VIDEO GAMES AND VIRTUAL REALITY AS CLASSROOM LITERATURE: THOUGHTS, EXPERIENCES, AND LEARNING WITH 8TH GRADE MIDDLE SCHOOL STUDENTS

Miles M. Harvey
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VIDEO GAMES AND VIRTUAL REALITY AS CLASSROOM LITERATURE: THOUGHTS, EXPERIENCES, AND LEARNING WITH 8TH GRADE MIDDLE SCHOOL STUDENTS

BY

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DISSERTATION
Submitted in Partial Fulfillment of the Requirements for the Degree of
Doctor of Philosophy
Language, Literacy, and Sociocultural Studies
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May, 2018
DEDICATION

I dedicate this dissertation to Liam Ly Nelson. The curiosity of a young learner lives with us all.
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I wish to acknowledge the research site school and my students for their open-mindedness, you are incredible. I was impressed with the school’s ability to provide this opportunity amid an academic climate that often limits the creativity of a professional educator. I had never experienced a work environment that fostered such forward thinking among its staff, and to that I thank you. I want to thank my committee members Dr. Zancanella, Dr. Kingsley, and Dr. Holden for their guidance and scholarship. I want to recognize Dr. Pence for serving as my committee chair. I want to thank Dr. Holbrook for pushing me to recognize my academic potential with my ideas on literacy. I also want to thank Dr. Williams for hiring me as a graduate researcher assistant, it helped me to develop my researcher lens. I would like to thank my college hockey team for supporting me on and off the ice. I wish to thank my family for supporting my academic goals throughout college; without you, I would not have made it this far in my professional career. I wish to acknowledge Jose Lopez for his support during my study. I also want to thank my friends Fred Snoy III and Chris Anderson for entertaining my thoughts for years about video games and learning during our steam team practices that led to this study coming to fruition.
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ABSTRACT

This qualitative study utilized video games and virtual reality in an eighth-grade public middle school media literacy elective classroom in which the head researcher was also the official teacher for the students in the study. The nineteen students and their teacher used video games in small groups for five consecutive weeks. The teacher and nineteen students recorded data about their thoughts, experiences, and learning as they played in the classroom. Students responded to open-ended reader-response questions about their experiences after playing video games each day for forty-five minutes. Students reflected about their experiences in a thought journal. The teacher responded to all the students’ thought journals each day, and after the halfway point of the study, students responded to each other’s thought journals. Students also co-created additional reader-response questions for their peers to answer after the halfway point in the study. The teacher kept an observation log as a participant observer who sat in to play, listen, and talk with the small groups during the study. The teacher hosted five research meetings in class during the study, and students got a chance to help analyze and make sense of the data with the teacher. At the end of the study, the small groups were interviewed about their experiences.
The study found that video games can act as literary vehicles for learning. When small groups responded to video games as literature using reader-response, they primarily took an aesthetic stance on their literary experiences.

Keywords: media literacy, game-based learning, virtual reality, video games, reader-response theory, experiential learning theory, and students as co-researchers
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CHAPTER 1

INTRODUCTION

From Arcade to Classroom

The origin story of video games as electronic play toys to powerful learning devices was the beginning of my research about the use of video games as learning tools in the classroom. I asked myself: Where did this all start, and how did video games end up getting into the hands of students in my classroom? Video games were initially made for fun and their role in classroom learning would have been doubtful thirty years ago, but the evolution of video games over the years has made them a pervasive tool with their rise in popularity and quality. The need for teachers and researchers to examine video games as literature has never been more obvious with the transparent disinterest of readers in today’s classrooms who grew up playing more video games than they did reading books. This change did not occur over night, and the world of gaming has been changing since the early 1970’s with coin operated video games like Galaxy Game and Computer Space in 1971 (Wolf, 2012). According to Education Software Association’s 2016 annual report, “more than 150 million Americans play video games” (p.1). The rise in computing technology has led to computer-based programs, arcades, homebased consoles, internet-based games, handheld gaming systems, mobile-based gaming, and now virtual reality, mixed reality, and augmented reality gear for homebased consoles and smartphones. These technologies also belong in the classroom, and this study aims to provide the field with data and understanding about how to use video games and virtual reality as literature in the classroom.

Since the 1980’s, game-based learning activities have been on the rise and reports on teenage gaming habits indicate there are good reasons to pay more attention to what students are
doing when they play video games (Harvey, 2016; Homer, Hayward, Frye, & Plass, 2012). Console-based games have changed a great deal since the *Magnavox Odyssey* came out in 1971. The Education Software Association (2014) claimed that, “51 percent of American households own a console, and those that do own on average of 2” (p.4). In 2016, the Entertainment Software Association reported, “63 percent of households are home to at least one video game player who plays regularly” (p.2). The big players in the digital gaming industry, Valve Corporation, Sony, Microsoft, and Nintendo have created some of the most popular and powerful gaming systems to date, and even Atari plans on making a new console in the future. Understanding the different hardware to run the games is also important. Smartphones, tablets, virtual reality gear, augmented reality gear, mixed reality gear, personal computers, and gaming consoles currently give readers the chance to explore their literary experiences in more engaging ways than ever before.

**Introduction to the Study**

“Regardless of your feelings about video games, they have come of age” (Rigby and Ryan, 2011, p.2). This study is the pursuit of understanding how students experience, think, and learn when they treat video games as pieces of literature. In an eighth-grade media literacy class where I was both the teacher and the researcher, students treated a variety of video games like pieces of literature for an entire unit near the end of the school year. I worked with my students to research their media literacy backgrounds at the beginning of the school year during their My History with Media Literacy Projects. I found that most students had never played video games in the classroom, but claimed to game at least five times a week at home for up to five hours after school if they did not have any other activities going on. Literature about media literacy and game based learning suggested that students could learn from the use of video games in the
classroom, and there were peer-reviewed ideas in place that supported the idea of treating video games like literature.

Creating the Media Literacy Class

I created this research study to better understand how adolescent students think, experience, and learn using video games in the classroom. In doing so, the study illustrated the social and cooperative nature of learning from the use of video games as literary tools. A review of literature about media literacy, game-based learning, and video game literature suggested students would learn from playing video games in the classroom. What would my students experience, think, and learn if I mixed video games and literature together for an extended amount of time? I also wanted to know what a classroom that treated video games as literature looked like and how would it operate? I created a methodology that incorporated the needs of researchers and educators from the examination of literature reviews on empirical studies about games and learning from the last thirty years. As both the researcher and head teacher in the study, I approached my research questions in a transparent way for both researchers and teachers. For educators, it gives a guided approach to using video games as literature in their classroom. For researchers, it extends itself to further interpretations and adaptions that progress the fields related to this study.

The year before this study took place, my middle school principal and I created a new elective course based on my interests with language arts and video games. Thus, media literacy the course was born, and I was given one period to teach eighth grade media literacy the following year. I was also lucky enough to get those students for the whole school year, which was preferred by me because it gave me the chance to know my students more so I could better understand how they made meaning of things and how that related to playing video games and
learning. This study occurred during the last thirty days of the school year. Students in the media literacy class had signed up the year before after hearing an announcement about a new class starting up the following year.

**Purpose of the Study**

I wondered how I could investigate my students’ thoughts, experiences, and learning while using video games, and in doing so, I developed an engaging and meaningful academic unit that addressed my students’ needs in addition to my own as a researcher. The purpose for acquiring such information from my students was to inform the larger field of educational research, which as of late, lacks research examples from classroom practitioners who are using game-based learning to achieve specific or unspecific learning outcomes (Harvey, 2016; von Gillern, 2016; Brown, 2014; Bissell 2011; Gee, 2007; Squire, 2005). These researchers recognize the importance of new literacies and their role on how students make meaning with their own learning. The purpose of this study was to learn about what eighth grade students think, experience, and learn when they played video games in a classroom in which I was the instructor.

I wanted to know more about how my students thought about their own learning and experiences while using video games in my classroom. I also wanted to know how they connected with the video games they played. I wanted to know more about how they treated video games as literature. My goal was to create a study that gave students a chance to express their experiences, what they learned, and how they were perceiving the experience using six points of data. I also wanted students to play in small groups so I could examine the social aspects of video games in the classroom. During the study, students found themselves thinking about why the different small groups communicated and played the way they did. This study
should give readers insight into how small groups socialize, solve problems, and treat video
games as literature during an entire unit centered on video games and learning.

Rationale and Significance of the Study

Unlike the common case with many recent research studies in the field of media literacy
and game-based learning, I was not just a participant observer in a random class examining what
happens when students use video games to learn, nor was I a local researcher hosting an after-
school media literacy class for students I did not instruct daily. I was the instructor of my own
media literacy classroom with students that met with me all year, for an hour a day, five times a
week. The benefits for researching my own students in my own classroom were that I could be
flexible with my curriculum to meet the needs of my students and research at the same time. I
could spend more time collecting data and learning with my students since I was already their
teacher and I had spent one hundred and fifty days with them in the classroom before the study
started. Knowing my students allowed me to better understand the data from classroom and
small groups.

