CULTURAL INFLUENCES ON VIDEO GAMES:

PLAYERS' PREFERENCES IN NARRATIVE AND GAME-PLAY

by

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ABSTRACT

As an entertainment media, video games provide pleasure and enjoyment through interactions with various game elements. Some games are more successful in one part of the world than others, which sales data have clearly shown over the years. Games designed in various parts of the world often have distinct differences, as developers implicitly or subconsciously convey their values and culture in their creations. Thus, in examining "what is fun," one must move beyond technical aspects of game design and look into immersion and emotional experiences.

In this paper, sales data for 2004 were first examined, followed by a case study to investigate any differences between Japan and the US, where major game console manufacturers and game developers reside. Although they indicated differences in popularity of genres and design approaches, results from the survey were not able to verify conclusively major statistical difference between the two groups of respondents.

The survey was constructed with a focus on narrative and game-play elements, in hopes to get a better understanding of players' preferences through the concept of immersion, which were anticipated to be influenced by cultural differences. Although no major differences were found, given the small sample population, it could be seen that there was a greater sense of character attachment from Japanese respondents, while American respondents did not like to be forced away from their actions by "long" narrative elements.

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CHAPTER 1: INTRODUCTION

A video game is a form of software application with a purpose to provide entertainment. Moreover, video games provide more user interactions than other traditional forms of entertainment media, such as music, movies, and books. Users, better described as players, control characters and game progress by interacting with game elements using various game peripherals, such as controller and keyboard. There are a wide variety of platforms, representing the technological growth in the world of video games: commercial arcade, home-based console, portable console, personal computer, and mobile equipment. (Faiz, 2002)

Game development involves multi-disciplinary teams from design to programming: themes and narrative structures are specified in scenario writing, characters and backgrounds are part of the graphical designs, sounds and music are composed to complement the overall look and feel, programming makes everything works together by handling all the interactions between the game and the player. (Aoyama & Izushi, 2003)

Game design requires knowledge in game development, as well as human behaviours and the concept of "fun." However, games have been driven by technological advancement over the years, and are often being evaluated and described based heavily on their technical aspects, such as visual graphics and game mechanics, while ignoring the importance of game content. (Falstein, 2002; Bittanti, 2004)

Due to the large variety of platforms with different design implications, this paper focuses only on home-based console systems. The concept of compelling game experience through game content, in particularly immersive game-play and absorbing narrative, is to be examined. More specifically, the style of game-play and the level of narrative are to be investigated in relation to enjoyment for players with different cultural backgrounds, in particularly, between players in Japan and the US.

The rest of this chapter will briefly describe the history of video games and the current gaming industry. Chapter 2 looks at globalization and cultural influences on video games. Chapter 3 explains the various elements of game design. Chapter 4 introduces the idea of game experience, in terms of immersion and emotioneering. Chapter 5 presents observed differences between Japan and the US based on sales data and a case study. Chapter 6 presents results of a survey conducted for examining any cultural influences on players' preferences in narrative and game-play. Chapter 7 finishes off the paper with implications and general conclusions.

1.1 Evolution of Console Video Games

1.1.1 Technological Growth

The first ever computer game, "Space War," was developed in 1961 at a MIT lab. It was based on the popular theme of science fiction, and was never meant to be a commercial product. During such time, hardcore programmers were only interested in showing what were possible using extremely high computer processing powers.

Atari was the first founded company successful in turning video games into a practical business. Video games first took shape in the form of commercial arcade systems. The game of "Pong" introduced in 1972 was an instantaneous hit. By early 1980s, the video game industry grew to become a billion dollar industry, as graphics changed from black and white lines and boxes to 16-colors multi-shapes.

However, with such growth came a crash in demand as the arcade industry showed reduction in growth. Prices and quality dropped significantly, demand was wiped out and dominant players abandoned the industry.

Nintendo came to rescue the US market with its home-based console and portable systems. With the introduction of "Famicon" (a.k.a. NES in the US) and "GameBoy," Nintendo solidified its position in Japan as well as in the US by 1990s. Original mega hits, such as the "Super Mario Brothers" and "Donkey Kong," were created with 2-dimensional designs consisting 64-color graphics and multilayered backgrounds. Nintendo successfully revamped the industry by developing strictly regulated, closed-system platforms, and monopolizing game titles and distribution channels.

Sony entered the market with "PlayStation" in late 1994, aggressively pursuing CD-ROM technology. At that time, such technology was deemed to be risky due to its lack of understanding but claimed to hold potential in game development with its low cost and flexibility of production. Within 5 years, "PlayStation" had captured a majority of the market in Japan, as well as in the US. Its success came from its ability to establish alliances

with major software companies in generating reputation and heightening expectations. Mega-hit titles, such as “Final Fantasy” and “Dragon Quest” ensured Sony’s position in the industry worldwide. Late into the 1990s, 3-dimensional graphics came into existence which opened up possibilities for virtually realistic characters and game environments.

By 2000, “PlayStation2” was developed with DVD-ROM technology. It came out strong into the market, and forced struggling console manufacturer Sega to defunct “Dreamcast” and refocus its strategy to arcade systems and game software development. Nintendo held on to its global market presence with its console “GameCube” and portable “GameBoy Advance,” targeted at a younger audience. By 2002, Microsoft entered the market with “Xbox,” taking a shot into the gaming industry, as the only major console manufacturer in the US. With the advancement in hardware specifications, much of the game titles featured full-fledged cinematic sequences in supporting multi-plotlines, multi-characters, as well as various styles of play. (Aoyama & Izushi, 2003; Friedland, 1994)

1.1.2 Content Growth

With advance hardware specifications and software applications, today’s games are created with sophisticated character designs and interactions. In order to become a mega hit, a game must look good (visual design), play well (playability), and be emotionally rewarding (game experience).

Before the arcade industry crashed in the US, video games were much developed in light of pleasing the developers themselves: challenging the possibilities, creating what they thought

were cool. Games from the "Kill the Blip" era of the 1970s up until the "Kill the Martian" era of space invaders had little background, along with very simple story structures and goals. In early 1990s, came the "Kill the Human" era. Console games provided opportunity for developing better paced and more complex game structure, increasing the variety of themes and subjects. The momentum has been carried through to today's "Kill everything in 3D" era by the growing demand of absorbing storylines, appealing characters, and high level of interactivity. (Veeder, 1995)

1.2 The Gaming Industry Today

Video games are no longer being considered "toys for kids," as the industry begins to take on a variety of themes and genres targeting mature audiences. The market place has also become more integrated into the super system of media entertainment, through licensing products of established titles of music, movies, books, and toys. (Wahl, 2003)

Being a creative industry, barrier to entry is low, even though it is being dominated by major platform developers. Late entrants can have significant advantage over industry leaders, given they are more flexible and risk-taking. Well-established developers are more willing to invest on past hits and series, being more risk averse while limiting target markets to those who have played the original games. Thus, small-size independent developers can often create surprising hits and innovations, starting other series of sequels and revenue. (Fuyuno, 2002)

Given the rapid growth in the gaming industry, there is a great amount of titles being published for various markets. Creating a great game does not guarantee success, as retail space is limited. Industry is no longer stimulated by game developers' abilities in producing quality games, as marketing is becoming more and more important in getting product recognition and sales. (Wahl, 2003)

1.2.1 Console Makers

There have been many companies involved in the gaming industry since its appearance in the 1970s. However, most of them failed to stimulate demand or develop systems to accommodate the growing market needs. Currently, there are only three major console makers in the world: Nintendo, Sony, and Microsoft. Each of them has successfully overcome unstable demand and low margin of console sales with efficient production and distribution.

Sales tactics are hash and competitive in order to increase penetration in the global market. Consoles are being sold at a very low margin, or even negative in the case of "Xbox." Considering the number of titles a player would purchase after acquiring a console, it is logical that hardware sales is only important in the early stages, with major revenue generated through the sales of proprietary game titles.

Console makers are under constant pressure to provide state-of-the-art equipment, creating fierce competition among each other. Each generation of console experiences shorter and shorter life cycles, as technology rapidly improves digital graphics and sounds, as well as

processing performance. Console makers are spending large amount of investment into research and development, working with technological firms in building standards for future consoles. (Wahl, 2003; Friedland, 1994)

Consumer electronics firms have offered Nintendo the expertise in console designs, adding critical functionality and affordability. For Sony, being a reputable consumer electronics firm itself, it has its own in-house production facilities to ensure console performance and design. On the other hand, Microsoft has a computer software background which explains the resemblance the "Xbox" has with a PC. All three console makers have extensive in-house resources for software publishing, establishing greater synergy between the hardware specifications and software application.

1.2.2 Game Publishers

Independent software publishers have developed many mega hits, and successfully turned some of them into series or franchises to further exploit their revenue potential. However, with the raising consumer expectation, there is an increasing pressure on development effort and cost in keeping up with the market changes and technology-driven creative environment.

There are many game developers and publishers in various sizes all over the globe, with different experiences and resources. Console makers can produce games in-house while publishers work with console makers: handling rights and distributing revenue. Independent game developers are usually smaller in size, mainly focused on game development, and usually hired by major publishers for outsourcing.

Publishers are investing heavily on the quality of games, which are reflected upon selling prices. They are willing to go through longer development cycles to produce highly anticipated titles that would be rewarded with large sales. Outsourcing would provide the needed flexibility and diversity of creativity, as well as encourage transfer of expertise.

Some multinational publishers are able to simultaneously release games in various regions, given their capabilities in conducting full localization treatment for content and design. With high level of cooperation from original developers, quality of localized products can be ensured. In addition, cultural proximity between developers and third-party software publishers reduces barriers of communication and facilitates flows of information. The presence of common operational procedures and approaches to product development, as well as the use of a common language, make joint development efforts easier to manage. (Aoyama & Izushi, 2003; Wahl, 2003)

1.2.3 Demographics

The demographic of the gaming industry is made up of two categories of players: hardcore and casual. The amount of game play conducted by a particular player is used to segment the market. Hardcore players often play more than one type of game, most often with both PC and console. They are perceived to be technology savvy with higher expendable income for game purchases. Casual players buy only a handful of games per year and make up of a younger audience. (Lach, 1999)

Since their first appearance, video games have been targeted heavily towards a male audience. Preadolescent boys were the sole target market for the period of time when video games were considered to be "no more than children's toys." Throughout the years, the range of players has expanded to include a wider age group with mature subjects and materials.

The average age for American players is 30 according to the 2004 results published by the Entertainment Software Association, with 35% under 18, 43% between 18 and 49 years of age, and 19% over 50. It suggests that the game playing population is growing along with the industry, with 16% of game units sold rated "Mature," as compared to 11.9% in the year of 2003.

The proportion of female players in the US has increased from 39% (2003) to 43% (2004). More specifically, women over the age of 18 represent 28% of the game playing population. However, it is still a dominantly male market, with boys from ages 6 to 17 alone making up 21% of the population. (ESA, 2005)

CHAPTER 2: GLOBALIZATION & CULTURE

Culture is "everyday life" through daily expression of racial and ethnic ideology, such as hairstyle, fashion, popular music, dance, and cuisine. It provides a sense of citizenship that is acknowledged globally as well as domestically. It gives means to distinguish one group from another, filtering thoughts and perceptions through collective beliefs, attitudes, and values. (Chin, Feng & Lee, 2000)

Cultural productions, such as entertainment media, have been discussed in many cultural studies throughout the years. Some of them have addressed the differences between eastern and western values and beliefs that are being reflected in cultural structures, symbols, and expressions. A collection of essays in "Multiple Modernities" (Lau, 2003) documents observations and explores modern and postmodern popular culture as a generator, as well as a product of different cultural forces. It indicates that films and other forms of popular culture are culturally reflexive media, which are strongly shaped by local context and conditions. "Global Goes Local" (Craig & King, 2002) examines international popular culture, such as music, television programs, and commercials. This collection of case studies investigates cultural forms as being transformed to reflect the uniqueness of local identities. "Japan Pop!" (Craig, 2000) looks specifically at Japanese popular culture and its themes of human relations, work, and spiritual growth. Comparisons with American popular culture are made in terms of life, dream, and relevance to the ordinary life.

Unlike other cultural products in media entertainment which are mostly dominated by the West, video games have a major representation of Asian influences, especially from Japan. Other media such as movies, television programs, even music, have experienced tremendous Westernization all over the years. Such influence is clearly apparent in celebrities, products and brands, as well as fashions and trends. (Desser, 2003; King & Craig, 2002)

It is through animation and video games that a cultural interchange has started from the East. Japanese players have high loyalty to local products and home grown characters and design. However, the flow of ideas and perspectives to the West has been slow, as filters are continuously being applied and modifications are being made before they can successfully cross-over to America. (Doshi, 1999; Aoyama & Izushi, 2003)

The video game industry is a USD$16 billion dollar global business. It is estimated to be worth USD$11 billion in the US alone, with USD$7 billion contributed by game sales. (ESA, 2005) Japanese publishers have long been tapping into this valuable American market with a continuous flow of global hits, but there are still a large amount of game titles that have not been able to cross-over to the US. There are also game titles developed by American publishers that are not being released in Japan.

As the market becomes more internationalized, the overall number of games being brought over to another country is increasing. Given the uniqueness of social norms in each culture, not all titles are globally successful. Some do well in their original forms, while others need to be modified or localized to suit different regional needs. At the minimum, language has to

be translated for players, allowing them to understand and interact with the content. Thus, there is a growing trend for multi-cultural and multi-national development teams as the importance of localization increases. (Falstein, 2004c; Moledina, 2004; Aoyama & Izushi, 2003; Carless, 2004)

Fundamental differences, such as cultural norms, values, and beliefs can influence the success or failure of the transnational-ability of cultural products. For video games, a compelling game experience is related to emotional responses and perceptions. How much "fun" players are having is very much depended on each individual, and their perceptions of "fun". Such preferences and attitudes are based heavily on personality, as well as societal values that are embedded in a culture. (Aoyama & Izushi, 2003; Jesse, 2001; Carless, 2004) Thus, it implies that video games constitute cultural differences similar to those traditional, non-interactive entertainment media. Moreover, in understanding cultural implications can be beneficial for non-entertainment or "serious" games, such as education and training programs. Effective delivery of content is important; however, learning experience can become more engaging through heightening enjoyment.

2.1 Japanese Culture

Japan has a distinctive historical, institutional, and cultural foundation. Its culture emphasizes conformity, loyalty and stability of the old, and the ever-changing creativity and trend-setting of the new. Development of consumer products and services feed off of the youth population which provides a source of creativity. Japan is skillful in regenerating ideas

from all over the world to create their own, keeping new ideas new. It is this ability to discover, recognize, and understand changes in the culture that keeps creativity alive and moving popular culture forward.

The Japanese culture has a long history of animation and manga (Japanese comics). They are very much into the daily lives of people from all age groups. Serious issues, such as religion, race, war, and social justice are presented in long complex storylines of animated films and manga series. Japanese video game industry has benefited from this strong foundation of character production, graphic design, storyline writing. Skills are concurrently developed and effectively shared among these industries, making cross-influences of contents very apparent. In the consumer market, players are well aware of such integration between anime, manga, and video games. (Aoyama & Izushi, 2003; Izawa, 2000)

2.2 American Culture

The US is a highly individualistic society, with a strong sense of self independence. They respect and value individual autonomy and self-determination. Its culture emphasizes self-achievement, self-reliance, personal goals and ambitions. (Aoyagi, 2000)

The American entertainment media mainly consists of pop music, movies, and television programs as major forms of expression. Comics and cartoons are categorized as children's entertainment, which often consist of perfectly preserved, overwhelmingly safe fairytale-like storylines. It is through these media that the US has been spreading its popular cultural

products to the rest of the world, without any effort of altering its cultural message for the global audience. On the other hand, the US has been relatively less receptive to foreign popular cultural products. Such an imperialism of American popular culture has long been dominating the global entertainment market. (Shiraishi, 2000; Allison, 2000)

It is common to see popular movies, television programs, or American celebrities in video game titles as the industry taps into the revenue stream of the entertainment industry. These games often lack original narrative or compelling game-play, even though they generate market awareness and recognition. The American video game industry has also been integrating computer game designs into console games, since players are familiarized with the styles and game-plays of computer games through the popularity of PCs. (McGann, 2003)

2.3 Japan vs. US

Figure 1: Example of Japanese "Cuteness," Hudson's Bomberman Battles

Japanese popular culture can be summarized as "everything cute." Therefore, it is not difficult to find video games that present cute characters with themes ranging from simple puzzles to complex 3D role-playing games. However, such tastes for "cuteness" might not be as receptive in America, though they would top the charts among East Asian countries.

There are also much higher energy levels from female players in Japan, as well as female characters represented in video games, focusing on their strength and endurance instead of sex-appeal. On the contrary, stereotyping in terms of gender remains an issue in the US, as female characters are often portrayed in traditional roles as masculine fantasies, motivations and rewards for courage or heroism. If a woman is to take on a traditionally masculine role, she then has to act like a man, with curvy and sexy body figures. (Tsurumi, 2000; Sakey, 2004; Hall, 2003)

The concept of ethics also varies, as it is made up by a set of rules and beliefs that a society bases judgment on right and wrong. In Western philosophy, consideration is not given for consequences as the world is presented in a strict dualism of good and evil. Thus, conflicts are often between simply good and some mysterious evil. In Eastern philosophy, it is based on circumstances that people are forced to make good or bad choices. (Jesse, 2001)

Figure 2: Example of a female lead cast and "sex-appeal," Eidos' Tomb Raider

In entertainment media, Japanese allow children to form complex cognitive structures through exposure of reality, while American offer a black and white concept of good and evil, a fairy tale perception of the world for their children. Japanese video games, along with animation and manga, often avoid clear distinction of

pure evil villains through complex plotlines. However, American games often portray villains as simple objectives to overcome, with distinctive heroes attempting to defend the law and order of the world. Therefore, it is easy to understand why video games have been strongly criticized for violence, as well as sexual content and foul language in America, where tolerance for these "offensive" materials are lower. (Shiraishi, 2000; Takahashi, 2004)

CHAPTER 3: GAME CHARACTERISTICS

Federoff (2002) examined the implicit and explicit heuristics and usability evaluation processes by observing and interviewing a game design team at a leading game developing company in the US. She compiled a list of heuristics grouped by game interface, game mechanics, and game-play, and suggested the use of standardized game heuristics for prototype testing and evaluation methods.

