Playing Video Games in Japanese: Motivation, Language Learning, and Navigation

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ABSTRACT

Playing Video Games in Japanese: Motivation, Language Learning, and Navigation

Gabriel Edward Smith

This qualitative study explores the phenomenon of people who play Japanese video games but neither read, speak, nor understand Japanese. The research questions include: What motivates people to play a video game in a language they do not understand? What do people learn from playing games in a language they do not understand? How do they navigate the game without being able to understand the language? In the study, three participants were observed playing the Japanese action role-playing game Tales of Rebirth first released in 2004 for the PlayStation 2 and then interviewed about their experiences. Data was summarized and then analyzed using a three-level approach based on grounded theory. The study showed that the participants played Japanese games due to the lack of comparable games in their native language. They were motivated by in-game rewards and may have been conditioned to succeed in the games through years of playing video games at home in their native languages. The participants learned little if any Japanese from playing these games; they could play the game and succeed at it without knowledge of the language. Participants leveraged prior experience with games to navigate through games in the absence of language because the gameplay was linear. Participants used trial and error as well as icon and character recognition to navigate the game. Although participants did not learn Japanese vocabulary, the evidence suggests they learned other skills, such as computer literacy and Japanese character recognition.

Table of Contents

Table of Figures

Preface

The purpose of this section is to explain how I became interested in the topic of why non-Japanese speakers play video games in Japanese, how I discovered people playing Japanese games, why I played games in Japanese myself, and why this topic is worth studying.

I first noticed the phenomenon of non-Japanese speakers playing Japanese games from looking at GameFAQs.com, a web site that contains an extensive database of video games with walkthroughs and guides for all game systems. The FAQ in GameFAQs stands for Frequently Asked Questions. These guides are created by the users of the site and some of them are extremely detailed, explaining almost everything a person would ever want to know about the most popular games. On the front page of the site, there is a leaderboard showing the 10 most popular games of the day. There are also individual discussion forums for every game in the database, where players can discuss anything they want about a particular game. Although I rarely participate in these forums, I regularly look up walkthroughs and guides on the site when I am playing a video game.

GameFAQs has a significant following. According to the traffic statistics web site Alexa.com, GameFAQs is among the top 1000 most visited web sites in the world and the top 500 most visited web sites in the United States. This means that the number of people visiting the page for the most popular game of the day must be somewhat significant.

One day I went to GameFAQs and noticed that a Japanese game that had not been released in North America was at the top of the list of most popular games. I don't remember exactly what the game was, but it may have been an installment in the Final Fantasy series. Although there was always a certain amount of hype associated with the release of a game that was part of a popular game series, I thought it was strange that a game that had not been released yet in English was the most popular game of the day on an English web site. I looked at the page for the game and it turned out that the Japanese version of the game had been released in Japan that day.

When I looked at the discussion forum for the game, there were many new message threads that had been created that day. From reading the messages, there appeared to be many people playing the Japanese version of the game. The majority of these people were English and did not speak or understand Japanese. There was quite a bit of discussion about this aspect of playing the game. Some people, who were not playing the game, were asking why they were playing the game in Japanese. The responses to this question were mixed. While there were a few people who could speak Japanese, there were more who did not seem to care that they could not understand the language. Some of these players said they could understand the basics of what was going on and were able to use trial and error to get through the game. One person described hitting a "wall" that their lack of ability to understand the language would prevent them from progressing past. The concept of this wall was what got me interested in studying these players.

I later noticed that this was not just an isolated incident. This same

phenomenon repeatedly happened with other games when they were released in Japan. On the Japanese release date, they would either shoot to the top of the most popular games list on the front page of the site or the front page for a particular video game system. Then I would look on the message board and there would be people playing the game in Japanese even though they did not understand the language.

Thinking back to when I was around eight years old, I realized that my brother and I had played games in Japanese as well. In fact, we used rent video games from a local video store because it had Japanese games that were not available in English. The two games we rented were supposedly "Baby Mario" and "Super Mario Bros 5", but we later learned that these games did not exist. The video store told us they had bought them from a bootleg game seller, who had likely put Mario on the boxes in order to entice people to buy them. My brother and I were fans of Mario at the time so we did not care what language the game was as long as Mario was on the box. I remember playing the game and seeing a lot of Japanese text, but it was a platform game that involved jumping around and hitting things so it didn't matter that we couldn't understand the messages that appeared at the bottom of the screen. We always wanted to learn Japanese so we could understand these games, but neither one of us ever took a Japanese class. We heard stories of "friends of friends" who learned Japanese only to play games or learned Japanese only from playing games, but we never met those people. We also wanted to get the games before they came out in Canada, probably so we could brag to all our friends about it, but we didn't know how to import games from Japan. Even though we didn't take it a step farther like the people on GameFAQs, we were playing Japanese games

without knowing any Japanese.

I also remembered that when I was a teenager, I had imported a game from Japan for the Super Nintendo. It was Seiken Densetsu 3 (1995), a sequel that had never been released in English to one of my favourite games, Secret of Mana (1993). Since the sequel looked and worked similarly to its predecessor, I knew how to control my character, understood how the menus worked, and recognized some of the icons to heal myself, use magic, or change equipment. I played the game for quite a few hours or possibly an entire day without having any idea what was going on with the storyline, but eventually I got stuck and could not figure out where to go next. I tried wandering around to different locations and talking to all the people in the towns, but I had hit a wall. Perhaps this was the same wall that those people at GameFAQs were talking about. I did not play the game again until a fan translation was released for it.

During my degree in Theoretical and Applied Linguistics at York University, I became interested in language and technology, and then more specifically in language learning and video games. When I could not find any Linguistics professors who were interested in video games, I decided to pursue a degree in Educational Technology, a more interdisciplinary field. I wanted to learn more about these people who were playing Japanese games and that imaginary wall they were hitting when they were playing them, but I found that there was little research done on language learning using video games. Searching for studies about people who play Japanese games without knowing any Japanese, I found almost nothing except a study by Jonathan deHaan (2005) about learning Japanese from playing a

Japanese baseball game. Even though this was a small study that involved only one

participant, I found it interesting that the person may have been able to increase

Japanese skills from the repetitive symbols and audio cues in a baseball video game.

It made me wonder if someone could actually learn a language from playing video

games and what other things people learned from playing games.

Chapter 1: Introduction

In the last three decades, Japanese video games have become extremely popular all over the world (Williams, 2006). Japanese video games and game systems have maintained a strong following since the Nintendo Entertainment System in the 1980s. Many Japanese games are translated into English and released in North America and other regions. Almost all of these games are released in Japanese months or even years before they are released in English. For example, the first Final Fantasy game was released in Japan in 1987 and was not released in North America until 1990. There are also many games that are released exclusively in Japan and are never officially translated, such as Seiken Densetsu 3 (1995) and Tales of Rebirth (2004). There are many gamers outside of Japan seeking to play these Japanese games who will import them from across the globe even though they cannot understand a word of Japanese (Cubbison, 2005). These players somehow find a way to play these Japanese games without understanding any Japanese. This may show that these games have a strong motivational pull for these players, regardless of the language used.

The purpose of this chapter is to provide an overview of research on video games. It starts with an overview of research on video games and literacies and continues with a discussion of navigation and interfaces and introducing the study.

Video Games and Literacies

The purpose of this section is to provide an overview of the main research

areas of video games in education. It starts with a discussion of commercial games and continues with a discussion of research on motivation in video games, and second language learning using video games.

Squire (2004) showed that it was not only possible but effective to use commercial games in an educational context by implementing Sid Meier's Civilization III (2001) in a writing class. James Paul Gee (2003) states:

> Good computer and video games… are learning machines. They get themselves learned and learned well, so that they get played long and hard by a great many people. This is how they and their designers survive and perpetuate themselves. If a game cannot be learned and even mastered at a certain level, it won't get played by enough people, and the company that makes it will go broke. Good learning in games is a capitalist-driven Darwinian process of selection of the fittest. (p. 1)

In other words, commercial games inherently require players to learn something in order for the players to succeed.

A popular topic of study in the field of education is the ability of video games to motivate students. Kiili and Lainema (2008) state that "games are seen as being magic new tools that will solve the problems of computer assisted learning" (p.469). Earlier research was somewhat limited due to the simplicity and technical limitations of early video games. For example, Malone (1981) tested simple computer games, such as Maze Craze, which requires the player to navigate through a computer generated maze, and Hangman, which requires the player to guess the letters of a

word, to find out which games were motivating and what features of those games increased motivation.

Coleman (2002) notes that video games have been used by language teachers since the 1980s. Early games, such as Colossal Cave Adventure (1976) and Zork (1977), were entirely text-based and required players to type in every action they wanted to take in the game, which may have been useful for teaching reading, spelling, vocabulary, or grammar. These games did not provide audio feedback other than music and sounds. Spoken language was minimal due to limitations of video game sound technology and the hard drive space required for the sound files.

As games evolved to include more immersive, fully-voiced, and multi-player online games in the 21st century, language teachers were able to use games for speaking and listening comprehension. The New London Group (1996) invented the term "multiliteracies" to describe the "understanding and competent control of representational forms that are becoming increasingly significant in the overall communications environment, such as visual images and their relationship to the written word - for instance, visual design in desktop publishing or the interface of visual and linguistic meaning in multimedia" (p. 2). This umbrella term could easily include icon recognition or navigation of unfamiliar software. Researchers are increasingly looking at video games in terms of computer literacies and other literacy skills beyond reading, writing, listening, and speaking (Harushimana, 2008; Jolley, 2008; Kline et al, 2006; Lotherington, 2004; Sanford & Madill, 2007; Schwartz & Rubenstein-Avila, 2006; Shrand, 2008). Research in this area supports a view that video games represent an

emerging literacy practice which needs to be considered by the next generation of teachers and policy makers (Lotherington, 2004).

Navigation and Interfaces

Over the past 30 years, the navigation systems we use for technology have changed dramatically. Similar to early text-based video games, early computer operating systems, such as that of the Commodore 64, required the user to type in all commands using their keyboard. When Windows 3.0 was released in 1990, graphical user interfaces with windows and icons controlled with a mouse became popular. The study of icons and user interfaces started around this time (Waterworth et al, 1993), but it never gained popularity among researchers (Abada & Onibere, 2009). Icons and interfaces have also become pervasive in video games whether English or Japanese, but this specific topic has never been studied. Abada and Onibere (2009) note that no studies have been done on the effect of "rehearsed computer use" on the ability to recognize icons and use these interfaces. This lack of interest by researchers is perhaps due to the fact that most people learn how to use computers informally and would be difficult for researchers to observe. People rarely think about how they learned to play video games or use a computer or how they learned the meaning of the icons.

Introducing the Study

Because success in using unfamiliar software or a video game suggests that some learning is, at the least, being transferred and, at the most, is occurring, it's a phenomenon worth studying. People who play Japanese games without knowing Japanese are

engaging in an activity that uses more than one language and multiple literacy skills. For example, they are learning how to play the game and interacting with a foreign language at the same time. Studying these players may provide insight into their motivation and the diversity of literacy practices that are involved in playing video games. When people do not understand a language for a game or software they are using, they may need to rely on other skills, such as trial and error, intuition, icon recognition, or the position of the menu commands.

This is an interdisciplinary study that spans across several fields of study, including education, linguistics, and computer science. Therefore, the questions, at this point in time, are quite broad. This study will address three questions about these players:

1. What motivates people to play games in a language they do not understand?
2. What are these players learning from playing these games?
3. How do these players navigate these games without knowing the language?

The significance of answering these questions is to get an idea of why and how people learn from video games and what they are learning, whether this is specific language skills or more abstract computer literacy skills.

Although playing games in an unfamiliar language may be considered an obscure activity, this study may have broader implications for research other areas. For example, looking at what people learn at home from video games in informal situations may give insight into how they can be motivated by video games and what kinds of things they can learn from video games in formal contexts, such as language

classrooms. Finding out what people are learning from playing video games may show that they are engaging in high level thought processes, learning skills that may be useful in other contexts, and challenging the existing notion that playing games is a mindless activity. Observing how people navigate through a game without knowing the language may have implications for game design, such as what design features best facilitate people's ability to play video games. This study may also have implications for software design, such as what makes an interface intuitive or easy to use.

Chapter 2: Literature Review

The purpose of this chapter is to situate this study within the larger body of literature, such as studies of video games in education and the effect of language on interface. This chapter starts by outlining the theoretical orientation of the study and then goes into a discussion of the main areas of literature: motivation, language learning, and computer literacy.

