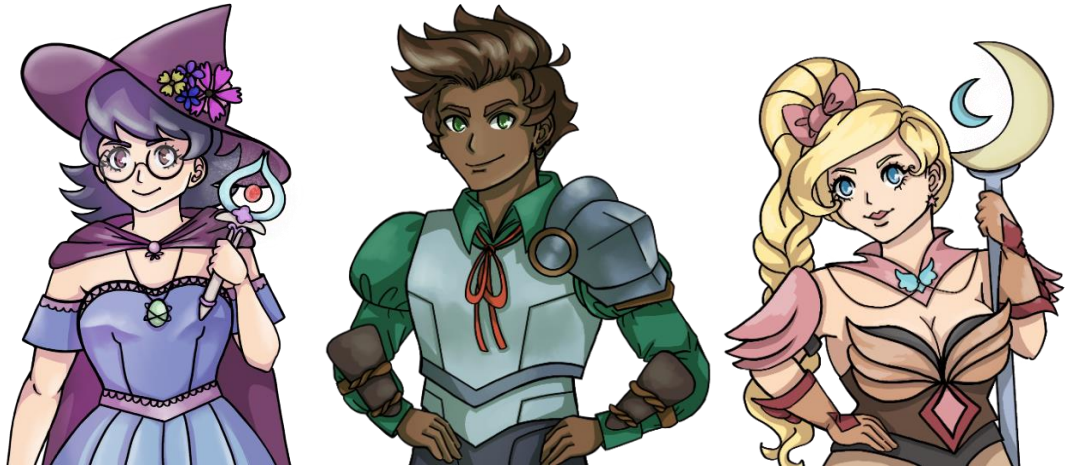


Figure 23. Character sprites and enemies of game version 3

5 Testing and questionnaire

I conducted the testing part of my research project by creating a survey that players need to answer after they have finished playing all three versions. The survey consisted of three main parts: background information, previous gaming experience, and feelings and opinions about my game. For the full survey, see Appendix A. I gathered testers for this project by sharing it to my friends and to some online gaming communities. The answers were collected anonymously. Some questions from this survey were based on the similar survey in a study by Hölttä (2018).

The background information part and gaming experience parts were mostly to collect personal data about the participants. The first questions were about the participant's age, gender, and location. This section was optional, as not everyone wants to share their information. The part about gaming experience was important to define how familiar the player was with RPG genre in general, and more specifically with some Japanese and American RPG titles, such as *Final Fantasy*, *The Legend of Zelda*, *The Elder Scrolls* and *Mass Effect*. There were also open questions where the player could share their own favorite game titles and genres.

The last part of the survey was about the game project itself, and how did the three versions compare to one another. The questions were about general opinions about the versions, design and art style, coherence, and style. Some of the questions compared the three versions to each other, but there were questions also for each individual version. Questions from this part were:

- Which game version was your favorite / least favorite and why?
- Was this version fun to play?
- Did the version feel like an RPG game?
- Was the game well designed?
- Did the art fit well in the game story and environment?
- Was the art consistent in this version?

- Were the character and enemy designs good in this version?
- Did this version feel like an RPG game?
- Which version was the most / least consistent?
- Which version was the most / least interesting?
- Which version had the best / worst art?
- Which version was the most / least polished?

Last section of questions asked the participants to shortly describe the game versions and character art. They were asked to give each version categories such as fantasy and adventure, and to describe the mood in each version such as cute and scary. I also presented each character's three sprites next to each other, and asked the participants to pick their favorite of the three and tell why they picked it. Final question of the survey was for open feedback, which most participants also left. It was a good opportunity for them to give suggestions and tips of improvement, that I had not considered when making the game.

5.1 Results and analysis

This section presents the results of the testing phase, analysis of the results, and finally discussion and reflection on the entire research project.

5.1.1 Demographic

The participants who took part in this project were of ages between 23 and 40, around half of them being from Finland and other half being from other countries. 73% of participants were male and 27% were female. There were quite large differences in the participants' gaming preferences (see Figure 24). One third of the participants play games almost every day, while 20% were playing games less than once a week. One would assume that the older participants were the ones playing less, but I did not find any correlation between ages of participants

and how much they play. For example, 23-year-old female and a 32-year-old male said to be playing games less than once a week, while a 36-year-old female and a 26-year-old male were playing almost every day.

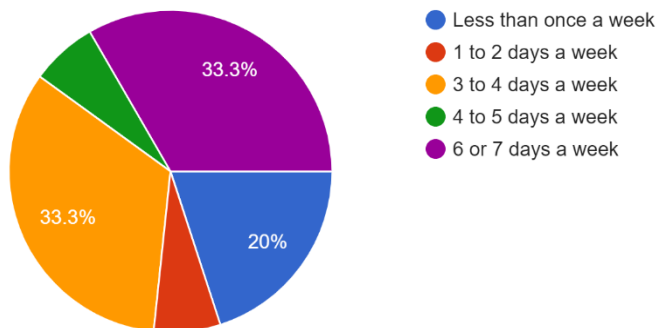


Figure 24. Question: How often do you play video games in a week?