As defined by Federoff, game interface is "the device through which the player interacts with the game; game mechanics is "the ways in which a player is allowed to move through the game environment;" and game-play is "the problems and challenges a player must face to try to win the game." (Federoff, 2002)

3.1 Game Elements

3.1.1 User Interface

Similar to productivity software, games have to be useable, effectively and efficiently. Game tasks are supported through features of the interface, therefore game performance is affected by the interface's ability in complementing players' perceptual, cognitive, and memory limits. Thus, playability reflects how well players can interact within a game world while performing necessary tasks, which is influenced by the design of the user interface. (Desurvire, Caplan & Toth, 2004; Lazzaro & Keeker, 2004)

3.1.2 Game Mechanics

Game mechanics govern how players interact within a game, while rhetorical elements help convey game techniques and rules, enabling players to carry on with the necessary game tasks.

When techniques and rules are incorporated into a game, they do not need to be explicitly understood, enabling intuitive play. Immersion is achieved when players enter a state in which their attention is concentrated on game tasks, without disturbance from game mechanics. (Davidson, 2003a; Falstein, 2004b)

3.1.3 Game-Play

Unlike productivity software, games provide enjoyable experiences through motivational goals that are difficult to achieve, accompanied by a sense of success and reward. Thus, game-play stimulates players' enjoyment through controlling the game flow based on the type of challenges and skill requirements. (Falstein, 2004b)

Core players and casual players have different values of game-play. Core players love challenges. As long as there is an entertaining challenge, they are willing to keep on playing even when the game-play is similar and repetitive. However, casual players are into the enjoyment of playing a game, and entertainment comes from variety in game-play, conditions, opponents, or the sheer size of game world. (Adams, 2001)

The type of challenges or interactions varies and can be categorized into three different aspects of fun: physical, social, and mental. Physical fun focuses on the physical realm of hunting and gathering, such as strength and good hand-eye coordination, as well as searching and gathering of resources. Social fun is presented by pre-defined storylines, or interactions between players in a game environment. Mental fun involves mental abilities in manipulation of patterns or structures. Most games are a combination of these three aspects, offering different kinds of appeal to players. (Falstein, 2004a)

The pacing of a game is an essential element of game-play. Players must feel they are making progress towards a possible closure. When gamers have absorbed into the flow of a game, they are unconscious of self and time, concentrating intensively on the game itself. However, the interactivity of a game makes it difficult for designers to control the game flow. It is important for challenges not to be too predictable or too difficult. Tensions and releases should be incorporated throughout the game while the overall level of difficulty increases. (Douglas & Hargadon, 2001; Falstein, 2004b)

3.1.4 Narrative

Content development has been evolving from simple storytelling for game progression to creation of scenarios with complex structures. The inner logic or messages being carried by a game are imposed by designers through themes and narrative. However, the importance and interpretation of these messages are influenced by the social and cultural environment of a society. (Bittanti, 2004)

Storytelling is the art of structuring a set of logical events to provoke desired emotional effects. Story stimulates emotional experiences in audiences only when consequences are understood and perceived to be relevant of concerns. Emotions are important for stories to persist in the minds of the audience through self-derived meanings.

Narrative can be described as plot-centric or character-centric. A plot-centric narrative consists of characters having clear goals and problems to overcome in completing a task or quest (i.e. mission-based games). A character-centric narrative allows players to explore their own reality inside the game world (i.e. simulation).

There are also two different kinds of character: flat or round. A flat character provides functional purpose for directing the plot; simple and static throughout the progress of the story. A round character experiences a complex development as the story unfolds. Thus, personality of a character is determined by the amount of freedom a player has over it. The more freedom a player has over the character, the more it becomes an avatar for a player's actions. (Frasca, 2001)

Immersion requires identification with both character and narrative elements. Successful communication of narrative affects players emotionally without conscious awareness. In games, there are techniques for evoking emotional depth. Deepening tools include creating rich, complex, and compelling characters and natural dialogue. Symbols can also enhance the depth of scenes and plots, evoking emotions, even without conscious perception. Games can also offer emotionally complex situations at which point players have to make choices

and face consequences, creating emotional depth. However, in the view of developers, multi-plots or branching storylines are expensive to build in terms of effort, time, and cost. (Zagalo, Barker & Branco, 2004; Freeman, 2004)

3.2 Genre

A good game focuses and remains true to the genre in which it belongs. A game genre conveys interactive style and emotional experience it offers. Players then formulate expectations on game elements, such as interface, control schemes, pacing, interactions, challenges, and narrative framework.

For instance, action games are often focused on physical elements in mastering necessary skills; the higher the difficulty of challenge, the greater the sense of satisfaction it would offer. Thus, action is precedent over story. On the other hand, in horror games, storylines stimulate players' emotions and involvement by creating mood and atmosphere of the game environment. Characters and situations are presented for players to understand and feel, creating an impact on their emotions.

Players for each specific genre have their own needs, creating a set of implicit standards and guidelines of game enjoyment. Creativity in hybrid genres uses various techniques to integrate different formal aspects of game designs. However, combining genres could cause misrepresenting and misleading expectations, which could yield both positive and negative implications.

Some fundamental distinctions in forms and functions are based upon narrative, game-play, and simulation. Developers determine the level of narrative techniques and mechanics for integrating narrative with game-play. Classification dimensions can also include virtual to physical gaming, and fictional to non-fictional gaming. It is increasingly difficult to classify games into specific genres, as complexity involves many aspects of games belonging to multiple genres. (Ye, 2004; Lindley, 2003)

Genre	**Key Game-play Features**
Action	reflexes and hand-eye coordination
Action Adventure	exploration of, and interaction with, the environment
Fighting	"beat'em up", one-on-one combat between players
Shooter	shooting and combat, either through a first-person (FPS) or a third-person perspective (TPS)
Puzzle	solving logic puzzles, manipulation of patterns
Racing	driving, competing against other players or time
Rhythm	following sequences or rhythms
Role-playing	collaborative storytelling, assuming the roles of fictional characters
Simulation	simulate activities or tasks performed in an artificial reality
Sports	playing of traditional physical sports
Strategy	planning and managing in-game resources

Table 1: Popular Game Genres
* source: Wikipedia - http://en.wikipedia.org

CHAPTER 4: EMOTIONEERING

During the period when the gaming industry was growing rapidly, video games simply competed with one another by having better look and feel, and fun game play. In today's market, however, many games have great visual effects, and there is no shortage of games to choose from. Therefore, game development is no longer only about creating great looking interfaces, visual graphics, or sounds. It is also about immersing players through game-play and narrative, offering meaningful and emotionally rich experiences. (Freeman, 2004; Frasca, 2001)

Games with different characteristics elicited different emotional responses, such as joy, anger, or fear. A good game is to have a strong overall emotional experience, with both positive and negative emotional responses, in order to provide a sense of enjoyment. When situation is solved successfully, positive emotional state provides motivation for players to continue. Negative emotions, such as anger, would also motivate players to face the challenges, however, with a diminishing entertainment value. Players would eventually decide to quit if tasks become too difficult to accomplish. (Ravaja, Salminen, et al., 2004)

Over the years, technology has been driving the creative process in the industry. However, emotioneering will take on a more significant role in game development as focus is being shifted from interface design to user experience. A game not only has to have effective and efficient game mechanics and interface, it must be appealing and bring pleasure and enjoyment in the overall game experience. (Freeman, 2004)

Moreover, interface design has to support the increasing importance of emotioneering in games for providing enjoyment through game-play and narrative. Simple techniques from other traditional entertainment, such as the use of positioning of cameras, can increase immersion of players into the game world. However, depending on hardware limitations and the style of game-play, variety of playability issues can occur. Developers have to consider the kind and amount of information to present in the interface, without hindering players from engaging into the game world, a state of immersion. (Freeman, 2002)

4.1 Immersion and Emotional Experience

The interactivity of a game allows players to engage and enact their experiences, being performers to observe, explore, and modify the experience of a game through play. Drew Davidson (2003b) examined a series of experiential stages in which engaging and compelling game experience can be designed: initial involvement, immersion, and investment.

Davidson defined the three experiential stages as the arc of game experience. Stage one is the initial involvement, where players have actual introductory experience at the start of the game and become engaged into the game world through learning game-play gestalts. Immersion is the second stage of the experiential arc. Players at this stage understand the underlying principles of interactions and situations within the game world. The game-play controls the pace of which a story unfolds, and enjoyment is affected by visual and audio design of the environment, as well as characters. The third and final stage is investment, where players have mastered the game-play gestalts and established exceptional knowledge

of the game world. The ideal goal at this stage is to complete the gaming experience successfully. However, players can at any point in the game decide to quit, not willing to continue through toward the end of the game.

Playing a game requires varying degree of control, as players switch between interactive play and submissive viewing of full-motion videos that relay essential plots and storylines. Thus, Davidson suggested that narrative should be designed to ensure players experience all three stages, while the level of difficulty and interactions should be compelling and yet not impossible, in order to offer players a sense of satisfaction in the completion of the gaming experience. (Davidson, 2003b)

4.2 Immersion and Optical Perspectives

In her study, Laurie Taylor (2002) defined immersion as the degree of which a player feels integrated with the game world, and differentiated between diegetic immersion and intra-diegetic immersion; while not mutually exclusive, they can be combined to influence the overall gaming experience.

Taylor defined diegetic immersion as the ability of a player to be absorbed in the act of playing, unaware of elements outside of the game. On the other hand, intra-diegetic immersion is situational, where a player is deeply involved in the experience of the game through spatial and narrated elements. Intra-diegetic immersion takes place after diegetic

immersion, as diegetic immersion requires consistency of game elements and transparency of interface to minimize distractions, enabling intuitive play.

Spatial elements are presented to create a sense of existence of a game world, where players are being embodied into. Visual perception affects perspective and embodiment of players. Taylor examined the various optical perspectives, the point-of-view through which players see and interact in the game world: first-person, third-person, third-person trailing, overhead or top-down, and three-fourths isometric. Each perspective supports a different level of immersion and understanding of the game world. If options are given to the players, they can switch among the available perspectives during interactive play. However, designers can control the optical perspective in cinematic sequences to help them convey narrative elements.

Figure 3: "First-person perspective," screenshot from The Elder Scrolls: Morrowind

In first-person point-of-view, players see through the eyes of the character. Although such optical perspective is more intuitive and natural, as players act and perceive the game world as it should be by the character, it limits contextual information on the surrounding. Third-person point-of-view offers a physical presence through visual embodiment within the game world. The perception of the world is richer

with an embodied representation in relation to objects, characters, and contextual elements inside the game world, enabling players to experience the game world through the character.

Figure 4: "Third-person perspective," screenshot from Final Fantasy X-2

Games with a complex narrative often involve many characters, functioning as a group. Such multiple embodiments separate a player into multiple bodies, making it difficult to place the player in a bodied representation. Thus, affecting players' ability to identify or position themselves with any one character in the game narrative or the constructed game world. Players are rather presented as an external force, manipulating game elements from outside the system.

Taylor suggested that in order to provide exceptional experience, game elements must be consistent within a given narrative and spatial context. Narrative can be simple, with stories that do not influence the actual game-play, but without it the existence of the game world and characters is meaningless. (Taylor, 2002)

4.3 Immersion and Interactivity

Gaming has advanced through technological changes, while transformations in structure, content, and appearance have been influenced by other established media, particularly cinema. Neal McGann (2003) suggested in his study that the relationship between movies and computer games consists of cinematic aesthetics which are overpowering fundamental qualities of computer games.

Video games are influenced by the same implications of design issues and innovations as computer games. McGann listed 7 key qualities that are essential in a high quality and addictive game: the environment, playability, quantity and quality of interactions, interface design, levels of play, replayability, and character growth and development.

Immersion allows players to engage into the game world, with the help of intuitive, transparent user interface and compelling, consistent sensory game elements. Games are designed around the fundamental interactive mechanism of game-play. The relationship between narrative and game-play is determined by genre. Narrative provides a framework of the game to take place, rationalize the goals and objectives for players to accomplish. However, highly structured storylines limited the amount of interactions and flexibility of game-play.

With technological advancement, games have started to incorporate cinematic narrative, aesthetic styles and techniques in hopes to create more immersive game experience.

Complex narrative is often paired with cinematic sequences where players cannot interrupt the natural flow of the game. The interactive nature of games can also enhance engagement and immersion, as players suspend disbelief through concentration upon their actions. Thus, some developers have continued to focus on interactivity, by using simple narrative frameworks in providing context for meaningful actions.

The fundamental difference between narrative and interactivity is that narrative is control by the designer, while interactions are dependent on players. Moreover, with their distinctive qualities, narrative in games is to be interacted with by players, while expressive narrative in movies is to be consumed by audiences. Thus, McGann further suggested that development of games should concentrate on the essential qualities of the media, which are game-play and usability, rather than continuing to imitate representational strategies from other media inappropriately. (McGann, 2003)

4.4 Narrative vs. Game-Play

Video games are a form of interactive narratives, offering plots and characters that require inputs from the players. Players are mere actors in the traditional representation of narrative, requiring immersion to become the characters in a game. Immersion is the suspension of disbelief based on closely linked interactions, narrative, structure, and interface. (Frasca, 2001; Douglas & Hargadon, 2001)

Narrative and game-play have conflicting objectives, with game-play remaining the driver of video game design. Game-play focuses on establishing rules for the game, providing activities and experience that are unique and consistent with the plot. Narrative defines characters and plots, delivering emotional experience through storylines, dialogues, and narrative structures. Narrative is often conveyed through full-motion videos, during which players are spectators and interactivity come to a haul. However, lack of narrative would hinder emotional development of a game. (Jacobs, 2004)

Interactivity of video games affects both story and game-play, enabling players to co-author the story through play. Entertainment and enjoyment are provided through two kinds of tensions: dramatic and game-play tensions. Dramatic tensions found in stories are directed by designers, as characters' personalities, pasts, and relationships among them are being revealed through actions and words. Game-play tensions found in game interactions are to be overcome by players' involvement and participation. (Adams, 2004)

This paper focuses on the content aspect of video games, in particularly the level of narrative and style of game-play which influence players' immersion and enjoyment. It also attempts to investigate any difference in preferences of game-play and narrative between players with different cultural backgrounds. In particular American and Japanese games and players are to be examined. The main research questions to be investigated in this study are as follows:

1. How does the style of game-play affect the level of enjoyment for players in Japan and the US?
2. How does the level of narrative affect the level of enjoyment for players in Japan and the US?

JAPAN				Release		Rating			
#	Title	Console	Publisher	NA	JP	CERO	ESRB	Genre	Player
1	Dragon Quest VIII (Dragon Warrior): Sora to Umi to Daichi to Norowareshi Himegimi	PS2	Square Enix	TBA	11/27/2004	?	n/a	Role-Playing	1
2	Pocket Monsters (Pokemon): Fire Red / Leaf Green	GBA	Nintendo	09/07/2004	01/29/2004	?	E	Role-Playing	1-5
3	Dragon Quest V (Dragon Warrior): Tenkuu no Hanayome	PS2	Square Enix		03/25/2004	?	n/a	Role-Playing	1
4	Pocket Monsters (Pokemon): Emerald	GBA	Nintendo	04/30/2005	09/16/2004	E	E	Role-Playing	1-5
5	World Soccer Winning Eleven 8	PS2	Konami	02/01/2005	08/05/2004	E	E	Sports - Soccer	1-8
6	Sengoku Musou (Samurai Warriors)	PS2	Koei	05/06/2004	02/11/2004	12	T	Action - Fighting	1-2
7	Jissen Pachi-Slot Shinshouhou: Hokuto no Ken	PS2	Sammy		05/27/2004	E	n/a	Gambling	1
8	Metal Gear Solid 3: Snake Eater	PS2	Konami	11/17/2004	12/16/2004	18	M	Action Adventure	1
9	Gran Turismo 4	PS2	SCE	02/22/2005	12/28/2004	E	E	Racing - GT/Street	1-2
10	Derby Stallion 04	PS2	Enterbrain		04/22/2004	E	n/a	Sports - Horse Racing	1

Table 2: Japan 2004 Top Selling Games, * source: Media Create – http://www.m-create.com

US				Release		Rating			
#	Title	Console	Publisher	NA	JP	CERO	ESRB	Genre	Player
1	Grand Theft Auto: San Andreas	PS2	Rockstar	10/26/2004		n/a	M	Action Adventure	1-2
2	Halo 2	Xbox	Microsoft	11/09/2004	11/11/2004	15	M	First-Person Shooter	1-4
3	Madden NFL 2005 (Madden NFL Superbowl 2005)	PS2	Electronic Arts	08/09/2004	11/18/2004	E	E	Sports - Football	1-4
4	ESPN NFL 2K5	PS2	Sega	07/20/2004		n/a	E	Sports - Football	1-8
5	Need for Speed Underground 2	PS2	Electronic Arts	11/15/2004	12/22/2004	12	T	Racing - GT / Street	1-4
6	Pokemon Fire Red	GBA	Nintendo	09/07/2004	01/29/2004	E	E	Role-Playing	1-5
7	NBA LIVE 2005	PS2	Electronic Arts	09/28/2004	12/02/2004	E	E	Sports - Basketball	1-8
8	Spiderman 2	PS2	Activision	06/28/2004	09/30/2004	E	T	Action Adventure	1
9	Halo	Xbox	Microsoft	11/14/2001	04/25/2002	15	M	First-Person Shooter	1-4
10	ESPN NFL 2K5	Xbox	Sega	06/04/2004		n/a	E	Sports - Football	1-4

Table 3: US 2004 Top Selling Games, * source: NPD FunWorld – http://www.npdfunworld.com

** CERO (Computer Entertainment Rating Organization, Japan) – http://www.cero.gr.jp
ESRB (Entertainment Software Rating Board, US) - http://www.esrb.org

5.1 Hardware and Software Sales

There are three major console makers in the video game industry: Nintendo, Sony, and Microsoft. They vary in origin, history, and market size, influencing partnerships and alliances with game publishers and developers, and in turn affecting the distribution of game titles.

Nintendo is the oldest among the three companies, founded back in 1902 as a manufacturer of playing cards in Kyoto, Japan. It entered the video game business in 1974 with arcade systems, and since then manufactured a series of home console systems: "Famicom" (NES), "Super Famicom" (Super NES), "Ultra 64" (Nintendo 64), and "GameCube". "GameCube" has a worldwide cumulative unit sales of 14.57 million as of March 2004 since its launch in 2001. Nintendo dominates the portable system market with several generations of "GameBoy" and the currently new release of "Nintendo DS". (Nintendo, 2004)

Sony is an international enterprise in the consumer electronics industry based in Japan. It launched its first home console system "PlayStation" back in 1994, and its second generation "PlayStation 2" (PS2) in 2000. In its fifth year of production, PS2 has penetrated the world market with cumulative hardware production shipments of 71.3 million units, and cumulative software shipments of 572 million units, as year ended on March 31, 2004. Sony entered the

portable system market with “PlayStation Portable” (PSP) in late 2004, and shipped to the US and Europe in Spring 2005. (Sony, 2004)

Microsoft is a well known software company founded in the US who later established a division of applications and devices for home and entertainment. It entered the video game industry with the release of Xbox in 2002, and since then it has sold 15.5 million units and published 425 games worldwide by the end of the fiscal year of 2004. However, consoles are being sold with a negative margin, resulting in operating loss over the years. (Microsoft, 2004)

5.1.1 Console Makers – Regional Sales

Although the industry has been growing in a fast pace, consoles faced a reduction in sales for the fiscal year of 2004 due to the aging of consoles and the anticipation of the next-generation systems.