Theoretical Orientation

The theoretical orientation of this study is an informal learning perspective from Marsick and Watkins (1990). Marsick and Watkins (1990) state:

> Informal learning, a category that includes incidental learning, may occur in institutions, but it is not typically classroom-based or highly structured, and control of learning rests primarily in the hands of the learner. Incidental learning is defined as a byproduct of some other activity, such as task accomplishment, interpersonal interaction, sensing the organizational culture, trial-and-error experimentation, or even formal learning. Informal learning can be deliberately encouraged by an organization or it can take place despite an environment not highly conducive to learning. Incidental learning, on the other hand, almost always takes place although people are not always conscious of it. (p. 12)

Cross (2007) states that 80% of learning in the workplace is learned informally, such as through trial and error. In contrast, Marsick and Watkins (1990) define formal learning as "typically institutionally sponsored, classroom-based, and highly structured" (p. 12).

According to Cross (2007), what distinguishes informal learning from formal learning is not only the context, but the control of the goals. For example, the teacher or trainer in a classroom defines the goals of formal learning, which often occurs in the classroom, the learner controls the goals of informal learning, which often happens outside of the classroom. Marsick and Watkins (2001) note that "learning from experience is so broad that everything from Outward Bound activities to structured computer simulations is included in the definition" (p. 25). Although this theory mainly deals with workplace learning, concepts of work and learning have been compared to the concept of play by influential cultural theorist Huizinga (1949), who is often cited by video game researchers. This theory is relevant to this study because playing video games, as well as learning how to play video games, is most often done by players in informal situations. People playing Japanese games without knowing any Japanese is likely almost exclusively done in informal contexts.

How Literature Was Selected

This literature review mainly uses peer reviewed journal articles found through Google Scholar and the ProQuest database, including the Education Resources Information Center (ERIC) database. Effective keyword searches included:

- games AND motivation
- educational games
- games AND language
- graphical user interface AND icon

The purpose of this literature review is not to cover all literature on video games, educational software, computer assisted language learning, general software design, and human computer interface. These fields are vast and many of the studies in these fields do not relate to the topic of people who play games in Japanese. Because this study is interdisciplinary, excluding unrelated literature from this review was important to prevent this literature review from becoming unfocused and unnecessarily dense. Articles concerning general educational software and mobile apps for language learning were excluded because several articles existed that dealt more closely with games. In contrast, some of the general software articles on navigation and interfaces ended up being included because there was a lack of research on navigation and interfaces in games.

Key Themes in the Literature

This section summarizes the key themes in the literature: How games motivate learners, how games can be used for language learning, and how learners navigate unfamiliar software.

Key theme 1: How games motivate learners

The purpose of this section is to discuss the literature on the motivating properties of video games and the features that make them ideal learning environments. This section starts by outlining Pintrich's (2003) framework of motivation and then continues by summarizing game research that relates to his five design principles: adaptive self-efficacy and competence beliefs, adaptive attributions and control, interest and intrinsic motivation, value, and goals.

Framework

Motivation is common focus of research on video games and language learning. To answer the question of what motivates students, Pintrich (2003) identifies the framework in Figure 1 that includes "motivational generalizations" and "design principles" for motivating students in educational contexts.

Figure 1

Pintrich's (2003) Framework of Motivation

Motivational Generalization	Design Principle
Adaptive self-efficacy and competence beliefs motivate students.	Provide clear and accurate feedback regarding competence and self-efficacy, focusing on the development of competence, expertise, and skill.
	Design tasks that offer opportunities to be successful but also challenge students.
Adaptive attributions and control beliefs motivate students.	Provide feedback that stresses process nature of learning, including importance of effort, strategies, and potential self-control of learning.
	Provide opportunities to exercise some choice and control.
	Build supportive and caring personal relationships in the community of learners in the classroom.
Higher levels of interest and intrinsic motivation motivate students.	Provide stimulating and interesting tasks, activities, and materials, including some novelty and variety in tasks and activities.
	Provide content material and tasks that are personally meaningful and interesting to students.
	Display and model interest and involvement in the content and activities.
Higher levels of value motivate students.	Provide tasks, material, and activities that are relevant and useful to students, allowing for some personal identification with school.
	Classroom discourse should focus on importance and utility of content and activities.
Goals motivate and direct students.	Use organizational and management structures that encourage personal and social responsibility and provide a safe, comfortable, and predictable environment.
	Use cooperative and collaborative groups to allow for opportunities to attain both social and academic goals.
	Classroom discourse should focus on mastery, learning, and understanding course and lesson content.
	Use task, reward, and evaluation structures that promote mastery, learning, effort, progress, and self improvement standards and less reliance on social comparison or norm-referenced standards.

Each of Pintrich's (2003) motivational generalizations above will be discussed below in relation to research that has been done on video games.

Adaptive self-efficacy and competence beliefs

Self-efficacy and competence beliefs refer to the learner's sense that s/he is "good enough" and able to complete a task. Learners who feel that they will be successful and are realistic judges of their own abilities (i.e. adaptive) are more motivated to learn than learners who feel they are not good enough and/or feel they will fail to complete a learning goal (Bandura, 1997). In other words, learners with realistic, positive attitudes towards their learning abilities will be more motivated to complete a task than learners with negative attitudes. Ryan, Rigby, and Przybylski (2006) state "perceived competence is among the most important satisfactions provided by games, as they represent arenas in which a person can feel accomplishment" (p. 250).

When designing motivating instruction, Pintrich (2003) mentions the need to "Provide clear and accurate feedback regarding competence and self-efficacy, focusing on the development of competence, expertise, and skill." Papastergiou (2009) states that one reason why video games are effective learning environments is that they give instant feedback. This feedback comes in a variety of forms depending on what type of game is being played. In older games, such as Pac-Man (1980), positive feedback came in the form of getting points if a player performed a task successfully and negative feedback came in the form of a giant "GAME OVER" screen when all lives were lost. Feedback in video games also often uses non-verbal audio and visual cues, such as a fanfare or death knell, that wouldn't require the player to comprehend the language to understand that the feedback was positive or negative.

Learners with prior video game experience tend to have higher self-efficacy

beliefs about learning with games than inexperienced users (Orvis et al, 2008; Papastergiou, 2009). Orvis, Horn, and Belanich (2008) found that this effect increased when the educational game was similar to games they had played previously. For people who play Japanese games, these findings may indicate that it is more motivating for these players to play Japanese games that are similar to games they previously played in English. Perhaps if a popular English game was modified for the purpose of language learning, it may be an effective learning tool because people who played the game previously would already feel that they were competent at it. Ryan et al (2006) state that "[p]erceived competence [is] enhanced in gaming contexts where game controls are intuitive and readily mastered, and tasks within the game provide ongoing optimal challenges and opportunities for positive feedback." (p. 349)

The second design principle Pintrich (2003) mentions for increasing self-efficacy and confidence is incorporating "tasks that offer opportunities to be successful but also challenge students" (p. 672). Success and challenge are both integral parts of all video games, regardless of language. Papastergiou (2009) stresses the importance of designing games that are neither too hard nor too easy. Some learners may be alienated by a game that is too challenging and others may grow bored with a game that is too easy.

Adaptive attributions and control beliefs

"Adaptive attributions and control beliefs" (Pintrich, 2003: 672) refer to the ideas that students who believe they have some kind of control over their own learning and will be more engaged and intrinsically motivated learners (Deci et al, 2001; Cameron, 2001).

The first design principle identified by Pintrich (2003) in this area is

"[p]rovid[ing] feedback that stresses process nature of learning, including importance of effort, strategies, and potential self-control of learning" (p. 672). While conceivably this kind of feedback may be implemented into a game, Egenfeldt-Nielsen (2007) notes that people are generally disinterested in games that focus too much on the learning process. For people who play Japanese games without knowing Japanese, this kind of feedback would be entirely useless because they would not understand the language.

As for the next design principle, "[offering] opportunities to exercise some choice and control" (Pintrich, 2003: 672), control is another integral part of all games that is independent of language. deHaan (2005) identifies control as one of the main motivating features of video games. In most games, the player controls a character or cursor on screen that control the action in the game. In more narrative focused games, the player's actions may also control the direction of the story. Ang and Rao (2008) describe narratives in games from two angles: enacted and represented. In a game with an enacted narrative, the player creates the story in the game through their actions (Ang & Rao, 2008). This could include more open-ended games, such as The Sims (2000). A game with a narrative that is represented may have a linear story that only has one direction and gives the player a limited amount of choices (Ang & Rao, 2008). An example of a linear game may be Final Fantasy XIII (2009). Ryan et al (2006) speculate that game design is moving towards creating more flexible environments where learners feel less controlled because games "respond dynamically to an individual's choices without constraining or anticipating them." (p. 349).

A third design principle for increasing adaptive attributions and control is: "[building] supportive and caring personal relationships in the community of learners in

the classroom" (Pintrich, 2003: 672). Papastergiou (2009) notes that building a community of learners is a major attraction of online gaming, while Dickey (2007) states that collaboration is a main focus of online games. Many online games not only encourage but require interaction and cooperation between players, creating intrinsically motivating environments (Dickey, 2007). For example, Final Fantasy XI (2003) and World of Warcraft (2004) require players to cooperate in order to achieve in-game goals.

Interest and intrinsic motivation

Pintrich (2003) identifies two main types of interests that motivate learners: personal and situational. Personal interest involves specific activities that a person consistently enjoys engaging in. An example of a personal interest could be playing games in Japanese or watching anime (Japanese animations). Situational interests are "generated by the interestingness of the task or context" (Pintrich, 2003: 674). Motivation is often classified into two types: extrinsic and intrinsic. Extrinsic motivation involves external rewards for learning, such as parental approval, good grades, and money. Intrinsic motivation is what drives the learner from within and is considered much more valuable in educational settings than extrinsic motivation. Intrinsic motivation comes from how the learner feels about the material, their ability to complete learning tasks, their learning outcomes or goals, and their control over the learning situation.

Pintrich's (2003) first two suggestions for designing a motivating environment in terms of interest and intrinsic motivation are: "Provid[ing] stimulating and interesting tasks, activities, and materials, including some novelty and variety in tasks and

activities." and "Provid[ing] content material and tasks that are personally meaningful and interesting to students." (p. 672) One of the most common arguments for using video games for learning is that they are more interesting for learners than traditional methods because they are already a personal interest of many students (Annetta et al, 2008). People who import games from Japan obviously find the content and tasks of these video games interesting and stimulating enough. The novelty of Japanese culture, video games and other Japanese media, such as anime and manga (comics) may also add motivation to learn Japanese (Cubbison, 2005; Frey & Fisher, 2004; Fukunaga, 2006; Williams, 2006). Variety is seldom a problem for these players because there are many Japanese games to choose from.

Pintrich's (2003) third suggestion for increasing intrinsic motivation is: "Display and model interest and involvement in the content and activities." (Pintrich, 2003: 672) Although Pintrich's suggestion concerns teachers and deals more with formal learning environments, this suggestion could also apply to online discussion forums for Japanese games, such as the ones at GameFAQs.com. In these forums, players will post about games they are playing to model their interest and involvement in the content and activities of the games, increasing motivation to play for the other players.

Value

Value in motivation is the students' perception that they are doing something important (Pintrich, 2003: 675). If a person feels that what they are learning is useful and relevant, they will be more motivated to learn. Perceptions of value may come from previous experience and self-efficacy, the importance of succeeding, or the relation to the

learner's personal identity.

Pintrich (2003) states "Provid[ing] tasks, material, and activities that are relevant and useful to students, allowing for some personal identification with school" is a design recommendation from Brophy (1999) that is thought to increase learners' value judgments. For students who play video games at home and are learning informally, using them in a classroom could be a relevant, useful, and motivating activity due their personal identification with it (Papastergiou, 2006). However, the idea of value may not always increase motivation for learning from video games because playing video games in general is often thought to be a useless and mindless waste of time (Prensky, 2002). Similarly, many educators may not realize the value of using video games for learning (Lotherington, 2004).

Goals

According to Pintrich (2003), there are two main areas of research about the role of goals in motivation. Goal content theory focuses on multiple social and academic goals that students may pursue in a classroom. For example, a social goal would be making friends in class and an academic goal would be getting an A in the class. Goal orientation theory focuses on the learner's reasons for engaging, which are separated into performance and mastery goals. For example, learning how to play a video game well would be a performance goal and beating the game would be a mastery goal. Ang and Rao (2008) found that for students playing an educational game, finding out the ending was the main source of motivation for 41% of players, while accomplishing interim goals, such as completing missions and solving puzzles accounted for 48%. This finding

may show the importance of both types of goals when learning using video games.