As my game was a role-playing game, it was interesting to see if people were familiar with the genre before playing my game. In general, the participants were quite experienced with the RPG genre beforehand, which is not surprising considering the genre's popularity (see Figure 25). Over half of the participants answered to be playing RPG games often, while 40% play them sometimes or rarely. It was clear that those participants who spend many days a week gaming also consumed this genre a lot, and people who did not spend a lot of time gaming did not play RPG games a lot either. Some forms of RPG games were also the favorite game genre for approximately third of the participants. Other game genres mentioned were first-person shooter games and simulation games, for example.

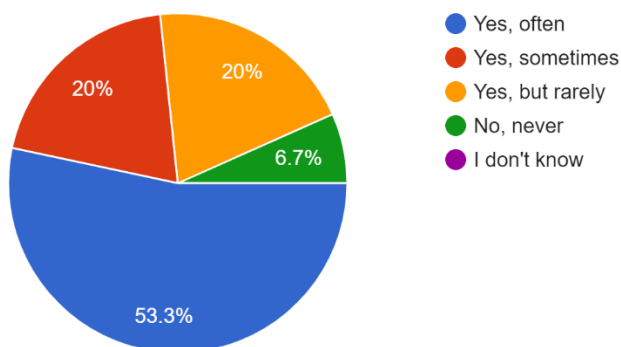


Figure 25. Question: Do you play role-playing games (RPG)?

Majority of participants were familiar with some famous RPG series presented in the survey. People were generally more knowledgeable with Japanese game titles than Western game titles. *Final Fantasy* and *The Legend of Zelda* were most liked by the participants, and everyone who participated knew *Pokémon*. The Western games had more variation, with games that were very liked to games that people had not played. This difference can partly be explained by the popularity of the RPG genre in Japanese games. However, the participants seemed to be generally consuming both Japanese and Western games quite evenly. In a question where participants could list some of their personal favorite games, Japanese games such as *Final Fantasy* and *Chrono Trigger* appeared often, but so did Western games such as *The Elder Scrolls* and *Warcraft*.

5.1.2 Version comparison

The first two questions of this section were simple, asking participants to tell which of the three versions was their favorite and least favorite, and why. Results of these questions surprised me a little, as I thought they would be more even (see Figure 26). Versions 1 and 3 were clearly people's favorites, and version 2 had very few fans. Analyzing the results makes it clear that people felt that versions 1 and 3 were a lot more fitting to the RPG genre than version 2. Fans of version 1 commented that the version felt "like *The Legend of Zelda*", had the best character designs, and felt most like a fantastical adventure. Version 3 was some people's favorite because of the fantasy setting and dungeon style were interesting, and the world and characters fit the RPG style best.

Only a small number of participants liked the version 2 best, while most people disliked it. The post-apocalyptic setting was praised, but also critiqued. Some people commented that the versions story, world, and characters did not fit together, creating lack of consistency. People pointed out that the magic spells used in the game did not make sense, and that the enemies did not fit the sci-fi setting. Some participants also told that they are rarely fans of any kind of

futuristic or apocalyptic games. It was quite clear that majority of participants had the same opinions about their favorite, being either version 1 or 3, and least favorite, being version 2. There were still some participants whose opinions were different from majority, for example a participant who liked version 1 best and 3 worst, or a participant who liked version 2 best and 1 worst.

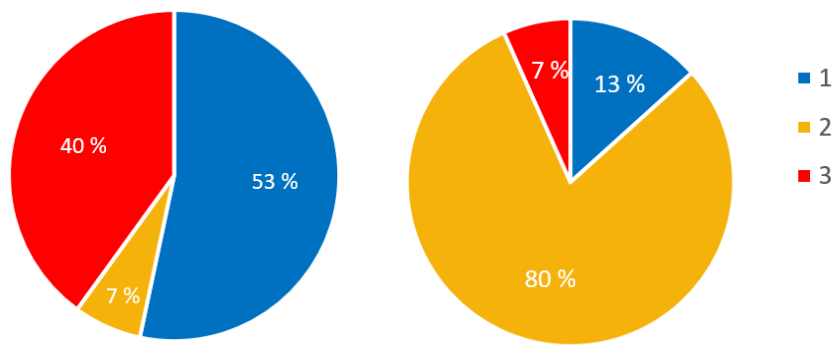


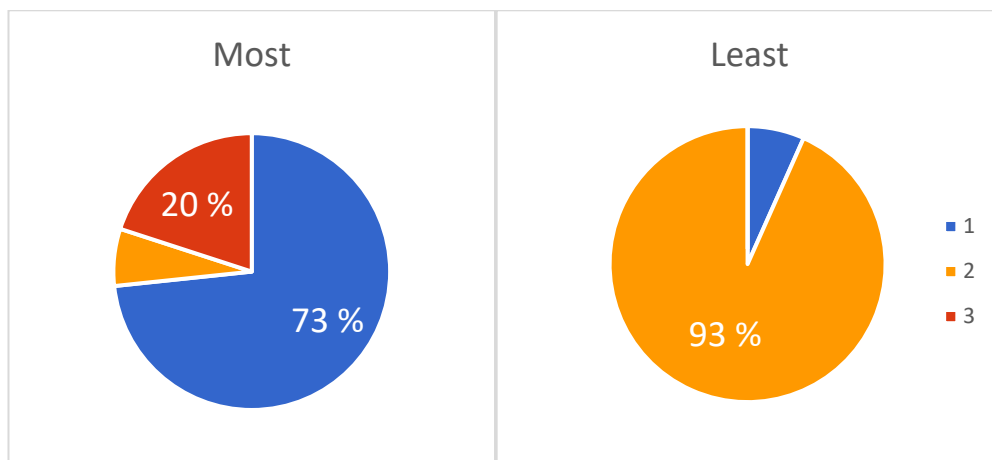
Figure 26. Favorite (left) and least favorite (right) game versions