Using students as participants in this study was important because this research deals
with experiential learning and the digital interests of my students. In addition to requesting
student consent to participate in the study, I also requested that my student participants become
co-researchers in the study. The student participants assisted me in this research study by co-
creating reader-response questions and analyzing data from their video game experiences. Since
the study aimed to better understand how students think, experience, and learn, it made sense to
incorporate student participants in the matter of their own learning.
The significance of this study has the potential impact to change the way educators and stakeholders view video games as learning tools in the classroom. This study is important for those out there looking for answers and ideas about using video games in the classroom. Whether the reader is experienced in this field or not, this study should express the significance of the student experience and the deeper meaning behind those moment. There is very little empirical research with the use of video games in the curriculum, and this study seeks to better understand the use of video games and literary learning tools. This study is significant for teachers across the world who are interested in implementing similar ideas into their own learning spaces, but lack peer-reviewed research on the subject matter to justify their actions. Researchers in the field of media literacy who also teach their own middle school class are a rare find, so this positioned me to look my own class. This study can add itself to a collection of growing knowledge around what it means to get students to become active agents in their own digital learning experiences while in the classroom. The collection of qualitative data in this study may help educators better understand the role that video games could play in their own classroom.

**Theoretical Framework**

This study utilizes two well-known theories and one model for instruction to create its conceptual framework. First, I chose the transactional reader-response theory because of the theory’s ability to explain the transaction of thought that occurs between the reader and a text, much like the transaction of thought that occurs between a player and their video game. “Given the transactional paradigm, the old dualistic experimental research design, with its treatment of student and text as separate, static entities acting on one another in a presumably neutral context, cannot suffice” (Rosenblatt, 1988, p.14). In this study, video games were treated as pieces of literature in conjunction with the transactional reader-response theory. Second, the experiential
learning theory was used because of its emphasis on the uses reflective practice and experience-based learning ideas and concepts that also focus on the transaction of meaning or thought that occurs between two entities, as suggested by Kolb (2015). Keeton and Tate (1978) go on to describe experiential education theory as learning in which the learner is directly in touch with the realities being studied.

I wanted to find out more about how my students transacted with the video games, so it made perfect sense to incorporate game-based learning as a model for instruction in this study. Video games were played in small groups with each team using a different video game, then rotating when their ten days of playing was up. This study used game-based learning, transactional reader-response theory, and experiential learning theory to examine what eighth grade students thought, experienced, and learned in a media literacy class in which I was the instructor.

Adolescent learners are constantly shaped by the ever-changing world around them, and with the evolving nature of communication and technology, the rise in media literacy has brought with it a fresh wave of concerns about how pre-teens/early-teens are making meaning of the world from the digital texts they are using at home or in school. Glense (2016) says, “These constructed realities are viewed as existing, however, not only in the mind of the individual, but also as social constructions, in that individualistic perspectives interact with the thought and language of the wider society. Thus, accessing the perspectives of several members of the same social group about the same phenomena can suggest some cultural patterns of thought and action for that group as a whole” (p.9).
Research Design Overview

Participants in this study were recruited from my own classroom in a large urban school located in the southwest area of the United States. The public middle school site served roughly 1,100 students and the school site was recognized as a Title I school site, meaning that, due to the lower socio-economic status of the students’ parents, the school was awarded extra financial aid to help fund the school. Participants in this study were recruited from my eighth-grade media literacy elective class in which I was the instructor. I only taught one media literacy elective class, and the maximum number of students that could participate was nineteen, which was the class size cap set by the school site. A year before this study, students were notified over the school’s intercom about a new media literacy elective class. Students who were interested in the media literacy class were asked to sign up, and the class filled quickly. The creation of the media literacy class was the first step in designing this research study. Since I had the same students all year, I was able to work with them before the study to give them the prior knowledge needed to treat video games as literary learning tools. The twenty-five-day research study did not start until about two months before the end of the school year that lasted thirty-six weeks. I began by explaining to my students that their class assignments would be considered data for the study, if they consented. Everyone consented.

The class of nineteen students were broken up into four small groups. Each group was given a name. The Expert Gamers were the first group created in the study. They were an all-male group who often played games online together after school. The Comedians were the second group, and they were another all-male group, but they did not know each other very well, nor did they game together after school, but they quickly became friends. Team Aphrodite was the third group, and they were the only all-female group to participate. They were emotionally

8
charged gamers who systematically approached their gaming experiences. The fourth group, *The Outsiders* were created from the remaining students who were not in the other three groups. These students were either prone to absences or did not work well with other students and they were put in a group together. The group contained both female and male students.

Each small group played two different video games for ten days each. Towards the end of each hour-long period of class, after students had played video games for about forty-five minutes, they responded to a set of teacher-made open-ended reader-response questions that allowed the student to make meaning of their experiences for themselves in what we called a thought journal. Each day I would respond to each student’s thought journal entry. Small groups also kept track of their gaming progress each day while they played in what we called a gaming log. While students were gaming, I walked around the room as a participant observer who collected notes in my field book, and in the evenings, I would collect my thoughts and feeling about the study in my teacher reflection log. Students also participated in five research meetings. Aside from the first research meeting, which was used to introduce the study, research meetings two through five were used to discuss what students were experiencing, perceiving, and learning from the study on a weekly basis.

During the research meetings, students discussed quotes from all the student’s thought journals. The selected quotes were typed and printed on small strips of paper and handed out to students during the research meetings. Later that week, those strips were attached to a poster on the classroom wall for students to see and think about as the study progressed. During their third research meeting, students were tasked with co-creating a new set of reader-response questions for the class to respond to after they played games in their small groups each day.
From that point on, students were also expected to read and respond to another random student’s thought journal from different small group at the beginning of class each day. This meant that students took my place in responding to all the students when they started their second game. While students played their second game, they were expected to read and respond to someone else’s thought journal before they started gaming, and they were expected to write in their own thought journal after they played each day. By the third research meeting, the students began looking at the patterns, trends, and themes from the strips of paper with the student’s quotes. On the final day of the study, the students participated in a thirty-minute audio-recorded interview with their groups.

The six points of data were then used to examine the research question, and the use of thematic analysis was employed to take a deeper look into the students’ three hundred plus pages of thought journals based off the themes, patterns, and trends my students and I noticed while analyzing the data during the research meetings. I created eight themes and re-read and coded all my students thought journals to find out more about how each group responded to the video games they played. The thematic analysis gave insight into the unique stories of each of the four groups. The thought journals along with the other five points of data were used to better make sense of how student thought, experienced, and learned using video games in the classroom. Each small group will be examined in further detail in their own chapter which is organized by the thematic analysis of the group’s thought journals. Chapter two will explore literature centered on the major ideas in this research study.
CHAPTER 2

LITERATURE REVIEW

Introduction to Literature Review

This literature review will examine the following topics and issues: experiential learning theory, print-based literacy, media literacy, transactional theory and reader response, video games as literature, the GRAD Framework, foundations of game-based learning, students as co-researchers, past and present classroom research with video games, and issues that are of great importance to this study. This study combines the fields of literacy studies with the popular medium of console games and virtual reality to learn more about how students think, experience, and learn when they treat video games as pieces of literature in the classroom. This literature review will focus on the ideas, theories, methods, frameworks, and the overall design of the study. This chapter will also explain how experiential learning theory, foundations of game-based learning, and video games as literature were combined with the implementation of the GRAD Framework to create the methodology in this study.

Limitations of Literature Review

The inclusion criteria for this literature review focused on scholarly peer-reviewed articles, informative texts, practitioner guides, blogs, YouTube videos, and popular video games. A wide variety of multimodal literacies were reviewed to get a holistic view on the subject matter of media literacy and game-based learning. Peer-reviewed articles were searched using UNM Library databases: ERIC, WorldCat.org, ArticleFirst, Education Abstracts, Google Scholar, and Academic Search Complete. These were chosen because they offered hundreds of texts on the subject matter of media literacy and digital gaming. These searches consisted of the
following keywords: video games in the classroom, reader-response, game-based learning, digital literacy, media literacy, new literacies, multimodal texts, reading, education, gamification, co-researchers. These keywords presented scholarly works from researchers in the field of education, game studies, and literacy studies; however, most of the literature found exhibited small sample sizes, short timeframes with students, and many addressed important issues about the topic, but lacked qualitative data to give it strength.

**Framework for Literature Review**

This study embodies the values and ideas from five major areas of focus that create the framework for this literature review, see Figure 2.1. First, the similarities and differences between print-based literacies and media literacies were discussed along with their relation to video games. Since this study was based on the exploratory experiences of students and game-based learning theory was examined in the second section to give readers of this review a better idea about the history and significance that experience plays in literacy, learning, and gaming in general. Third, the history and significance of the transactional reader-response theory was explored to explain the interaction between the reader and the text. Fourth, the gamer’s responses to the video games as literature were covered by examining the GRAD Framework to better understand how students might make sense of their gaming experiences and decisions. The last main component to this framework focused on the foundations of game-based learning that correlated with the data and overall findings found in the small groups throughout the study.
Print-Based and Media Literacy

Mahiri (2006) explains, “Traditional conceptions of print-based literacy do not apprehend the richness and complexity of actual literacy practices in people’s lives enabled by new technologies that both magnify and simplify access to and creation of multimodal texts” (p.61). Students, especially the millennial generation, make meaning of the world in multimodal ways. Different types of multimodal texts that students commonly encounter in their educational environments in print form are picture books, information books, newspapers and magazines. Grainger (2010) says, “Multimodal texts in non-print form are film, video and, increasingly, those texts through the electronic screen such as email, the internet, and digital media such as CD.
Gee (2007) explains that both media literacy and print literacy can be viewed as multimodal, meaning, texts can be mixed with words, sounds, movement, and bodily sensations that make reading and writing come to life. “Once we see this multiplicity of literacy, we realize that when we think about reading and writing, we must think beyond print. Reading and writing in any domain, whether it be law, rap songs, academic essays, superhero comics, or whatever, are not just ways of decoding print, they are also caught up with ways of doing things, thinking about things, valuing things, and interacting with other people – that is, they are caught up with different sorts of social practices” (p.18). “Generally, the promise of multimedia learning lays on the modality effect, assuming that working memory may be increased by the use of visual, auditory and haptic information processing channels simultaneously” (Kiili, 2005, p. 21).