Regarding design principles for goals, Pintrich (2003) suggests "organizational and management structures that encourage personal and social responsibility and provide a safe, comfortable, and predictable environment" (Pintrich, 2003: 672). Dede (1996) notes that learning in a video game could be much safer than learning in a traditional classroom because learners would be less afraid to take risks in an artificial world where their social goals would not be disrupted. However, many popular video games, such as Grand Theft Auto (1997), may contain blatant violence, sexism, and racism and do not encourage social responsibility (Heintz-Knowles et al, 2001).

In terms of "cooperative and collaborative groups to allow for opportunities to attain both social and academic goals" (Pintrich, 2003: 672), multi-player games may be effective at encouraging players to team up and achieve these goals together. As mentioned previously, Dickey (2006) has noted that collaboration is a major feature of multi-player online games, such as World of Warcraft (, that fosters intrinsic motivation.

The last design principle for motivation discussed by Pintrich (2003) is "task, reward, and evaluation structures that promote mastery, learning, effort, progress, and self improvement standards and less reliance on social comparison or norm-referenced standards" (p. 672). The competitive nature of games may be their downfall in terms of motivation as players may compare performance and may be discouraged if they are not as good as their friends (Bonanno & Kommers, 2007). This potential disruption of social and performance goals relates back to the self-efficacy and competence beliefs discussed earlier.

Key theme 2: How games can be used for language learning

The purpose of this section is to discuss the literature related to how video games can be used for language learning in a variety of educational contexts. This section starts by discussing how early games were used to teach reading and writing and then discusses how newer games can be used to teach listening and speaking.

Early games: Reading and writing

In the 1980s and 1990s, reading was a primary requirement of playing video games. Text adventures were common, graphics were non-existent and the characters in the game were mute. Some early adventure games, such as Zork (1985) and Quest for Glory (1989) required users to type in commands to play the game, such as "climb tree" and "get water with flask". Taylor (1990) argues that although many of these systems were primitive, "good parsers can, however, provide work on accuracy as well as fluency, requiring more complex/complete structures." (p. 462) Taylor (1990) reports that several English language teachers have had success in language classes using games with multiple-choice inputs with beginning and low-intermediate learners, although she does not describe what that success means. Although these games seem like they may have been useful for teaching second language reading and writing, Taylor (1990) notes that many of these text-based games have been deemed inappropriate by language teachers due to their difficulty and lack of realistic or relevant vocabulary.

Multi-User Dungeons (MUDs) are text-based online games that rely heavily on reading to play the game because they have no graphics (Mortensen, 2006). These online games may be more effective tools for language learning because the players create the

game world with their writing, while their communication with other users dictates the action in the game. For example, using a MUD game called MOOsiggang with a group of advanced English learners in Germany and a group of intermediate German learners in America, von der Emde, Schneider, and Kötter (2001) found that the MUD allowed the students to practise their second language reading and writing autonomously, through peer teaching and through role-playing. They also found that the environment was almost entirely student-centred because the students' writing had created the game world and everything that occurred within that world. Other researchers have also noted that gaming is an extremely student-centred activity because the teacher usually stands on the sidelines as a facilitator (Baltra, 1990; Coleman, 2002; García-Carbonell et al, 2001).

Examining data from student chats using the MUD game, Kötter (2003) also found that the MUD encouraged more alternation between languages, clarification requests and negotiation of meaning than regular face-to-face interactions. Long (1996) notes that negotiation of meaning can significantly enhance second language vocabulary acquisition. Vocabulary is especially important in a multi-user text-based game because the game does not work if the users do not understand each other's writing.

Mortensen (2006) notes that text-based games have been replaced by graphical online games, such as EverQuest (1999) and World of Warcraft (2004), although players in these games still use traditional text chatting as a means of communication. Rankin, Gold, and Gooch (2006) found that intermediate and advanced English learners playing EverQuest 2 (2004) increased their vocabulary scores by 40% through interactions with non-player characters and increased their chatting by 100% with other human players

over eight sessions of play. Therefore the negotiation of meaning still occurs even in the chat boxes of modern games.

Video games have also been used as a basis for traditional reading and writing activities. For example, Coleman (2002) used SIM COPTER to teach ESL students how to give and take directions. By directing each other and finding in-game locations, students practised reading and writing using realistic language and became aware of writing for an audience. Colby and Colby (2008) proposed an implementation of the Massively Multiplayer Online Role-playing Game (MMORPG) *World of Warcraft* in a writing classroom that involved students not only playing the game, but writing reflective essays about their play experiences. Squire (2004) conducted a similar project using Civilization III (2001), giving the students several short answer questions about their game in comparison to real life. Although Colby and Colby (2008) and Squire's (2004) projects did not involve ESL students, their activities were shown to be highly interesting and relevant for many students and could easily be adapted for an ESL writing class. Meskill (1990) states: "The main tenet of CLT is to focus on meaning in context-- language as it is used in the real world, and as such, is fully satisfied by the adaptation of native-speaker software." (p. 459) In other words, using popular commercial video games in the ESL classroom in these ways may enhance learning because they use authentic native-speaker materials. Learners who have prior experience with video games may also be highly motivated by such activities that bridge their home and school literacy practices (Orvis et al, 2008; Papastergiou, 2009).

Japanese language classrooms may be best positioned to bridge home and school literacy practices using video games because of the large number of Japanese games that

are not translated and the popularity of Japanese games, manga, and anime around the world (Davis, 2008; Manion, 2005; Matsui, 2009; Newitz, 1995). As stated in the previous section, various studies have found that interest in this Japanese storytelling often motivates people to learn Japanese (Cubbison, 2005; Frey & Fisher, 2004; Fukunaga, 2006; Williams, 2006). One major reason is that many Japanese game consumers do not view translations as authentic texts or view the original Japanese texts as separate entities from their translated versions (Cubbison, 2005). Therefore they must learn Japanese to experience the authentic texts. The wealth of original games further increases motivation to learn the language in order to play the games and explore other Japanese literature.

Reading Japanese is often thought to be more difficult than other languages because of its complicated writing system. Written Japanese regularly uses three or four scripts at the same time in any given text. These scripts include Kanji ideographs, the Hiragana syllabary for native Japanese words, and the Katakana syllabary for loanwords, and the Latin alphabet (called Romaji) for other loanwords and computer use. Recognizing these symbols and the difference between them is particularly difficult for people unfamiliar with reading ideographic languages and syllabaries. However, deHaan (2005) found that an intermediate learner significantly improved his Japanese character recognition abilities from playing a Japanese baseball video game because of game's repetitive action and audiovisual cues. Although this study lacks reliability due to the fact that there was only one participant, character recognition is an important issue in Japanese learning that needs more attention. In another study of Japanese language learners, Hayashi and Yano (1994) found that a computer game called JUGAME was

highly useful for learning Kanji idioms because it was able to create adaptive puzzles depending on the skill level of the student. As stated earlier, this ability to adapt to learner needs makes video games highly effective learning tools (Ryan et al, 2006).

While older games may be better positioned to teach reading and writing, in the past decade, video games have evolved beyond the sights and sounds of text adventures and high-pitched computer beeps. Due to major advances in audio and visual technology in the past 20 years, games require far less reading and writing and far more listening and speaking. Although Moberly (2008) laments the trend of getting rid of text in games, this lack of text facilitates players to play games without knowing the language.

Newer games: Listening and speaking

Today, many offline games have audio dialogue throughout the entire game and many online games have real-time voice chatting capabilities to communicate with other players orally, eliminating the need for a keyboard. These advances in gaming technology provide language learners with new opportunities to practise speaking and listening that did not exist 20 years ago.

While text adventures have caught the attention of some researchers (Meskill, 1990; Taylor, 1990), their fully-voiced counterparts have not received such attention. This is possibly because these types of offline games are too difficult, time-consuming, and only appeal to a narrow audience (Taylor, 1990; Papastergiou, 2006). But if people can learn language from watching movies (Kuppens, 2010), they can surely learn language from the spoken dialogue in fully-voiced video games or visual novels. While research has not been done in these genres, deHaan (2005) found that acquisition of

spoken Japanese from a Japanese baseball video game was facilitated by repetition, context, and subtitles accompanying the spoken dialogue. Also, in a study of Japanese vocabulary acquisition using a rhythm video game, deHaan, Reed, and Kuwada (2010) found that the players of a music video game retained much less vocabulary than the people watching them play the video game. It was assumed that the players were negatively affected by the heightened cognitive load of playing the game and learning vocabulary at the same time. Because both of these contexts used games genres that traditionally have no dialogue, little is known about improving listening comprehension using offline narrative-driven games like role-playing games and dating simulations.

More research is also needed on voice recognition in video games to improve second language learners' oral fluency. While voice-controlled commercial games exist like LifeLine (2004) for the PlayStation 2, these games are not well-known and none of them have been tested in a second language learning context. However, voice recognition has been used by the US Military in computerized simulations to teach spoken Arabic to soldiers heading to Iraq called the Tactical Language and Culture Training Systems (Johnson, 2010). These simulations include a game that puts players into realistic social situations and allows them to speak into a microphone to communicate with the game's characters. Although the makers, Alelo Inc., claim that this software is highly realistic and effective for increasing learners' oral fluency (Johnson, 2010), there is no independent peer-reviewed research available to back up these claims.

The main area of interest for speaking and listening in second languages using video games is with multi-player online games, which now allow players to communicate

using headsets. Eddy Schneider and Kai Zheng, professors at State University of New York at Potsdam, have used the online game World of Warcraft (2004) specifically for English language learners in China to improve their speaking and listening comprehension (Waters, 2007; Ruberg, 2007). Because Asian players of World of Warcraft (2004) have their own servers where English is not used, Schneider and Zheng implemented an English server for their Chinese EFL students. The idea was that Chinese students would be attracted to World of Warcraft (2004) to improve their English. Because World of Warcraft (2004) requires communication between players in order to accomplish game-related goals, players greatly improved their English fluency while playing. Also, the kind of English they were learning was informal, useful, realistic, contextualized, and conversational, as opposed to (or as a supplement to) the artificial, formal English often found in text books. García-Carbonell, Rising, Montero, and Watts (2001) state many activities using games encourage authentic communication because they deviate from the "authority structure of the traditional classroom" (p. 485), in which the teacher decides all conversation topics for the students. Online games are learner-centred (García-Carbonell et al, 2001). Although there are no Asian EFL servers for World of Warcraft (2004) at this time, ESL learners living in North America could easily use any online game to practise speaking English with native speakers whenever they wanted. While the same barrier may exist for players of Japanese online games living in North America, people learning Japanese in Japan may also be able to take advantage of online games to practise their Japanese.

Key theme 3: How learners navigate unfamiliar software

The purpose of this section is to discuss the literature related to how people navigate through unfamiliar software. This section will first discuss the concept of intuition and then cover studies that have been done on icon recognition.

Intuition

Hogarth (2001) defines intuition as a "sixth sense" or "a feeling of knowing what decision to make" (p. 3), but also notes that "intuition means a lot of different things to many different people" (p. 5) and that the concept is not clearly defined. Ryan, Rigby, and Przybylski (2006) describe intuitive controls according to "whether they make sense, are easily mastered, and do not interfere with once sense of being in the game", stating that game designers try to make controls as "intuitive" as possible (p. 350). However, Waterworth, Chignell, and Zhai (1993) note that what "makes sense" to one person may not make sense to another and what is "easily mastered" is heavily dependent on the person trying to master it. In a study of people who did not use computers, Abada and Onibere (2009) found that much of the intuition involved when using computer software comes from prior experience with computers. This finding may also apply to video games.

Intuitive interfaces are central to the design of games, and schema theory has been used to explain how people know how to play games even though they have never played them before. Lindley and Sennersten (2008) define gameplay schemas as "the structure and algorithm determining the management of attentional and other cognitive, perceptual, and motor resources required to realize the tasks involved in game play" (p. 3). DeVane

and Durga (2008) use schema theory to explain how expert video game players activate declarative knowledge from prior experience with games to solve problems in games. Novice users may not be able to play games in Japanese because they do not have this prior knowledge and cannot solve the problem of not understanding the language. Douglas and Hargadon (2001) theorize that people are easily immersed and engaged in gaming because video games cater to pre-existing schemas from other media, such as books, board games, and movies. For example, non-Japanese players may figure out what to do in a Japanese game because it is based on a manga they read and/or an anime they watched. Lindley and Sennersten (2008) state that gameplay schemas "include story scripts for understanding high level narrative structures designed into games, and scripts for the combative engagement of an enemy, exploring a labyrinth, interacting with a trader non-player character, and negotiating and carrying out quests." (p. 3) However, schema theory is not the only way people have defined the "cognitive processes underlying play" (Lindley & Sennersten, 2008: 3).