Next in the questionnaire I asked the participants to analyze each version individually. Part of that was to describe each version's style with attributes. People's opinions in the previous question also showed here, as versions 1 and 3 got more positive feedback than version 2. Most common attributes for version 1 were adventure, fantasy, natural and classic, which are exactly what I wanted from this version. Other attributes of version 1 included for example down-to-earth, medieval, basic, and boring. Common attributes to describe version 3 were cute, fantasy, anime and magical. This was also what I aimed for with this version. I noticed how there were some similar attributes between versions 1 and 3, but considering these two were quite close in settings, it was not unexpected.

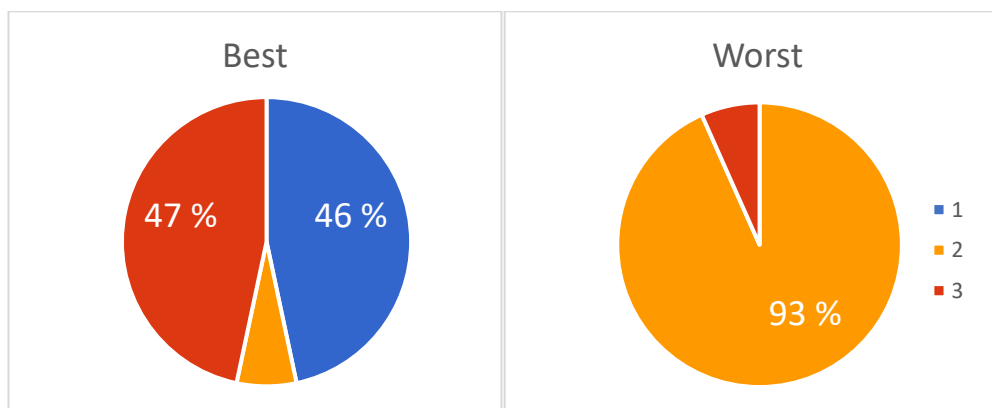
Attributes for version 2 were the most interesting, as I had expected from previous questions. Participants described this version as post-apocalyptic, futuristic, dystopic, serious, and scary. Most of these were what I wanted for this version, but I did not think so many people would consider this as scary or horror themed. This version is very sci-fi inspired, which showed in the answers as well, but some participants also included the attribute of fantasy for this version. Other attributes people used were for example gloomy, dark, interesting, messy, and cyber.

Final question about the differences between versions was to have participants select which version fits best to a statement. Statements were given in pairs: first statement asked which version is the most like an attribute (first set statements), and the second one asks which was the worst (second set statements). Interesting part in this section were the first set of statements, while the second set was mostly to have some data to compare results to. Results of each statement pair were the following:

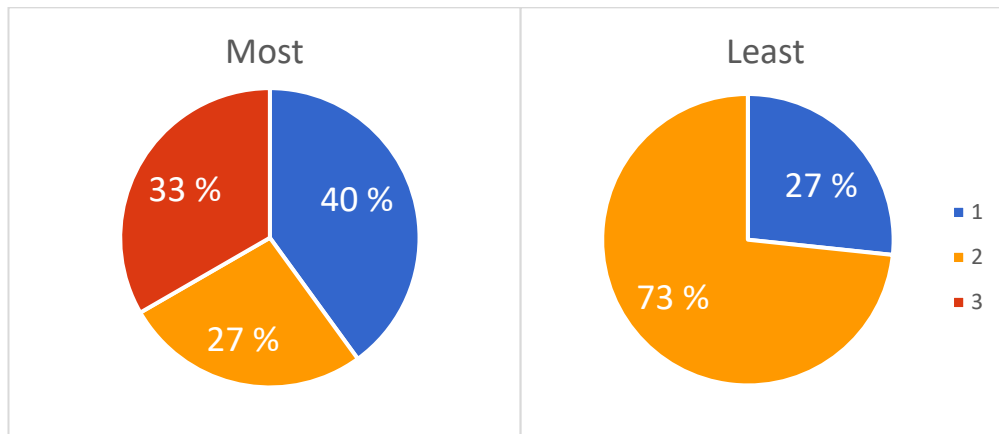
(P1) This version felt most/least like an RPG game.



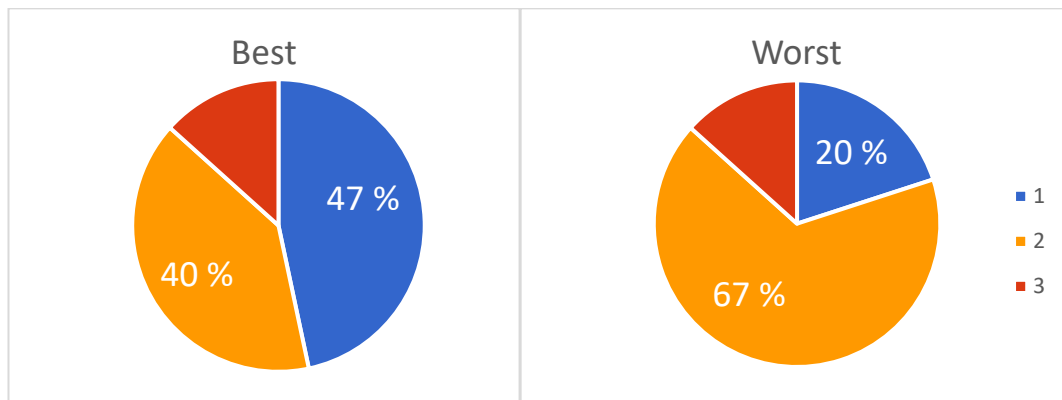
(P2) This version's art and gameplay fit best/worst together.