The students in this study favored media literacy or print-based literacy because they enjoyed being engaged and stimulated in multimodal ways that other stories in their language arts could not. Grainger (2010) provides some of the key differences in the way readers must address print and media literacy. He highlights the following key skills as modes of thinking for approaching print and digital texts.

- Printed words tell readers and digital texts show readers.
- Many digital literacies require the use of kinesthetic and listening activities.
- Interpersonal meaning from digital texts are developed by the positionality of the reader instead of printed text itself.
- Digital texts can replace verbal imagery with visual imagery and motion.
- Readers of digital texts will often navigate themselves in non-linear fashions while reading, versus linear process of reading traditional texts.

Defining media literacy is a difficult task considering its many uses and users. Media literacy involves finding, using, and transacting with information in a digital environment.

Researchers like Glister (1997) have taken the stance that media literacy should not be seen as a technical skill, but rather, as “the ability to understand and use information in multiple formats.
from a wide range of sources when it is presented via computers” (p.1). The scene of literacy studies has become inundated with new literacies, and because of it, Gee (2001) suggests that if someone wants to know about the development of literacy in certain setting, like a classroom for example, they should not ask how literacy and language develop in that setting. Instead, they should ask how a specific sociocultural practice, like playing video games relate to the way they make sense of the world. The field of new literacies has made educators take a closer look at what it means to be digitally literate, as well as how they should approach media literacy in classrooms. The challenge now is finding new ways to meet the literary needs of digitally savvy students in the middle school classroom (Harvey, 2016).

Video games are literacy outside of school, and they should be treated like literature in the classroom as well. Kajder (2010) says, “Research shows that out-of-school literacies play a very important role in literacy learning, and teachers can draw on these skills to foster learning in school” (p.x). The introduction of video games as literature into my classroom challenged the old print-based paradigm of reading education at my school. “The discourse of specific disciplines and social/cultural contexts created by school classrooms shape the literacy learning of adolescents, especially when these discourses are different and conflicting” (p.x). The discourse generated from the media literacy class began to shape a wider meaning to literacy in my school, and students in other classes began talking about it how they were playing games in class and treating them like literature.

**Experiential Learning and Video Games**

Research supports the idea that students learn by doing (Dewey, 1938) and emotion, identity, and flow also play a large role in the way students experience video games. Video games provide opportunities for experiential learning and Kolb (1984) says, “Experiential
learning theory offers a fundamentally different view of the learning process from that of the behavioral theories of learning based on an empirical epistemology or the more implicit theories of learning that underlie traditional educational methods, methods that for the most part are based on a rational, idealist epistemology” (p.20). This unique perspective on learning offers researchers like myself with different ideas about how to explore situated contexts where learning occurs, not by chance, but by premeditated means in a classroom setting. Experiential learning theory was used alongside transactional reader-response and the foundations of game-based learning to create this study. “In experiential learning theory, the transactional relationship between the person and the environment is symbolized in the dual meaning of the term experience—subjective and personal, referring to the person’s internal state” (p.35). I used experiential learning theory because of its ability to help explain the experiences my students were having while playing video games in the classroom. To better understand how my students thought, experienced, and learned from playing video games in class, the employment of experiential learning theory was used as a necessary component in the make-up of this study. Experiential learning theory is comprised of some of the most popular education minds in recent history like Dewey, Lewin, Kolb, and Piaget. However, it is with new problems to solve, new literacies to understand, new sociocultural components to consider, that these tried and true ancestors of experiential learning theory are applied to modern day inquiries.

Seaman, Brown, & Quay, 2017 said, “Once experimental learning was transformed into a theory of psychological processes, it could be applied in other contexts, such as progressive educational reforms and organizational behavior” (p.8). They also believed that experiential learning research was ready for a new context. Video games and virtual reality are new experiential context where this can be applied in the classroom. In the progression of technology,
experiential learning theory has constantly changed to adapt to the world around it. One place that constantly changes each year is the classroom; however, the classroom often stays the same, but the students in it change, and along with it so do the experiences inside it. The context of a progressive classroom was a great place to situate the experiential learning theory alongside game-based learning and media literacies. Classrooms are ready for new challenges and ways to make sense of the world through the use of video games, and now is the time to employ these changes (Squire, 2005).

Multimodal literary experiences like the ones found in the video games used for this study were prodigious places to examine the relationship between sociocultural identities in the real-world and the identities attained in the gaming world. The Russian term, *perezhivanie*, from Vygotsky (1994) helps to explain how past and present environmental experiences shape the social development of a learner’s perspective, or as I call it, a gamer’s lens. Gaming experiences shape how we develop and learn to make meaning of things, interpret situations, and empathize with others in the virtual world and real life. “The essential factors which explain the influence of environment on the psychological development of children, and on the development of their conscious personalities, are made up of their emotional experiences [*petrezhivaniya*]. The emotional experience [*perezhivanie*] arising from any situation or from any aspect of his environment, determines what kind of influence this situation or this environment will have on the child” (p.340). The idea of examining an experience for deeper meaning is not a new concept, but where and how we look for meaning changes with new advances in the way people make meaning. Video games provide new places for experiences, interaction, and meaning making that need to be explored (von Gillern, 2016).
The idea of growing and learning from game-based experiences is nothing new, nor is the notion of gaining experiential knowledge in the real-world by living in it, but further research is needed to understand the role of such digital experiences and how they shape the way players make meaning from the video games and the real-world. Playing and treating video games as literature will be covered later in this review, but it should be noted that experience, interaction, and meaning-making play a large role in how players engage with digital texts like video games. Video games often get their players to experience a flow state when the player has been playing for a short time or more and is completely focused on the game and nothing else.

Csikszentmihalyi (2000) explains that a flow state is when a person is so engaged that they go into a psychological state where nothing else around them appears to disrupt their concentration. Research suggests the flow state can have positive impacts on student learning (Webster, Trevino, & Ryan, 1993) and groups in this study were able to reach their own flow states at various points in the study. Video games can engage students and get them to focus and even achieve a flow state as they game in the classroom. Game-based learning is grounded off the basis of experiences and the examination of the flow state which helps illustrate the type of experience students had while playing games in this study.

When I played through the story of the first Destiny video game, I choose my character to be a Titan, one of three choices, and through my experiences and choices in the game, I created a unique character that grew stronger as the game got more challenging. My character represented the choices I made the whole time I played as that character. After years of playing with the Titan, I had maxed out his experience level, and I had made my character as strong as I could. I felt a connection to my character who had spent all that time with me in the story and throughout all my online battles. Like some of the groups in this study, I connected with the games from the
experiences I had while playing in them. The experience level of my Titan was indicated right above his head when he ran around in the game, and that let other players know how much experience I had as a player. If they wanted to know more, they could select my profile to see more about what I had achieved and earned in the game. It was popular in the game for players to show off their armor, weapons, and other gear from their higher-level battles that other players could not play until they were strong enough.

Gaming giants Supercell, who make *Clash of Clans* and *Clash Royale*, employ experience-based models of gameplay in their mobile-based games. Both games require its players to go through instructional trials upon their first play of the game. Then players learn by playing against other players online or practicing against a CPU. The players model what they learn from their matches and often make changes to their future gaming decisions as a result of it. It is the interconnectivity of the games that points, shows, highlights, and allows players to infer within the gaming environment, rather than being explicitly informed as they grow as a player. The experiential inquiry of the players in such gaming spaces like *Clash of Clans* and *Clash Royale* leads to new knowledge, and new uses of that knowledge. As the player gets better, the game gets more challenging. The player uses that prior knowledge in the game space when they build on their mental architecture of what it means to make sense of the real-world. As players reach higher levels, they are given more tools to progress, which again build off prior knowledge of that game space. The prior knowledge and experiences of those players affect how they experience and perceive the game world (Kiili, 2005). This interval-like training is popular amongst games today. Both *Clash Royale* and *Clash of Clans* do not give its players access to all its content at the beginning, it must be earned. Each game requires users to experience the game to expand its gameplay potential. Gee (2007) explains that when players need help or want to
learn more they visit affinity spaces like websites, chats, streaming live tutorials, and videos to create their own expanded meaning from the game space. It is here that social influences of gameplay like peer-criticism, peer-competitions, and teamwork increase the efficacy of the gameplay learning. Both *Clash Royale* and *Clash of Clans* have extensive networks for people to communicate and learn more about the game.

The use of popular video games as literary learning tools is the focus of this study, and it requires an exploration into the foundations of game-based learning. Salen and Zimmerman (2004) offer a definition of a game as “a system in which players engage in artificial conflict, defined by rules, that results in a quantifiable outcome” (p.80). The idea of playing games to learn is certainly not a new concept and the idea of playing and learning is not either, but the use of video games as literary learning tools is, especially with virtual reality. Books, research articles, and other texts centered on what it means to learn in a game-based learning have been written for more than a decade now, and many researchers have started digging even deeper from their initial work on learning principles, skills, and frameworks to find out more what good learning looks like in digital spaces (Squire 2005; Papert 1980; Gee 2005; Steinkueler 2009; & Brown 2014).