Icon recognition

Icons are one aspect of interfaces that may affect intuition and usability. Lovgren (1994) notes that users benefit most from icons that are within their "sphere of knowledge" (p. 86). However, the meanings of icons may not always be obvious to everyone or universally understood (Waterworth et al, 1993). Icons are copyright art and one software publisher cannot use the icons produced by another without licensing them. In a study of mobile phone icons, Koutsourelakis and Chorianopoulos (2010) found that icons from five different mobile phone manufacturers were diverse and that icons

representing abstract things without physical real-world referents, such as call log, applications, and internet, were more difficult to understand than icons for concrete things, such as settings and contacts. Beck and Fritz (1998) also found that abstract icons were more difficult to understand, regardless of language ability. An example of an abstract icon from video game would be magic, which has no real-world physical referent and may be represented by staff, wand, pentagram, and star icons.

Icons may not necessarily make software easier to use. After seven experiments, Blackwell (2001) found no significant difference in usability between icon-based and text-based interfaces. In a study of illiterate users of icon-based bank machine interfaces, Thatcher, Mahlangu, and Zimmerman (2007) found that icons did not help people who didn't understand the language because of the difficulty in creating an easily understood icon to describe every banking task that could be performed. From these findings, it may be theorized that icons in video games may not increase the usability of Japanese games for players who do not understand Japanese.

The background of the person using the software may also have an effect on usability. Pappachan and Ziefle (2008) found that understanding of icon meanings depends on the culture of the users. For example, participants in India had difficulty relating a music note icon with sound because traditional Indian music is not written (Pappachan & Ziefle, 2008: 335). However, Wang (2010) found that culture-specific icons only hindered users who did not have prior experience with the program containing those icons because they were unaware of all the possible functions of the program. Experience using certain computer applications also allows users to learn the meanings of the icons associated with those applications (Abada & Onibere, 2009; Wang, 2010). It is

possible that because non-Japanese people who play Japanese games often have prior experience with video games, they are aware of all the possible functions of those games and may be able to more easily figure out the meanings of the icons.

Summary

The three themes of this literature review show research that may be relevant to the topic of people who play games in Japanese without knowing any Japanese, even though none of this research deals with the topic directly.

The topic of motivation in games has received the most attention from scholars. Video games are considered motivating because they give instant feedback, opportunities for success, learner control, interest, relevance, goals, and collaboration. This research may give some insight as to what may motivate people to play Japanese games and what keeps them engaged when they are playing. However, while motivation and learning in video games has been studied by quite a few researchers, most of these studies were done in formal learning environments and were not relevant to second language learning.

There are several examples of language teachers using video games. These studies show what people can learn from games and how games are being used by educators. This may give some insight into what people learn from playing Japanese games. However, again, these were often formal learning contexts. The learners also seemed to be at higher level with the language they were learning, rather than with people who had little or no knowledge of the target language, as with non-Japanese speakers who play Japanese games.

The research on navigation, intuition, interfaces and icons seems to be the least developed. Most of this research focuses on general software usability rather than video games, although many of these findings could be relevant to games. The effect of prior knowledge on people's ability to play unfamiliar games is an important consideration because it may explain how people know how to play Japanese games in the study. The effect of rehearsed computer use on people's ability to use software could also apply to rehearsed game use. Discussions of icons may also be highly relevant to certain Japanese games because people who do not understand Japanese may need to rely on non-verbal language, such as icons, to figure out how to navigate menus, use items, or equip weapons.

One apparent gap in the existing research is that there is no research that has directly studied people who play Japanese games without knowing Japanese. This is likely because this practice is not mainstream and the topic is somewhat narrow and obscure.

Chapter 3: Methodology

The purpose of this chapter is to outline the methodology used for this study of non-Japanese speakers who play games in Japanese. This qualitative, exploratory study addresses these research questions first stated in Chapter 1:

1. What motivates people to play games in a language they do not understand?

2. What are these players learning from playing these games?

3. How do these players navigate these games without knowing the language?

This chapter starts with a section on the choice of a research methodology and then continues to explain how participants were selected, the game used, how participants were studied, how data were analyzed, and assuring the credibility and trustworthiness of the study.

Choice of a Research Methodology

A qualitative observation and interview study was chosen because this is an exploratory study. Stebbins (2001) describes exploratory research as "a brief, fleeting, preliminary stage in the research process that gives way-the sooner the better-to the real thing" (p. 5). The goal of exploratory research is not to test a hypothesis but to discover or create hypotheses. I wanted to base my findings on observations of actual users, which would involve observation research. However, to understand what was going on, I would need to ask people why they made the choices they did, which explains why there also had to be an interview component. Yin (2009) notes that case studies are appropriate

when "'how' or 'why' questions are being posed" and "the focus is on a contemporary

phenomenon within a real-life context" (p. 2).

A quantitative research approach would not be appropriate for this topic because

the size of the population is unknown and it would be difficult to formulate a hypothesis

and survey questions for a topic that has not been researched before. This is also a small

scale study and its results are not intended to be generalized to a population.

Participants

There were two main criteria for selecting participants. One was that they must

have spent a significant amount of time playing games in the Japanese language. The

other was that they must understand little or no spoken or written Japanese. The goal was

to recruit only three participants to limit the length of the study. Craigslist.org was

selected as the recruitment method because this is a common and effective place for

researchers to recruit participants for research studies. Another benefit of using Craiglist

is that it is free for anyone to place an advertisement on the web site. The advertisement

posted for this study stated the following:

> Graduate student needs participants for a research study.
>
> I am looking for people over the age of 18 who play video games in Japanese
> even though they do not understand Japanese. I am looking for a variety of
> players who have spent a significant amount of time playing games in Japanese,
> but are not able to read or understand most Japanese words.
>
> This 2-hour interview will take place at the Sir George Williams campus of
> Concordia University in Montreal. You will be asked to play a video game for
> one hour and then be interviewed about your experience for one hour.

Please contact me using the craigslist e-mail link above. Please make sure to tell me about your level of understanding in written and spoken Japanese, and give me some examples of games and game genres you have played in Japanese.

You will be offered $15 to play the game and $15 for the interview as a thank you for participating in this study.

The full advertisement is also provided in Appendix A.

The participants were asked to state how many games they played in Japanese and what games they played in their reply to the advertisement. This was done in order to avoid recruiting people who played Japanese games that were translated to English rather than Japanese games that were actually in Japanese. Another reason was to avoid participants who had only played one game in Japanese for a short amount of time and would not be able to discuss the topic of the study at length.

Participants selected for the study were originally intended to be one "hardcore" gamer, who played the highest number of Japanese games, one "novice" who played the lowest number of games, and an "intermediate" player who falls between the two extremes. These different types of gamers were chosen to compare the range of Japanese game players and illustrate the diversity of this population. This ended up happening by accident because only four people responded to the advertisement over the course of two weeks and one of them was a native Japanese speaker. Because the Japanese speaker was used to pilot the study, all participants who responded to the advertisement ended up being recruited. Due to the lack of interest, there was no option to select participants based on their level of experience.

Participants were guaranteed that their identities would remain confidential. A pseudonym was used to identify them in the analysis rather than their real names.

About the Game Used

The Japanese video game used for this study was Tales of Rebirth (2004) an action role-playing game that was released for the PlayStation 2 in Japan on December 16, 2004 and the PlayStation Portable on March 19, 2008 by Namco Limited. This game was never released outside of Japan or released in any language other than Japanese. This game is part of the popular *Tales* series of games, which started with Tales of Phantasia for the Super Nintendo Entertainment System in 1995.

This game was also chosen because it contains elements of three different video game genres: role-playing, fighting, and puzzle. Role-playing games require the player to take on the role of a character and emphasize the narrative with a status menu with many different options and icons. Fighting games mainly involve a side view of players fighting each other on a battlefield, where different combinations of buttons can unleash special powers. Puzzle games require the player to manipulate a particular object in a particular way in order to advance in the game or receive an in-game reward. Using a game that encompasses three distinct game genres may provide insight into the effects of different game genres on the player's ability to navigate through a game in a language they do not understand.

This game was also chosen because it was never released in English and it was part of a popular series. According to Sony Entertainment (2011), the Tales series has sold "more than 13 million units worldwide". These aspects of the game were intended to increase the likelihood that participants would enjoy playing the game, but would not have played the game prior to the study. There was also a possibility that participants

might have played other games in the same series. In this case, it would have been interesting to see how their skills transferred from one game in the series to another. Choosing a newly released game in the Tales series was also considered for this study, however, there was no new game in the series released during the time the study was to be conducted.

The story of Tales of Rebirth involves a man named Veigue Lungberg, who lives in a small town that has come under attack by an unknown enemy. In the introductory video at the beginning of the game, the unknown enemy awakens in a distant land and chants a magic spell. This spell causes Veigue to lose control of his ice magic and he accidentally freezes his love interest, Claire Bennett, in a block of ice.

One year later, a boy named Mao comes to the town to save Claire using his fire magic. He is accompanied by a large panther humanoid creature named Eugene. When Mao and Eugene arrive at the church where Claire is frozen, they are greeted by Veigue, who has been guarding Claire for the past year. Veigue attacks Mao in the first battle of the game. The player controls Veigue and can win or lose this battle. The outcome is inconsequential. After the battle, Mao unfreezes Claire with his fire magic. Veigue and Claire then become friends with Mao and Eugene and everyone is invited back to Claire's house for dinner.

After everyone leaves to go to Claire's house, the player gains control of Veigue in the town for the first time. The town has four different screens with four houses, an inn with two floors, a weapon store, a church, an item store, and several townspeople. The player can go into different houses and talk to townspeople, but cannot leave the

town. They must go to Claire's house to advance the game. When the player goes into

Claire's house, there is some dialogue with Claire and her parents that is eventually

interrupted by a villager, who tells everyone to go to the town square. Again the player

can wander around the town without leaving it, but must go to the town square.

When the player arrives at the town square where everyone else is gathered, there

is a large humanoid bull creature with horns demanding one woman from the town as a

sacrifice. Veigue, Mao, and Eugene attack the horned man, initiating a "boss battle". As

with the first battle, the player controls Veigue in the battle, but the outcome is

inconsequential. It is not possible to kill the enemy because he unleashes a devastating

attack that either kills or nearly kills all the characters and the battle automatically ends.

The horned man wants to take one of Claire's childhood friends from the village, but

Claire agrees to go with the man instead. After they leave, the three main characters

speak with Claire's parents and set out to rescue her from the enemy's camp.

Upon leaving the town, the player is taken to a world map area, where they can

encounter battles randomly without seeing the enemy coming towards them. There is a

short road leading to a bridge, which triggers dialogue and a battle with three bandits.

This battle pits the three protagonists, Veigue, Eugene, and Mao against the three bandits.

Although this battle could be considered a "boss battle", the three bandits are provided

more for comic relief than challenging gameplay and the battle is easily won.

After exiting the bridge area, the road leads to a windmill, which the player

automatically enters as they approach. In the windmill, there is an item shop and a

second room with a sleeping area. When the player goes into the second room, a

dialogue event is triggered. Two characters block the door until the player hits the clock. There is another dialogue with an octopus humanoid creature and then the players are taken outside to the world map.

The road continues to another town and bridge, similar to the first town and bridge battle. There is even another battle with the three bandits from the earlier bridge. Since the players in the study only played the game for one hour, they did not have time to explore the second town or continue beyond this point in the game.

The main actions of the first hour of Tales of Rebirth are summarized in the following list:

1. Watch or skip the video that plays when the game is loaded.

2. Press "New Game" at the start screen.

3. Watch or skip the video that plays when starting a new game.

4. Win or lose the battle against Mao.

5. Find Claire's house.

6. Find the town square.

7. Win or lose the battle against the horned man.

8. Exit the town.

9. Go to the bridge.

10. Win the battle at the bridge.

11. Win random battles along the way to the windmill.

12. Arrive at the windmill.

13. Touch the clock to exit the windmill.

14. Win random battles along the way to the second town.

15. Arrive at the second town.

There is dialogue that must be read, listened to, or skipped at each of the events listed above aside from the random battles.

How Data Was Collected

This qualitative study consisted of three sessions with people who play Japanese games. Each session consisted of one hour of playing a Japanese video game followed by a one-hour semi-structured interview about what occurred during the play session.

Separating the sessions into two parts would allow participants to play the game uninterrupted in a more realistic way rather than asking them questions in the middle of the game and taking them out of the environment every time they did something noteworthy. The interviews could then be used to ask questions about certain things they did in the game, as well as their background with Japanese games and prior knowledge of games. Questions asked during the interview included the following:

- How did you know what to do when the game started?
- How did you figure out how to do [action]?
- How did you figure out where to go?
- I noticed you did [action] near the [time/place]. Why did you do this?
- What parts of the story did you understand?
- Did you understand any Japanese in the game? If yes, what?
- How was this experience different or similar to when you play Japanese games at home?
- How long have you been playing games?
- What is your favourite genre of games?
- What are some of your favourite games?
- What Japanese games have you played?
- Why did you play these games in Japanese?