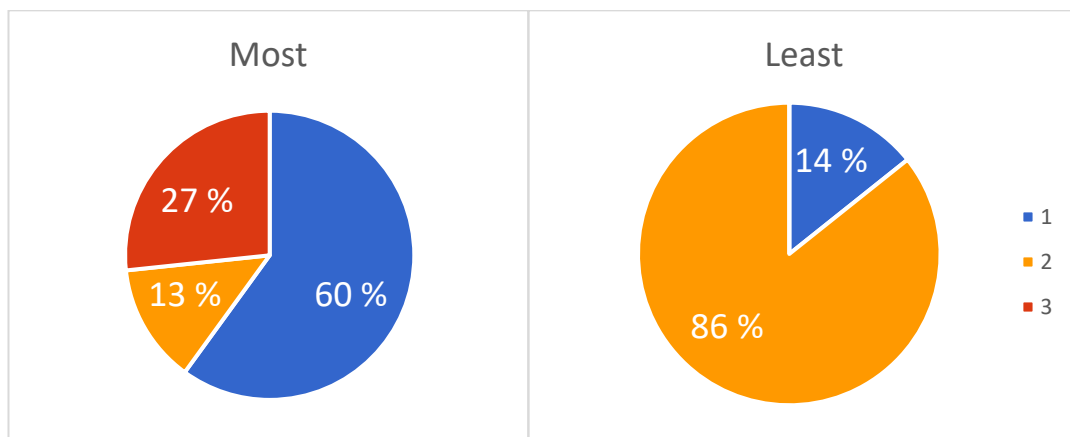
(P4) This version was the most/least interesting.



(P5) This version had the best/worst art.



(P6) This version felt most/least polished.



Looking at the first set statements, it is interesting to notice how each version has their own strong suites. Overall, it seems that version 1 was the best in people's opinion, especially it being most polished, and feeling most like an RPG game.

Version 3 was also positively reviewed, being tied with version 1 in having the best art. Surprisingly, version 3 appears less than version 1 in the second set statements. Another surprising result came in statement P5, where version 2, which has been the least liked version in this survey, gathered 40% of the votes in having best art. So, despite people generally disliking version 2, they still considered it to have good art. Statement P3 is also intriguing, where each of the three versions got nearly a third of votes. It is a positive surprise to notice how each version was the most interesting to steady number of participants.

As seen in the figures, game version 2 clearly had the worst reviews in all second set statements. The biggest variance in the second set statements was in statement P5, and smallest in statements P1 and P2. This was expected from previous questions' results, as statements P1 and P2 are about consistency between art and gameplay, and how the game felt like an RPG. Interestingly, even though version 2 received worst feedback from the participants, people still thought it was interesting and had good art. Version 2 did get a small number of votes in the first set statements as well, so some fans for the version still exists.

5.1.3 Individual version analysis

In this part of the questionnaire, I asked participants to analyze each of the three game versions individually. Participants were presented a statement about the version, and gave an answer if they agreed or disagreed with the statement. Scale used in this section was Agree – Slightly agree – No opinion/I don't know – Slightly disagree – Disagree. The same set of seven statements were presented for each of the three versions. Statements of this section were the following:

(S1) The game was fun to play.

(S2) The game felt like an RPG game.

(S3) The game was well-designed

(S4) The art fit well in the game story and environment.

(S5) The art was consistent.

(S6) Character designs were good.

(S7) Enemy designs were good.

Game version 1 got overall positive replies from the participants, as most participants agreed or slightly agreed with the statements (see Figure 27). It was a clear winner in statement S2, where large majority of participants agreed on that it felt like an RPG game. Art and character designs of this version were also good, and fit well to the storyworld. Largest amount of disagrees were about enemy designs, however they were just slight disagrees. Nobody of the participants completely disagreed with any of the statements. These results were quite expectable, as version 1 has been constantly well received among participants. One interesting statistic in these results is statement S3, as even though majority of participants liked this version's art, they were more hesitant to agree it being well-designed.