Technology has changed the way people play games and where they play them (Holden, 2016). As technology has increased in its ability to offer more interactive learning experiences for players, the field of education is trying to catch up to the way many students experience things in school versus what they experience away from school and at home. Studies have reported that youth spend anywhere from seven to ten hours a week playing digital games (Lenhart et al., 2008). That was nearly ten years ago, and new research is thought to conclude these numbers are rising. Homer, Hayward, Frye, & Plass, (2012) believed not only are these
numbers on the rise, they will continue to rise as the field is becoming more accepted across social contexts. Highlights from their research concluded preadolescents spend considerable amounts of time playing video games, and reported their average time playing per day to be between four to six hours per day. These numbers warrant further examination into what students are experiencing, thinking, and learning from their time in the gaming world while they play with their friends for extended periods of time.

Plass, Homer, and Kinzer (2016) explain how the foundations for game-based learning are rooted in the cognitive, motivational, affective, and sociocultural perspectives related to understanding games and learning, see Figure 2.2. “Combined, these perspectives form an overarching, learning sciences perspective, which gives enhanced power for the potential of games in education…” (p.278). The affective perspective of game-based learning focuses on the players emotions, attitudes, and beliefs, and it also takes into consideration the design of the game as a space for collaboration. The behavioral perspective considers the way players act when they play games based off their self-determination, self-efficacy, interests, and goals. The cognitive perspective looks at the interactions players have while playing based on the situated context, movements and gestures, scaffolded feedback, and represented information from the game space. The social/cultural perspective includes the social contexts of the players based on their cultural identity, social interactions, social backgrounds, values, participatory learning culture, and the relatedness to the player.
Gee (2005) offers up a set of thirty-six learning principles to consider when thinking about what good games have to teach us about learning and literacy. He breaks up the thirty-six principals into three main categories. The first category, *empowered learners*, asks players to co-
design, customize, identify, and manipulate distributed knowledge from the game. The second category, *problem solving*, asks players to address well-ordered problems, get pleasantly frustrated, cycle through forms of expertise, inform themselves through on demand cues, understand environmental restrictions and possibilities, and to see skills as strategies from the game space. The third category, *understanding*, asks players to use system thinking and to see meaning as active images rather than static symbols. These three categories provide a wide framework for understanding what it means to learn in a game-based learning environment, but it is not the whole story. To play a video game is to enact these learning principles in a variety of ways, at different times, and at varying levels of complexity. Roscoe, Brandon, Snow, & McNamara (2013) explain how the objective of educational games is often to leverage the core game features and interactions in ways that support more formal learning in different ways. It is also important to note that not all players may use all of the learning principles listed every time they explore video games as literature.

At a time in education when student assessment measures have never been more of a focus, assessments found in almost any video game are left from the discussion (Harvey, 2016). Yet, there might possibly be more imbedded assessments located within high quality video game level than there are in textbook chapter on algebra. Players in game-based learning environments must demonstrate their newly learned abilities regularly. The games used in this study are considered to be “Big G Games” by Gee (2007). This means the games used were intended for the production of knowledge by its players, not just for their experiential consumption and entertainment like “Little G Games”. Gee (2011) explains this idea of imbedded and situated learning and assessment below:
“We would take it as completely natural that you would be in an algebra class for twelve weeks and then I would give you a test on algebra, maybe one designed in some other state, to see whether you learned any algebra, and we take that as natural, we do it every day. So, let’s say a kid plays Halo on hard and he takes thirty or forty hours and finishes Halo. Would you be tempted to give him a Halo test? No, not at all, you’d say the game already tested him. So, let’s think why is it that we’re not tempted to give him a Halo test, but we are tempted to give that algebra test, and use that as the judgement?”

The fact that we learn because of our experiences in any context is common knowledge, but Ingles, Ling, and Joosten (2003) began considering what it meant to learn from digital experiences in environments like those found in video games. They underscored the importance of tacit knowledge, describing it as, “knowledge we acquire through our experience of acting in the world” (p.29). This newly acquired knowledge through experience can come at a cost. The risk of failing in the real-world is high, and game-based learning environments are often spaces for low-risk assessments in a time where high-stakes tests are at an all-time high (Juul, 2013).

Video games, like those used in this study contained spaces where students could feel safe to fail or succeed, and they are filled with ways that motivate students to continue to play and experience in both real and digital worlds.

Researchers van Nimwegen, van Oostendorp, & van der Spek, (2013) conducted their own meta-analysis and found serious games to be more effective in terms of learning and retention in the major disciplines than conventional instructional methods. The act of using what is being learned through interactivity and engagement is a key component to learning more effectively, as suggested by Kinzer and Verhoeven (2008). Video games do a great job in assessing its players while they play. The video game environment often assesses the player on a regular basis throughout gameplay with never before seen scenarios, new levels, updated characters, harder bosses, new abilities, etc. These elements in video games are indicative of good learning because they require players to build onto prior knowledge as they play. Players
learn by playing, and through their practice, they become competent learners within their gaming space. The experiences in video games often scaffold themselves for higher levels of complexity as each game progresses. Most games will not allow a player to continue on unless they possess the necessary skills to move on in the game which got them there in the first place. Ingles, Ling, and Joosten (2003) explain how this approach to learning is beneficial for all students in that everyone can learn at their own pace. The interactivity and built-in assessment that the tools found in almost any game offer effective useful ways to assess the player in the game. To exist in many virtual worlds is a testament to understanding and manipulating one’s knowledge of the game environment itself, like in Portal and Portal 2. These games require its players create portals in gameplay that warp them to new spaces within the game to solve complex puzzles. This aspect of gameplay makes players rethink what they know in relation to real-world physics and the physics used to play Portal and Portal 2. The game takes practice, but once the player understands the new environmental rules, they become more competent is their gameplay, as seen with my students in the beginning of the year.

It seems natural to call what happens during gameplay, in the simplest of terms - learning. However, calling what happens while people play video games – learning, is certainly a blanket statement. It is easy to say that when students play games they are most likely learning something; however, learning is ambiguous in that statement and it must be defined. Lachman (1996) says, “Learning is the process by which a relatively stable modification in stimulus–response relations is developed as a consequence of functional environmental interaction via the senses” (p.477). Gee (2007) says, “…there really is no such thing as learning “in general”. We always learn something. And that something is always connected, in some ways, to some semiotic domain or other” (p.23). It is important to note here that every game-based learning
environment is its own unique semiotic domain, and it requires its player to not only intake information through multimodal ways, but also by outputting such information back into the semiotic domain as a producer or writer. Pulling from Rosenblatt (1988), it is the transaction of thought between the reader and writer that fosters such meaning-making and chances to learn found when exploring video games as literature. When students explore literature, they are not so much learning new information as much as they are gaining new experiences (Rosenblatt, 1976). Exploring environments with a purpose relates to what Dewey (1938) believed to be a crucial component to learning in any context. The exploration of literary experiences from print-based texts using reader-response theory have been explored for years, and this study seeks to learn more by using it with video games and virtual reality.

Squire (2005) notes four phases involved in learning in a digital game-based environment. First, the player must learn to read the game as a semiotic domain. Second, the player must learn to master new moves by practicing the range in possibilities during gameplay. Third, the player must understand the higher order interactions among the game’s limits. Fourth, the player must continuously monitor their progress towards their goals and sub-goals. It is this kind of in-game training, facilitated by the multimodal technology itself that ultimately interconnects the known to the knower Fenstermacher (1994). Uncharted 4: A Thief’s End, released in 2016 demonstrates these learning phases in its first few levels. These first few levels provide readers with subtle instructions on how to move and act as the main character(s). At the start of the game, the hints on the screen prompt and cue the player to observe their surroundings and to follow verbal and written messages from the game. It requires players to pick up on detailed visual clues which point players in one way or another through the multimodal text. As the game starts, the player assumes the identity of a young boy escaping his foster home with his
brother. As the setting, conflict, and characters begin to form, so do the player’s ability to climb walls, hide, throw, aim, shoot, jump, and repel in order to get past the early levels, as these skills are heavily relied upon throughout the game. *The Outsiders* and *The Expert Gamers* both played *Uncharted 3: Drake’s Deception* in the study, and each group exhibited the four phases of learning when they played the game.

Digital game-based environments are becoming larger with time. For example, *No Man’s Sky*, released in the summer of 2016 contained one of the biggest gaming environments ever made. The game contains over eighteen quintillion planets to explore. Much like our own universe, the virtual worlds created by game designers and hobbyist alike are expanding, too. New websites, apps, consoles and video games continue to provide new spaces for students to play and learn. Within these spaces there is much to examine regarding how students transact and learn within these spaces. The idea of using video games as situated places for learning and literacy is relatively new, and with the rise in technological affordances like virtual and augmented reality, it makes sense to study how students interpret and make-meaning from digital texts like video games.

Castronova (2005) says, “These playgrounds of the imagination are becoming an important host of ordinary human affairs. There is much more than gaming going on there: conflict, governance, trade, and love. The number of people who could be said to “live” out there in cyberspace is already numbering in the millions; it is growing, and we are already beginning to see the subtle and not-so subtle effects of this behavior at the societal level in real Earth countries” (p.2). Humans are spending more time in virtual worlds than ever before, and many of these spaces contain very real elements of human life. It is the space within virtual worlds that
emulates the very real issues of society. It is within these virtual spaces that video games consistently invoke real-world human emotions to a wide-variety of players.

The spaces where video games are played are also places where learning occurs. For young learners who are rapidly forming their own identity, this could play a large role in the way they learn to make meaning in the world. The process of meaning-making itself stresses the influence of the environment as a powerful agent for constructing meaning Vygotsky (1978). The increase in the amount of digital environments surrounding today’s children may have some serious influences on how they attempt to make meaning in the real-world. Trifonas (2012) explains that users of video games must learn how to mediate between meaning making in both the virtual world and the real-world. Video games are filled with meaning-making and critical thinking elements that promote the construction of identity. It is the construction of learning and meaning-making within gameplay that builds a players’ understanding of how to manipulate their environments to achieve specific or not so specific goals.