The full advertisement is also provided in Appendix C.

This study took place in a research office at Concordia University. Each session involved setting up the room, a play session of one hour followed by a semi-structured interview.

Process for setting up the room

The room and equipment for this study needed to be set up in a particular way in order to capture the players' gameplay and allow them to control the game using a keyboard.

1. A PlayStation 2 console was attached to a laptop with a capture card adapter to emulate and record the game being played on the laptop.

2. A keyboard was attached to the console to control the game. Keys were mapped to a PlayStation controller's buttons as follows:

   - Z: circle

   - X: cross

   - S: triangle

   - A: square

   - D: L1

   - C: R1

   - F: L2

   - V: R2

   - Enter: Start

   - Right Shift: Select

- Arrow keys: gamepad

3. A chair for the researcher was positioned behind a chair for the participant on an angle to allow the researcher to view the screen and the participants' hands.

Data collection process

1. Data was collected between October and November of 2013 and used the following process:When participants arrived, I introduced myself and presented an informed consent form. See Appendix B for a sample of the form.

2. I asked the participants to read and, if they agreed to the terms, sign the informed consent form. The process would have ended here for those who did not sign the form.

3. Next, I asked the participant to play the video game, Tales of Rebirth, for one hour. When asking the participant to play the game, I instructed them to "play the game as you would if you were playing at home".

4. I started the game and screen recording.

5. I took notes on everything the participant did while playing.

6. After completing the hour of play and a brief break, I started the audio recording and conducted a semi-structured interview with the participant for one hour. Questions depended on what I observed while the participant played the game and included:

- How did you know what to do when the game started?

- How did you figure out how to do [action]?

- How did you figure out where to go?

- I noticed you did [action] near the [time/place]. Why did you do this? [This question will be repeated for most recorded actions in the game.]

- What parts of the story did you understand?

- Did you understand any Japanese in the game? If yes, what?

- How was this experience different or similar to when you play Japanese games at home?

- How long have you been playing games?

- What is your favourite genre of games?

- What are some of your favourite games?

- What Japanese games have you played?

- Why did you play these games in Japanese?

The interviews lasted between 30 and 60 minutes.

7. I asked the participants to sign a sheet to record that they had been paid and then paid them the $30.

8. I asked if they had any questions about the research and if so, I answered their questions.

How Data Was Analyzed

Data was analyzed using an adaptation of the Grounded Theory approach (Glaser & Strauss, 1967). This process involved the following:

1. All video and audio recordings were transcribed in point form using Notepad. Transcriptions included all events that happened and statements from the participants during the interviews.

2. In the first round of coding, similar instances were marked in Microsoft Word, such as talking to townspeople and skipping dialogue.

3. In the second round of coding, similar instances were grouped under general categories. For the game playing, actions were coded into four categories: dialogue, town, battles, and controls. The post-game interviews added two more categories: background and interests.

4. Categories were then grouped under three broader categories: motivation, learning, and navigation.

Assuring the Credibility and Trustworthiness of the Study

To assure the credibility and trustworthiness of the study, the first draft of the descriptions of participants was sent to the participants for review and any necessary clarifications, a process called a member check. This draft was also audited by three graduate student researchers, who identified missing data, arguments that could not be supported, and other weaknesses of the draft and recommended several improvements to the way the information was presented.

Chapter 4: Results

This chapter is a summary of the results of the study. It starts with a description of what happened during the study, and then continues with an analysis of the data.

About the Participants

This section will summarize the video and audio data recorded from the participants during the study on a basic non-interpretive level. Each case will be separated into three sections. The Background section will provide personal information about the participants gained from the interview, such as their history with Japanese games and their gaming habits in general. The Playing the Game and Post-Game sections will describe what they did while playing the game and what they had to say about the game in the interview afterwards, respectively.

Case 1: Jose

Jose is a 29-year-old student from Ecuador who started playing games at age seven. He played games in English and Japanese because there were few games available in his native language, Spanish. It can also take much longer for many popular commercial video games to be released in Ecuador and other South American countries. He had to import the latest games in English or Japanese to avoid having to wait. He did not mind that he could not understand the language because he was more interested in the action in the game than the dialogue or story. He is interested in learning Japanese someday, but mostly due to his interest in Japanese culture, not necessarily because of the video games.

Since coming to Canada and starting university, Jose spends an average of one hour per week playing games. He feels that he does not play as much as he used to because he has grown out of them. He currently does not own any video game consoles or a television. He mainly plays video games at his friends' houses. Jose enjoys fighting, action, sports, and shooting games. Some games he enjoys include Capcom vs SNK 2, Street Fighter, Time Crisis, and Golden Eye. He is not a fan of role-playing games because he feels they are unrealistic, boring, and it takes too long for things to happen.

Jose could be classified as a "casual" gamer. He is categorized as casual because he spends only 1 hour per week playing games, does not own a video game console, and mainly plays games with his friends.

How Jose played the game

When the game began, Jose skipped the introduction video that automatically plays when the game is loaded. He immediately figured out that he just had to press Enter to skip this video. At the start screen, he tried to use the mouse and randomly pressed all the buttons on the keyboard to figure out that the confirmation button to start the game was Z. After pressing this button to start the game, the first full motion video began and he immediately pressed the confirmation (Z) button again to skip it. In the dialogue scenes that followed, he pressed the confirmation button repeatedly to skip all the dialogue as soon as it appeared. He continued to skip dialogue as quickly as possible throughout the entire hour of playing the game.

When Jose first gained control of the main character, Veigue, in the first battle with Mao, he was mashing buttons on both sides of the keyboard, although the controls to

attack, defend, access the battle menu, and perform all battle actions were on the left. During the battle, he mainly swung his sword repeatedly at the enemy and did not enter the battle menu or perform any other battle actions, such as jumping or defending. After winning the battle with Mao, he skipped the dialogue that followed.

Once Jose gained control of his character in the town for the first time, he immediately tried to leave the town. Leaving the town is not possible and only brings up a "skit" with supporting character, Eugene. He accessed this skit twice. He did not talk to any of the townspeople, walked through the next two screens of the town and immediately entered Claire's house. This triggers the event at the town square. Jose said "good" during the conversation when everyone rushed out of the house. He went back through the town and found the town square where the other characters had gone.

In the battle with the horned man at the town square, Jose stayed back while his allies, Mao and Eugene, attacked the enemy. He did not die in the battle, although this battle is unwinnable. After skipping more dialogue, he left the town immediately.

Outside the town and on the world map, Jose immediately followed the short road straight from the town to the bridge without changing the camera angle or exploring any other areas. In the battle at the bridge, he was pressing only the attack button (Z) at first, but then started to try other buttons to no avail. He won the battle and exited the bridge area. On the world map again, he encountered two random battles and he began to move around the battlefield and dodge the enemies more.

When he arrived at the windmill, he bought some red gummies at the store. When the door was blocked by two characters, it was apparent that he was having

difficulty finding the way past them. He tried speaking to them multiple times, talking to the bird in the corner of the room, and spent around 10min looking through the status menus. He found a menu option that showed a world map and spent some time trying to interact with this map. He found the cooking and item menus, created a meat item and tried to use the meat and red gummies on his characters. He also found the configuration menu with the difficulty settings and changed them from MEDIUM to EASY. These menu actions did not accomplish anything in terms of advancing the game. After approximately 15min, Jose pressed the action button next to the clock, which played a bell sound and cleared the exit to trigger another dialogue segment. He said "yes" when he heard the bell sound.

After Jose skipped the dialogue and found himself outside of the windmill, he went back to the bridge again accidentally. He then walked back from the bridge past the windmill to the next town in the game. In the random battles he encountered, he was mashing both the attack (Z) and force (X) buttons at the same time. He found a sparkling circle near the town on the world map and tried to interact with it, which triggered a dialogue window. When he arrived at the second town, he went into the inn. There was a sparkling circle in the inn that was a save point, unlike the one outside. He attempted to save the game. He then went back into the status menus, but his time was up.

Results of the interview with Jose

In the interview after the game, Jose stated that he understood almost none of the game's dialogue. He said he could tell that the writing was Japanese rather than Chinese, Thai, or Korean and stated that he knew it was "Nippon", but he did not understand any

of the Japanese characters or words. Despite the fact that he did not understand the words, he knew that the status menu contained controller settings, status bars, items, skills, and weapons. Regarding the spoken dialogue, he knows that the word "arigato" means thank you and said that he recognized the word "donero", but does not know what it means.

He said that he intentionally skipped all the dialogue and the introduction videos because he wanted to "get to the point" and "move the plot along" in the game. He said this was also why he tried to leave the town as soon as he gained control of his character and did not talk to any of the townspeople. He prefers games that are more action oriented so he can "learn along" while playing. He was "never a fan" of role-playing games and would have skipped all the dialogue even if the game was in a language he understood, such as English or Spanish.

His understanding of the story in the game was that a girl was frozen for many years and needed someone to unfreeze her. He could tell that she was a love interest for the main character because this was a "typical" storyline he had seen in other games. He stated that based on his interpretation of the "visuals" there was a traitor and an evil witch who put a curse on the town. He thought that the main character's love interest took the side of the "evil guy" after the events in the town square.

When asked how he knew which house to go into to trigger the event in the town square, he said it was "instinct". When asked where he thought the instinct came from, he said he had a good sense of direction and orientation in real life and in games. However, when asked how he knew to go to the bridge after leaving the town, he

attributed this to his sense of adventure and exploration. When asked why he went back to the bridge again after the windmill, he said it was accidental because he got lost.

When asked why he bought items in the store, he explained that he knew the food would give him health and felt he needed to have a "life preserver". He stated that this was "common sense". Similarly, when asked why he tried to save the game even though he knew he was only going to be playing for an hour, he said that he had an automatic "pre-programmed ability" to save the game.

One of Jose's main obstacles while playing the game was getting blocked at the windmill. He said that he was looking through the status menus to try to find a way out. For example, he was looking at the map screen to try to find a way to teleport out of the windmill. He also changed the game's difficulty so that he could pass through the door. He eventually just tried walking around and interacting with different objects until he found the clock that was the trigger to let him out.

His strategy in battles was mainly to swing the sword by mashing the Z button. He felt that the game had "stale style of fighting". He let his allies take care of the boss with the horns because he saw that it was 3 on 1 and wanted to see what would happen. He felt that he lost that battle even though his character did not die. He didn't immediately rush at the enemies on the bridge because he knew it was a "boss battle" and that the boss would have some sort of pattern of attacking. He attributed this to "generic common sense". He was unaware that there was a block button in battle.

When asked how the experience would have been different if he was playing at home, he felt that he would have had a "better handling of the situation". He would not

have had to look for the controls because they would have been "instinctive" due to the fact that a regular PlayStation2 controller has fewer buttons than a keyboard. When asked if he would read the instructions, he hesitated, but said he would have read the instruction manual "to see what is what". He felt that Tales of Rebirth was a game he would have played due to its action/adventure elements.

Case 2: Moe

Moe is a 30-year-old student from Iran who started playing games at age five. Most of the first games he played were in Japanese on his neighbour's SEGA console and Commodore 64 because these were the only games available to him at the time. However, from age seven, all the games he played were in English. These games were illegally cracked and sold for $5 by a local game dealer. There were few games available in his native language, Farsi, and he felt these games were "not very good". He and his friends wanted to play popular commercial games, such as Super Mario Bros (1985), that were not released in Farsi. He did not mind the fact that he could not understand Japanese or English because knowing the language was not necessary for him to play the games he wanted to play. Before he learned English, he used "trial and error" to figure out how to play. He has no interest in learning Japanese.

Since coming to Canada and starting university, Moe spends an average of 7 to 10 hours per week playing games. He feels that he spends less and less time playing games as he ages. He currently owns an Xbox 360 console, but also plays games on his PC and mobile Android device. Moe enjoys action, sports, shooting, and strategy games. He occasionally plays online games, but finds their ranking systems stressful. Some games

he enjoys include Red Alert, Grand Theft Auto, and FIFA 2014. He does not care what language his games use because most of them do not have dialogue and he feels they do not require knowledge of the language. For example, football games do not have any dialogue and do not require the language to understand what is going on. Role-playing games and other games with dialogue are "not attractive" to him.

Moe considers himself to be an intermediate or expert gamer, depending on his schedule and how much time he has to play a game. He feels that "gaming is a hobby, not a way of life".