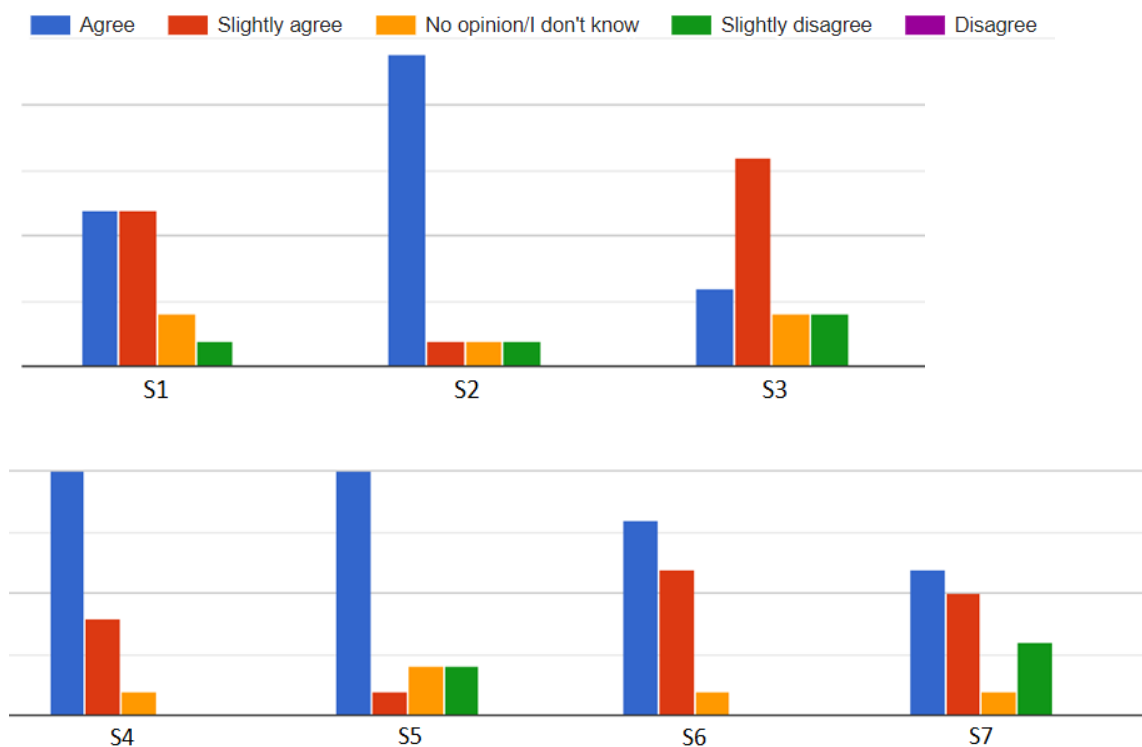


Figure 27. Individual version analysis results for game version 1

As expected from previous questions, game version 2 got very mixed answers (see Figure 28). This was the only version to get clear disagreement and even 51

dislike from the participants. Previous analysis conducted that version 2's art was unfitting to the game format and environment, which shows noticeably in statement S4. However, most of the participants still thought version 2 to have felt like an RPG game (S2), which somewhat conflicts to their previous answers. Quite large variance is found in statements S1, S5 and S7. The game being fun to play, art's consistency and enemy designs had mixed reception from the participants.

Large variance in these results is not only interesting, but also tells how different opinions people had about this version. Like concluded in earlier analysis, majority of the participants thought version 2 to be the worst, but there were also those who were fans of this version. However, looking at the amount of agreement in the results can tell that some of the people who overall disliked version 2 still thought it had good art and felt like an RPG game.

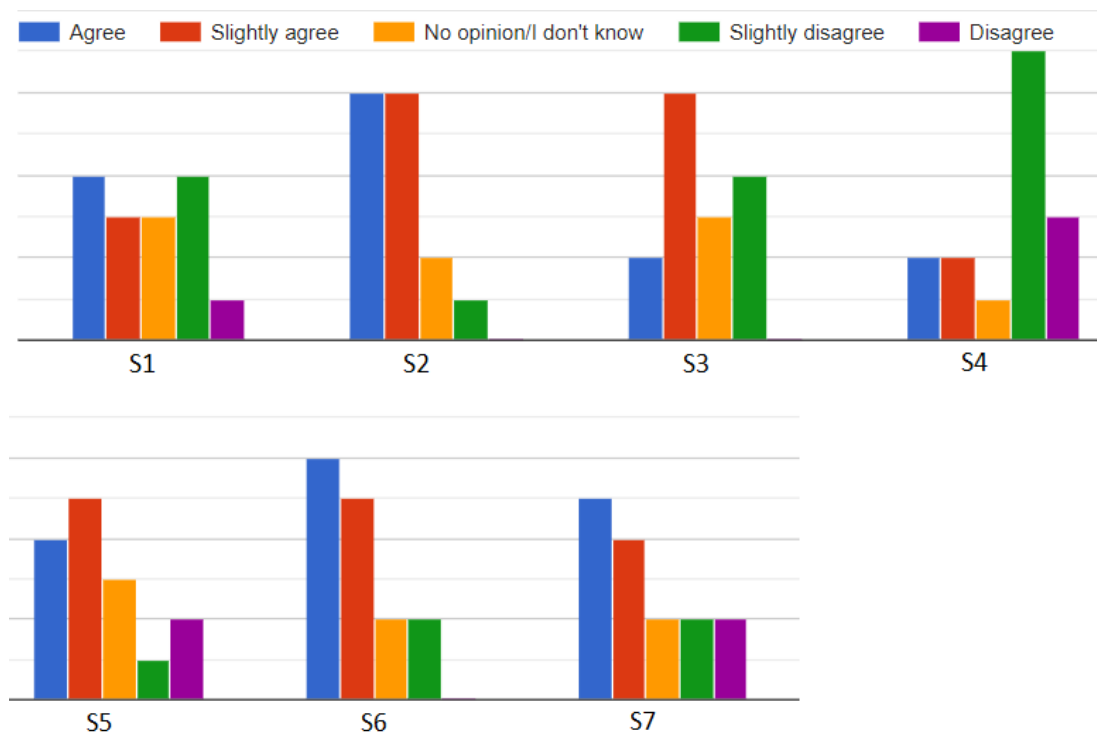


Figure 28. Individual version analysis results for game version 2

Game version 3 got overall positive feedback, much like version 1 (see Figure 29). Only a small minority of participants did not agree with the statements, and