Part of what it means to learn in a game-based environment is to reflect, practice, and grow from our own ideas (Proske, Roscoe, & McNamara, 2014). Video games provide a perfect environment for readers to response literature to illuminate how they reflect, practice, and grow from the experience. The use of game-based spaces as mediated places to challenge our own thinking ties in with Vygotsky (1978) who says, “…an essential feature of learning is that it creates the zone for proximal development; that is, learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers” (p.40).
Reader-Response to Literature

Reader-response theory is interested in how social and psychological interests manifest from the aesthetic experiences from engaging with the text (Connell, 2000). Rosenblatt (1976) states, “But no one can read a poem for us. The reader of the poem must have the experience himself. It may later have repercussions in actual life, but as he sees the play or reads the novel or poem, he is intent on the pattern of sensations, emotions, and concepts it evokes. Because the text is organized and self-contained, it concentrates the reader’s attention and regulates what will enter into his consciousness” (p.32).

Beach (1993) writes, “Central to experiential theories of response is Louise Rosenblatt. First formulated in the 1938 publication Literature as Exploration, Rosenblatt’s ideas did not have a strong pedagogical impact until the sixties” (p.49). There has since been a following of those who accept her ideas that the exploration of literature is a response to the text that comes from the sociocultural and personal connections of the reader in relation to the text. Further, to experience literature is to approach the text and its aesthetic properties in search of meaning and value. Rosenblatt (1988) discusses how literacy itself is a transaction of thought between the reader and the text. “My use of the terms “transaction” and “transactional” is constant with the contemporary twentieth century shift in thinking about the relationship of human beings to the natural world” (p.7). As time has passed, the transactional theory has found itself still being employed today in classrooms and research interested in how students experience and explore literature.

This study focused on the aesthetic approach to reading, and there are differences in the ways readers approach a given text for information versus reading for experience. The efferent approach to reading is concerned with the comprehension of facts, information, and objective
things whereas the aesthetic approach focuses on, “the sensuous, the affective, the emotive, and the qualitative” (Rosenblatt, 1994, p.12). The efferent approach to reading aims to have all readers interpret the symbols, text, data, and facts in objective ways. The efferent-aesthetic continuum from (Rosenblatt, 1944) shows the potential proportions of reader’s or writer’s selective attention to public and private aspects of sense, see Figure 2.3.

**The Efferent-Aesthetic Reading Continuum**

(Figure 2.3 The Efferent-Aesthetic Continuum taken from Rosenblatt, L. M. (1994). The transactional theory of reading and writing.)

The efferent approach to reading is important, but not especially to the comprehension of literature and art in the classroom. This study is not focused on the efferent approach, and this study focused on the aesthetic approach to texts that lends itself to understanding how readers explore literature. To better understand what students are thinking, experiencing, and learning
from a text, teachers must approach the text from the aesthetic approach. This means creating a space and activities that are centered on the text that give students the chance to connect and respond to the literature in their own ways.

Rosenblatt (1976) stated, “To treat literature merely as a collection of moralistic pamphlets, a series of disquisitions on man and society, is to ignore that the artist is concerned not with indirect commentary on life but with the addition of a new experience in life, namely, the work or art” (p.28). The idea here is that literature is up for interpretation and it must be experienced from an aesthetic approach if the reader is going to connect with text. Like any other art medium, say a novel, if used in the classroom, it must allow students the chance to connect with it in their own way. All readers come to literature, poems, and essays with their background and experiences that shape the way they see things and how they are affected by what they see and experience (Connell, 2000). Using an aesthetic approach to literature in the classroom means putting the students interests and ideas and connections to the text as a priority (Cai, 2008). This study gave individual students the chance to interpret their own literary experiences from the aesthetic approach which shed light on what they experienced, thought, and learned from the literature.

I chose to use reader-response questions in this study to better understand how students responded and made meaning from their aesthetic experiences to the literature. This study investigates five responses to the literary exploration of video games. Beach (1993) says, “These open-ended modes of expressing response may also encourage students to explore some of the strange, unsettling, even perverse aspects of the literary experience” (p.58). Readers are situated in culturally determined discursive traditions, and the effects of those traditions determine the nature of the reading of that text, and how meaning is assigned to it (Cai, 2008). It was the belief
of Rosenblatt (1976) that, “Literary experiences will be a potent force in the growth of the critically minded, emotionally liberated individuals who possess the energy and the will to create a happier way of life for themselves and for others” (p.276).

The motives behind choosing transactional theory to help ground this study were fueled by the theories ability to explain how readers subjectively connect to texts they use. I wanted students to respond to their gaming experiences in ways that one responds to their print-based texts in a typical classroom. This idea interrupts the somewhat typical style of literary questions that plague students after they finish reading a text in most classrooms. Such are the types of literary questions that tend to be authoritarian in nature and take away control from the learner’s experience with the text. Beach (1993) says, “While the textual theorists are concerned with achieving interpretation consistent with knowledge of appropriate literary conventions, theorists adopting Rosenblatt’s transactional model are open to exploring their responses as reflecting the particulars of their emotions, attitudes, beliefs, interests, etc.” (p.51). Reading any piece of literature is an emotional experience to some extent, and readers bring their prior knowledge to the literary space of the text no matter what they read. Beach (1993) says, “Despite their limitations, experiential theories remain a powerful reminder to teachers of the need to value individual students' responses as central to the drama of their transactions with texts” (p.70). He explains that over the years theorist have organized the processes of experiential responses into four separate elements:

- Constructing - entering into and creating alternative worlds, conceptualizing characters, events, settings.
- Imaging - creating visual images.
- Connecting - relating one's autobiographical experience to the current text.
- Evaluating/Reflecting - judging the quality of one's experience with a text.
GRAD Lens for Analysis

To understand how I parallel video games with literature, we must first go back in time to what Rosenblatt (1976) wrote in *Literature as Exploration*, “A novel or a poem or play remains merely inkspots on paper until a reader transforms them into meaningful symbols” (p.25). Such is the same for video games, and without a player to transform those multimodal symbols, they are meaningless, too. Video games are another literary medium like books or magazines that utilize symbols and visuals for readers to interpret, but video games and virtual reality engage their readers in different ways than books and magazines do. To pick up a book for an experience is like picking up a controller or putting on a virtual reality headset for an experience. The idea is that video games engage their readers in many of the same ways that a classic novel would engage a reader. However, one of the differences lies in the fact that video games and virtual reality can provide the reader with choice, agency, and extra stimuli to enrich the exploration of the digital text. Rosenblatt (1976) writes, “The greater the readers ability to respond to the stimulus of the world, and the greater his capacity to savor all that words can signify of rhythm, sound, and image, the more fully will he be emotionally and intellectually able to participate in the literary work as a whole” (p.49). Literature requires the agency of a reader or player to create an experience from the exploration of its contents, and video games and virtual reality do a good job at this. Most games give the player a chance to affect the story in some form or another. Some of the most detailed places to experience literature can be found in popular Triple A video games. The elaborate stories and narrative spaces of today give the player a chance to be the character as they move through the story at their own pace based off their own interests. Nearly every video game that exists has a story to it, and the more complex the story, the more likely it
will have e a complex plot to it (Kiili, 2005; Seagram & Amory, 2004; Rollings & Adams, 2003).

Dubbels (2009) says, “Reading is more unlike the reading students are doing outside of school than at any point in the recent history of secondary schools, and high stakes, print-based assessments are tapping into skills and strategies that are increasingly unlike those that adolescents use from day to day” (p.252). He explains how adolescents should explore gaming spaces as possible places for literary exploration and comprehension. He says, “The big idea here is that games are built upon many of the same comprehension elements that are incorporated in reading printed text” (p.256). Brown (2014) says, “Ludologists, those who study videogames as games, insist that playing a game differs cognitively from reading a novel or viewing a film. While the emotional satisfaction we derive from a narrative relies on following a sequence of events and identifying with characters, the ludic or gameplay experiences relies instead on the mastery of puzzles and problems” (p.4). In this study, the ludic gameplay offered groups the chance to solve problems when they played and the narrative aspects of gameplay allowed students to make personal and emotional connections to the story’s plot, characters, theme, and setting. As groups played each game in this study, they kept a gaming log that tracked the evolution of the story, characters, and experiences the group were having with the story.

The idea of using video games as literature has been around for years (Squire, 2005; Gee, 2007; Steinkuehler, 2009; Murray, 1997; Alberti, 2008; and Dubbels, 2009). The ideas out there centered on video games and literacy have existed for some time, but very little data exists to ratify these ideas, and there has been sparse amount of research focused on the ways teachers use video games as literature for extended periods of time in the classroom. After reviewing the literature, there appeared to be a gap between scholars in the field who write about the field of
new literacies and those who practice them with the adolescent students they teach on a daily basis. This study seeks to give the scene of video games and literature an example of what literacy learning can look like with video games in the classroom. The ideas have been around for teachers to adopt, and there are probably teachers who will read this and have already accepted video games as literature, and already use them in some way in their classroom. However, this research study seeks to exist in the public eye for others as a model for what they might get out of using different video games with different students for different learning outcomes. Video games provide its players with more interactive and engaging experiences than a print-based text can, and students from this study back this idea up. Scholars in the field like (Harvey, 2016; von Gillern, 2016; Alberti, 2008; Robison, 2008; Moberly, 2008) all believe that video games have been waiting far too long to be treated with equal meaningfulness as other print-based literary adventures explored by centuries of students. This study seeks to investigate ideas in the field that center themselves around video games and responses to literature in the classroom.