Nintendo continues to enjoy a worldwide dominance in the portable system market, targeting causal players that enjoy video games periodically, whenever and wherever possible. While Nintendo’s “GameCube” attracts a younger crowd with classics hits such as “Mario’s Brothers” and “Pokemons”, Sony’s PS2 and Microsoft’s “Xbox” are targeted at an older, enthusiastic group of players who invest a large amount of time and energy in video games.

According to the 2004 sales data, in the US, PS2 has the highest sales figure with 4.6 million units, with “Xbox” following closely behind with 4 million units, and “GameCube” with 2.3

million units. (Takahashi, 2005) On the other hand, in Japan, PS2 far outsold "Xbox" with 2.9 million units and 36,064 units respectively. "Xbox" is having a difficult time breaking the 1 million mark of cumulative unit sales in Japan, and even the newly launched PSP had outsold "Xbox" in only a few mouths, with sales of 0.4 million units. (Ram, 2005)

As suggested by these sale figures, the US-based "Xbox" has a stronger presence in the US then in Japan, and in turn, Japanese game developers are reluctant in publishing games for an unpopular platform as development and marketing are costly and require thousands of hours to bring ideas into reality.

5.1.2 Game Publishers and Developers

Software sales include titles published in-house by console makers and third-party developers, and these figures indicate differences in trend between the two countries.

In the US, while there is a growing trend of action and shooter games, sports games remain the hottest items. Looking at the top 10 games (Table 3) which accounted for 15% of all video games sold in the US, 4 titles were sports, in particular NFL simulation games. On the other hand, in Japan, 4 titles in the top 10 list (Table 2) were role-playing games, all having a fantasy setting. Only one role-playing game made it to the top 10 selling list in the US: a title from the Pokemon series for the GameBoy system, which was also the only common title among the two countries. In terms of sports, Japan's list included only two titles: one for soccer and one for horse racing simulation.

There were 7 games out of the top 10 US list were released in Japan within the same fiscal year of 2004. Although there were also 7 games in the Japanese top 10s that are going to be released in the US, half of them will not be released until 2005. One reason for such delay in distribution into the US is the need for applying localization treatments.

As the lists suggest, the majority of the games on the US' list were published by American companies, while all of the games on the Japan's list were published by Japanese companies. Thus, the top titles from Japan would have to undergo localization treatments before hitting the international market, while titles could be rolled out from the US penetrating other markets without much effort in localizing the content.

Reinforcing the idea of console dominance in the two regions, 8 of the top 10 titles in Japan were for the PS2 system and none for Xbox, while there were 3 titles for Xbox and 6 for PS2 in the US. Hence, Sony has a strong presence in both regions, while Microsoft is still trying to fight its way through the barrier of the Japanese market while gaining ground surely in its domestic market. This explains the success of its hit proprietary series of Halo in the US while it did not make in onto the top 100 games sold in Japan; in fact, none of Xbox' titles made any impact in 2004. This would imply the importance of games in attracting players in investing in a console system. Having a console system that would give them access to the kind of games they prefer, with the diversity and creativity of large group of game developers.

Games are rated according to their content. Despite the many accusations of video games influencing players with aggressive and violent behaviors, the majority of the games

published are rated “Everyone”, followed by “Teen”. Both the US and Japan have similar rating systems based on the severity of violence, blood, sexuality, and language. However, there are discrepancies in the actual ratings of games as suggested by the top 10 selling games in the US. While Halo and Halo 2 were rated (ESRB) with “Mature” theme, they were rated in Japan (CERO) for Teens over 15 years of age. Also, Spiderman 2 in the US it has a rating of “Teen” with over 13 years of age, while in Japan it was rated for “Everyone”. Therefore, it is a suggestive measure of how “mature” a subject, visual effects, or interactions are, based on society values and tolerance.

Games are categorized into genres based on the type of interactions a player can perform with game elements. Given the popularity of sports and action games, it came with no surprise that the number of multiplayer games in the top 10 selling list in the US is very high, in fact with only one single-player game. Within these multiplayer games, most of them are team-oriented with cooperative and competitive components. On the other hand, there are equal numbers of single and multi-player games in Japan’s top 10s, since the majority of role-playing games are single-player, due to its nature of interactions and complex storylines.

5.1.3 Discussions

As indicated in these sales figures, there is a difference in the popularity of genres between the two regions. Popularity of role-playing titles is overwhelming in Japan, while the US is into sports and action titles. Since game genres are categorized by the type of interactions being offered in a game, it indicates the kind of interactions and the level of narrative being valued by players.

Role-playing games often present highly structured plots with a logical progression in which players must follow, unfolding the series of events as directed by the designers. Thus, interactions are mostly restricted to collection of items, battling with enemies for level-ups. Action games, such as the first-person shooter games, use narrative to create scenarios for game-play. Other action games, such as sports, do not require any narrative framework at all. Interactions are much more flexible in action games, as players can explore and manipulate game-play to their own experience.

There is also an indication that Japan and the US differ in the idea of morality as suggested by the differences in their game ratings. Since norms of a society define how players perceive information, situations, and consequences, the level of tolerance or acceptance varies among societies. Although Japan is considered to be a homogeneous society, they are able to adapt to social changes and circumstances without violating established norms. Thus, over the years, Japan has had higher tolerance for what constitutes "offensive" material than the US. Such difference in the concept of morality influences how a story should be told for a target market, as game content should stay within the boundary of ethical and moral beliefs for that society.

5.2 Case Study

In acquiring a better understanding between games developed in Japan and the US, a case study was conducted. To ensure a certain level of narrative, two role-playing games were considered: Final Fantasy X-2 (FFX2) and The Elder Scrolls III: Morrowind (ES3). Both games were top-selling and highly acclaimed titles in their country of origin. (Square-Enix, 2004; Bethesda, 2004) Such popularity suggests that players' tastes are being reflected in the game designs.

Both games are offline, single-player games, with a difference in origin. FFX2 was published by Square-Enix, a Japanese developer, while ES3 was published by Bethesda Softworks, an American company. According to the ESRB, both games are rated "Teen," which suggests they contain a similar maturity level of content, and target similar groups of audience. FFX2 and ES3 are also part of a successful franchise, Final Fantasy and The Elder Scrolls respectively, having a well-established set of fans. General characteristics, similarities, and differences between the two games are summarized in tables 4 to 6. In-depth descriptions on the stories, characters, and game-play can be found in appendix A.

	Final Fantasy X-2	**The Elder Scrolls III: Morrowind**
Publisher	Square Enix	Bethesda Softworks
Developer	Square Enix	Bethesda Softworks
Console System	Sony PlayStation 2	Microsoft Xbox
Genre	Turn-Based RPG	First-Person RPG
Number of Players	1	1
ESRB Rating	Teen	Teen
Release Date	Japan: March 13, 2003 US: November 18, 2003	US: June 4, 2002 Japan: Unreleased

Table 4: Game Characteristics – General, * source: GameFAQs - http://www.gamefaqs.com

Final Fantasy X-2 (FFX2)	**The Elder Scrolls III: Morrowind (ES3)**
Genre - Role-Playing Game (RPG)	
o Players are to assume the roles of 3 fictional characters: Yuna, Rikku, and Paine, in their world of Spira. o Playable characters are pre-defined according to their races, background, and personality. However, game-play allows players to determine characters' classes and abilities during battles. o Players are directed by the underlying storyline, accompanying the trios on their journey throughout Spira, interacting with various non-playable characters (NPC). o Actions taken by players will somewhat alter the result of the characters' endeavours, given the possibility of multi-endings.	o Players are to assume the role of the protagonist: "a prisoner born on a certain day to uncertain parents", on the continent of Tamriel. o The playable character is customized by answering a series of questions relating to the character's attributes, class, and races. o The main quest directs players through the fulfilment of ancient prophecies, which takes place in the Vvardenfell district of Morrowind, a province in the land of Tamriel. o Players' actions may yield consequences later on, in drawing a conclusion of the main events.
Game-Mode - Offline, Single-player	
o It is to be played offline, on stand-alone home console systems. o Only one player can take control of the playable characters, as a group, and interact with the game environment.	o It is to be played offline, on stand-alone home console systems. o Only one player can take control of the playable character, the protagonist, and interact with the game environment.
Popular Series	
o It is part of the Final Fantasy (FF) series, which premiered in Japan in 1987 on Nintendo's cartridge-based "Famicom" system. Since then, FF series have been developed for a variety of console systems. As of early 2005, total of eleven games have been released for the main series. o It is the first direct sequel in the series, following the story and characters in the preceding game Final Fantasy X (FFX), which was the first game in the series developed for "PlayStation 2."	o It is part of The Elder Scrolls (TES) series, which was first released in the US in 1994 for personal computers. There are three main games in the series, as of early 2005, each sharing common settings and history of the TES world. o It is the first game in the series being released on the "Xbox" system.

Table 5: Game Characteristics – Similarities

Final Fantasy X-2 (FFX2)	The Elder Scrolls III: Morrowind (ES3)
Publisher/Developer	
o It was published and developed by Square Enix., formerly known as Square which was founded in 1986, and merged with Enix in 2003. o Square Enix is a Japanese producer of popular video games, with a focus on RPG games. o Major video game franchises include Final Fantasy, and Dragon Quest (a.k.a. Dragon Warrior in the US).	o It was published and developed by Bethesda Softworks, a US-based company, founded in 1985. o Bethesda is a creator of RPG, action, simulation, and sports games. o They are best known for developing and publishing TES series.
Console System	
o It is a proprietary title for the PS2 system. o PS2 is manufactured by Sony, a Japanese owned consumer electronic company.	o It is a proprietary title for the Xbox system. o Xbox is manufactured by Microsoft, a US owned software development company.

Table 6: Game Characteristics – Differences

5.2.1 Overview

The Elder Scrolls III: Morrowind

ES3 is an epic, open-ended single-player role-playing game, released for both personal computers and the "Xbox" console system, both versions of which are nearly identical. ES3 is a simple game that incorporates many traditional conventions for the fantasy role-playing genre: real-time, first-person, and character-based. A player's actions define the player-character, and game-play changes and evolves in response to those actions.

The game environment of Morrowind is detailed with 3-dimensional landscapes and architectures, reflecting uniqueness of each area. Special effects range from full-day and

night lighting to realistic weather system. However, the game features a rather short soundtrack.

Final Fantasy X-2

FFX2 is an eccentric multi-endings single-player role-playing game, released solely for Sony's PS2 system. The game has many features and traditions to the Final Fantasy (FF) series: active-time battle system, third-person perspective, and dramatic storyline. It also incorporates many classic themes of the series. However, FFX2 takes on a distinctive change from the sombre story of its predecessors with an upbeat and light-hearted tone.

The environment of FFX2 makes use of both real-time and rendered elements in bringing the game world into life. Square's trademark of lavishly detailed full-motion videos (FMVs) move the game's narrative forward. Various locations from the original FFX game can be found in FFX2, along with new areas, all designed to reflect the cheerful atmosphere of the game world.

The game features enthusiastic voice acting, and a Japanese pop-styled soundtrack. Unlike the FF-traditional set of melancholy tunes and sombre melodies, FFX2's selection includes many light-hearted, pop-disco eclectic pieces that complement the game's lively style and the personality of the different locations.

5.2.2 Narrative

The FF series maintains many of its classic themes and styles throughout its releases, which are guided by implicit expectations from long-time fans. Square, creator of the series, has continued to release independent storylines with new characters and game worlds. FFX2 marks the first true sequel of the series, giving fans a chance to revisit one of the most popular and critically favoured worlds and characters of FFX.

FFX2 incorporates the same world as FFX, however, its free-form structure of game progression is different from the singular narrative approach of the FF series. The story of FFX2 remains pre-scripted with a third-person perspective, allowing players to bond with the characters as they view the stories as a speculator, joining the journey of the characters.

With its upbeat tone and all female lead cast, FFX2 has been criticized as being too "girly" by the predominately male audience. However, the game itself is as emotional appealing as its predecessors. Core missions are centered on story progression, exploration, and combat, while side-quests are meant to provide entertainment and comical elements of the game. Conversations in the form of dialogues are numerous and capture the characters' personalities. Much of the plots are conveyed through memory spheres which can be viewed by players anytime during the game.

In comparison, the ES3 has a scope much like those of MMOPRGs (Massively Multiplayer Online Role-Playing Games), given its background in computer games. The size of the game world gives players few restrictions and guidelines, allowing them to play their own personal

storylines. However, such freedom brings about confusion at times, especially with the various factions, races, and religions.

ES3 is a text-heavy game, with long complex lists of names, dates, and places. Although, books and journals are used to communicate gathered information and topics, historical references are often vague and uncertain. Conversations with non-playable characters (NPCs) are structured into a list of available topics. They are often lengthy, detached, and repetitive. Moreover, the NPCs are extremely fixed in place, never engage in any activities. Thus, it is possible to watch and predict the patterns of the NPCs.

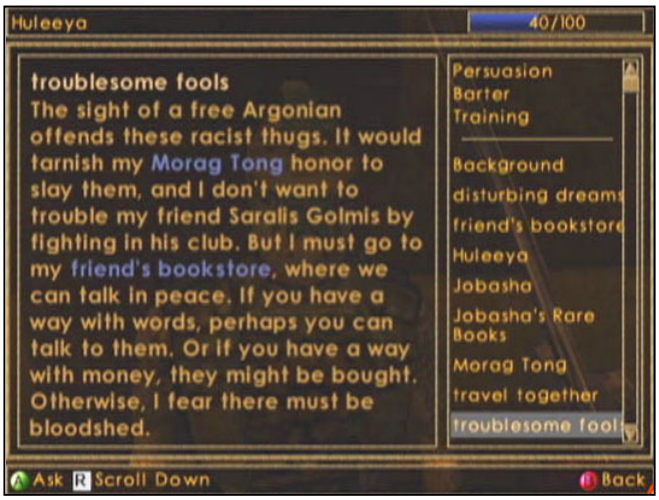

Figure 5: Conversation window, ES3: Morrowind

Figure 6: "Dress-Up" (Job) System, Final Fantasy X-2

5.2.3 Game-play

Telling a story that is almost exclusively about women could be categorized as a "chick flick." However, FFX2's game-play is as solid as its predecessors. While the Dress-up system

originates from the transformation style of magical girls in the long history of Japanese animation, the radical changes of appearances and costumes add personality and convey the chosen job classes.

Levelling-up by using the Dress-up system is simple and offers a variety of jobs and skills. Each playable character has statistics that shows how much of a particular job class they have mastered, in terms of the number of skills and techniques they have learned. New spells and techniques can be learned quickly, but it is extremely challenging to master multiple jobs. In addition, using the Dress-up system during battles is very tactical, as players must equip dress-spheres and move through the garment grid effectively to achieve optimal use of abilities and attributes available to them.

In ES3, players take control of their own customizable player-character through a first person perspective. Thus, personality and traits of the character is dependent on players' actions. However, the story progresses without much concern of who this protagonist happens to be. Thus, the player-character is merely fitting a "role", rather than a "character" in the story.

Players can choose to fight with weapons, by simple chopping and slashing, or magic spells. This real-time combat system of ES3 provides little information of the opponent, such as the degree of damage. There is also low sense of character development in turns of skills and experience levels. Character grows mostly through equipments, artifacts, and items which must be bought rather than discovered or learned.

Defeating the main antagonist Dagoth Ur brings about an anticlimactic closure to the main plot, as there is no cinematic reward. However, the game does not end and players are free to continue exploring and taking on side-quests from the various guilds and factions.

5.2.4 Discussions

FFX2 represents the majority of Japanese role-playing games, which often contain a party of playable characters and highly structured storylines. On the other hand, ES3 has the classic look and feel of a computer role-playing game, with only one playable character and a simple narrative framework in creating a setting for real-time actions. There are numerous of possible missions and tasks in ES3 as game-play is the main focus of the game, similar to the majority of games published in the US.

Real-time actions require good hand-eye coordination (i.e. ES3), in contrast with menu-based systems (i.e. FFX2), which allow more emphasis on tactical and strategic experience. Replayability in ES3 is offered through its vast size of the game world, and players are to continue playing without any storyline after the main quest is completed. On the other hand, FFX2 offers replayability for players to achieve a 100% completion of the storyline, or to experience plots from different branching points, without much emphasizes on the need to rebuilding characters' abilities or status.

As this case study indicates, Japanese developers design games with a higher level of narrative content then their US counterparts; enjoyment through game-play is provided by strategic elements rather than physical actions. US developers are more into designing game-

play with physical actions; enjoyment is provided through constant interactivity, and exploration of possibilities. Thus, first-person perspective is popular among American games, since the character is only needed for carrying out players' actions. In contrast, Japanese games are often presented in a third-person perspective, in order to convey concealed themes through character development and relationships, making characterization important.

CHAPTER 6: THE STUDY

The objective of this study is to examine any difference in the concept of "fun" between players with different cultural background. In particularly, this study focuses on players in Japan and the US, the most influential and marketable nations in the gaming industry today.

To achieve this objective, a survey was designed to gather data relating to a players' gaming experience, looking particularly at game-play and narrative elements. It is hoped that by analyzing these elements would yield a better understanding whether there are differences among the two groups of player.

6.1 Methodology

The concept of "fun" was measured by the level of immersion a player experiences during a game. Such experiential state was defined as cognitive absorption in a study of information technology usage conducted by Agarwal & Karahanna (2000). They defined five dimensions of cognitive absorption:

- temporal dissociation is "the inability to register the passage of time while engaged in the interaction"
- focused immersion is the "experience of total engagement where other attentional demands are, in essence, ignored"
- heightened enjoyment captures "the pleasurable aspects of the interaction"
- control represents "the user's perception of being in charge of the interaction"
- curiosity taps "into the extent the experience arouses an individual's sensory and cognitive curiosity"

Questions for the survey were constructed based on these dimensions, as well as game-play and narrative elements as described previously in this paper. In summary, game-play and narrative can be divided into three aspects of fun (Falstein, 2004a):

- physical fun – hand-eye coordination
    - hunting, gathering, exploration, use of tools
    - i.e. movement, combats
- social fun – relationship development
    - storytelling, characters, players
    - i.e. dialogues, plots, cooperation or competition with others
- mental fun – cognitive processing
    - perception, manipulation, and appreciation of patterns or structures
    - i.e. strategic planning, evaluation of tactics, character advancement

6.1.1 Survey

The survey consisted of 29 questions in total, divided into three major sections. Four questions asked participants to rank among options given, eight questions were open-ended for participants to provide their own responses, and the remaining questions were closed-end for which a most appropriate answer was to be selected from a list of choices. The survey was first designed in English and later translated into Japanese for overseas participants, in order to increase the response rate from Japan.