version 3 got even fewer ‘Slightly disagree’ -votes than version 1. Biggest difference to version 1 is in statement S7, as participants seemed to like version 3’s enemies more than version 1’s. Most variation is found in statement S3, just like in version 1: even though majority of the participants liked version 3 and its art, they were only slightly agreeing it being well designed. Overall, these results would conclude version 3 to be most liked out of the three.

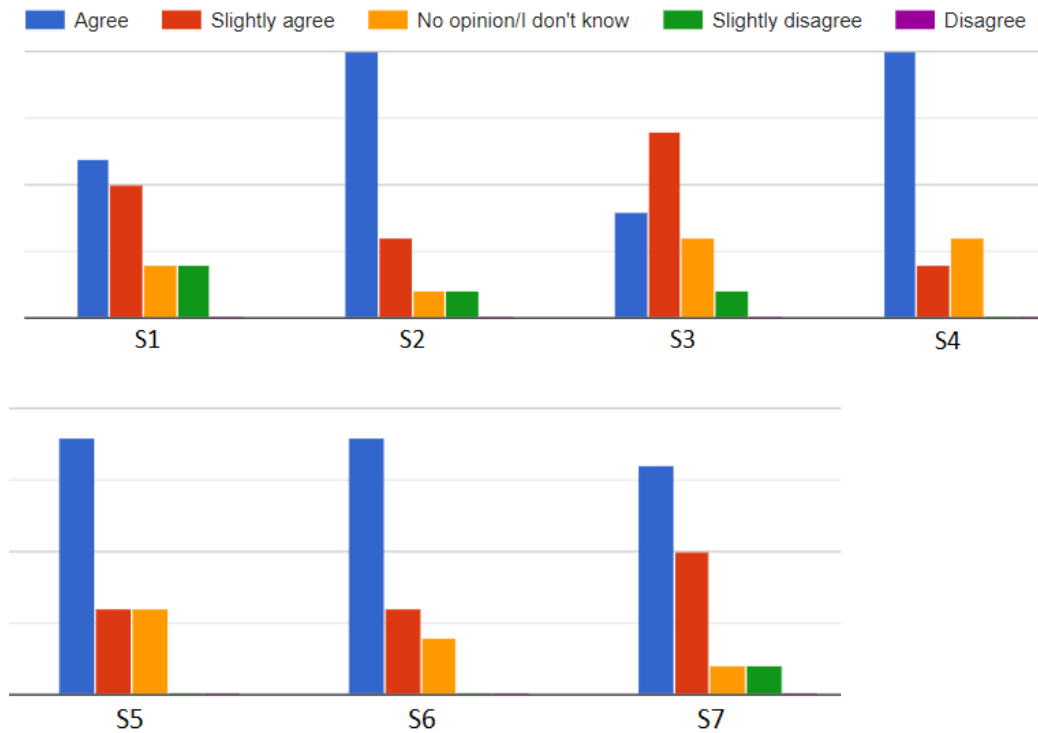


Figure 29. Individual version analysis results for game version 3

5.2 Discussion

Research questions of this study were

(R1) Do game graphics vary depending on the location of origin?

(R2) Does gaming background affect someone’s views on a new game’s graphics?

Answer to both research questions is both yes and no: everything depends on the person playing a game and people making the graphics. Game graphics have ties to art history, cultural aspects, and other media forms of the location of origin. Hence, it would be wrong to claim that all Japanese games are made in the anime style, even though the style is born in Japan and a lot of media is created using it. All video game graphic artists have the right to create art in their own style, even if it differs from other games from the same area. For example, the anime style might be heavily associated to East Asia, but games made using it exists from all around the world as well.

A person's gaming background affecting their view on a game's graphics is also a question that is hard to answer. Everyone views graphics individually and has their own opinions. How we view any artwork depends on multiple aspects, such as our preferences, aesthetics we are used to, and culture of the place where we live in. If a person has grown up reading only Western superhero comics, Japanese manga comics may seem weird and unrealistic. This is clear in video games as well: if we are used to one type of game graphics, we feel familiarity when playing a new game with similar art style, and may be weirded out by a completely different style. On the other hand, completely new styles of game graphics can also be interesting and exciting to a player.

Findings I made in this research are mostly related to the RPG genre and game graphics in RPG games. It was quite clear that the tester group liked two out of three styles I made, while one of them received criticism. Maybe my game was too much like Japanese RPG games, since the sci-fi and cyber themed style was liked by so few participants. There also were not any noticeable differences in results of styles 1 and 3, so maybe they ended up being too similar, or participants viewed them as equally good.

Creating this project and research was an interesting but a bit challenging experience. Creating a game from scratch with a previously unfamiliar tool, drawing for many hours, coming up with a survey, gathering participants and analyzing the results required a lot of work. Even before I started to work on the

project, I struggled to come up with research questions and a project plan. I did not know what kind of topic I could research that would both relate to my topic and fulfill requirements of a thesis project. Not much previous research exists of video game graphics, so I had hardly any material to base my project on.