How Moe played the game

When the game began, Moe skipped the introduction video that automatically plays when the game is loaded. He immediately figured out to press Enter to skip this video. At the start screen, he pressed each letter on the keyboard one by one starting from the letter P moving from right to left. The last button he pressed was the Z needed to start the game. He watched the introductory full motion video after pressing start. In the dialogue scenes that followed, he pressed the confirmation button repeatedly to skip all the dialogue that appeared. This appeared to continue for all dialogue he encountered during the hour of playing the game.

When Moe first gained control of the main character, Veigue, in the first battle with Mao, he immediately used Z to swing the sword. After a few seconds, he tried pressing other buttons and discovered the block (A) and menu (S) buttons during this battle. He did not explore the battle menu. After winning the battle with Mao, he skipped the dialogue that followed.

When Moe gained control of his character in the town for the first time, he immediately tried to leave the town, triggering the skit with Eugene. He then opened the status menu but closed it again quickly. He walked through the town and talked to several people along the way. He eventually entered Claire's house, which triggered the event at the town square. However, he did not go to the town square immediately. He first tried to leave the town through the back exit. He then went into the inn, touched the save point near the front desk, went upstairs and touched a dresser in the bedroom. After seemingly not accomplishing anything, he went back through the town to the town square.

In the battle with the horned man at the town square, Moe experimented with different buttons. He found the jump (F) button and attempted to jump and attack his enemies. He died in the battle. After skipping the dialogue following the battle, he went back to the church where Claire had been frozen and talked to the townspeople inside. He then went to the weapon and item shops, although he did not purchase anything. He went back to the room in the inn and touched the coat hangers in the closet twice, which moved when he interacted with them. He then accessed the status menu and looked at the different options before exiting the town and accessing the world map.

Outside the town and on the world map, Moe immediately followed the short road straight from the town to the bridge without changing the camera angle or exploring any other areas. In the battle at the bridge, he started using the X button to use the Force command. He won the battle and exited the bridge area. On the world map again, in the two random battles on the way from the bridge to the windmill, he was mashing the X and Z buttons together to combine the regular attack and the Force attack.

When he arrived at the windmill, he walked past the store and went to the bedroom area. When the door was blocked by two characters, he tried speaking to them, then went to the bird in the cage in the corner of the room, and then walked up to press the clock almost immediately. This action cleared the exit, but he walked around the table before leaving the room and triggering the next dialogue segment.

After Moe skipped the dialogue and found himself outside of the windmill, he figured out how to change the camera angle on the world map by pressing C. As he approached the second town, the game crashed.

Results of the interview with Moe

In the interview after the game, Moe stated that he understood none of the game's text. He said the only part of the spoken dialogue he understood were the names of the characters, although he could not name the characters. He said he did not even attempt to understand anything.

Although he did not understand the Japanese, Moe stated that he listened to "less than 10%" of the spoken dialogue and it was "useless". When asked what that 10% was and why he paid attention to it, he said he was curious about the names, accents, who the friends or enemies were, and the characters' reactions. However, he said that the voices weren't a "100% indicator" and that it was more the characters' actions, such as the battles, and his experience with games that helped him understand what was going on.

Moe said that he usually skips title screen videos, but he watched the first video after pressing start because he wanted to know how everything started. He said that he

intentionally skipped most of the dialogue. When asked whether he would read the dialogue if it was in English, he said he would skip 70% of it because there was a lot and he would "rather play a game than watch a demo". He talked to the townspeople because of previous experience with "games like this". He felt that he had to talk to people to advance in the game and that this was part of the "trial and error" of figuring out the game.

When asked what he understood of story, such as what happened in the town square, Moe's recollection was minimal. Although he could not provide a description, he mentioned a few points, including soldiers talking to girls, needing to find the girl, one of the girls being in trouble, and that "she'll be fine". He said this storyline is typical of how most of these games are designed.

When asked why he tried to leave the town and wandered around the town, he said he was looking for a way "to advance the game". He looked at the dresser because he felt he had to "check everything 100%". He did not remember touching the coat hanger in the closet. He went into the status menu "to escape" and "figure out the controls". Even though he went into the stores, he said he didn't try to buy anything because he was not aware that there was an option to do so.

When he arrived at the windmill, he did not talk to the front desk because he wanted to explore first and talk later. He said this was because new places were more important than new people. He said it was easy for him to figure out how to escape the windmill when the characters were blocking the door. He first went to the window, then the bird, and then the clock.

His strategy in battles was to press both buttons Z and X. He wanted to try different combinations because he felt that more complex buttons meant that he would do more damage. He felt the game was similar to Street Fighter, in which combinations produce special attacks. He figured out the controls through "trial and error" and he had done this before with other games in English.

When asked how the experience would have been different if he was playing at home, Moe said he usually uses a keyboard for gaming and prefers a wireless keyboard to a controller, but felt that the buttons for the game in the study were too close together. He said he would have expected A, S, D or Alt, Shift, Ctrl for the main action buttons based on other games he played with a keyboard. He feels that a regular controller would have been easier to figure out. He said he usually does not read the instructions for games, but may read them after playing the game a few times. He prefers to gather information about a game before buying it. He felt that he would have had stopped playing Tales of Rebirth within the first five minutes. This game was not attractive to him due to the amount of dialogue in it.

Case 3: Lee

Lee is a 28-year-old student native speaker of English who was born in Canada and started playing games at age five. The first game he played was Super Mario Bros (1985) in English on the Nintendo Entertainment System in the 1980s. He has played five games in Japanese, including Final Fantasy IX (2000), Dynasty Warriors (1997), Jump Super Stars (2005), Super Robot Wars K (2009). He played these games in Japanese because his friend had them. He then downloaded Super Robot Wars K

because he enjoyed it and it was never released in English. He did not mind the fact that he could not understand the language because he was playing it for the gameplay and visuals, not for the story. He would probably not play a role-playing game in Japanese because he feels the story of a role-playing game is important and would not play a role-playing game if its story was not good. He is not interested in learning Japanese because he is too busy and feels he would not use it.

Lee says that he used to spend around 20 to 28 hours per week playing video games, but since starting university, this has dropped to six or seven hours per week. He also used to watch a lot of subtitled Japanese anime before starting university, but does not have enough time anymore. He currently owns multiple consoles, including a Nintendo Wii, DS, 3DS, and PlayStation 2. He also classifies his laptop PC and Android smartphone as gaming devices. Lee enjoys role-playing, action, adventure, puzzle, and strategy games.

Lee considers himself to be "an expert gamer, independent of genres". He feels that he is "hardcore" because he needs to "explore everything" in a game.

How Lee played the game

When the game began, Lee skipped the introduction video that automatically plays when the game is loaded. He immediately figured out to press Enter to skip this video. At the start screen, he immediately pressed the Z first to start the game and skip the second video. In the dialogue scenes that followed, he pressed the confirmation button repeatedly to skip all the dialogue that appeared. This continued for all dialogue throughout the entire hour of playing the game.

When Lee first gained control of the main character, Veigue, in the first battle with Mao, he immediately accessed the battle menu and went to the Force menu. There were no Force options available. He then mashed Z to swing the sword and win the battle. After winning the battle with Mao, he skipped the dialogue that followed.

When Lee gained control of his character in the town for the first time, he talked to the first townsperson. He then went into the status menu and looked at each menu screen. He switched the active character shown on screen when walking around in town from Veigue to Mao. He went to the weapon store, but did not buy anything. He talked to all the townspeople he encountered, including the cat in the inn. He also checked the fireplace in the inn, before going to Claire's house. After everyone rushed to the town square, he checked the stove in Claire's house and briefly looking into the other houses. He went to a save point at the inn but did not save. He then went back to the town square.

In the battle with the horned man at the town square, Lee went into the Force menu again and tried it for each character. During the course of battle, there was a message that said "Force Learned". He went back into the Force menu and tried to use the new option that appeared in it. He died in the unwinnable battle. After skipping the dialogue following the battle, he left the town, went back in, and left again.

Outside the town and on the world map, Lee used adjusted the camera angle so that his character was facing the bridge as he walked to it. In the battle at the bridge, he went into the menu again and accessed a targeting option. He mainly mashed the regular attack button, but tried other buttons that produced no effect. After the battle, he spent a

few minutes in the status menu looking at all the different screens and trying to interact with various options. After leaving the bridge area and on the way to the windmill, he was still mashing the regular attack button and occasionally trying other buttons.

When he arrived at the windmill, he talked to the person standing beside the front desk and then talked to the person behind the front desk. He did not buy anything at the store. He then went to the bedroom area, which triggered the event with the door being blocked by two characters. He first tried speaking to bird in the cage in the corner, then tried speaking to the people blocking the door, then rang the bell at the desk, and then found the clock to escape in less than a minute.

After leaving the windmill, he encountered a random battle, went into the Force menu again and accidentally switched his character to Auto-Battle. He then died in battle and had to reset from the point of leaving the windmill. He went back into the windmill and purchased some healing items but did not use them. He spent another few minutes trying different options in the status menu.

Lee then asked if he could Google something. He opened a browser and googled "tales of rebirth how to switch to manual". This led him to a translation guide on the GameFAQs web site. He looked back and forth between the guide and the game and said "I think I got it". He changed the Auto battle option to Manual. He then started using X and Z in battle to alternate between regular and Force attacks.

He continued to follow the road and found the second town, where he slept at the inn. He then left and found a second bridge that triggered another battle with the same

three thieves from the first bridge. He learned three new Forces in the battle, went into the menu to look at them, and then ran out of time.

Results of the interview with Lee

In the interview after the game, Lee stated that he understood none of the game's text except the words for Yes and No. He knew these words from playing other Japanese games. As for the audio dialogue, he knew the word "horsu" meant Force. He also knows the words "arigato" and "konichiwa".

Lee said that he intentionally skipped the introductory videos because he felt they would be too long and he didn't want to sit and watch them. He usually does not like waiting for the introduction videos, but might watch them when he gets halfway through a game. He said that he intentionally skipped most of the dialogue. When asked whether he would read the dialogue if it was in English, he said he would read 99% of it. He said he would likely read it, but skip the audio. He talked to the townspeople in order to gain items or "access to another point in the game". He said that he knew to do this from playing other games.

When asked what he understood of story, Lee could only give basic details. Of the event in the town square, he said "someone got mad" and he was not sure what happened with the girl. He wasn't paying attention. When asked about the overall story, he said there was a guy and a girl fighting and then she joined. He said the girl got out of the ice. He said there was a general with some hybrid people/animals. He said he was not sure what was going on.

When asked why he spent so much time in the status menus, Lee stated that it was to try to figure out how to play the game and "see every point of the game". When asked what he found in the menus, he said that there were force, bestiary, system configuration, status, and statistics menus. He knew this because these were "expected conventions".

Lee said that he spent a lot of time at the weapon store to see if he could buy a better weapon for his character. He figured out that he already had the weapon at the store by looking at his weapon in the status menu and then matching the last Japanese character of the word to the weapon in the store. He said there was a hooked character at the end of both words so he knew they were the same weapon. He also used the sword icon beside the word, but couldn't rely on the icon alone to match the weapons because the game could have been using one generic sword icon for all swords in the game.

He did not go to the town square immediately and checked Claire's stove to see if there was an item to heal his character. We went to the inn and touched the save point out of "habit" and felt that the game was directing him to save.

When he arrived at the windmill, he did not buy the items because they were too expensive. He wanted to save his money for a better sword. When the two men blocked the door, he said he tried talking to them and the bird to get past. He said he "got lucky" with pressing the clock to get past them.

His strategy in battles was to mash the regular attack button. He said that 80% of the time he knew what he was doing and the other 20% was trying different combinations of buttons. He knew Z was the attack and thought X might be the special attack, although he was unsure whether this was the Force command or not. He knew S was the

status menu. He thought D and F were formation and tactics. He incorrectly thought C was the block button, but said he didn't need to block anything.

He accessed the menus in battle at first because he thought it was necessary to play the game. He then noticed the Force menu and wanted to try to figure out how to use that command. He understood the message that said he learned a new Force and intentionally went back into the menu to try to use it, but he wasn't entirely sure if he was actually using it. He also could not figure out how to heal his characters because he did not see items in the battle menu and couldn't equip them on his character. There was also no Spell icon to use healing magic.

At one point, he accidentally switched his character's battle settings to Auto mode and lost control of his character. He knew how to use Google to locate a translation guide because he had done this for other Japanese games he had played before. After he found the translation guide, he searched it for the word "manual" to find a description of each menu in the game. He looked at the top and bottom menu items in the guide to find the menu in the game that had the option he was looking for. He then matched the Japanese word in the translation guide to the one in the game to change the option from auto to manual.