In the first section of the survey, participants were asked to provide general information such as gender, age, and nationality. The next group of questions was intended to gather information on their gaming experience, such as favourite games and characters. The last section focused on game characteristics - game-play and narrative, which were separated by the five dimensions of cognitive absorption.

6.1.2 Questions and Objectives

Questions 14 and 15 looked at temporal dissociation, in which players were absorbed into the tasks or stories at hand without realization of the passage of time. The kinds of interactions that would keep players "on their toes" were hypothesized to be different for Japan and the US. As suggested by the popularity of RPG games in Japan and action / sports games in the US, Japanese players would be more focus on the unfolding of events and the exploration of characters through strategic game-play, while American players would prefer constant interaction and skill development.

Focused immersion or the level of attention was broken down into three questions (Q16-18). In most cases, players take control over a character, binding them to the game world, and immersing them into tasks or stories at hand. It is through these characters that players can perform interactions, requiring different level and kind of cognitive resources. It is hypothesized that Japanese players would prefer more complex characters with personality being defined through story development and planning of strategy, since they are familiar with high level of characterization and plot development and in anime and manga. Thus, they would be more likely to lose attention when game does not present clear goals or objectives. On the other hand, American players are more individualistic, so it is believed that they would prefer characters in which they can express themselves through performing physical interactions, and those that provide a sense of existence through a first person perspective. Thus, American players would prefer a more free-style of game-play and pay less interest on clarity of goals or directions, or well-defined narrative structures.

Questions 19, 20 and 21 dealt with heightened enjoyment, which could be obtained through game-play, narrative, or both. Game-play consists of different playing modes, and narrative constitutes many elements ranging from setting and characterization to theme and structure. The amount of enjoyment and immersion can be heightened through how close the relationships between players and the characters are. With the amount of multi-player games in the US, it is hypothesized that American players would prefer characters with unrealistic abilities to create a greater sense of power and degree of freedom, while Japanese players would prefer characters presented in an interesting light, having a set of goals to accomplish, and undergoing development through those goals, much similar to the narrative structure in anime and manga.

The next two questions (Q22-23) looked at the amount of control players perceived they had over their actions or the progression of a game. Some games offer high degree of freedom, while others present pre-determined results. Since genre implies the kind and amount of interactions, as well as the level of narrative, it can be hypothesized that the popularity of a genre would determine the amount of control players perceived to have. Thus, it would be RPGs for Japanese players and action games for American players.

Curiosity was examined in the next four questions (Q24-27). Interactions and narrative can intrigue players through provoking their imagination, keeping them interested as the game progresses. Storylines and settings provide necessary relevance for players to understand the game world, be immersed in it, and to anticipate upcoming events. Players can also form expectations for the possible actions they can perform later on in the game. To be consistent

with the earlier hypothesis and case study, narrative should be important in sparking curiosity for Japanese players, while American players would be more interested in the up-coming interactions or game-play.

6.1.3 Participants

The survey was conducted online, as participants could not be easily reached due to the distance. Participants were recruited through popular online game discussion forums in both Japan and the US, since they were conveniently available and were expected to have a certain level of game playing experience. A short message was posted asking voluntary participation for the survey, and responses were collected through a web-based form.

6.1.4 Statistical Compilation of Results

Basic statistical information was compiled, such as observed counts and percentages, using crosstabulation tables. Since most of the data were categorical and measured on nominal scales, the choice of statistical tests was limited.

The Chi-Square test was performed to evaluate homogeneity of proportions between the two countries, and measures of association are evaluated on the Chi-Square statistic using the statistical program SPSS. The null hypothesis for the Chi-Square test was that several proportions were equal between the two sets of participants (i.e. no differences). Due to the small sample size, a significant level of 90% is chosen for evaluating statistical significance of results.

A conservative rule for the use of the Chi-Square test states that each cell in a crosstabulation table should have an expected value greater than 1 and 20% of the cells should have expected values greater than 5. When all conditions were not met, Fisher's Exact Test was performed using another statistical program, known as R.

6.2 Analysis of Survey Results

A total of 115 responses are collected, with 69 people from Japan and 46 people from the US. Due to the volume of data needed to be translated, open-ended responses were summarized into more comprehensible categorizes. Responses from participants other than from Japan or the US were not included in the analysis.

For questions 21 to 24, choices were given to be ranked among each other. Due to the small number of participants, data are analyzed together by adding the rankings for each choice. Since 1 is given to the most appropriate answer, the lower the aggregated points the more appropriate it is for the particular question.

6.2.1 Demographics

There are no significant in the proportions of male and female players between Japan and the US difference (Chi-square: p-value = 0.976). As Figure 7 indicates 86.8% of respondents in Japan are male, and 87.0% for the US.

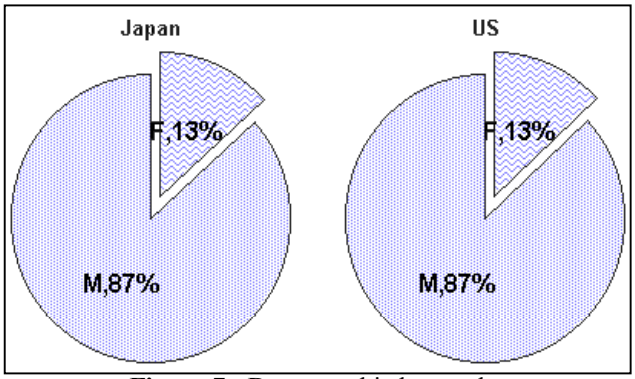

Figure 7: Demographic by gender

Majority of the respondents in both countries are between the age of 13 and 27. However, 39.1% of Japanese respondents are between the age of 13 and 17, while 41.3% of American respondents are between 18 to 22 years old. The differences in age groups are statistically significant (Fisher's exact test: p-value = 0.005155).

The demographic of the sample population is a good representative of the dominance of young male players in gaming population. However, since the survey was conduct online through a mean of self-selection, there could be an unknown bias in terms of their gaming experience and preferences.

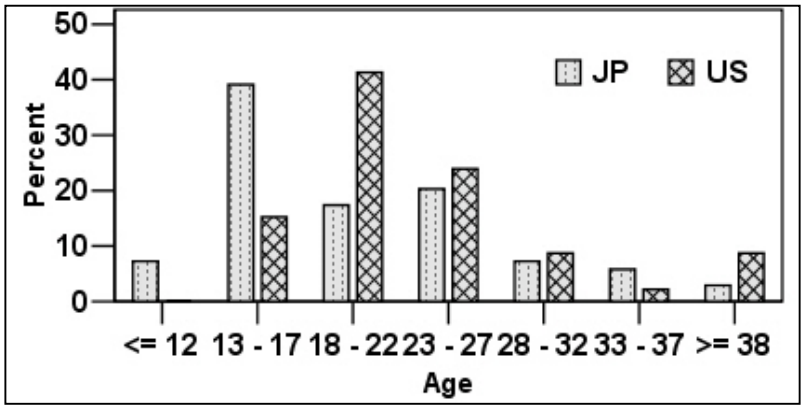

Figure 8: Demographic by age

6.2.2 Gaming Experience

Video games have been introduced to players at an early age, and there is no significant difference between the two groups of respondents (Fisher exact test: p-value = 0.2821). An overwhelming percentage of respondents had their first gaming experience before the age of 12, 82.4% and 91.3% for Japan and the US respectively.

The level of interest in video games is the same in both groups, with the majority of them claiming they are "very interested" (Fisher's exact test: p-value = 0.6252). However, there is a statistical significant difference when respondents are asked if they play games "just to kill

time" (Chi-square: p-value = 0.003). Majority of Japanese respondents admit they play video games only for entertainment (agree or strongly agree: 54.5%), in comparison to 52.2% of American respondents stating they disagree or strongly disagree to that statement.

Consistent with the view of video games being children's toys, both groups indicated early exposure to video games. Although both groups remain to have a high level of interest in playing video games, Japanese respondents view video games as pure entertainment, something to kill their time with, while American respondents would be more incline to dedicate time for playing video games as a hobby.

6.2.3 System Ownerships and Software Purchases

Since each respondent can own more than one system, each system is separately analyzed against the total sample population for each region. Out of the three home-console systems, only "Xbox" has a significant difference between Japan and the US, as there are only 5.8% of respondents in Japan own an "Xbox", comparing to 37.0% for the US (Chi-square: p-value = 0.000). This result is consistent with earlier discussion, that Xbox has a low market presence in Japan. Other significant differences for system ownerships are "Nintendo DS" (Chi-square: p-value = 0.046) and "PlayStation Portable" (Chi-square: p-value = 0.007). Such differences can be attributed to the delay in system releases for North America.

The differences in the amount of game purchase (Chi-square: p-value = 0.025) and rental (Fisher's exact test: p-value = 0.002) are also statistically significant. Majority of Japanese respondents have purchased less than 5 games in 2004 (44.9%), and there are 14.5% stating

they have not made any purchase. On the other hand, 68.9% of American respondents have purchased 5 or more games in the same period. For rentals, overwhelmingly 92.7% of respondents in Japan rented less than 5 games in 2004, in comparison to 69.6% for the US.

A self-report of game playing hours indicates no difference between the Japanese and American respondents (Chi-square: p-value = 0.232). There are 43.5% and 44.4% of respondents, in Japan and the US respectively, spent more than 10 hours playing video games in a week's time.

Since both groups of respondents spend relatively the same amount of time on video games and Japanese respondents rent and purchase fewer games than the US counterpart, suggests that Japanese respondents spend more time on a fewer number of games. Thus, Japanese respondents could be more inclined to finishing a game they have started or the length of the games they have selected are relatively more time consuming, such as strategy and role-playing games.

6.2.4 Favourite Games and Characters

Respondents were asked to list some of their favourite games and characters, in order to get some insight as to what kind of games they are appealed to and what have made an impression in their minds.

Games and characters are grouped into eleven genres to analyze responses aggregately. RPG, Action, and Action Adventure games are among the top three genres for both Japan and the

US. However, the proportions for the eleven genres are deemed to be statistically different between the two countries. (Chi-square: p-value = 0.002, with 22.7% of cells having expected value less than 5 – cannot perform Fisher's exact test due to memory size limit)

For characters, there is also a statistical significant difference between Japan and the US (Fisher's exact test: p-value = 0.09314). Respondents were to name some of their favourite characters, and most of them belonged to RPG games (JP: 31.1%, US: 30.7%), along with action adventure (JP: 25.3%, US: 27.7%) and action (JP: 21.1%, US: 22.9%).

There seems to be a similarity in preferences between the two groups, with the high percentages of RPG, action adventure, and action games. Final Fantasy is the most mentioned series in both Japan and the US. Other common titles belong to the series of Super Mario Brothers, The Legend of Zelda, and Metal Gear Solid. In addition, American respondents show a liking to shooter games, while Japanese respondents favoure anime tie-ins, such as Initial D for driving and Naruto for fighting games. Such influence from anime and manga is also apparent in some of the Japanese responses stating their favourite characters for genres which normally include low to no characterization, such as driving and sports. Thus, contributing to the differences of proportions among the two groups.

6.2.5 Game Publishers and Developers

To establish an idea of respondents' knowledge in game publishers or developers, up to three companies are to be named. A high percentage of the mentioned companies by the Japanese respondents are of Japanese origin (93.4%). Although in the US, respondents also mentioned

more Japanese companies (51.5%) than those of US origin (35.8%), US respondents have also mentioned other popular companies from Canada, France, as well as the UK. This difference, which is statistically significant (Fisher's exact test: p-value = $1.64e^{-15}$), indicates Japan is highly loyal to their own publishers and developers. It is also apparent in their top ten favourite games and characters, which consisted those produced by Japanese developers. On the other hand, the US respondents are aware of game publishers from countries other than those in Japan and the US. However, it does not necessary suggest that they are more receptive than their Japanese counterparts, since most games have been selected before they could cross-border into the US.

6.2.6 Temporal Dissociation

In questions 14 and 15, Japanese respondents indicated that they are more likely to lose track of time and focus on game elements through constant interactions (Q14: 54.5%) and development of skills (Q15: 43.3%), than manipulation of patterns (Q14: 25.8%) and strategic planning for anticipated challenges (Q15: 29.9%) or narrative elements, such as characters (Q14: 19.7%) and events (Q15: 26.9%). Similar pattern of responses is obtained for the US, as majority of them reported they spend time more on physical interactions (Q14: 65.2%, Q15: 46.7%), than narrative elements (Q14: 23.9%, Q15: 35.6%) or mental challenges (Q14: 10.9%, Q15: 17.8%).

The distribution of proportions for the responses is not significantly different between the countries for both questions (Q14: Chi-square: p-value = 0.149, Q15: Chi-square: p-value = 0.315). Although the results are inline with our hypothesis that American players would

prefer constant interactions, the results fail to show that the hypothesis for the Japanese players is true. Instead of being more focus on the unfolding of events and exploration of characters, majority of Japanese respondents has chosen physical interactions and skills development, same as the US respondents.

6.2.7 Focused Immersion

Question 16 indicates similar preferences of optical perspectives for both groups. Most of the respondents state that they are more absorbed in what they are doing with a third-person perspective (JP: 43.9%, US: 45.7%) and less absorbed when controlling a group of characters (JP: 15.2%, US: 19.6%).

In terms of the type of challenges, Japanese respondents state that they are immersed into performing skill-depended (44.6%) and strategy-depended challenges (43.1%), in comparison to the US with a majority of respondents (63.0%) selected strategy-depended challenges. Time-depended challenges, such as those incorporated through real-time game-play, is least preferred by both groups.

Both questions 16 (Chi-square: p-value = 0.743) and 17 (Chi-square: p-value = 0.115) show no statistically significant difference between Japan and the US. However, it was hypothesized that American players would prefer first-person perspective and skills development in which they could be more expressive of their individuality and capabilities. The results also cannot verify the hypothesis that Japanese players would be more into

strategic elements of a game-play, although the percentages of respondents are fairly close between strategic and skill-depended challenges.

Question 18 attempts to look at what causes players to lose their attention during play. Four choices are given, incorporating aspects of game flow which governs the progression of a game through levels of difficulty.

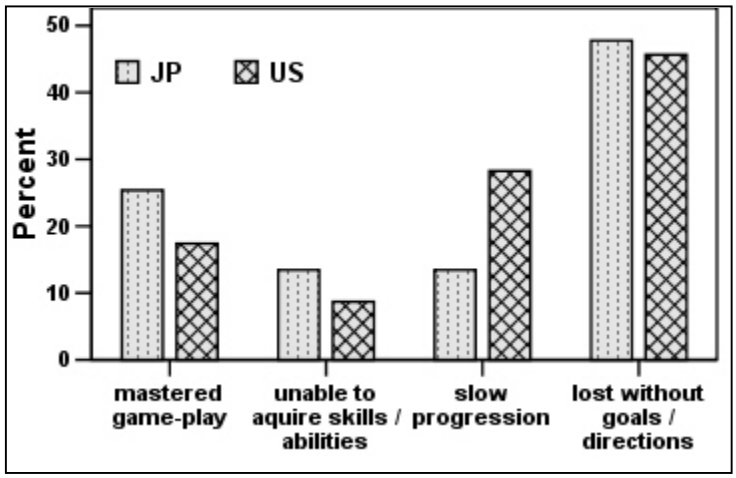

Figure 9: Q18 - I get distracted by other attentions very easily when …

Among the four choices given, most respondents in both countries lose interest when they are lost without any directions or goals (JP: 47.8%, US: 45.7%), while it is hypothesized that American respondents would prefer more free-style game-play with less game-driven progression. Second most chosen answer is mastered game-play (25.4%) for Japanese respondents, and slow progression (28.3%) for American respondents. These results fail to show any significant difference among the two groups (Chi-square: p-value = 0.219).

6.2.8 Heightened Enjoyment

Game-play is separated into single-player or multi-player in question 19, and it is hypothesized that American players would enjoy interacting with others either in competition or cooperation. However, results indicate that both Japan (55.2%) and the US (51.1%) have majority of respondents stating they have fun interacting with game elements in completing a set of tasks, focusing on interactions with the game itself. Although there are similar

percentages of respondents in Japan for the two multi-player modes, there are more US respondents selecting cooperation with others (35.6%) than competition with others (13.3%). Nonetheless, there is no statistical significance in the difference of proportions between the two groups (Chi-square: p-value = 0.328).

There is also no statistical significant difference between the two groups for the choices of character which respondents enjoy playing (Chi-square: p-value = 0.236). Both groups indicate most liking in characters with interesting traits (JP: 47.0%, US: 63.0%), than those with unrealistic abilities (JP: 33.3%, US: 21.7%) or characters that are similar to them (JP: 19.7%, US: 15.2%). Even though results are inline with our hypothesis that Japanese respondents would enjoy playing characters with interesting traits, they do not show American respondents enjoying characters with impossible real-life abilities.

In question 21, five choices are given representing narrative and game-play elements that could affect players' enjoyment. Out the total possible points, character development through challenges and events obtained the lowest mark for Japan (14.2%), and exploration of possibilities has the lowest mark for the US (12.4%). Although the ordering of the 5 choices are similar for the two groups, the

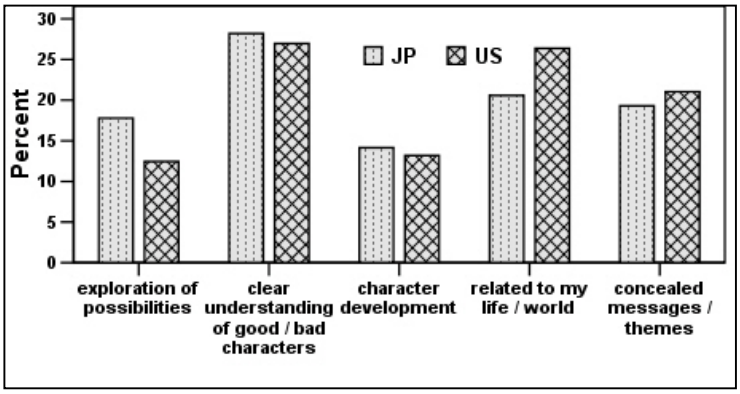

Figure 10: Q21 - Playing a game provides me with a lot of enjoyment when …

difference in proportions between the two groups is statistically significant (Chi-square: p-value = 0.009).