Probably my biggest mistake in this research was to underestimate the workload. I originally planned to make four different styles with four characters in each, but I quickly realized how much work that would require. I then shrank the project to three different styles and four characters, and then even more to three styles and three characters. Having more styles and characters would have made it possible to explore more art styles and genres, but I simply had no time. Therefore, I do think that the styles I ended up with are not very diverse. Their similarity meant that analyzing differences of the styles was not as insightful as I had hoped. The questionnaire and testing part of the project were also things I struggled in. Firstly, I included some points in the questionnaire that were quite useless in result analysis. The question with statement pairs included both a negative and positive version of the statement, and it could easily have been simplified into just the positive statements. Having to answer twice as many points was not optimal for the participants, and results of the negative statements brought hardly any new information.

There were many aspects in this study that could be improved. Mistakes were made and the workload was underestimated. This is the main reason why I think that the results of this research are still way too lacking to make any conclusive discoveries. You would need much larger variety of art styles and way more participants to get actual data that would simulate reality. Hence, I would argue that any results of this research do not really tell anything that is applicable to a larger crowd. As this study was mainly an exercise on researching, I do not think my research is of any use to future studies as my scope and tester group was so small, but this was still an interesting experience on how to conduct scientific research.

6 Conclusion

Main goals of this study were to give an overview of game graphics, and analyze them depending on where the game originates from. Game graphics are a large collection of all kinds of graphics that are needed in a game, but this study focuses mainly on different art styles and character art. The two countries selected for analysis on location's impact on game graphics were Japan and the United States of America. This study analyzes games and their graphics from these two countries, and compares them. Finally, previous findings in this study were combined into a research project. The project aimed at getting data on how people with different gaming backgrounds react to three selected art styles.

Graphics are a core part of any video game, as they can make the game attractive, interesting, and immersive. Without visual environments, characters or user interface, games would simply be stacks of code. Chapter 2 in this thesis aimed to give an overview on graphical elements in video games. The study presents a common way to divide game art into four categories: realism, stylized realism, stylism, and abstractionism. Following the categorization is discussion about character art. Characters are valuable to nearly all games, so their design is important. This thesis looked at characters from the points of physical look, color scheme, in-game appearance, and role in the storyworld. Graphics in games have had a long history and gone through many changes, so this study took a quick look into history of video games and game art in chapters 2 and 3.

Chapter 3 focused on comparing Eastern and Western games and their graphics. Video game industry has always been dominated by Japan and the United States, which has informally divided games into two groups. The chapter started with a recap on history of gaming, aiming to give background information on why the game industry is split into these two sectors. After this, the study introduced art and aesthetics on Eastern and Western games individually, and analyzed how culture of the location of origin affects them. Following this is analysis and comparison of character design between these two sectors.

Chapter 4 described the research project I conducted for this study. Main goal of the project was to study how people with different gaming backgrounds react to different art styles in a video game. The game I chose to focus on was a roleplaying style game, with three versions representing the different art styles. I created the game using the RPG Maker MV program, and drew most of the graphics myself. First version of the game was a traditional RPG game style, and a mix of Eastern and Western art styles. Second version was a sci-fi themed Western version with heavy shading and dark colors. Third version was a magical and cute Eastern version, where even the enemies were created to be cute. In each version's chapter I write about my inspirations for that specific art style, with examples from games, comics, and TV shows.

Chapter 5 handled the next part of the research project, which was the testing phase to gather data. Participants would play all versions of the game, and then answer a questionnaire based on their gaming experience. The questionnaire consisted of two parts: first part was about the participants' previous gaming experience, and second part included questions about the different versions of the game. In this chapter I gave reasoning on why I chose these questions to be in the survey, as I tried to include questions that would benefit my analysis on the main research questions. Following this was an analysis of the testing phase results, where I analyze the versions individually and comparing them to each other. Conclusions of the analysis and discussion on the research finish this thesis.

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Fire Emblem: Shadows of Valentia

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Sailor Moon <https://www.cbr.com/sailor-moon-magical-items-ranked-by-power/>

23. Own artwork

24.– 29. Graphs created in Google Forms and Microsoft Office Excel

List of video games

Video games presented in this thesis, in order of appearance:

1. Rovio Entertainment, *Angry Birds* series (2009-2022), Rovio Entertainment
2. miHoYo, *Genshin Impact* (2020), miHoYo
3. Naughty Dog, *The Last of Us Part II* (2020), Sony Interactive Entertainment
4. CD Projekt, *The Witcher 3: Wild Hunt* (2015), CD Projekt
5. Square, Square Enix, *Final Fantasy* series (1987-2021), Square, Square Enix
6. Blizzard Entertainment, *Overwatch* (2016), Blizzard Entertainment
7. Nintendo, *Super Mario* series (1985-2021), Nintendo
8. 5th Cell, *Scribblenauts* (2009), Warner Bros. Interactive Entertainment
9. Nintendo et al, *The Legend of Zelda* series (1986-2021), Nintendo
10. Capcom, Inti Creates, *Mega Man* series (1987-2020), Capcom, Nintendo
11. Re-Logic, *Terraria* (2011), 505 Games
12. Toby Fox, *Undertale* (2015), Toby Fox
13. Mojang Studios, *Minecraft* (2011), Mojang Studios et al.
14. Nintendo, *Animal Crossing* series (2001-2020), Nintendo
15. Square, Square Enix, *Kingdom Hearts* series (2002-2020), Square, Square Enix
16. Alexey Pajitnov, *Tetris* (1984), Various
17. Namco, *Pac-Man* (1980), Namco
18. RobTop Games, *Geometry Dash* (2013), RobTop Games
19. Beat Games, *Beat Saber* (2019), Beat Games
20. Sega et al., *Sonic the Hedgehog* series (1991-2019), Sega
21. Riot Games, *League of Legends* (2009), Riot Games
22. Atari, *Pong* (1972), Atari
23. Taito, *Space Invaders* (1978), Taito et al.
24. Nintendo, *Donkey Kong* (1981), Nintendo
25. Chunsoft, *Dragon Quest* (1986), Enix, Nintendo