Rigby and Ryan (2011) discuss how video games are great spaces for students to practice their mastery of skills in another world. “From the moment we are born, we naturally seek to gain mastery over ourselves and our environment by learning how things work by observing, exploring, and manipulating them-first through play and later through work, hobbies, sports, and a variety of activities” (p.15). Much like reading a book for the first time, we find ourselves looking for an understanding and relationship between the literacy and our mind, except video games ask more from its user in that they must interact with the text rather than simply consuming it. Rosenblatt (1976) said, “We participate in imaginary situations, we look on at characters living through crisis, we explore ourselves and the world about us, through the
medium of literacy” (p.37). When a player participates in these activities they are likely to find themselves progressing towards game-specific goals or player-motivated goals.

The transactional relationship between video games and their user may shed light on the evolving nature of new literacy studies itself. Much of the research and literature involving reader-response incorporates print-based texts in classroom settings. Thus, I began using reader-response frameworks for print-based literacies and adopted their model to accommodate for media literacy like video games. Harvey (2016) says, “Although both literacies share many theoretical commonalities, the scene of literacy studies seems to be scaffolding itself for more complexity within the field as digital literacies push the boundaries of what it means to be literate in the twenty-first century” (p.14). As the field of literacy continues to grow, it is important stay current with the reading habits of students. Current research suggests that only seven out of ten adults read a single piece of literature in the past year (Pew Internet Group, 2016), and younger generations are playing more video games than at any point in history (Plass, Homer, & Kinzer, 2016) and they are playing them for wide variety of reasons (Gee, 2003).

The use of reader response theory with video games is a new strategy for understanding how students experience, think, and learn using video games in the classroom. Video games engage their users in multimodal ways that other literary mediums do not. When players play a video game, they are transacting with the digital text in an immersive way that continuously engages and interacts with the player’s agency, feelings, and prior knowledge (Lemke, 2009). The transmission of multimodal information between the player and game with the agency to change the narrative is a crucial difference between experiencing print-based literature and video game-based literature. There has been a rise in interest in how students engage, interact, and make meaning with games in the classroom (Gee, 2007).
I was not the first to have thought about using video games in conjunction with reader-response theory (Zancanella, Hall, & Pence, 2000). “By thinking of these games as narrative, we can use strategies from reader-response criticism to help our students to represent their experiences as players within these texts to learn about themselves, others, and the culture that produces and plays them. In other words, helping our students approach console games as literature may enhance the more analytical study typically found in media classrooms” (p.101). Since then, von Gillern (2016) created the GRAD Framework which combines reader-response theory and video games for researchers to examine player’s experiences for deeper meaning. “The Gamer Response and Decision Framework can be used to understand, investigate, and analyze video gameplay and experiences and has significant implications for our understanding the thought, decision-making, and learning processes that gamers experience” (p.666). The framework highlights the idea that every individual has unique experiences, skills, goals, agency, and self-efficacy when they play games, and their choices have an impact on the way the game unfolds, see Figure 2.4. “The GRAD Framework identifies the gamer, his or her decisions, and the game as critical and dynamic features of video gameplay, all of which occur in a larger environmental context. Exploring these features and their subcategories illuminates gamer’s interpretation, decision-making, and learning processes during gameplay, which results in the unique for every gamer” (p. 670).
The GRAD Framework

(Figure 2.4 GRAD Framework taken from von Gillern, S. (2016). The Gamer Response and Decision Framework A Tool for Understanding Video Gameplay Experiences. Simulation & Gaming, 47(5), 666-683.)

I used the GRAD Framework because I wanted to examine how my students thought, experienced, and learned while playing video games in groups. Each small group in the study expressed their unique experiences, skills, goals, agency, and self-efficacy when they played their games. Their thoughts were primarily expressed through their reader-response thought journals, research meetings, audio-recorded interviews, and during their daily play in their group. The interaction and engagement from playing video games in the classroom made it a social event that gave students the chance to create their own discourse about their experiences with the digital texts they played for twenty-five days in the study. The GRAD Framework aligned to my
research questions and methodology, and it was used to explore how my students thought, experienced, and learned from their gaming activities in their small groups. The GRAD Framework outlines the gamer’s responses to the games they played and the decisions they made in their group. In this study, the gamer’s responses to the games they played is the focus of the whole study, so naturally, this framework plays an important role in binding video games, student experiences, and reader-response theory together in this study.

Research on Video Games for Learning So Far

The current scene of game-based learning in the educational settings is controversial, even among educational researchers themselves (Whitton and Maclure, 2017). There are those who argue that video games can sometimes be harmful (Greenfield, 2015; Ferguson, 2007) and there are those who think video games definitely belong in the classroom (Zancanella, Hall, & Pence, 2000; Bissell, 2011; Gee, 2003; Prensky, 2001; Squire, 2003; Gerber & Abrams, 2014). This does not count the many teachers who are already using video games in their class now, but have not published research about their findings. To make things more challenging, the current scene of schools is not equipped with the tools or training for teachers on how to use video games in their classrooms, even if they wanted to do so, as video games have grown out from the younger generations to where they are now (Rice, 2014). The idea that anyone could grab a controller and play a video game is far from the truth (Floyd & Portnow, 2017) and there is indeed an age range for those who have a basic level of gaming literacy and that coincides with the average age of a gamer in this country. However, this problem is beginning to fade, and the average age of a video game player is now thirty-six years old (EAS, 2016), and according to the Center for Public Education (2012), in 2010 the average age of a teacher in the United States was thirty-seven years old. This points out a critical time for video games and literature because for
the first time in history, the chances that a teacher is also an experienced gamer is more probable than it has ever been, and that means they are more likely to feel comfortable employing their ideas to use video games consoles and games they have played or owned in the past, as well as using their current consoles and games for the classroom. Furthermore, the average age of teacher should then suggest that the audience of this book may have experience with the games and consoles in this study.

When looking at research involving research with video games in the classroom, much of the scholarly works consisted of theories and conceptual frameworks (von Gillern, 2016; Gee, 2003) and there were even fewer studies combined theory with practice (Plass, Homer, & Kinzer, 2016). The idea of researching video games and learning is not new (Zancanella, Hall, & Pence, 2000; Malone, 1981; Kafai 1995; Reiber 1996, and Prensky, 2001), but to examine their use in the classroom with groups of students for extended periods of time, like in this study, is new and examples of this were extremely rare (Ke, 2009). She completed a meta-analysis of video games and learning research and found that research on the subject was split into three generalizable areas: theoretical speculation, experimental or descriptive clinical study, and reviews of existing research. Her work in gathering research about video games and learning is not the first of its kind. Four recent literature reviews on the subject (Randel et al., 1992; Vogel et al., 2006; Hays, 2005; Dempsey et al., 2002) are important reviews to consider for the thinkers and practitioners in the field.

Randel et al. (1992) examined sixty-eight studies that compared the effect of games and simulations with that of traditional classroom instruction. They found that out of the sixty-eight studies, thirty-eight studies found there was no difference in the student’s performance. However, in most of those studies, students reported more interest in the gaming activities than
they did with the traditional classroom activities. Dempsey et al. (2002) looked at the commonalities of ninety-nine studies that related to instructional games, or game seen as being strictly education. These are sometimes referred to as edutainment games. They found that in addition to playing the games and learning from them, players use games for tutoring, exploration of new spaces, promoting positivity and self-esteem, practicing new skills, and drilling exercises, as well as helping to change one’s attitude. The literature review fails to illustrate the very social nature of gaming that is found in this study with small groups of gamers. Nonetheless, the study by Dempsey et al. (2002) is based off instructional games which are different from the AAA game titles found in this study. Yet, their literature review on games and learning still relates to several areas found in my study, like promoting positivity and self-esteem, practicing new skills, and exploring new spaces. These aspects showed up in every small group during the study. Vogel et al. (2006) examined thirty-two studies that examined computer games and interactive simulations versus traditional teaching strategies. They found that across all demographics in the studies, it was reported there was evidence that interactive simulation games provided players with higher cognitive gains and positive attitude versus traditional teaching strategies. In addition, this study is like the review done by Randel et al. (1992) and it also neglects the social nature of group play that was seen in my study. Plus, all games found in this study were still very primitive in terms of graphics and in-depth gameplay. Games have changed a great deal since then, and Hays (2005) looked at one hundred and ten research articles about video games and learning and highlighted six major themes. First, the literature base for this field is scarce and more articles contain pieces of thought and most do not provide empirical data to support their ideas. Second, there were not any specific conclusions made from all the studies that suggested a greater theme of importance. Matter-of-fact most of the studies reported
to have a hard time making conclusions of any kind. Third, empirical research on games have often been broken up into various areas of interests like focusing on the game environment, gender and academic ability, cooperative learning, and media and genre. Fourth, a large portion of the reviewed articles were evaluated with an anecdotal and judgmental tone with little evidence. Fifth, there was a need for researchers to begin longitudinal studies with games and learning so researchers could understand more about the long-term effects from the use of games as learning tools. Sixth, the review of the studies revealed that some knowledge domains are more suited towards gaming like language arts, science, and math. The data from my study relates to many of the same things that (Hays, 2005) describes in his findings from the literature. My study used empirical data and separated students by game, genre, gender, and academic ability in a cooperative learning environment in small groups.