Character development, concealed messages, and clear separation of good and bad characters are based on story development, while exploration of possibilities and relevance of the real world are based on interactions. Exploration of possibilities having ranked most important by American respondents for enjoyment is consistent with the hypothesis that American players would prefer more degree of freedom in terms of game-play. Moreover, character development is also consistent with the hypothesis that Japanese players are interested in the characters and their development as story progresses.

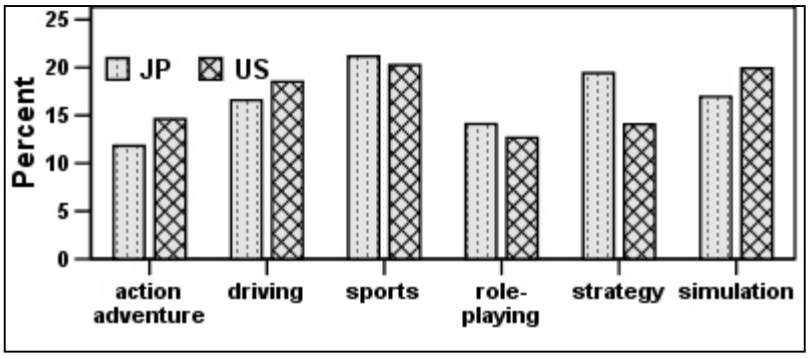

Figure 11: Q22 – When playing a ___ game, I feel I'm in control of the outcome and progression.

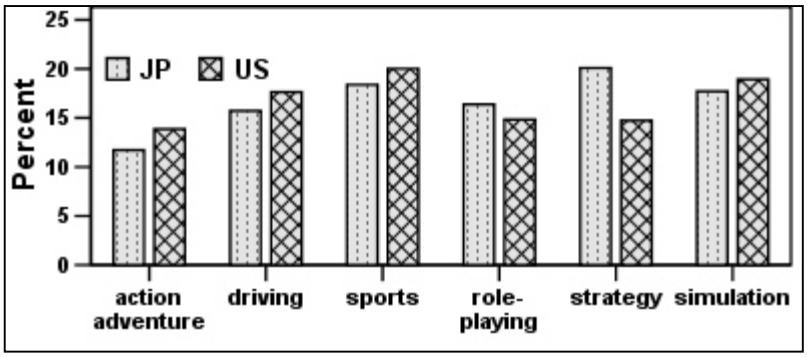

Figure 12: Q23 – I feel that I have control over my actions in a ___ game.

6.2.9 Control

For control, genres are to be examined as interactions and levels of narrative are implied in a genre. Japanese respondents feel they are more in control of the outcome and game progression in action adventure games (11.8%), the hypothesized genre RPG is ranked second with

(14.4%). For American respondents, RPG has the lowest point (12.7%) then strategy games (14.1%). In terms of control over actions, respondents in both Japan and the US ranked action adventure first (JP: 11.7%, US: 13.9%), and is seconded by driving games in Japan (15.7%) and strategy games in the US (14.7%). Responds in proportions for both questions 22 and 23 are significantly different between the two groups. (Q22: Chi-square: p-value = 0.007, Q23: Chi-square: p-value = 0.025).

Although it is hypothesized that Japanese players would perceived themselves to be in control of the story and actions in RPG due to the popularity of this genre, Japanese respondents rank action adventure first in both story progression and control of actions. On the other hand, US respondents ranked RPG as they perceived to be more in control of the story progression, and action adventure for control of actions.

6.2.10 Curiosity

In question 24, Japanese respondents indicate that they are curious of the game progress through physical skills (12.2%), exploration of surrounding (12.5%), and characters interaction (13.9%). In the US, respondents are curious about exploration of surrounding (12.0%), physical skills (13.3%), and usage of tools (13.3%), on the progress of the game. In addition, both Japanese and American respondents feel games set in a fantasy world are easier in arousing their imagination. Therefore, there is no statistical significant difference between the two groups (Q24: Chi-square: p-value = 0.621, Q25: Chi-square: p-value = 0.587). In addition, American respondents indicate physical aspects of fun as hypothesized,

while Japanese respondents have chosen physical as well as narrative aspects in sparking curiosity.

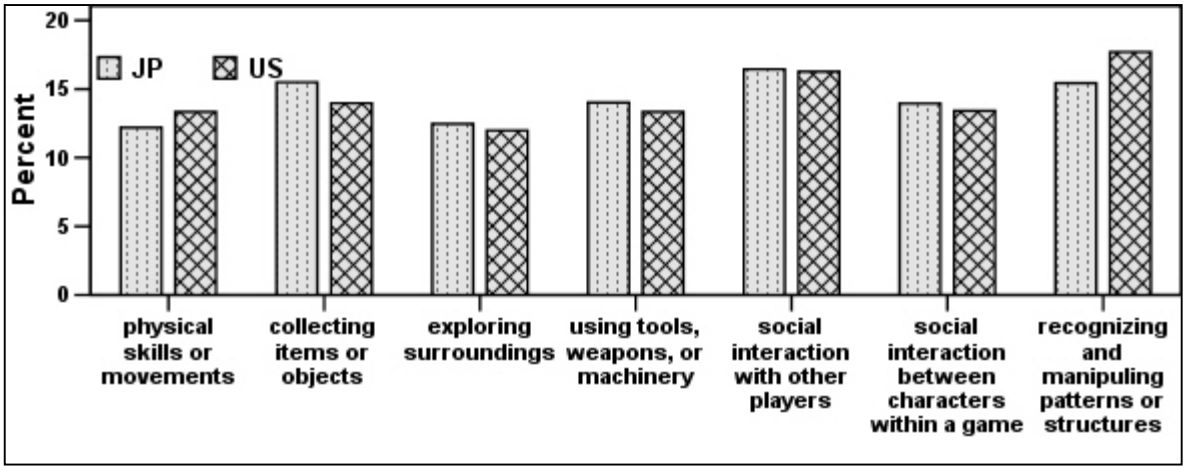

Figure 13: Q24 – I am curious about ___ and their impacts on the progress of a game.

When narrative and game-play are asked separately in terms of arousing curiosity, there are statistically significant differences between the two countries (Q26: Fisher's exact test: p-value = 0.05262, Q27: Fisher's exact test: p-value = 0.0379), which could due to the higher percentage of neural response in Japan. For story development, American respondents (86.7%) show a higher level of curiosity than Japanese respondents (78.3%). There are similar results for curiosity about upcoming tasks with 73.8% of Japanese respondents and 82.2% of American respondents either stating they "agree" or "disagree" to the statement. Moreover, percentages for both groups of respondents stating their increase in curiosity over story development are higher than upcoming tasks or missions. Thus, it suggests narrative can spark more interest in players over game-play.

6.2.11 Emotional Experiences

When respondents are asked to provide reasons for and names of games that they did not finish, most of the Japanese respondents state they quit due to difficulty of the game-play (24.4%), in comparison to lack of interest for the US (19.2%). Other frequently mentioned reasons for the Japanese respondents include lack of interest (22.2%), poor interface or mechanic (8.9%), no time (8.9%) and game-play being too repetitive and tedious (8.9%). For the US, poor interface or mechanic is also mentioned (15.4%), as well as boredom (15.4%) and tedious and repetitive game-play (13.5%). There is no significant difference for the grouped responses between the Japan and the US (Fisher's exact test: p-value = 0.1079).

Question 28 asks specifically when does a game become boring. Responses are once again grouped into categories, and indicate Japanese respondents think it is boring when the game becomes too difficult (19.2%) or the story is too trivial and simple (19.2%). Most of the American respondents, however, think it is boring when the tasks are being repetitive and tedious (33.3%), or story is too trivial and simple (15.9%). Answers among the two groups are not statistical different (Fisher's exact test: p-value = 0.1296).

On the other hand, when respondents are asked to describe one of their most emotional experience, there is a statistical significant difference among the two groups (Fisher's exact test: p-value = 0.01178). Japanese respondents state that they become emotional over story development (18%), unable to progress or finish a game (18%), and game completion (14%). For the American respondents, story development is also most frequently mentioned (34.2%),

following by death of a character (23.7%), game completion (10.5%) and competition / cooperation with others (10.5%).

Various kind of emotions are mentioned as well, such as surprise from unexpected story development, excitement for anticipating battles, frustration from not able to finish a game, a sense of accomplish through completion of a game, enjoyment from playing with others, sadness over character's death, and happiness from resolutions of characters.

6.3 Discussions

Majority of respondents in both Japan and the US claim they play video games more than 10 hours a week, making them avid players. They are also visitors of online discussion forums, suggesting that they are very keen on playing video games, and would have more experience in a variety of games. Thus, there could be unknown biases in terms of their level of gaming experience and preferences, making it difficult to validate any cultural implications on players' preferences between the two groups.

There is no significant difference between the two groups of respondents, in terms of temporal dissociation or focused immersion. This suggests that physical elements of game-play require more time and effort in performing those interactions than planning strategy or story development. Game-play gestalts have to be learned and mastered as players progress through a game, and it is through interactions that players are absorbed into what they are

doing. Players are focused on developing skills and planning strategy, while the game can unfold itself without much cognitive processing by the players.

For heightened enjoyment, respondents indicate they enjoy completing tasks and goals through characters with interesting traits. However, Japanese respondents view completion of tasks as a process and reflection upon character development, while American respondents enjoy completing tasks that offer them freedom in discovering the possibilities.

There are also differences between Japan and the US in terms of control. Interestingly enough, American respondents perceive they have control over the outcome or game progress in role-playing games, as compared to Japanese respondents who perceive they have control in action adventure games. This could be explained by the different types of role-playing game. In the US, role-playing games are often free-structured, as oppose to those strictly defined ones in Japan, similar to the two games described in the case study. Since less defined structure would increase the degree of freedom, American respondents could perceive themselves having the control over game's progression.

It is no surprise that fantasy worlds are viewed as being more imaginative, for both groups of respondents. Fantasy worlds are often used in video games as they provide a lot of freedom in designs, such as the kind of interactions or the story being told. Historical worlds are more often used for strategic or simulation games, such as war games. Action adventure and shooter games are popular with modern and futuristic settings, creating greater a sense of relevance with players' life and society.

Although both American and Japanese respondents declare curiosity about how the story is being unfolded, few of the American respondents have mentioned the amount of cut-scenes or full-motion videos as a distraction, putting them out of actions. This suggests that interactivity is still important, even though American respondents state they enjoy finding out what happens in a story.

Since Japanese respondents state they are more immersive when performing tasks that are skill-depended, they are using more cognitive resources when interacting with game-play elements. Thus, a game becomes "too boring" when game-play is too difficult, too easy, or too repetitive. On the other hand, strategic elements require more cognitive resources, for which the American respondents would indicate trivialness of strategic challenges, slow or simple narrative to be their reasons for quitting a game.

Although there is a difference between Japan and the US for emotional experiences, story development has been mentioned the most, as story progresses and reveals unanticipated events and plots. From the open-ended responses, in Japan, there is a greater sense of characters attachment as respondents are being emotionally moved by characters' words, actions, achievements, or history. Thus, suggesting the importance of characterization for Japanese players in creating an emotional experience. In addition, as suggested earlier that Japanese players could be more incline in finishing a game they have started, it would explain why the respondents are emotionally frustrated over not being able to end a game.

6.4 Limitations & Future Studies

A major limitation of this study was the survey design. The goal was to keep the survey within a reasonable length, to encourage more online voluntary participations. It was even more critical for non-native English speakers, as the length of the survey could become overwhelming for reading and comprehension. In addition, questions were mostly closed-ended, as written answers would be another discouragement for non-native English speakers. Moreover, questionnaire has not been validated using conventional modeling techniques.

Since the survey was conducted online, it was difficult to determine the potential number of respondents. Thus, the sample population could be biased due to the non-response rate and the self-selective nature. Even though the participants do represent the dominant young male gaming population, they were all online game forum goers, suggesting that they are enthusiastic, hardcore players. Thus, may not be representative of other players with more casual interest in games.

Although the response rate was enough to draw some basic statistical analyses, it was not possible to break down responses into more details without either breaking the Chi-square conservative rule or diminishing the level of meaning. Categorical data are also limiting in terms of statistical tests, or freedom of responses. Pre-defined lists are not always exhaustive, forcing participants to choose among the options available.

Therefore, a more open explorative study should be conducted in order to get more detailed insights of players' way of thinking and other underlying elements influencing their preferences, which is suggestively different from the sales data and games being developed in Japan and the US. If participants have more chances in describing their most memorable game experiences, their favourite or disliked stories and game-play, what it means when a game is too difficult or too easy, what kind of stories are too simple, or too heavy and overwhelming. These types of questions would be best investigated through interviews or discussion groups. However, cross-cultural studies are often difficult to conduct, since participants are usually not readily accessible, and language can be a major barrier. Thus, a suggestion would be to investigate Japanese players, who have immigrated into North America, possibly less than 1 or 2 years so that they have not fully adapted to North American culture but would be more fluent in English.

In addition, there could be other elements or factors causing differences in game design and success. Some possible factors are distribution channels, advertisements, and level of competitions between entertainment media. Individual personality is another potential factor, as it also shapes preferences and attitudes of players. Future studies can look into these elements or identify other potential factors, as well as examine different cultural components in relation to players' preferences. Instead of breaking up the study population by nations, cultural components, as suggested by various cultural studies, can identify participants and their cultural characteristics in more details. Any variation between participants within a single nation can also be examined, to facilitate better understanding of cultural factors in players' preferences.

CHAPTER 7: CONCLUSIONS & IMPLICATIONS

Game designs have long been driven by rapid technological changes, with console makers and game publishers aggressively competing against one another in creating the next big hit. However, the life cycle for each generation of console is getting shorter, while development cycles for games are getting longer. For survival, console makers and game developers must work together through partnerships, bringing their products into the global marketplace.

Although strong emphases are still being placed on technical aspects, such as visual graphics and game mechanics, game developers are starting to look into game content in creating compelling game experiences. Some Japanese developers have been successfully localizing numerous titles for the global market, resulting in huge revenue streams. The global market presence of Japanese games cannot be compared by the low market presence of American games in Japan.

This paper attempted to examine the concept of compelling game experience, in terms of narrative and game-play, specifically for home-based console systems. Using a survey, data were gathered from Japanese and American players in order to get a better understanding of any difference in preferences, as observed in sales data and games being designed in each country.

The survey results could not conclusively verify any major statistical difference between Japanese and American players. However, results were consistent with previous study on perspective and embodiment, as well as experiential arc of game experience.

Playability, consisting of game interface and game mechanics, was not the focus of this study. However, playability issues were mentioned by respondents as reasons for quitting a game or perceived to be "boring." Thus, players can only be absorbed into a game without the distractions from game interface or mechanics. In addition, multiple embodiments of characters were least preferred by respondents, as they could not identify or position themselves with a character as well as a third-person perspective.

Loss of attention or lack of interest as described by the respondents for "boring" games can be explained by the "experience arc" as described earlier (Davidson, 2003). At the initial involvement stage, a steep learning curve would cause players to lose interest in playing. At the immersion stage, players focus on story development. Thus, if a story, however simple, is not interesting or perceived to be too trivial, then players would quit. Lastly, in the investment stage, players are working towards the end of the game, expecting higher, more rewarding challenges. Therefore, if the game-play becomes too easy, players would lose motivation in finishing it.

Thus, there are implications that these concepts of immersion could be cross-cultural, as players go through an experiential arc governed by game flow and narrative structure, and emotional impressions are being made upon players through perspective and embodiment.

The reasons for the success of Japanese games overseas could be because their designs are more closely developed with these theories than those of American counterparts. Final Fantasy is a good example, since characters in this series have been highly mentioned as favourite characters by both Japanese and American respondents. Story development in a number of Final Fantasy instalments have also been described as one of their most emotional experience. Therefore, Final Fantasy has made long lasting impression on its players, establishing a large loyal fan base as it continues to enjoy global success.

Emphases in game flow and experience can also be seen in the appearances of hybrid genres. Game developers are starting to mix and match various levels of narrative with different styles of game-play in hopes to create more appealing titles. It is most apparent with role-playing games, as they have been combined with other genres for different style of game-play, such as real-time action-RPGs, simulation-RPGs, and strategy-RPGs. Action adventure games have also been incorporating more narrative elements than the pure action games, which consist mostly of 2D and 3D platformer, as well as shooter and fighting games. Therefore, by examining genres, it is becoming more difficult to determine players' preferences of game-play and narrative. However, American developers should take advantages of these hybrid genres in combining their established knowledge of action, sports, as well as computer games with elements they have less experience in, such as story delivery and structure. The level of emotional experience being offered in their games has to be increased, before they could top global charts and remain strong in their domestic market.

A.1 The Elder Scrolls III: Morrowind

A.1.1 Narrative

Story

The actual world of Morrowind is independent from its predecessors. Apart from sharing the same history of the fantastical world of Tamriel, the province of Morrowind has its own political intrigue and long history.

The politics of Vvardenfell involve the three dark elf houses of Hlaalu, Telvanni, and Redoran, the two temples of Dunmer and Imperial, as well as the Empire. The Dunmer Temple of the Tribunal has a dominating influence over much of Vvardenfell, while the Empire and its Imperial Temple are trying to preserve stability and control over the area.

The story of Morrowind takes place in the Third Era of Tamriel history. Under authorization of the Emperor, an unknown prisoner is sent to the large volcanic island of Vvardenfell in the province of Morrowind. Without much explanation, this unknown character is the protagonist of the story, and the only playable character of this game.

In exchange for freedom, the character sets out to complete a variety of missions and tasks under Imperial's supervision and observation as a member of the Blades, the Imperial spies. The main quest is to uncover the reason for the character's release from prison, and the hidden destiny the character is suppose to fulfill.

History

The History of Morrowind evolved around the Battle of the Red Mountain, when Lord Nerevar led the Chimer in an attack against the Dwemer and their usage of the Kagrenac's Tools in the creation of a Dwemer God. Nerevar and Dagoth Ur were said to have severed the Dwemer's connection to the Heart of Lorkhan, the power of the gods, which led to the strange disappearance of the Dwemer race.

Dagoth Ur was believed to be corrupted by the Kagrenac's Tools as he guarded them after Nerevar defeated Dumac, the Dwemer leader. After the defeat of Dagoth Ur, Nerevar's three advisors: Almalexia, Sotha Sil, and Vivec, betrayed their vow and adopted the profane tools of the Dwemer to achieve immortality. Ashlander texts claimed that the death of Nerevar was due to their treachery. They later formed the Tribunal Temple and took control of all of Morrowind.