26. id Software, *Doom* (1993), id Software
27. Blizzard Entertainment, *StarCraft* (1998), Blizzard Entertainment
28. Valve, *Counter-Strike* (2000), Sierra Studios, Valve
29. Nokia, *Snake* (1997), Nokia
30. Game Freak, *Pokémon* series (1996-2022), Nintendo, The Pokémon Company
31. Intelligent Systems, *Fire Emblem* series (1990-2019), Nintendo
32. Midway, *Mortal Kombat* (1992), Acclaim Entertainment
33. Infinity Ward et al., *Call of Duty* series (2003-2021), Activision
34. Studio MDHR, *Cuphead* (2017), Studio MDHR
35. ConcernedApe, *Stardew Valley* (2016), ConcernedApe
36. Square Enix, Acquire, *Octopath Traveler* (2018), Square Enix
37. Cavia et al., *NieR* series (2010-2022), Square Enix
38. PlatinumGames, *Astral Chain* (2019), Nintendo
39. Bungie, *Halo* (2001), Microsoft Game Studios
40. Bungie, *Destiny* (2014), Activision
41. Respawn Entertainment, *Apex Legends* (2019), Electronic Arts
42. Gearbox Software, *Borderlands* series (2009-2019), 2K Games
43. Pixelated Milk, *Regalia: Of Men and Monarchs* (2017), Pixelated Milk
44. Bethesda Game Studios, *The Elder Scrolls* series (1994-2020), Bethesda Softworks
45. BioWare et al., *Mass Effect* series (2007-2021), Microsoft Game Studios, Electronic Arts
46. Square, *Chrono Trigger* (1995), Square
47. Blizzard Entertainment, *Warcraft* series (1994-2020), Blizzard Entertainment

Appendix A: Survey questions

Background information (optional)

Your age:

Your answer _____

Where are you from:

Your answer _____

Your gender:

- Female
- Male
- Other
- Prefer not to say

Gaming background

How often do you play video games in a week?

- Less than once a week
- 1 to 2 days a week
- 3 to 4 days a week
- 4 to 5 days a week
- 6 or 7 days a week

Do you play role-playing games (RPG)?

- Yes, often
- Yes, sometimes
- Yes, but rarely
- No, never
- I don't know

What is your favorite game genre?

Your answer _____

List some of your favorite video games or game series (max 5)

Your answer _____

Are you familiar with these game series?

	I have played this, and liked it	I have played this, but disliked it	I know this, but haven't played it	I don't know this
Final Fantasy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Legend of Zelda	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pokémon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dragon Quest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persona	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fire Emblem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Elder Scrolls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diablo	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mass Effect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fallout	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Witcher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Game project

Which game version was your favourite and why?

Your answer _____

Which game version was your least favourite and why?

Your answer _____

Answer these statements about game version 1.

	Agree	Slightly agree	No opinion/I don't know	Slightly disagree	Disagree
The game was fun to play	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The game felt like an RPG game	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The game was well-designed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The art fit well in the game story and environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The art was consistent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Character designs were good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enemy designs were good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer these statements about game version 2.

	Agree	Slightly agree	No opinion/ don't know	Slightly disagree	Disagree
The game was fun to play	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The game felt like an RPG game	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The game was well-designed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The art fit well in the game story and environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The art was consistent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Character designs were good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enemy designs were good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer these statements about game version 3.

	Agree	Slightly agree	No opinion/I don't know	Slightly disagree	Disagree
The game was fun to play	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The game felt like an RPG game	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The game was well-designed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The art fit well in the game story and environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The art was consistent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Character designs were good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enemy designs were good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which game version applies best to the statement?

	Version 1	Version 2	Version 3
This version felt most like an RPG game	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This version felt least like an RPG game	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This version's art and gameplay fit best together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This version's art and gameplay fit worst together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This version was the most interesting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This version was least interesting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This version had the best art	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This version had the worst art	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This version felt most polished	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This version felt least polished	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Describe the version 1's style in 3 to 5 attributes. (f.e. cute, scary, adventure, fantasy)

Your answer _____

Describe the version 2's style in 3 to 5 attributes. (f.e. cute, scary, adventure, fantasy)

Your answer _____

Describe the version 3's style in 3 to 5 attributes. (f.e. cute, scary, adventure, fantasy)

Your answer _____

Which sprite of Connie was your favourite and why?



Your answer _____

Which sprite of Syo was your favourite and why?



Your answer

Which sprite of Adale was your favourite and why?



Your answer