When asked how the experience would have been different if he was playing at home, Lee said he would have spent more time on Google looking for a translation guide to figure out the menus in the game. As for the controls, he felt that using a regular game pad would have made it easier to figure out the controls but he eventually "learned what

was what". He felt that Tales of Rebirth was a game he would play, but he would play it in English so that he could get more involved in the story and know what a Force was.

Cross-Case Analysis

This section summarizes patterns found in the data that cut across each case. Interview data was analyzed using an adaptation of Grounded Theory, which is also known as the "constant comparative method" (Glaser & Strauss, 1967). This qualitative research method involves comparing and coding data to match similar instances in interviews to create categories that bring in other instances until a theory is created from all the categories.

All conclusions were reached through an analysis of all sources of data: field notes of the players' actions during the game, screen recordings of playing the game, and post-game interviews.

This section presents the results of that analysis. It first presents key themes in the data, then explicitly answers the three research questions.

Themes in the data

This section presents the key recurring themes in the data and the evidence that support these themes: a lack of access to comparable games in their native language, lack of interaction with the dialogue, and learning the controls for the game.

Pattern 1: Lack of access to comparable games in their native languages

One pattern that emerged during the interviews pertained to the reasons why the participants played Japanese games: a lack of versions of the game in their native languages. Two of the participants came from developing countries, Ecuador and Iran, where, according to them, video games were not readily available in the late 1980s and early 1990s. The few games that were available were not released in their native languages, Spanish and Farsi. This is common for many console games, as they are released in Japan first. If they are localized, the games are later released in North America in English and then other regions and languages. Because of time needed for the localization process, the games have been released in North America and other regions are often released much later than Japan if at all. For example, the third participant played two games in Japanese still not available in English and one game that came out in Japan before it came out in English. They had to play the games in Japanese either due to licensing issues preventing localization or due to the fact that their neighbours and friends only had the Japanese version. Although the increasing availability of games online either from online stores or illegal file sharing web sites, makes this lack of accessibility less of an issue than it was in the last three decades, this continues to be a strong reason for people to play Japanese games.

Pattern 2: Lack of interaction with the dialogue in the game

Another strong pattern of this study was the lack of interaction with the Japanese language. All participants skipped all dialogue as quickly as possible and admitted to

doing so. Participants said that they did not know much spoken or written Japanese nor did they learn any during the study. Two out of three participants had no desire to learn Japanese, while the third wanted to learn "someday" because he was interested in Japanese culture, but expressed that this interest had nothing to do with video games. Two of the participants knew a few basic Japanese words before the study, such as *arigato* (thank you) and *konichiwa* (hello). They recognized these words when they were spoken during the game. However, they might not have learned these words from playing Japanese games. The third participant had learned the symbols for Yes and No from prior experience playing Japanese games. He also recognized the Japanese pronunciation of the English word "force", which was used in the game to refer to special battle techniques. Again this recognition may have been from watching subtitled anime (Japanese animation) rather than playing Japanese games. To be frank, it would have been difficult for the participants to learn any Japanese during the study given that they only played the game for an hour, had no prior knowledge of Japanese, little or no motivation to learn Japanese, and intentionally skipped all the dialogue in the game.

All participants commented that knowing the language is not always required to play certain video games. This is not new information. Some games do not have any dialogue or text, such as Pong (1972) or have little text, such as Pac-Man (1980) and Street Fighter II (1991). The amount of text in a game and the requirement to read it is often related to the genre of the game. For example, role-playing games contain more text than other genres, such as fighting games and first-person shooters. The participants in this study either did not enjoy games with a lot of dialogue or did not usually play

them in Japanese. Because they preferred games that had little text, their ability to play

these games may not have been inhibited by not knowing the meaning of the text.

Due to the lack of understanding Japanese and the fact that all participants

skipped all of the dialogue, the knowledge they gained of the narrative was limited. Still,

the participants all seemed to gain a basic understanding of what the story was about.

They all understood that Claire was frozen in a block of ice and then captured by the man

with the horns, although they had different interpretations of the details of the situation.

They did so by picking up on audiovisual cues and interpreting animations.

Pattern 3: Learning of controls for the game

The controls for playing the game posed the first stumbling block participants

encountered. Because a PC was used rather than regular PlayStation controller and

participants received no instructions on how to play the game, they had to figure out what

buttons on the keyboard performed which actions. They did so by pressing every button

on the keyboard until the game responded. The first participant pressed buttons

somewhat randomly on the keyboard. The second participant pressed the buttons from

right to left and pressed the correct button last. The third participants pressed the correct

button first. This differences in strategy and success could have resulted from prior

experience. They all referred to this strategy of figuring out the controls as "trial and

error". After they figured out the button to start the game, they all seemed to know that

this start button would do most of the things they needed to do in the game, such as

advancing the dialogue, talking to people in town, and swinging the sword in battle. As

mentioned earlier, it took them a few battles to figure out the different actions they could perform in battle and they learned with each battle.

The learning that was consistently observed for all three participants during the study was mainly related to the battle controls. In the first battle with Mao, all three participants simply pressed the attack button repeatedly to swing their sword. Doing so caused little movement on the battlefield nor did trying to press other buttons, with the exception of the third participant going into the Force menu. In the second battle, there was more movement from the participants, likely due to the enemy moving around more. With each subsequent battle outside the town, participants increasingly experimented with other buttons and moved their character around the battlefield. By the end of the hour, two of the participants were reliably using the Force abilities in battle along with the regular attack. It was apparent that their battle skills were improving with each battle. This is evidence that they were learning the battle controls and the battle system in the game with each battle they fought.

Answering the research questions

This section explicitly answers the research questions underlying this study:

1. What motivates people to play these games?

2. What are these players learning from playing these games?

3. How do these players navigate these games without knowing the language?

Other themes that emerged during the study will also be discussed.

Question 1: What motivates people to play Japanese games?

Although some researchers, such as Williams (2006), Fukunaga (2006), and Newitz (1995), mention motivation to learn Japanese through an interest in Japanese culture, this was not a strong theme for this study. The first participant expressed an interest in Japanese culture and learning Japanese, but said it did not come from playing games. The third participant mentioned watching subtitled anime but did not associate this interest with playing Japanese games. None of the participants played Japanese games that were based on a Japanese comic book (manga) or anime series. Two of the participants had no interest in learning the Japanese language because they felt it wasn't worth their time. All participants felt that it would be too time-consuming. Perhaps these results would have been different given a set of participants who had lived in Japan or had studied Japanese going into the game.

In regards to the players' in-game actions, all three players were likely extrinsically motivated to play the game for the full hour due to the monetary reward they were offered for participating in the study. If they had stopped playing, they still would have received the $15 reward for playing the game, but they would not have been offered the additional $15 reward for the post-game interview. This extrinsic reward was likely a strong motivator to continue playing the game for the full hour.

Several of the players' in-game actions could be indicators of intrinsic motivation to learn how to play the game and how to succeed in the game. All players tried to win all battles they encountered in the game. While there were several opportunities for each player to lose the game by dying in battle, none of the players intentionally tried to harm or kill any of their characters during the hour of playing. Also, even though the players knew they were only playing the game for one hour and would not have access to it

again, all three touched a save point while playing the game. This may indicate that they wanted to be able to restart the game if they lost.

Another explanation for why they tried to succeed in the game could be that they were simply exhibiting learned behaviour from classical conditioning. When participants were asked about saving the game, one of the participants mentioned that he was "pre-programmed to save the game" and another mentioned that it was out of habit. Because these participants had played video games for several years, they were so used to the process of trying to win in-game rewards that it never crossed their minds to try to fail. The game has many ways of telling the player they succeeded, such as the tone of the characters' voices, the fanfare music at the end of a successful battle, the message that says "Force Learned" in English during a battle, and other audio cues that happen as part of the narrative. For example, when the participants were trapped in the room in the windmill and pressed the clock to exit, it made a chime sound that indicated success. These effects have a dual effect of conditioning and motivating players to succeed.

Ang & Rao (2008) found that 48% of players' main source of motivation when playing an educational game was accomplishing interim goals, such as completing missions and solving puzzles. Some of the interim goals mentioned by the participants were learning the controls, getting out of the town at the beginning of the game, getting out of the windmill, advancing the plot in general, and winning the battles. The third participant also mentioned learning how to use the Force abilities and buying a better weapon for his character. These goals likely contributed to the players' motivation to play the game.

Pintrich (2003) states that "self-efficacy and competence beliefs motivate students" (p. 672). These beliefs may account for the some of the differences between the three players. For example, the third participant, who was a self-proclaimed "expert gamer, independent of genre" made it much farther in the game than the other two participants, looked up a translation guide to understand Japanese words, and expressed a desire to learn the game's mechanics, such as how to use the Force abilities in battle. These potential learning outcomes could have also come from his "interest and intrinsic motivation" (Pintrich, 2003) for the role-playing genre, which Taylor (1990) mentions does not have a widespread appeal. This genre was interesting to him because he had played similar games at home. The other two participants explicitly stated that they had no interest in role-playing games and, thus, may not be as motivated to learn how to play them.

In sum, the participants had various motivating factors to import Japanese games initially and to play Tales of Rebirth for the study. Participants may have been motivated to different degrees due to their perceived competence and the fact the game belonged to a genre that two of three were not interested in. This possible difference in motivation may have resulted in different learning outcomes as discussed in the next section.

Question 2: What are these players learning from playing Japanese games?

Like the previous question, this one has two interpretations. What did participants learn during the study and what do they learn from playing Japanese games at home? Examples of what they learned while playing the game in the study and the prior

knowledge they brought to the study from playing Japanese games on their own will be discussed in this section.

One strong pattern of the study was the participants' ability to learn how to play the game as they went along. They all learned how to start the game, skip the dialogue, and fight battles. They learned how to use the keyboard setup to control the game and which buttons on the keyboard performed certain actions. However, it is impossible to know from this study if these participants would be able to go back and remember how to control this game using the same keyboard controls. It is possible that they just kept their hands on the buttons that "worked" and didn't really learn anything.

For the participant who took 15 minutes to find a clock that allowed him to escape a room, did he learn a transferable skill? Would that same participant go to another role-playing game and try to use that technique to get out of another room? It appeared that the other two participants had figured this out quickly. This skill or intuition was likely something they learned from playing games.

In a prior study, deHaan (2005) found that a learner increased his Japanese character recognition abilities from playing a Japanese game. Similarly, one of the participants in the current study was observed matching Japanese characters within the game at the weapon store to see if the sword at the store was the same as the sword he was already using. He also located a translation guide and matched Japanese characters from the guide to characters in the game's settings menu to change his battle control settings. Even though he did not know the meaning of the Japanese text, he was able to match the shape of the characters from two different locations. He was also able to

recognize the words for Yes and No through playing other Japanese games. This may show that his Japanese character recognition abilities were improved through playing Japanese games, supporting deHaan's (2005) findings.

The third participant also showed that he had learned how to locate video game translation guides using Google, on which sites to find the guides, how to quickly find the information he needed in the guide, and how to use the guide to assist him in playing the game. This all happened within a few minutes during the play session. Although it is possible he learned some of these search strategies through regular computer use, it is possible that his ability to use the translation guide was a direct result of playing Japanese games.

In sum, the incidental learning that happens when people play Japanese games is variable. The participants in this study had learned little spoken and written Japanese from playing Japanese games. Most of the learning observed during the play session was limited to the battle controls and basic video game playing skills. One participant demonstrated character recognition and computer literacy skills. However, according to Lotherington (2004), it is likely that these skills would not be considered valuable by mainstream educators.

Question 3: How do these players navigate the games without knowing the language?

This section will address the question of how the players were able to navigate Tales of Rebirth and other Japanese games without being able to understand the dialogue

or menu options in the game. There are a number of possibilities related to "trial and error" and prior experience with games that will be discussed below.

Abada and Onibere (2009) found that intuition that players call upon when using unfamiliar software is most often a result of "rehearsed" prior experience. This could account for how the second and third participants quickly found the clock, while the situation was a major obstacle for the first participant, who spent around 15 minutes trying to get out of the windmill. It is possible that they had stronger intuition about the clock because they had more experience with games. It could also explain their comments about "luck" and "common sense" when asked how they figured out how to get out. Instead of interacting with the objects in the room, the first participant spent most of the time in the status menus trying to teleport out of the room.

The only participant who was able to interact with the status menus in any meaningful way was the third participant. This was possibly due to his prior experience playing a role-playing game in Japanese. He matched the Japanese text to make sure the weapon in the status menu was the same as the one in the store. He also used character matching with a translation guide to locate the text to change one of his battle options when he accidentally switched his battle controls to auto mode. Although all participants went into the status menu and tried pressing different options and items in the menu, they were not able to do anything else, likely because the menus were in Japanese. Fortunately, being able to use the menus was unnecessary for the participants to advance in the game.