Main Quest

The main story evolves around the Prophecies of Nerevarine and the Sixth House Cult. As the character explores the local history and towns of Morrowind, more information is gathered about his/her potential destiny as Nerevarine, the reincarnation of Saint Nerevar. The goal of the character is to accomplish the prophecies Nerevarine is intended to do: be named Hortator by the Three Great Houses, unite the four tribes of Ashlanders, defeat their enemies of the Sixth House Cult and Dagoth Ur, and expose the false divine power of the Tribunal.

The main antagonist is Dagoth Ur, the leader of the Sixth House Cult. He dwells in the Red Mountain; plotting against the Tribunal and the Empire with his creation of a new god using the power from the Heart of Lorkhan. The Tribunal, however, has become weak and divided after the loss of Sunder and Keening, two of the profane Kagrenac's Tools, to Dagoth Ur.

The prophesized Nerevarine must undergo a series of trials, leading up to the confrontation with Dagoth Ur inside the Red Mountain. Successfully defeating Dagoth Ur marks the end of the main storyline.

Story Progression

The storyline progresses exclusively through the actions of the playable-character; the non-linear game-play offers a sense of openness and freedom. Objectives related to the main plot are given early on in the game, but players can choose when to pursue and when to discontinue those objectives.

Getting quests and learning about the overall storyline is a matter of joining guilds, dark elf houses, or imperial services. The game presents a rich and intriguing social and cultural relation among the clans, cults, and guilds.

Books

The game's main plot is mostly presented in writing, in books and journals. History related to the world of Morrowind and its people are described in dozens of different books that can be gathered and read. A journal serves as a tool that stores all the tasks that have been given or completed, as well as references for any important information that have been collected through conversations with NPCs.

Conversations

In order to find a particular NPC or to get directions to a certain place, the character must converse with various citizens in the game world. NPCs' responses are affected by their disposition towards the character, which can be manipulated by using special conversation commands. Conversations are presented in text, with certain words being highlighted in the conversation screen. Those words and phrases become new topics that players can obtain more detail on.

A.1.2 Characters

Playable Character

The character is a new person in town; all NPCs regard he / she as a stranger or an outsider. The character creation process is initiated by NPCs asking the character for his or her basic information and attributes. The game offers pre-defined character classes, as well as an option for customization.

Creating a customized character allows players to experience the game world differently; quests can be completed in multiple ways depending on the skills and attributes that the character possesses. For instance, given the race of the character, some NPCs would become instant enemies while others would offer friendliness.

The character is created by first choosing one of the three main classifications of combat, magic, or stealth. Two favourite attributes can be selected, along with five major and five minor skills. These attributes and skills

will level-up faster than those that are not chosen. In addition, there are ten races to choose from, each comes with different attributes and abilities, as well as birth signs that give attributes or powers entirely independent of character's race or class.

Therefore, the character's ability as a fighter, magician or thief is determined by the choices of race, attributes, skills, and birth sign. The goal is to have a well-rounded character since there is only one playable character, which the game evolves around.

Non-Playable Characters (NPC)

Other than the protagonist (the playable character), everyone else in the world of Morrowind is NPC. They are not all completely unique, but are presented by enough differences in terms of faces, personalities, and affiliations between them to distinguish the various culture and races of Morrowind. They also represent different religious believes.

A.1.3 Game-play

System & Replayability

Along with traditions of computer role-playing games, ES3 offers open-ended game-play which allows players to follow the main storyline from beginning to end, or set off in search of adventures through exploring various locations and people that the game contains.

Game's numerous side-quests, those not related to the main plot, are not all linked but sometimes interconnected. Given the ability to create a customized character, there are multiple solutions to each situation. In addition, the character is "freed" after the main storyline is fulfilled, meaning he/she can continue to "exist" in the world of Morrowind and to take on unfinished side-quests.

Many of the quests are quick and dirty; involve stealing, killing, or saving NPCs. Some could be complex, such as the legendary trials from the main-quest. However, all tasks are given with clear-cut goals and objectives.

Assignment of tasks can be obtained by joining guilds, organizations, and cults. Rewards will be given for successfully completed tasks, as well as promotions in rank.

The basic setup of the game is: interact with NPCs, fight monsters or enemies, explore ruins and dungeons, sign-up for various quests, and level-up character's abilities and experiences.

Perspective

The character's movement is controlled and viewed through a first-person perspective, which can be switched to a third-person view point if preferred. Controlling a single character throughout the game and seeing through the eyes of that character, allows players to experience the world as it is centered around them. NPCs change their perception of the character based on players' actions.

Interactions

Morrowind's world adheres to a set of rules that allows the character to go anywhere or do anything. Players can spend equal amount of time exploring, conversing with NPCs, and fighting with weapons or magic. In addition, players can roam, steal, break into houses, harm or kill NPCs that might even disturb the main plot of the game.

Character interactions involve conversations and special commands. Normal conversations would yield information, while special commands would affect personal dispositions. Dispositions toward the character are determined by its statistics, equipment, and reputation. Players have options to flatter, intimidate, taunt, or bribe any of the NPCs to obtain information, items, or services.

In a real-time battle, players can choose to fight with weapons or magic. Each melee weapon has at least three different types of attack: thrust, chop, and slash. Most of the combats are done outside of town, against monsters, bandits, and foils. There are wandering monsters, as well as those reside in dungeons, caves, ancient tombs, and ruins.

Weapons, armors and other items can be taken off enemies' corpses, or obtained by probing traps and picking treasure boxes. Since there is a limited inventory space for carry-along items and equipments, unwanted or less useful items can be sold. Incredibly expensive items can be found through shrine-raiding, and sold by hard-core bartering. Money is used for buying items, such as weapons, armors, spells, and skills.

Challenges

The character is placed into one of the three standard character classes: fighters, thieves, and mages. A character class would more or less determine the different skills that the character is capable of.

Skills that are not identified as major or minor skills can still be acquired. Skills are improved by paying to train in them, or simply by repetitive successful use. For instant, by using a specific type of weapon or wearing a specific type of armour gradually improves the character's skills in using those types of equipment.

The character's experience level is tied to the skills system; character levels are gained through levelling-up character's major and minor skills, which in turn improving character's attributes. It is possible to level up through random exploration of tombs, caves, etc. without a specific quest.

A.2 Final Fantasy X-2

A.2.1 Narrative

Story

As a direct sequel, FFX2 revisits the world of Spira. It continues the story from FFX; two years after the final battle against Sin. The legendary Eternal Calm has come to Spira. People are making changes, living positively in a world without the constant threat of Sin.

While Spira is slowly healing, three major factions are formed, each wanting to lead Spira in this new era of peace. Youth League encourages a radical and massive revolution of the old system, while New Yevon

believes a slow transition is needed as people of Spira are overwhelmed by the rapid changes. The Machine Faction, while not in the main political conflict, has a strong military influence with its research in machinery.

History

About 1000 years ago, there was a great Machina War between two largest cities of Spira: Zanarkand and Bevelle. Zanarkand's summoners were decimated by Bevelle's highly advance technological weapons. Yevon, the ruler of Zanarkand, turned the souls of his people into fayth and summoned an armor known as Sin. Sin's uncontrollable violence annihilated Bevelle's army as well as the city of Zanarkand.

Lady Yunalesca, the daughter of Yevon, created a technique known as Final Summoning and teachings of Yevon, in order to further punish people of Bevelle. Final Summoning offered only false hope, as it could not truly destroy Sin. A new Sin would emerge after a temporary Calm, and people of Spira were living in constant fear of Sin's destruction.

As a summoner, Yuna's pilgrimage toward Final Summoning had led her to the discovery of the truth surrounding the existence of Sin. Yuna and her guardians brought an end to the cycle of destructions by directly defeating Sin and Yu Yevon, the soul of Yevon. It marked the beginning of the Eternal Calm.

Main Quest

The story revolves around three young women, including two returning characters from FFX: Yuna and Rikku, and a new character name Paine. They are part of a sphere hunting group known as the Gullwings. These mystical spheres hold various recordings of the past, and are scattered throughout the world.

Having a central role in the defeat of Sin, Yuna's support is much wanted by the factions. However, the discovery of a sphere containing a recording of someone looking very much like Tidus struggling in captivity has led Yuna to join the Gullwings. She hopes by collecting these spheres would perhaps help her in finding Tidus, her lost love from FFX.

As the girls set out on a series of adventures in collecting spheres, which can be viewed as short video clips, the mysteries surrounding Tidus and events that took place in Spira's history are slowly revealed.

Yuna finds out the existence of VengaGun, a powerful weapon from the ancient Machina War, and Shuyin's plan to use VengaGun in destroying Spira. Shuyin of Bevelle lived in the age of the ancient war, and died with his soul filled with hatred and sadness over the loss of his love Lenne. She was a summoner and a famous songstress of Zanarkand. She was killed by Bevelle soldiers before she was sent to the front line against the machina of Bevelle.

With the help of Lenne's love, Shuyin's tormented soul is freed by Yuna as she battles against him in saving Spira from destruction. Yuna also shows the world the tragedy that happened 1000 years ago, in order to unite people's hearts and feelings. Rethinking of all the events and conflicts, leaders of the three factions agree to work together to bring a peaceful future to all of Spira. Moreover, the story surrounding Tidus ends differently depending on players' actions and level of completeness.

Story Progression

The story of FFX2 is segmented into chapters, which supplements the non-linear mission-based structure of its game-play. The sole guidance of story progression is given by the navigational map, where various locations are indicated with side-quests and hotspots that are directly related to the main plot. Although FFX2 does seldom impose a particular hotspot, players are free to explore and advance at one's own pace.

FFX2's content is light-hearted and fast-paced, with a great deal of humour and comedy throughout the story, contributed by various characters. However, the upbeat atmosphere presented in the first part of the game is slowly being replaced by heavier dramatic moments, as players start to discover the powerful subplot of political conflicts among the competing factions.

Themes

As the story takes place two years after the events of FFX, the world of Spira in FFX2 presents a different atmosphere, separating the events of the two stories. FFX is about gaining independence from the ties of law and customs; a much darker and religious subject. FFX2 is about change and its consequences; a lighter yet political subject.

The theme of change is reflected in the cultural changes and political conflicts in FFX2. In particular, FFX2's story develops around Yuna's journey as a sphere-hunter. In dealing with loss, change, and personal responsibility, she begins her search for her new identity and the acceptance of that identity.

Although, FFX2's storyline is not as epic as FFX, both games possess the essence of FF: a story that focuses on love, losses, individuality, and friendship.

Nostalgia

FFX2 revisits the world of Spira, with a storyline firmly rooted in FFX's world, characters, and events. It presents the peaceful world of Spira achieved through the events in FFX, while introduces a series of new adventure the characters are about to face. There are much nostalgic appeals in FFX2: re-appearance of many characters, familiarity of environment, and frequent reverence of events seen in FFX.

Memory Spheres

Memory spheres hold various recordings of the past, which can be viewed like a movie. Pieces of events shown from the spheres are served as clues for plot development, tying everyone and everything together. Memory Spheres are to be found throughout the game, all over Spira, as players take on various missions and quests.

Conversations

Other than the three main characters, there are numerous NPCs. Conversations between them yield not only information about directions or items, but also reveal important events from the past, and relationship among the characters.

There are segments throughout the game where Yuna, one of the main characters, offers her thoughts and comments on people and events as they happen. She also gives a brief history on each of the places as she travels through the world. These segments take the form of internal dialogues addressed directly to Tidus, a former main character, as she searches for his existence.

A.2.2 Characters

Payable Characters

The trio of Yuna, Rikku, and Paine form FF's first all-female cast of playable characters. Both Yuna and Rikku are returning characters, while Paine is the new addition to the party. In FFX, Yuna and her guardians all had to face enormous troubles and sad moments. However, Yuna's journey in FFX2, her search for her new self is a fun journey, which is reflected in the character design.

Yuna was a soft-spoken, serious 17 years old at the start of FFX. As a summoner and believer of Yevon, she journeyed across Spira in her quest of fulfilling the pilgrimage in hopes of defeating a powerful creature, known as "Sin", and to bring about a temporary "Calm" for the people of Spira. In FFX2, Yuna has become more direct and happy, freed from her role as a summoner. However, even with her new attitude and looks, Yuna is still the thoughtful and introspective girl from FFX, as being reflected in the storyline.

Rikku is the daughter of the Al-Bhed leader Cid, and cousin to Yuna. She travelled with Yuna as one of her guardians in FFX when she was 15 years old. As an Al-Bled, she is knowledgeable with machines, and has a perky optimistic personality. Rikku remains to be Yuna's closet friend in FFX2, whom Yuna shares her feelings about the loss of Tidus.

Paine is quiet and thoughtful, a strong sword-wielding warrior. As a new character in FFX2, others do not know much about her past. As the story slowly reveals, Paine becomes a sphere hunter in hopes to solve the mystery of the Crimson Squad's demise. She was part of the Crimson Squad candidate team whom all have become new leaders of the different factions.

Non-Playable Characters

Some of the characters in the previous instalment of FFX have made their re-appearances in the world of FFX2. The story shows tremendous changes to these characters, transforming many of them from supporting roles into important antagonists. Other memorable characters from FFX, who played central roles in the events of FFX, have also grown and moved on with their lives in the new peaceful world. New characters who have major influence on the main plot are also introduced, in relation to the new set of adventures and storyline.

A.2.3 Game-play

System & Replayability

Unlike its many predecessors, FFX2 incorporates a mission-based structure, featuring a set of side-quests and mini-games with a range of objectives. Majority of the game's content is made up of side-quests and mini-games, which are optional to the main set of missions. The selection of missions is differed in terms of length, expected challenge, and seriousness.

Players gain access to the entire map of Spira early on in the game. They can choose to explore any area or complete any mission, in any order. A mission is chosen from the navigational map by simply selecting an area as presented in the list. Such free-form experience remains linear at its core, as the main set of missions are arranged in a tiered story system.

FFX2 is broken into 5 chapters, with each location containing at least one "event" per chapter. Players can advance to the next chapter or "story level" by completing a handful of missions. The game keeps track of the percentage completed, and only by achieving a 100% completion that players will be able to draw an optimal conclusion to the story. It is possible to complete the game without achieving a 100% completion; resulting in a number of possible endings.

Only a few events per chapter are directly related to the main storyline, labelled as "hotspots" on the navigational map. Non-hotspot areas may also contain significant scenes and dialogues of the main story, but they are side-quests that players can choose to ignore. Furthermore, players can decide when to advance in the

storyline, by visiting the hotspots. The order in which the missions are chosen may change the storyline slightly. There are also some key branching points in the plot, which affect the storyline and percentage of completion.

There are 5 different endings in total, depending on both percentage completed and actions taken at certain points throughout the game. Thus, it is impossible to see all of the game's content with a single play-through. FFX2 offers its players a new option "New Game + ", after completing the game for the first time. It allows players to play-through the game multiple times with all the items, character experience and abilities in tact. Thus, players can experience all of the game content by making different choices at branching points, without having to rebuild the characters.

Perspective

The FF series uses a "party" system, in which players operate a group of playable characters. FFX2 limits the party to three characters all through the game. The storyline advances around these three characters, which is viewed through a third-person perspective. Players are spectators to the story, while participation is needed to move the story forward.

Interactions

As part of the FF series, FFX2 offers a fair amount of content relating to traveling, conversing with NPCs, levelling-up, customizing party members, collecting items and accessories, and fighting various fiends, monsters, and bosses.

Most of the interactive elements are from the mini-games, where a greater emphasis has been placed on "platform" actions, such as jumping and climbing in a 3-dimensional environment. The line-up of mini-games ranges from simple task of passing around balloons to complex strategy of Chocobo breeding.

The party of FFX2 is free to explore the various locations in the game world, in their quest of gathering "memory spheres". Even non-mission areas may offer important information or items after talking to NPCs

around town. In addition, players would be able to gain a better understanding of how the world and its people have changed since the last instalment.

FFX2's battle system places more emphasis on the time element, by incorporating the active time battle system (ATB). Each character's ATB is different in length as represented by a visible time bar, depending on her status and class (job). It is possible to "chain" attacks to deal extra damage from enemies, as well as interrupt enemies' attack. However, commands remain strictly menu-based, with a standard list of physical combat actions and magical spells, supplemented by a "job" system.

Challenges

The game maintains a balance between serious solid game-play with light-hearted funny elements of the various missions. Without the ability to interchange characters, FFX2 introduces a new "job" or class system, with "Garment Grids and Dress-spheres"

The Dress-up system allows characters to switch in and out of classes during battles, and it handles the skills and abilities development of a character. A Garment Grid contains a number of nodes or slots to be equipped with Dress-spheres, which are connected by paths and gates. Each having a different layout and number of nodes, a Garment Grid determines the ordering and accessibilities of "jobs".

There are numerous dress-spheres available, some of which can only be equipped by a particular character. Each Dress-sphere has a small list of abilities that are unique for that "job" or class. Abilities are learned and mastered by repetitive use and accruing "ability points" (APs). As character's level increases, new abilities become available.

Each character can only equip one Garment Grid at a time. Skills associated with a given "job" are only accessible when that Dress-sphere is activated on the character's Garment Grid. Characters can change into a Dress-sphere that is connected to her active job by a path or a gate. When not engaged in a battle, players can

select among the spheres available. Such change is not only visual, but also reflected upon character's status and combat options.

Job-switching is often necessary in battles, in order to build up additional attributes and abilities as characters move from one node to another, passing certain ability gates. Such sequence of job-switching, if done effectively, can yield powerful combat strategies, and a lot of variety.

Therefore, the three key items for the game-play system are accessories, garment grid, and dress-spheres. All of which are to be gathered throughout the world of Spira. Accessories offer special abilities that are not related to the character or her active job.

APPENDIX B – SURVEY

Demographics

Gender:	□ Male □ Female
Age:	□ 12 or younger □ 13 to 17 □ 18 to 22 □ 23 to 27 □ 28 to 32 □ 33 to 37 □ 38 or older
Nationality:	□ Japanese □ American □ Other: please specify: _____
English Proficiency:	□ Limited □ Moderate □ Fluent

Gaming Experience

Q1. Approximately when was your first gaming experience?
□ 12 or younger □ 13 to 17 □ 18 to 22 □ 23 to 27 □ 28 to 32 □ 33 to 37 □ 38 or older

Q2. How interested in games are you?
□ not interested □ somewhat interested □ interested □ very interested

Q3. You play games just to kill time?
□ strongly disagree □ disagree □ neutral □ agree □ strongly agree

Q4. Which of the following do you own? (circle all that applies)
console systems: Nintendo GameCube / Sony PlayStation2 / Microsoft Xbox
portable systems: Nintendo DS / Nintendo GameBoy / Sony PSP
computer systems: PC

Q5. In 2004, how many game titles did you purchase?
□ None □ less than 5 □ 5 to 10 □ more than 10

Q6. In 2004, how many game titles did you rent?
□ None □ less than 5 □ 5 to 10 □ more than 10

Q7. Last week how many hours did you spend playing video games
□ None □ less than 5 □ 5 to 10 □ more than 10

Q8. Which game(s) are you currently playing?