Ke (2009) reviewed two-hundred and fifty qualitative study documents on the design, use, and evaluation of computer-games. One hundred and sixty-seven of these documents could not be considered for her synthesis of information because they did not fit the criteria she had made for the study. For her meta-analysis of literature video games, she excluded qualitative studies if the study did not clearly describe its methodology, like sample size, time, procedures, etc. Studies were also excluded if they did not describe the learning context, outcomes, or were appeared to be written with the author’s bias rather than unbiased field notes. She explains that “quite a few articles announced the effectiveness of a specific game based purely on design assumptions rather than empirical data” (p.7). Taking from her work and findings, my study used unbiased field notes from observations and empirical data that was triangulated with other data sources in the study to increase its efficacy. Ke (2009) focused on eighty-nine articles that provided empirical data on the effectiveness of computer games and split them up into five
research purposes. “(1) evaluating the effects of computer-based game on learning (65 out of 89 studies), (2) exploring effective instructional design (17 out of 89), (3) exploring game-based learning activity or pedagogy (9 out of 89), (4) evaluating the influence of learner characteristics on game-based learning process (10 out of 89), and (5) investigating cognitive or motivational processes during game playing (4 out of 89)” (p.20). The first theme was that many of the studies focused on the effects of instructional gaming on its users. The second theme found that many of the articles looked at game design as a focus point. The third theme categorized studies that examined the characterizations of players with demographics and learner characteristics. The fourth theme focused on game-based pedagogy and the way players learn from the games they play. The fifth theme examined the motivational processes found from playing games. All these themes are also present in my own study. My study presents empirical data from the five themes found in the meta-analysis on computer games and learning from (Ke, 2009). I am not using computer games in my study, but the learning principles (Gee, 2003) found in computer games are also found in video games. Looking at the eighty-nine studies covered by (Ke, 2009), I found my own study to be unique amongst the qualities she found in her work for the following seven reasons:

1. My study gave students more time to play games and create data than any other study by giving them twenty-five consecutive days at one hour per class conduct the study.
2. My students were participants and my co-researchers in the study.
3. My study focused on adolescent students instead of elementary students, college students, corporate workers, or military personal.
4. My study was conducted in a middle school classroom during normal school hours as the main curriculum in a media literacy elective course, instead of the research being conducted during a before or after school club.
5. My study contained multiple small groups who gamed together for twenty-five consecutive days.
6. My study gave small groups the chance to play multiple games during the study.
7. My study contained more data points and qualitative data to analyze than most studies.
Research Question

The following research question guided my study: How do my students experience console gaming as members of small groups when they treat them like literature in the classroom?
CHAPTER 3

METHODOLOGY

Introduction to Methodology

This study is a qualitative practitioner research study. As such, I studied the phenomenon of gaming as it occurred in a media literacy course I designed. This study is centered within the phenomenological research tradition which seeks to describe what an experience means to an individual or small group who participates in that same experience (Moustakes, 1994). I seek to describe what my eighth-grade students and I experienced as we engaged in making meaning (Rosenblatt, 1979) with console games during the last month of a semester long media literacy course. Data included student work and discussion, accompanied by my notes and observations. Data analysis sought to identify patterns that would allow me to characterize students thinking, experience, and learning as they played console games in my classroom. The course under study brought literacy practices associated with video gaming into the classroom for study by both me and my students. Dubbles (2009) Reading is more unlike the reading students are doing outside of school than at any point in the recent history of secondary schools, and high stakes, print-based assessments are tapping into skills and strategies that are increasingly unlike those that adolescents use from day to day (p.252). By resituating these outside-of-school practices within a course and asking students to reflect on and analyze their own experiences, I can contribute to our knowledge of how adolescents experience and interpret console games and provide some insight into how to incorporate gaming into schooling.

One goal of this study would be for teachers to pull out their new and old consoles and bring them into the classroom. Next, we need our schools to purchase these materials for
teachers and students to check-out for their classrooms. The school library needs video games for students to check-out like they do for other forms of literature including books, audiobooks, and magazines. The way adolescents read and write has changed in the world (Harvey, 2016), and it is important to keep students engaged with their literacies in school. One way to increase the literary engagement with literature is to include AAA popular games into the classroom. This is relatively new, and very little research exists on the way students treat video games as literature.

**Research Questions**

The following question guided my research: How do my students experience console gaming as members of small groups when they treat them like literature in the classroom? As detailed in the previous chapter, the classroom was set up to allow groups of four to five students to play two video games each over the course of a month. Students were positioned as co-researchers into their own aesthetic experiences and asked to write about and discuss their gaming responses to the games. The following sub questions helped me to address the main research question: When asked to respond to their gaming experiences in writing and discussion, on what did students focus? What meanings did the students create in relationship to the five video games? What similarities and differences are evident across and between the various games and groups? As a language arts instructor and an experienced gamer, what did I notice about group interaction and interpretation of the games?

**Method**

This study utilized video games and qualitative responses to the games they played in their eighth-grade public middle school media literacy elective classroom in which the head researcher was also the official teacher for the students in the study. The nineteen students used
video games in small groups for five consecutive weeks. Students were asked to be participants in the study, and the students and I recorded data about what they were thinking, experiencing, and learning while playing video games in the classroom. Small groups were comprised of low-level, mid-level, and high-level gamers, but I focused on putting students together with people who would work well together. The study looked at six points of data, see Figure 3.1. Students responded to open-ended reader-response questions about their experiences after playing video games each day in their own thought journals. I would then respond to all the students’ thought journals each night, and after the halfway point of the study, students responded to each other’s thought journals. Students also co-created additional reader-response questions for their peers to answer after the halfway point in the study. I kept a field book with observations as a participant observer who sat in to play, listen, and talk with the small groups during the study. I hosted five research meetings in class during the study, and students got the chance to help analyze and make sense of the data. At the end of the study, the small groups were interviewed about their experiences using video games in the classroom. Data from the five weeks was used to inform the future design of my media literacy class, as well as the greater body of knowledge looking to better understand how students think when they transact with video games in the classroom.

I used six points of data in this research, and the use of audio-recorder interviews, observational notes, research meetings, teacher reflection logs, thought journals, and the gaming logs were crucial elements of the study. This data should reflect the climate of the class at that time. Examples of classwork should illustrate a hard-working class who enjoyed playing games and thinking about their thinking. Each day was packed with reading, writing, playing, and discussion. These activities worked well in the class together. However, towards the end of the study students were expressing boredom with the playing and writing combo. This section will
provide the reader with an example from each point of data used in the study. More examples will be used when appropriate in the following chapters, and these examples should illustrate the kind of work that students completed during the twenty-five study.
(Figure 3.1 Conceptual Model of the Method of the study.)

The Classroom

My upstairs classroom was well lit with six giant windows that faced west and stretched from one end of the classroom to the other. After playing video games in the dark for forty-five minutes, students would often look out at the nearby mesa where the extinct volcanoes lie dormant. I would raise the blinds and light would pour into the room. Then, I would play some music on the Promethean board while everyone wrote in response to their literary experience that day. The students wrote until the bell rang and they would leave their thought journals out on
their desks for me to read. My prep period was right after class, so I could sit down and review what my students has composed after class.

The classroom was organized in a fashion that allowed multiple small groups to play video games at once. My classroom had the ability to run four consoles at a time. There were four different consoles and video games being played at the same time. The consoles and screens used were located in separate stations around the classroom, see Figure 3.2. The stations were separated in the best way possible without having to change the classroom around every day to setup televisions and digital gaming consoles. The stations were spaced out from one another so that students could focus on their own digital gaming experiences. However, due to the design of the classroom and the available technological resources in this study.

Small groups used one of the following to play their video games: one 32” television which was located in the classroom cabinet for the students to use the Xbox 360, one 40” wall-mounted 1080p HD television for the PlayStation 4 VR, one 85” Promethean Board for the PlayStation III, and one projector and a pull-down screen for the Nintendo 64. These screens were placed in areas of the room that were conducive to the use of small groups sharing the same space. Each group used the same screen, console, video game, and area of the room each day during the study until they rotated for their second game during the third week of study.
Participants and Demographics of the Study

Participants in this study were recruited from my teaching site, a large urban school district in the southwest area of the United States. This public middle school served roughly 1,100 students each year, and the school was recognized as a Title I school site, meaning, due to the low socio-economic status of the students’ parents, the school was awarded extra financial aid to help fund school activities. However, funding from Title I was not used to fund this research study in any way.

Participants in this study were recruited from my eighth-grade media literacy elective class in which I was the instructor. I only taught one media literacy elective class, so the maximum number of students that could participate was twenty, which was the class size cap set by the school site, but I only had nineteen students left in the class at the end of the year. A year before the study, students were notified over the school’s intercom about a new media literacy
elective class that eighth grade students could sign up for if they were interested. If students had a 3.0 GPA and they were going to be in the eighth grade the following year, they could sign up for the class.

The student participants in the study consisted of mixed ethnic backgrounds and abilities. My students’ ethnic backgrounds were mostly Hispanic, Caucasian, and Native American. The participants came from different backgrounds in regards to their exposure and experience with media literacy. Some students came from socially affluent families from the upper middle class or higher, and some came from the lower middle class or below. Students also differed in their academic abilities. Students from general education, honors, and gifted classes were represented in this study. Every student in the media literacy class consented to be a part of the study. What brought these unique students together was their interests with media literacy. There were six females and thirteen males that ended up in the media literacy class, and all the students in the class consented to participate in the study at the end of the year. The students that made up the class culture represented a wide range of socioeconomic and sociocultural backgrounds. Not only were they unique in that sense, but the attitudes and experiences that were brought together were wildly varied. Despite there being only six females, their attitude and personality more than made up for their weakness in numbers. The males in the study were also unique and many had strong personalities. Most students did not know each other at the beginning of the year except a group of five male gamers who were grouped together in the study. Matter-of-fact, most of the students were more different than they were similar. However, many of the students had an interest in digital learning, but those interests were scattered in the various ways people define themselves as digitally literate. The class consensus appeared to be that they were all in the right place, but they did not exactly know what that purpose was for. However, there were a few
students who ended up in this class because their friend was interested in the class and did not want to take it alone, like Linda and Autumn. I recall laughing as I read a thought journal entry from Anna which confessed she had no idea why she was in the media literacy class to begin with, as she had never signed up, but she was happy that she was placed in it.