Icon recognition was observed little in the study, possibly due to the lack of icons in the game. When the third participant was looking for a new sword at the weapon store, he said that he knew from the icons that it was a weapon store and this was also how he found the sword he was currently using in the status menu. However, he said he did not know if the sword icon was a generic icon for all swords so he had to match the text. He also mentioned that he could not figure out how to heal himself because he did not see any icon for magic. This may support findings by Koutsourelakis and Chorianopoulos (2010) and Beck and Fritz (1998) that icons representing abstract things without physical real-world referents are more difficult to understand than icons for concrete things. The magic that we see in video games is an abstract concept that does not exist in the real world. Tales of Rebirth uses the word "Force" with a blue sphere icon to represent magic. This variation coupled with the lack of a standard magic icon made it difficult for the user to find the feature they were looking for.

Schema theory could also account for how the participants were able to navigate the game in the absence of language. Lindley and Sennersten (2008) define gameplay schemas as "the structure and algorithm determining the management of attentional and other cognitive, perceptual, and motor resources required to realize the tasks involved in game play" (p. 3). It is possible that the participants tapped into these pre-existing schemas in order to find their way through the game. For example, one participant compared Tales of Rebirth to Street Fighter II because both of the game's battle systems use a 2D side view of the opponents and certain combinations of buttons result in special attacks. Participants already knew how to play the game because they used the schemas they had developed from playing other games, whether these were Japanese games or

not. Because all participants had played video games before, they already knew the

basics of how to move their character around the town, talk to townspeople to trigger

events, and swing a sword to defeat an enemy. Even the participants who did not like

role-playing games had likely played a role-playing game before, with one of these

participants mentioning "this is how games like this work". The role-playing and

fighting genres represented in this game were clearly familiar to these participants.

In sum, a combination of linear gameplay, prior knowledge, trial and error, and a

small amount of character and icon recognition allowed the participants to easily navigate

through the game despite the fact that they did not know Japanese.

Chapter 5: Conclusions, Limitations, and Suggestions for Future Research

This chapter will discuss implications for video game research and theory, implications for the practice of software design and using video games in educational settings, limitations of the study, and suggestions for future research in this area.

Conclusions

This research shows that a great diversity exists in the way that people interact with video games. Even players who appear to be similar will interact with the same game or situations within the same game in different ways. Even with a linear story, there are an infinite number of combinations of actions players can perform between the beginning and end of the game. No two players will play a game exactly the same way.

A strong pattern among the three participants was the skipping of dialogue in the game. The participants stated that they intentionally skipped this dialogue and two out of three participants said they would have skipped it even if it were in a language they understood. Another important finding was that players were not learning any Japanese, despite repeatedly playing games in Japanese and being exposed to the language. This may indicate that video games with a large amount of dialogue may not be appropriate in certain educational contexts, such as with basic language learners, as mentioned by Taylor (1990). Even video games with a large amount of dialogue, such as Tales of Rebirth, make it easy for players to play the game without reading or understanding any of the written or spoken dialogue. If a game with more narrative elements were to be used in an educational context, the game would have to be carefully selected and students

would need activities related to the narrative to give them a reason to learn the language. For example, Squire (2004) allowed students to play a game for one hour and then asked them essay questions about the game. This type of activity may be more appropriate for language learners at higher levels with existing motivation to learn the language and knowledge of the language to build on, rather than the beginners observed in this study who had no Japanese knowledge and did not want to learn Japanese. Language learners may also benefit from a game that truly requires understanding of the language to play it, rather than a game that allows players to skip all dialogue with no negative consequences.

Another theme of this study was how easily participants learned the controls for the game even without knowing the language. The implication of this finding for instructors using games in a classroom may be that it might not be necessary for instructors to "teach" students how to play a game. When players are forced to figure out controls on their own, they have no choice but to use trial and error to learn them. Perhaps this is a computer literacy skill that instructors should be encouraging rather than giving students explicit instructions and making them relying on the instructor for their own learning.

This study may also have implications for software or video game designers. It confirms that using standard controls (Ryan et al, 2006), icons (Lovgren, 1994), menu options, and non-linguistic sound cues, make it easier and more motivating for people to use software, including video games. For example, all players knew the sparkling circle in the inn was a save point because this convention is used in many other games. Also, when one player heard the sound of a bell when he was stuck in the windmill, he knew he had triggered a new event and could then escape. When we defy expected conventions, it

becomes more difficult to use software or play a game, which may negatively affect motivation. For example, one of the players could not figure out how to heal himself because there was no magic or item icon that he recognized in the game. Instead, magic was indicated by a blue sphere and used the word Force. However, the players' ability to learn the non-standard keyboard controls in the study may show that even if certain conventions are altered, the players will eventually figure them out.

Limitations

Several issues limit this study. The first is that Tales of Rebirth is a linear game. For example, at the beginning of the game when the player has to go to Claire's house and then when the player has to go to the town square, the game blocks the player from leaving the town. When the player leaves the town for the first time, mountains block them from going anywhere but the bridge. A dirt road leading directly from the town to the bridge makes where the player is supposed to go obvious. After crossing the bridge, the game forces the player to go into the windmill as they walk past it. There is only one path the players can take and little room for the players to go anywhere but the places they needed to go to advance the game. Mountains and rivers on the world map and dead ends in town prevent them from going in the wrong direction and getting lost. Such a design makes it easy for a person to play the game without knowing the language. If a more open game had been used and the participants had been able to leave the town from the beginning and explore the world outside without the limitations imposed by this game, they would have gotten lost on the world map and might not have advanced in the game.

Similarly, it was easy for the participants to win the battles in Tales of Rebirth and it was not difficult for them to figure out how to succeed. After they learned the button to swing the sword, they could just repeatedly press that button to kill their enemies and win all the battles. One participant commented that the game has a "stale style of fighting". This could also be explained by the fact that it was the beginning of the game and the battles were easy. One participant even mentioned that he did not buy items because he knew the battles would be easy at the beginning of the game. Perhaps the participants would have encountered more difficulties later in the game with enemies that required more strategy to defeat. Only one participant died in battle and had to reload the game because he accidentally switched his battle settings to auto mode and could no longer control his character.

Similar to other video game studies of this kind, this study was limited by the small number of participants, the short exposure time, and the fact that participants were volunteers recruited from Craigslist. There may be certain behaviours that were not observed in this study that are typical of people who play Japanese games. Similarly, behaviours that were observed in all three participants in this study may not be typical of the majority of people who play Japanese games. As such, it is not the intention of this study to make generalizations about people who play Japanese games. Observing these participants playing a game and interviewing them about their experiences may give some insight into what certain players are doing, but more importantly, this study may serve as a starting point for future research in Education, Linguistics, Computer Science, or other areas.

Suggestions for Future Research

An expansion of this study using a larger number of participants could provide more insight into people who play Japanese games without understanding Japanese. With a higher number of participants and broader demographics, new patterns or behaviours may emerge that were not observed among the participants in this study. For example, there may be people taking Japanese classes who play these games to help them learn Japanese. There may also be people who want to play the original version of a game they already played in English to access material that was censored or removed during the localization process.

One population that is often ignored in studies about video games is those who have never played video games before. Because the effect of prior knowledge was a strong theme in this study, it would be interesting to compare these participants to people who did not have any prior knowledge of games. Would they be able to figure out how to play the game? How would their behaviour differ from experienced players? How do people who regularly play Japanese games differ from people who do not engage in this activity?

Another population that has not received much attention is people who play English games before learning English. Unlike Japanese, English is a language that is widely used and required in countries all over the world. Are people using English video games to learn English more than they use Japanese games to learn Japanese? With the increasing demand of English for academic and professional purposes, a study of English

may have stronger implications for the use of video games in language teaching and

learning.

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Appendices

Appendix A: Advertisement

Graduate student needs participants for a research study.

I am looking for people over the age of 18 who play video games in Japanese even though they do not understand Japanese. I am looking for a variety of players who have spent a significant amount of time playing games in Japanese, but are not able to read or understand most Japanese words.

This 2-hour interview will take place at the Sir George Williams campus of Concordia University in Montreal. You will be asked to play a video game for one hour and then be interviewed about your experience for one hour.

Please contact me using the craigslist e-mail link above. Please make sure to tell me about your level of understanding in written and spoken Japanese, and give me some examples of games and game genres you have played in Japanese.

You will be offered $15 to play the game and $15 for the interview as a thank you for participating in this study.

Appendix B: Consent Form to Participate in Research

CONSENT TO PARTICIPATE IN PLAYING VIDEO GAMES IN JAPANESE

I understand that I have been asked to participate in a research project being conducted by Gabriel Smith of the Department of Education of Concordia University (tel: 514 937 6709; email: ga_smi@education.concordia.ca) under the supervision of Saul Carliner of the Department of Education of Concordia University (tel: 514-848-2424, Ext. 2038; email: saul.carliner@concordia.ca).

A. PURPOSE

I have been informed that the purpose of the research is to observe how people play Japanese video games without understanding Japanese.

B. PROCEDURES

- I understand that I will be playing a video game for one hour.
- I understand that I will be interviewed for one hour about playing the video game.

- I understand that there will be a break between the play session and interview. I may also take a break at other times should the need arise.
- I understand that I will be recorded during the study using screen recording software, a video camera, and an audio recording device.

C. RISKS AND BENEFITS

I understand that the risks involved in this study are similar than those encountered in daily life. For example, I may feel cold or uncomfortable sitting in the room. If I do, I may tell the researcher about my discomfort. If he is able to adjust the conditions without affecting the quality of the study, he will do so.

Participating in this study may benefit people who play video games in Japanese because it may bring understanding, awareness and/or acceptance of an activity they find appealing.

D. CONDITIONS OF PARTICIPATION

- I understand that I will be offered $$30 as a thank you for participating in the study. This amount will be split into $15 for playing the game and $15 for the interview.
- I understand that I am free to withdraw my consent and discontinue my participation at any time without negative consequences.
- I understand that I will still receive $15 for participating if I withdraw from the study while playing the game.
- I understand that I will still receive $30 for participating if I withdraw from the study during or after the interview.
- I understand that my participation in this study is confidential (i.e., the researcher will know, but will not disclose my identity).
- I understand that the data from this study may be published.

I HAVE CAREFULLY STUDIED THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY CONSENT AND VOLUNTARILY AGREE TO PARTICIPATE IN THIS STUDY.

NAME (please print) _____

SIGNATURE _____

If at any time you have questions about the proposed research, please contact the study's Principal Investigator Gabriel Smith of the Department of Education of Concordia University (tel: 514 937 6709; email: ga_smi@education.concordia.ca) under the supervision of Saul Carliner of the Department of Education of Concordia University (tel: 514-848-2424, Ext. 2038; email: saul.carliner@concoredia.ca).

If at any time you have questions about your rights as a research participant, please contact the Research Ethics and Compliance Advisor, Concordia University, 514.848.2424 ex. 7481 ethics@alcor.concordia.ca

Appendix C: Interview Protocol and Instruments

Players will be brought into a research office where they will be observed playing the Japanese game, Tales of Rebirth.

Process for setting up the room:
1. A PlayStation 2 console will be attached to a television or computer monitor and recording device to have the game playing recorded.
2. A video camera will be set up behind the chair facing the screen, but at an angle to capture any hand movements.
3. An audio recorder will be placed on a table near the chair.
4. All equipment will be tested to ensure there are no technology issues or lost data during the interview.

Collection Process:
1. When the participant arrives, I will introduce myself and present an informed consent form. See Appendix 1 for a sample of the form.
2. I will ask the participant to read and, if he or she agrees to the terms, sign the informed consent form. The process ends here for those who do not sign the form.
3. Next, I will ask the participant to play the video game, Tales of Rebirth, for one hour. When asking the participant to play the game, I will instruct them to play the game as they would if they were playing at home. The participants' screen and hands will be video recorded to capture the action on the screen and any issues they may experience learning the physical controls of the game.
4. After completing the hour of play and a brief break, I will conduct a semi-structured interview with the participant will be interviewed for one hour. Questions will depend on what I observed while playing the game and might include:
   - How did you know what to do when the game started?
   - How did you figure out how to do [action]?
   - How did you figure out where to go?
   - I noticed you did [action] near the [time/place]. Why did you do this? [This question will be repeated for most recorded actions in the game.]
   - What parts of the story did you understand?
   - Did you understand any Japanese in the game? If yes, what?
   - How was this experience different or similar to when you play Japanese games at home?
   - How long have you been playing games?
   - What is your favourite genre of games?
   - What are some of your favourite games?

- What Japanese games have you played?
- Why did you play these games in Japanese?
  The interview should last between 30 and 60 minutes. I will videotape the interviews as well as take notes.