Q9. Which game(s) have you played the most often?

Q10. Which game(s) did you not finish? Why?

Q11. Name up to 5 of your favourite games:

Q12. Name up to 5 of your favourite game characters:

Q13. Name 3 game publishers that you are familiar with:

Entertainment and Game Characteristics
Please complete each of the following statements. (Circle the MOST appropriate answer of your choice.)

Q14. Time appears to go by very quickly when I am playing a game that requires …
□ constant interactions with game elements (i.e. movements, combats)
□ exploration of relationships among characters and the game environment (i.e. conversations)
□ recognition and manipulation of patterns or structures (i.e. puzzles, gathering of clues)

Q15. I often spend more time than I had intended when …
□ developing skills / capabilities (i.e. fast reflexes, level-ups)
□ unfolding a series of events (i.e. sub-plots)
□ planning strategies for the anticipated challenges (i.e. items, grouping of members)

Q16. I am absorbed in what I am doing when I am playing …
□ through the eyes of a character (i.e. first-person)
□ as a character from an outside perspective (i.e. third-person)
□ as a group of characters (i.e. overseeing multiple characters)

Q17. I am immersed in the task I am performing because it is …
□ a time depended challenge (i.e. limited time available)
□ a skill depended challenge (i.e. eye-hand coordination)
□ a strategy depended challenge (i.e. problem-solving)

Q18. I get distracted by other attentions very easily when …
□ I have mastered the game-play
□ I have failed to acquire necessary skills or capabilities
□ the game is not progressing to my standard
□ I am lost without any goal or direction

Q19. I have fun interacting with game elements …
□ in completing a set of tasks / missions
□ in competition with others
□ in cooperation with others

Q20. I enjoy playing a character that …
□ is similar to me whom I can relate to
□ has traits that I found interesting
□ has special abilities that are impossible in real life

Please complete each of the following statements by RANKING among the given choices. (starting from "1" being the MOST appropriate answer)

Q21. Playing a game provides me with a lot of enjoyment when …
___ I can focus on exploring the possibilities
___ I have clear understanding of us "good" and them "bad" characters
___ characters undergo development as they progress through challenges and events
___ it relates to my life, my society, or my knowledge of the world
___ it reveals a set of concealed messages or themes

Q22. When playing a _____ game, I feel I'm in control of the outcome and progression
___ action adventure (i.e. Halo, Silent Hill)
___ driving (i.e. Gran Turismo, Need for Speed)
___ sports (i.e. NFL, Winning Eleven)
___ role-playing (i.e. Final Fantasy, Fable)
___ strategy (i.e. Gladius, Romance of the Three Kingdoms)
___ simulation (i.e. Ace Combat)

Q23. I feel that I have control over my actions in a _____ game
___ action adventure (i.e. Halo, Silent Hill)
___ driving (i.e. Gran Turismo, Need for Speed)
___ sports (i.e. NFL, Winning Eleven)
___ role-playing (i.e. Final Fantasy, Fable)
___ strategy (i.e. Gladius, Romance of the Three Kingdoms)
___ simulation (i.e. Ace Combat)

Q24. I am curious about _____ and their impacts on the progress of a game
___ physical skills or movements
___ collecting items or objects
___ exploring surroundings
___ using tools, weapons, or machinery
___ social interaction with other players
___ social interaction between characters within a game
___ recognizing and manipulating patterns or structures

Please complete each of the following statements. (Circle the MOST appropriate answer of your choice)

Q25. Playing a game that is set in a _____ arouses my imagination.
___ fantasy world (i.e. Legend of Zelda, ICO)
___ historical world (i.e. Ages of Empire, Romance of the Three Kingdoms)
___ modern / present time (i.e. Grand Theft Auto, Tomb Raider)
___ science-fiction / futuristic world (i.e. Half-Life, Front Mission)

Q26. As I progress through a game, it increases my curiosity about possible story outcomes or events.
□ strongly disagree □ disagree □ neutral □ agree □ strongly agree

Q27. As I progress through a game, it increases my curiosity about upcoming tasks or missions.
□ strongly disagree □ disagree □ neutral □ agree □ strongly agree

Please complete the following statements with a brief description of an actual experience.

Q28. Playing a game bores me when …

Q29. The most emotional experience I had playing a game was …

For Japanese or other non-English speaking participants only.

Did you have any difficulty or concern when answering the questions?

C.1 – Gender

			nation		Total
			JP	US	
	female	Count	9	6	15
		Expected Count	8.9	6.1	15.0
		% within nation	13.2%	13.0%	13.2%
	male	Count	59	40	99
		Expected Count	59.1	39.9	99.0
		% within nation	86.8%	87.0%	86.8%
Total		Count	68	46	114
		Expected Count	68.0	46.0	114.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.001 (a)	1	.976

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.05.

C.2 – Age

			nation		Total
			JP	US	
	<= 12	Count	5	0	5
		Expected Count	3.0	2.0	5.0
		% within nation	7.2%	.0%	4.3%
	13 - 17	Count	27	7	34
		Expected Count	20.4	13.6	34.0
		% within nation	39.1%	15.2%	29.6%
	18 - 22	Count	12	19	31
		Expected Count	18.6	12.4	31.0
		% within nation	17.4%	41.3%	27.0%
	23 - 27	Count	14	11	25
		Expected Count	15.0	10.0	25.0
		% within nation	20.3%	23.9%	21.7%
	28 - 32	Count	5	4	9
		Expected Count	5.4	3.6	9.0
		% within nation	7.2%	8.7%	7.8%
	33 - 37	Count	4	1	5
		Expected Count	3.0	2.0	5.0
		% within nation	5.8%	2.2%	4.3%
	>= 38	Count	2	4	6
		Expected Count	3.6	2.4	6.0
		% within nation	2.9%	8.7%	5.2%
Total		Count	69	46	115
		Expected Count	69.0	46.0	115.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	17.378 (a)	6	.008	
Fisher's Exact Test				.005155

a. 7 cells (50.0%) have expected count less than 5. The minimum expected count is 2.00.

C.3 – (Q1) Approximately when was your first gaming experience?

			nation		Total
			JP	US	
	<= 12	Count	56	42	98
		Expected Count	58.5	39.5	98.0
		% within nation	82.4%	91.3%	86.0%
	13 - 17	Count	9	2	11
		Expected Count	6.6	4.4	11.0
		% within nation	13.2%	4.3%	9.6%
	18 - 22	Count	2	1	3
		Expected Count	1.8	1.2	3.0
		% within nation	2.9%	2.2%	2.6%
	23 - 27	Count	0	1	1
		Expected Count	.6	.4	1.0
		% within nation	.0%	2.2%	.9%
	33 - 37	Count	1	0	1
		Expected Count	.6	.4	1.0
		% within nation	1.5%	.0%	.9%
Total		Count	68	46	114
		Expected Count	68.0	46.0	114.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	4.718 (a)	4	.317	
Fisher's Exact Test				.2821

a. 7 cells (70.0%) have expected count less than 5. The minimum expected count is .40.

C.4 – (Q2) How interested in games are you?

			nation		Total
			JP	US	
	not interested	Count	1	0	1
		Expected Count	.6	.4	1.0
		% within nation	1.4%	.0%	.9%
	somewhat interested	Count	9	3	12
		Expected Count	7.2	4.8	12.0
		% within nation	13.0%	6.5%	10.4%
	interested	Count	20	16	36
		Expected Count	21.6	14.4	36.0
		% within nation	29.0%	34.8%	31.3%
	very interested	Count	39	27	66
		Expected Count	39.6	26.4	66.0
		% within nation	56.5%	58.7%	57.4%
Total		Count	69	46	115
		Expected Count	69.0	46.0	115.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	2.111 (a)	3	.550	
Fisher's Exact Test				.6252

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is .40.

C.5 – (Q3) You play games just to kill time?

			nation		Total
			JP	US	
	strongly disagree	Count	7	12	19
		Expected Count	11.3	7.7	19.0
		% within nation	10.3%	26.1%	16.7%
	disagree	Count	6	12	18
		Expected Count	10.7	7.3	18.0
		% within nation	8.8%	26.1%	15.8%
	neutral	Count	18	8	26
		Expected Count	15.5	10.5	26.0
		% within nation	26.5%	17.4%	22.8%
	agree	Count	22	12	34
		Expected Count	20.3	13.7	34.0
		% within nation	32.4%	26.1%	29.8%
	strongly agree	Count	15	2	17
		Expected Count	10.1	6.9	17.0
		% within nation	22.1%	4.3%	14.9%
Total		Count	68	46	114
		Expected Count	68.0	46.0	114.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.410 (a)	4	.003

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.86.

C.6 – (Q4) Which of the following do you own?

			nation		Total
			JP	US	
	Nintendo DS	Count	18	5	23
		Expected Count	13.8	9.2	23.0
		% within nation	7.9%	3.3%	6.1%
	Nintendo GameBoy	Count	43	28	71
		Expected Count	42.6	28.4	71.0
		% within nation	18.9%	18.4%	18.7%
	Nintendo GameCube	Count	30	25	55
		Expected Count	33.0	22.0	55.0
		% within nation	13.2%	16.4%	14.5%
	Personal Computer	Count	66	43	109
		Expected Count	65.4	43.6	109.0
		% within nation	28.9%	28.3%	28.7%
	Sony PlayStation2	Count	54	33	87
		Expected Count	52.2	34.8	87.0
		% within nation	23.7%	21.7%	22.9%
	Sony Playstation Portable	Count	13	1	14
		Expected Count	8.4	5.6	14.0
		% within nation	5.7%	.7%	3.7%
	Microsoft Xbox	Count	4	17	21
		Expected Count	12.6	8.4	21.0
		% within nation	1.8%	11.2%	5.5%
Total		Count	228	152	380
		Expected Count	228.0	152.0	380.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.028 (a)	6	.0003374

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.60.

C.7 – (Q5) In 2004, how many game titles did you purchase?

			nation		Total
			JP	US	
	none	Count	10	2	12
		Expected Count	7.3	4.7	12.0
		% within nation	14.5%	4.4%	10.5%
	less than 5	Count	31	12	43
		Expected Count	26.0	17.0	43.0
		% within nation	44.9%	26.7%	37.7%
	5 to 10	Count	14	17	31
		Expected Count	18.8	12.2	31.0
		% within nation	20.3%	37.8%	27.2%
	more than 10	Count	14	14	28
		Expected Count	16.9	11.1	28.0
		% within nation	20.3%	31.1%	24.6%
Total		Count	69	45	114
		Expected Count	69.0	45.0	114.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	9.382 (a)	3	.025	
Fisher's Exact Test				.02488

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.74.

C.8 – (Q6) In 2004, how many games did you rent?

			nation		Total
			JP	US	
	none	Count	35	24	59
		Expected Count	35.2	23.8	59.0
		% within nation	51.5%	52.2%	51.8%
	less than 5	Count	28	8	36
		Expected Count	21.5	14.5	36.0
		% within nation	41.2%	17.4%	31.6%
	5 to 10	Count	3	5	8
		Expected Count	4.8	3.2	8.0
		% within nation	4.4%	10.9%	7.0%
	more than 10	Count	2	9	11
		Expected Count	6.6	4.4	11.0
		% within nation	2.9%	19.6%	9.6%
Total		Count	68	46	114
		Expected Count	68.0	46.0	114.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	14.407 (a)	3	.002	
Fisher's Exact Test				.001802

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 3.23.

C.9 – (Q7) Last week how many hours did you spend playing video games?

			nation		Total
			JP	US	
	none	Count	11	2	13
		Expected Count	7.9	5.1	13.0
		% within nation	15.9%	4.4%	11.4%
	less than 5	Count	11	7	18
		Expected Count	10.9	7.1	18.0
		% within nation	15.9%	15.6%	15.8%
	5 to 10	Count	17	16	33
		Expected Count	20.0	13.0	33.0
		% within nation	24.6%	35.6%	28.9%
	more than 10	Count	30	20	50
		Expected Count	30.3	19.7	50.0
		% within nation	43.5%	44.4%	43.9%
Total		Count	69	45	114
		Expected Count	69.0	45.0	114.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.287 (a)	3	.232

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.13.

C.10 – (Q8) Which game(s) are you currently playing?

			nation		Total
			JP	US	
count	0	Count	7	3	10
		Expected Count	5.8	4.2	10.0
		% within nation	11.1%	6.7%	9.3%
	1	Count	35	13	48
		Expected Count	28.0	20.0	48.0
		% within nation	55.6%	28.9%	44.4%
	2	Count	10	6	16
		Expected Count	9.3	6.7	16.0
		% within nation	15.9%	13.3%	14.8%
	3	Count	5	10	15
		Expected Count	8.8	6.3	15.0
		% within nation	7.9%	22.2%	13.9%
	4	Count	2	6	8
		Expected Count	4.7	3.3	8.0
		% within nation	3.2%	13.3%	7.4%
	5	Count	0	5	5
		Expected Count	2.9	2.1	5.0
		% within nation	.0%	11.1%	4.6%
	6	Count	0	2	2
		Expected Count	1.2	.8	2.0
		% within nation	.0%	4.4%	1.9%
	7	Count	1	0	1
		Expected Count	.6	.4	1.0
		% within nation	1.6%	.0%	.9%
	multiple	Count	3	0	3
		Expected Count	1.8	1.3	3.0
		% within nation	4.8%	.0%	2.8%
Total		Count	63	45	108
		Expected Count	63.0	45.0	108.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	25.046 (a)	8	.002	
Fisher's Exact Test				.0005693

a. 11 cells (61.1%) have expected count less than 5. The minimum expected count is .42.

C.11 – (Q9) Which game(s) have you played the most often?

			nation		Total
			JP	US	
genre	action	Count	5	11	16
		Expected Count	6.0	10.0	16.0
		% within nation	8.6%	11.5%	10.4%
	action adventure	Count	9	18	27
		Expected Count	10.2	16.8	27.0
		% within nation	15.5%	18.8%	17.5%
	driving	Count	3	0	3
		Expected Count	1.1	1.9	3.0
		% within nation	5.2%	.0%	1.9%
	fighting	Count	4	5	9
		Expected Count	3.4	5.6	9.0
		% within nation	6.9%	5.2%	5.8%
	music	Count	2	3	5
		Expected Count	1.9	3.1	5.0
		% within nation	3.4%	3.1%	3.2%
	puzzle	Count	0	3	3
		Expected Count	1.1	1.9	3.0
		% within nation	.0%	3.1%	1.9%
	racing	Count	0	2	2
		Expected Count	.8	1.2	2.0
		% within nation	.0%	2.1%	1.3%
	role-playing	Count	20	30	50
		Expected Count	18.8	31.2	50.0
		% within nation	34.5%	31.3%	32.5%
	shooter	Count	3	11	14
		Expected Count	5.3	8.7	14.0
		% within nation	5.2%	11.5%	9.1%
	simulation	Count	4	2	6
		Expected Count	2.3	3.7	6.0
		% within nation	6.9%	2.1%	3.9%
	sports	Count	3	2	5
		Expected Count	1.9	3.1	5.0
		% within nation	5.2%	2.1%	3.2%
	strategy	Count	5	9	14
		Expected Count	5.3	8.7	14.0
		% within nation	8.6%	9.4%	9.1%
Total		Count	58	96	154
		Expected Count	58.0	96.0	154.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	13.593 (a)	11	.256	
Fisher's Exact Test				.3151

a. 13 cells (54.2%) have expected count less than 5. The minimum expected count is .75.

C.12 – (Q10) Which game(s) did you not finish? Why?

			nation		Total
			JP	US	
reason	boredom	Count	2	8	10
		Expected Count	4.6	5.4	10.0
		% within nation	4.4%	15.4%	10.3%
	game interface / mechanics	Count	4	8	12
		Expected Count	5.6	6.4	12.0
		% within nation	8.9%	15.4%	12.4%
	lack of direction	Count	3	0	3
		Expected Count	1.4	1.6	3.0
		% within nation	6.7%	.0%	3.1%
	lack of interest / too trivial	Count	10	10	20
		Expected Count	9.3	10.7	20.0
		% within nation	22.2%	19.2%	20.6%
	lack of patience	Count	3	1	4
		Expected Count	1.9	2.1	4.0
		% within nation	6.7%	1.9%	4.1%
	new games	Count	1	2	3
		Expected Count	1.4	1.6	3.0
		% within nation	2.2%	3.8%	3.1%
	continuous play	Count	1	1	2
		Expected Count	.9	1.1	2.0
		% within nation	2.2%	1.9%	2.1%
	no free time	Count	4	5	9
		Expected Count	4.2	4.8	9.0
		% within nation	8.9%	9.6%	9.3%
	too tedious / repetitive	Count	4	7	11
		Expected Count	5.1	5.9	11.0
		% within nation	8.9%	13.5%	11.3%
	too difficult	Count	11	5	16
		Expected Count	7.4	8.6	16.0
		% within nation	24.4%	9.6%	16.5%
	too easy	Count	2	1	3
		Expected Count	1.4	1.6	3.0
		% within nation	4.4%	1.9%	3.1%
	too long / time consuming	Count	0	4	4
		Expected Count	1.9	2.1	4.0
		% within nation	.0%	7.7%	4.1%
Total		Count	45	52	97
		Expected Count	45.0	52.0	97.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	16.359 (a)	11	.128	
Fisher's Exact Test				.1079

a. 15 cells (62.5%) have expected count less than 5. The minimum expected count is .93.

C.13 – (Q11) Name up to 5 of your favourite games.

			nation		Total
			JP	US	
genre	action	Count	32	41	73
		Expected Count	42.8	30.2	73.0
		% within nation	12.4%	22.4%	16.5%
	action adventure	Count	60	30	90
		Expected Count	52.7	37.3	90.0
		% within nation	23.2%	16.4%	20.4%
	driving	Count	8	0	8
		Expected Count	4.7	3.3	8.0
		% within nation	3.1%	.0%	1.8%
	fighting	Count	18	8	26
		Expected Count	15.2	10.8	26.0
		% within nation	6.9%	4.4%	5.9%
	music	Count	10	3	13
		Expected Count	7.6	5.4	13.0
		% within nation	3.9%	1.6%	2.9%
	puzzle	Count	2	4	6
		Expected Count	3.5	2.5	6.0
		% within nation	.8%	2.2%	1.4%
	role-playing	Count	86	52	138
		Expected Count	80.9	57.1	138.0
		% within nation	33.2%	28.4%	31.2%
	shooter	Count	17	22	39
		Expected Count	22.9	16.1	39.0
		% within nation	6.6%	12.0%	8.8%
	simulation	Count	9	8	17
		Expected Count	10.0	7.0	17.0
		% within nation	3.5%	4.4%	3.8%
	sports	Count	7	2	9
		Expected Count	5.3	3.7	9.0
		% within nation	2.7%	1.1%	2.0%
	strategy	Count	10	13	23
		Expected Count	13.5	9.5	23.0
		% within nation	3.9%	7.1%	5.2%
Total		Count	259	183	442
		Expected Count	259.0	183.0	442.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	27.379 (a)	10	.002	
Fisher's Exact Test				--- (b)

a. 5 cells (22.7%) have expected count less than 5. The minimum expected count is 2.48.
b. cannot perform Fish's exact test due to memory size limit.

C.14 – (Q12) Name up to 5 of your favourite game characters.

			nation		Total
			JP	US	
genre	action	Count	40	38	78
		Expected Count	41.6	36.4	78.0
		% within nation	21.1%	22.9%	21.9%
	action adventure	Count	48	46	94
		Expected Count	50.2	43.8	94.0
		% within nation	25.3%	27.7%	26.4%
	driving	Count	1	0	1
		Expected Count	.5	.5	1.0
		% within nation	.5%	.0%	.3%
	fighting	Count	12	13	25
		Expected Count	13.3	11.7	25.0
		% within nation	6.3%	7.8%	7.0%
	music	Count	9	1	10
		Expected Count	5.3	4.7	10.0
		% within nation	4.7%	.6%	2.8%
	puzzle	Count	1	1	2
		Expected Count	1.1	.9	2.0
		% within nation	.5%	.6%	.6%
	role-playing	Count	59	51	110
		Expected Count	58.7	51.3	110.0
		% within nation	31.1%	30.7%	30.9%
	shooter	Count	5	11	16
		Expected Count	8.5	7.5	16.0
		% within nation	2.6%	6.6%	4.5%
	simulation	Count	2	1	3
		Expected Count	1.6	1.4	3.0
		% within nation	1.1%	.6%	.8%
	sports	Count	4	0	4
		Expected Count	2.1	1.9	4.0
		% within nation	2.1%	.0%	1.1%
	strategy	Count	9	4	13
		Expected Count	6.9	6.1	13.0
		% within nation	4.7%	2.4%	3.7%
Total		Count	190	166	356
		Expected Count	190.0	166.0	356.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	15.073 (a)	10	.129	
Fisher's Exact Test				. 09314

a. 9 cells (40.9%) have expected count less than 5. The minimum expected count is .47.

C.15 – (Q13) Name 3 game publishers that you are familiar with.

			nation		Total
			JP	US	
country	Canada	Count	0	4	4
		Expected Count	2.1	1.9	4.0
		% within nation	.0%	3.0%	1.4%
	France	Count	0	9	9
		Expected Count	4.8	4.2	9.0
		% within nation	.0%	6.7%	3.2%
	Japan	Count	141	69	210
		Expected Count	111.3	98.7	210.0
		% within nation	93.4%	51.5%	73.7%
	United Kingdom	Count	1	4	5
		Expected Count	2.6	2.4	5.0
		% within nation	.7%	3.0%	1.8%
	US	Count	9	48	57
		Expected Count	30.2	26.8	57.0
		% within nation	6.0%	35.8%	20.0%
Total		Count	151	134	285
		Expected Count	151.0	134.0	285.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	65.389 (a)	4	2.131e-13	
Fisher's Exact Test				1.648e-15

a. 6 cells (60.0%) have expected count less than 5. The minimum expected count is 1.88.

C.16 – (Q14) Time appears to go by very quickly when I am playing a game that requires …

			nation		Total
			JP	US	
	constant interactions with game elements	Count	36	30	66
		Expected Count	38.9	27.1	66.0
		% within nation	54.5%	65.2%	58.9%
	exploration of relationships among characters and the game environment	Count	13	11	24
		Expected Count	14.1	9.9	24.0
		% within nation	19.7%	23.9%	21.4%
	recognition and manipulation of patterns or structures	Count	17	5	22
		Expected Count	13.0	9.0	22.0
		% within nation	25.8%	10.9%	19.6%
Total		Count	66	46	112
		Expected Count	66.0	46.0	112.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.808 (a)	2	.149

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.04.

C.17 – (Q15) I often spend more time than I had intended when …

			nation		Total
			JP	US	
	developing skills / capabilities	Count	29	21	50
		Expected Count	29.9	20.1	50.0
		% within nation	43.3%	46.7%	44.6%
	unfolding a series of events	Count	18	16	34
		Expected Count	20.3	13.7	34.0
		% within nation	26.9%	35.6%	30.4%
	planning strategies for the anticipated challenges	Count	20	8	28
		Expected Count	16.8	11.3	28.0
		% within nation	29.9%	17.8%	25.0%
Total		Count	67	45	112
		Expected Count	67.0	45.0	112.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.308 (a)	2	.315

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.25.

C.18 – (Q16) I am absorbed in what I am doing when I am playing …

			nation		Total
			JP	US	
	through the eyes of a character	Count	27	16	43
		Expected Count	25.3	17.7	43.0
		% within nation	40.9%	34.8%	38.4%
	as a character from an outside perspective	Count	29	21	50
		Expected Count	29.5	20.5	50.0
		% within nation	43.9%	45.7%	44.6%
	as a group of characters	Count	10	9	19
		Expected Count	11.2	7.8	19.0
		% within nation	15.2%	19.6%	17.0%
Total		Count	66	46	112
		Expected Count	66.0	46.0	112.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.594 (a)	2	.743

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.80.

C.19 – (Q17) I am immersed in the task I am performing because it is …

			nation		Total
			JP	US	
	a time depended challenge	Count	8	4	12
		Expected Count	7.0	5.0	12.0
		% within nation	12.3%	8.7%	10.8%
	a skill depended challenge	Count	29	13	42
		Expected Count	24.6	17.4	42.0
		% within nation	44.6%	28.3%	37.8%
	a strategy depended challenge	Count	28	29	57
		Expected Count	33.4	23.6	57.0
		% within nation	43.1%	63.0%	51.4%
Total		Count	65	46	111
		Expected Count	65.0	46.0	111.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	4.320 (a)	2	.115	
Fisher's Exact Test				.1168
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.97.				

C.20 – (Q18) I get distracted by other attentions very easily when …

			nation		Total
			JP	US	
	I have mastered the game-play	Count	17	8	25
		Expected Count	14.8	10.2	25.0
		% within nation	25.4%	17.4%	22.1%
	I have failed to acquire necessary skills or capabilities	Count	9	4	13
		Expected Count	7.7	5.3	13.0
		% within nation	13.4%	8.7%	11.5%
	the game is not progressing to my standard	Count	9	13	22
		Expected Count	13.0	9.0	22.0
		% within nation	13.4%	28.3%	19.5%
	I am lost without any goal or direction	Count	32	21	53
		Expected Count	31.4	21.6	53.0
		% within nation	47.8%	45.7%	46.9%
Total		Count	67	46	113
		Expected Count	67.0	46.0	113.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.423 (a)	3	.219
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.29.			

C.21 – (Q19) I have fun interacting with game elements …

			nation		Total
			JP	US	
	in completing a set of tasks / missions	Count	37	23	60
		Expected Count	35.9	24.1	60.0
		% within nation	55.2%	51.1%	53.6%
	in competition with others	Count	14	6	20
		Expected Count	12.0	8.0	20.0
		% within nation	20.9%	13.3%	17.9%
	in cooperation with others	Count	16	16	32
		Expected Count	19.1	12.9	32.0
		% within nation	23.9%	35.6%	28.6%
Total		Count	67	45	112
		Expected Count	67.0	45.0	112.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.231 (a)	2	.328

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.04.

C.22 – (Q20) I enjoy playing a character that …

			nation		Total
			JP	US	
	is similar to me whom I can relate to	Count	13	7	20
		Expected Count	11.8	8.2	20.0
		% within nation	19.7%	15.2%	17.9%
	has traits that I found interesting	Count	31	29	60
		Expected Count	35.4	24.6	60.0
		% within nation	47.0%	63.0%	53.6%
	has special abilities that are impossible in real life	Count	22	10	32
		Expected Count	18.9	13.1	32.0
		% within nation	33.3%	21.7%	28.6%
Total		Count	66	46	112
		Expected Count	66.0	46.0	112.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.887 (a)	2	.236

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.21.

C.23 – (Q21) Playing a game provides me with a lot of enjoyment when …

			nation		Total
			JP	US	
	I can focus on exploring the possibilities	Count	152	84	236
		Expected Count	131.9	104.1	236.0
		% within nation	17.8%	12.4%	15.4%
	I have clear understanding of us “good” and them “bad” characters	Count	241	182	423
		Expected Count	236.4	186.6	423.0
		% within nation	28.2%	27.0%	27.6%
	characters undergo development as they progress through challenges and events	Count	121	89	210
		Expected Count	117.4	92.6	210.0
		% within nation	14.2%	13.2%	13.7%
	it relates to my life, my society, or my knowledge of the world	Count	176	178	354
		Expected Count	197.8	156.2	354.0
		% within nation	20.6%	26.4%	23.1%
	it reveals a set of concealed messages or themes	Count	165	142	307
		Expected Count	171.6	135.4	307.0
		% within nation	19.3%	21.0%	20.1%
Total		Count	855	675	1530
		Expected Count	855.0	675.0	1530.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.443 (a)	4	.009

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 92.65.

C.24 – (Q22) When playing a ___ game, I feel I’m in control of the outcome and progression.

			nation		Total
			JP	US	
	action adventure	Count	129	135	264
		Expected Count	143.0	121.0	264.0
		% within nation	11.8%	14.6%	13.1%
	driving	Count	181	171	352
		Expected Count	190.7	161.3	352.0
		% within nation	16.6%	18.5%	17.5%
	sports	Count	231	187	418
		Expected Count	226.4	191.6	418.0
		% within nation	21.2%	20.2%	20.7%
	role-playing	Count	154	117	271
		Expected Count	146.8	124.2	271.0
		% within nation	14.1%	12.7%	13.4%
	strategy	Count	212	130	342
		Expected Count	185.3	156.8	342.0
		% within nation	19.4%	14.1%	17.0%
	simulation	Count	185	184	369
		Expected Count	199.9	169.1	369.0
		% within nation	16.9%	19.9%	18.3%
Total		Count	1092	924	2016
		Expected Count	1092.0	924.0	2016.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.877 (a)	5	.007

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 121.00.

C.25 – (Q23) I feel that I have control over my actions in a ___ game.

			nation		Total
			JP	US	
	action adventure	Count	123	128	251
		Expected Count	133.5	117.5	251.0
		% within nation	11.7%	13.9%	12.7%
	driving	Count	165	163	328
		Expected Count	174.5	153.5	328.0
		% within nation	15.7%	17.6%	16.6%
	sports	Count	193	185	378
		Expected Count	201.1	176.9	378.0
		% within nation	18.4%	20.0%	19.1%
	role-playing	Count	172	137	309
		Expected Count	164.4	144.6	309.0
		% within nation	16.4%	14.8%	15.7%
	strategy	Count	211	136	347
		Expected Count	184.6	162.4	347.0
		% within nation	20.1%	14.7%	17.6%
	simulation	Count	186	175	361
		Expected Count	192.0	169.0	361.0
		% within nation	17.7%	18.9%	18.3%
Total		Count	1050	924	1974
		Expected Count	1050.0	924.0	1974.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.801 (a)	5	.025

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 117.49.

C.26 – (Q24) I am curious about ___ and their impacts on the progress of a game.

			nation		Total
			JP	US	
	physical skills or movements	Count	181	168	349
		Expected Count	188.7	160.3	349.0
		% within nation	12.2%	13.3%	12.7%
	collecting items or objects	Count	230	176	406
		Expected Count	219.6	186.4	406.0
		% within nation	15.5%	14.0%	14.8%
	exploring surroundings	Count	185	151	336
		Expected Count	181.7	154.3	336.0
		% within nation	12.5%	12.0%	12.2%
	using tools, weapons, or machinery	Count	208	168	376
		Expected Count	203.3	172.7	376.0
		% within nation	14.0%	13.3%	13.7%
	social interaction with other players	Count	244	205	449
		Expected Count	242.8	206.2	449.0
		% within nation	16.4%	16.3%	16.4%
	social interaction between characters within a game	Count	207	169	376
		Expected Count	203.3	172.7	376.0
		% within nation	13.9%	13.4%	13.7%
	recognizing and manipulating patterns or structures	Count	229	223	452
		Expected Count	244.4	207.6	452.0
		% within nation	15.4%	17.7%	16.5%
Total		Count	1484	1260	2744
		Expected Count	1484.0	1260.0	2744.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.414 (a)	6	.621

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 154.29.

C.27 – (Q25) Playing a game that is set in a ___ arouses my imagination.

			nation		Total
			JP	US	
	fantasy world	Count	35	27	62
		Expected Count	35.1	26.9	62.0
		% within nation	58.3%	58.7%	58.5%
	historical world	Count	6	5	11
		Expected Count	6.2	4.8	11.0
		% within nation	10.0%	10.9%	10.4%
	present time	Count	10	4	14
		Expected Count	7.9	6.1	14.0
		% within nation	16.7%	8.7%	13.2%
	futuristic world	Count	9	10	19
		Expected Count	10.8	8.2	19.0
		% within nation	15.0%	21.7%	17.9%
Total		Count	60	46	106
		Expected Count	60.0	46.0	106.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	1.932 (a)	3	.587	
Fisher's Exact Test				.597

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.77.

C.28 – (Q26) As I progress through a game, it increases my curiosity about possible story outcomes or events.

			nation		Total
			JP	US	
	strongly disagree	Count	0	2	2
		Expected Count	1.1	.9	2.0
		% within nation	.0%	4.4%	1.9%
	disagree	Count	1	1	2
		Expected Count	1.1	.9	2.0
		% within nation	1.7%	2.2%	1.9%
	neutral	Count	12	3	15
		Expected Count	8.6	6.4	15.0
		% within nation	20.0%	6.7%	14.3%
	agree	Count	29	18	47
		Expected Count	26.9	20.1	47.0
		% within nation	48.3%	40.0%	44.8%
	strongly agree	Count	18	21	39
		Expected Count	22.3	16.7	39.0
		% within nation	30.0%	46.7%	37.1%
Total		Count	60	45	105
		Expected Count	60.0	45.0	105.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	8.230 (a)	4	.083	
Fisher's Exact Test				.05262

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is .86.

C.29 – (Q27) As I progress through a game, it increases my curiosity about upcoming tasks or missions.

			nation		Total
			JP	US	
	strongly disagree	Count	0	2	2
		Expected Count	1.2	.8	2.0
		% within nation	.0%	4.4%	1.9%
	disagree	Count	2	2	4
		Expected Count	2.3	1.7	4.0
		% within nation	3.3%	4.4%	3.8%
	neutral	Count	14	4	18
		Expected Count	10.4	7.6	18.0
		% within nation	23.0%	8.9%	17.0%
	agree	Count	33	20	53
		Expected Count	30.5	22.5	53.0
		% within nation	54.1%	44.4%	50.0%
	strongly agree	Count	12	17	29
		Expected Count	16.7	12.3	29.0
		% within nation	19.7%	37.8%	27.4%
Total		Count	61	45	106
		Expected Count	61.0	45.0	106.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	9.406 (a)	4	.052	
Fisher's Exact Test				.0379

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is .85.

C.30 – (Q28) Playing a game bores me when …

			nation		Total
			JP	US	
	poor balance of control	Count	3	6	9
		Expected Count	4.8	4.2	9.0
		% within nation	4.1%	9.5%	6.6%
	poor interface / mechanics	Count	11	6	17
		Expected Count	9.1	7.9	17.0
		% within nation	15.1%	9.5%	12.5%
	lack of character development / game progression	Count	3	3	6
		Expected Count	3.2	2.8	6.0
		% within nation	4.1%	4.8%	4.4%
	lack of direction	Count	6	7	13
		Expected Count	7.0	6.0	13.0
		% within nation	8.2%	11.1%	9.6%
	simple / trivial plots	Count	14	10	24
		Expected Count	12.9	11.1	24.0
		% within nation	19.2%	15.9%	17.6%
	tedious / repetitive tasks	Count	12	21	33
		Expected Count	17.7	15.3	33.0
		% within nation	16.4%	33.3%	24.3%
	too difficult	Count	14	6	20
		Expected Count	10.7	9.3	20.0
		% within nation	19.2%	9.5%	14.7%
	too easy	Count	6	4	10
		Expected Count	5.4	4.6	10.0
		% within nation	8.2%	6.3%	7.4%
	too long	Count	4	0	4
		Expected Count	2.1	1.9	4.0
		% within nation	5.5%	.0%	2.9%
Total		Count	73	63	136
		Expected Count	73.0	63.0	136.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	12.602 (a)	8	.126	
Fisher's Exact Test				.1296

a. 7 cells (38.9%) have expected count less than 5. The minimum expected count is 1.85.

C.31 – (Q29) The most emotional experience I had playing a game was …

			nation		Total
			JP	US	
	anticipated battles	Count	6	0	6
		Expected Count	3.4	2.6	6.0
		% within nation	12.0%	.0%	6.8%
	relationships among characters	Count	6	3	9
		Expected Count	5.1	3.9	9.0
		% within nation	12.0%	7.9%	10.2%
	competition / cooperation with others	Count	4	4	8
		Expected Count	4.5	3.5	8.0
		% within nation	8.0%	10.5%	9.1%
	death of a character	Count	3	9	12
		Expected Count	6.8	5.2	12.0
		% within nation	6.0%	23.7%	13.6%
	game completion	Count	7	4	11
		Expected Count	6.3	4.8	11.0
		% within nation	14.0%	10.5%	12.5%
	new / unexpected elements	Count	2	3	5
		Expected Count	2.8	2.2	5.0
		% within nation	4.0%	7.9%	5.7%
	story development	Count	9	13	22
		Expected Count	12.5	9.5	22.0
		% within nation	18.0%	34.2%	25.0%
	sympathize with characters	Count	4	0	4
		Expected Count	2.3	1.7	4.0
		% within nation	8.0%	.0%	4.5%
	unable to progress	Count	9	2	11
		Expected Count	6.3	4.8	11.0
		% within nation	18.0%	5.3%	12.5%
Total		Count	50	38	88
		Expected Count	50.0	38.0	88.0
		% within nation	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	18.915 (a)	8	.015	
Fisher's Exact Test				.01178

a. 11 cells (61.1%) have expected count less than 5. The minimum expected count is 1.73.

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