**Video Gaming Roles in Small Groups**

The video games were played in small groups in the classroom. Small groups were comprised of three-to-five students each. These groups of students stayed together for the entire study. They played games, communicated as a group, analyzed data, and answered interview questions together. Students played video games in their small groups like groups of students would read different novels at the same time in a classroom. They teamed up to interpret and experience the video games they played together. Since there were nineteen students in the class, there were four groups with four to five students in each group. I put students into their small groups based on who I thought would work best together based off my observations from the year. At the beginning of the year when I ran a pilot study with video games and learning, I found that my students did not work well together based off grouping them based off their video gaming ability. Mixing the video gaming abilities in each group to spread out the talent was mistake, and students complained that having mixed ability levels in their small group was not as important as being able to play, laugh, and share experiences with their friends in class.

“Awareness of some of the things that actually affect the student’s reactions will allow the teacher to help the student in handling his responses and achieving increasingly balanced literary experiences” (Rosenblatt, 1976, p. 34). For this study, I placed students in small groups with their friends to foster an environment of comfort, enjoyment, and friendship which lent itself the social nature of gaming in the classroom. The composition of the small groups in this study
ignored the players’ abilities and instead grouped them by their potential to work well together. It was important to group students together with their friends since they stated earlier in the year that they would get more out of the experience if they were with students with the same interests and characteristics. Each small group played their video game for two weeks at a time, which amounted to ten class periods. Then, after the two weeks were up, they switched to another video game in the same small group. Students then played the second game for two weeks as well.

Students assumed three different roles in their small group, and they rotated through those roles with each day of gaming. These roles included being a player, being a strategy guide, and being a scribe for the gaming log. On a daily basis, each group comprised themselves of multiple players, one strategy guide, and one scribe.

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Player 1</strong></td>
<td>This student played for 33% of the allotted time in class.</td>
</tr>
<tr>
<td><strong>Player 2</strong></td>
<td>This student played for 33% of the allotted time in class.</td>
</tr>
<tr>
<td><strong>Player 3</strong></td>
<td>This student played for 33% of the allotted time in class.</td>
</tr>
<tr>
<td><strong>Scribe</strong></td>
<td>This student kept track and recorded answers on the gaming log.</td>
</tr>
<tr>
<td><strong>Strategy Guide</strong></td>
<td>This position helped the players with their strategy and progress in the game. This student accessed the internet, when needed, to research anything they could not find in the strategy guide.</td>
</tr>
</tbody>
</table>
This research study used four popular video game consoles and five games during the twenty-five days. To reach a wider audience for the study, I used a variety of older generation consoles that students had mentioned earlier in the year during their My History with Media Literacy Projects. I then added a contemporary gaming console with virtual reality capabilities so students could create new experiences on a new device. Students used the PlayStation III, Xbox 360, Nintendo 64, and the PlayStation 4 VR. The research study also used five different video games during the twenty-five days. The small groups played two of the following video games: Super Mario 64, Uncharted 3: Drake’s Deception, Bound, Wayward Sky, Lego Star Wars: The Force Awakens, and Bound. After getting to know my students from their My History with Media Literacy Projects, I thought about what games my students would play. I considered what Rosenblatt (1976) had said, “It is not enough merely to think of what the student ought to read. Choices must reflect a sense of the possible links between these materials and the student’s past experience and present level of emotional maturity” (p.42).
Participant Observer Field Book

Being the head researcher in the classroom also meant overseeing and observing the classroom discourse of the small groups during their time with their video games. This meant writing down the things I saw and heard as I observed them playing games. I recorded about the times I spoke to the groups, or joined in to aid or play at times. The field book represents my time with the students during their daily activities with the video games. Each day I recorded my observations on my school site issued password protected laptop, and saved it to my password protected and encrypted USB flash drive for the study.

Observational notes were taken every day and they were an important data point as it often helped me track down which day a certain thing happened or when a group had gone through something specific, see Figure 3.3. My notes were often taken as I stood behind my podium and as I observed the class, and sometimes I would sit behind the groups so I could hear what they were talking about clearly. Sometimes I would have to put the pen down to help with something or to train someone with the virtual reality gear, but after the first several days the study began to run itself, and it was easy to write down my observations each day. Typically, if the students experienced it, they wrote about it, and I observed it. When players were frustrated while playing the game, I witnessed it, and then I often read about it in their writing later.
Example of Observational Notes

Thought Journals

Towards the end of each hour-long class period, students responded to a set of open-ended questions that allowed the students to make meaning of the video games they played for themselves. Students were given about ten minutes after they played to compose a written response in their thought journal. At the start of the third week, student helped co-create additional reader-response questions that students could choose to answer in their thought journals in response to their video games as literature, see Figure 3.4. The student’s thought journals were reviewed and I responded to them all each day until the beginning of the third
week of the study. At that time, students began reviewing each other’s work, as modeled by myself from the first two weeks, and each student read and responded to each other instead of me for the rest of the study. I still read and reviewed their thought journals each night, but I did not write to them. Thought journals did not leave the locked classroom for any reason, and were kept locked in the classroom cabinet.

**Teacher-Made Reader-Response Questions**

Did something from the digital game make you think of anything else from your past?

What are your thoughts about what you experienced today during your gaming?

Was there something from the game stood out to you today?

What feelings did you experience while gaming?

What have you learned so far in the game, and why is that important?

What do you think this video game is saying about people and life in general?

(*Figure 3.4 Teacher-made reader-response questions for students.*)

The consistent routine of reading and writing was one of the most important aspects of this data collections process. I wanted to make sure there were at least ten minutes to write each day. Students were given enough time to think and write, and that helped because many of my students look along to time think about what they wanted to say before they wrote. For the first ten days, students would see a response from me in their writing, see Figure 3.5.
Example of a Student Thought Journal

(Figure 3.5 Dean’s thought journal, game #1, day #4, Mr. Harvey’s reply.)

Students read what I had written in response to them during the first ten days, but then the students responded back to each other from days eleven through twenty. This meant that during the second half of the study my students were writing twice a period, once before they started playing video games and then again after. Students often wrote at least a half page in response to
the teacher-made reader-response questions. It was during the second research meeting that students were asked to create their own ideas for reader-response questions, see Figure 3.6. These were collected, and by the next day, there was big poster on the wall with the new student-made questions. Students were all given print-outs for their thought journal.

**Student-Made Reader-Response Questions**

- In what ways did your game challenge you today?
- How does your game teach you to work with others?
- What do you think the creators of the game wanted you to learn?
- Was there anything important that came to mind while you were playing?
- What in the game made you feel the most frustrated?
- If you could change your game what would you do?
- How does this game have an influence on you?
- How does playing this game contribute to your previous gaming knowledge?
- How have your thoughts on this game changed or expanded?
- How can you relate to the characters in the game?
- What do you think is most important to fix or keep doing for tomorrow?

*(Figure 3.6 Student-made reader-response questions during the second research meeting.)*

Students wrote over three hundred pages combined as a class during the unit. Students wrote for four and half hours total during the unit. I highlighted the things that stood out to me as being meaningful and related to the research study’s main and sub-questions. The responses from students to one another were always thoughtful like Blake’s response to Linda, see Figure 3.7. Those highlights were compiled, printed, and analyzed during the research meetings. This in part was how the themes and patterns were initially recognized, and research meetings allowed us to share our ideas about what we were seeing in the experience every week.
Example of Student Thought Journal

(Figure 3.7 Linda’s thought journal, game #2, day #6, with Blake’s reply.)

Teacher Reflection Journal

Each day after school, I wrote my thoughts about how the study was going in a teacher reflection journal. The point of the teacher reflection journal was to give the myself a chance to write down my thinking as the study progressed. This was different than the observational field
book because this journal represented my overall thoughts and feelings about the project. The journal was a place for me to write out my ideas, opinions, and reflections about what I thought and felt about the direction of the study. The journal was designed to help me keep track of my thinking while conducting the study. The journal allowed me the chance to look over past reflections to compare and make meaning of current reflections. The reflection journal was analyzed during and after the study by my students and me. During the research meetings, students got a chance to see what I wrote in my reflection journal. Students appreciated the fact that I was also thoughtfully responding to the study in a journal of my own. The teacher journal was a place that also helped me uncover themes, patterns, and ideas about the data in the study, see Figure 3.8.
Day #2 (First day of gaming)

Watching my students form their groups and get into their games was perhaps one of the most gratifying feelings I have had in the classroom. Everything seemed to go so well that I was nervous that I had forgotten something major. My students had already done this type of unit before during the first semester with four different games on different consoles. The benefit of using my own students I had worked with all year was paying off. They had been trained before on how to think about using digital games as pieces of literature. They knew how to share the experiences of those games in their groups. Students already knew how to feel comfortable with their digital literacy. They had learned that in this class, digital literacy is valued and talked about, and then played with. There was no hiding cell phones in bags, or hidden plots to play while class occurred. To the students, the nine months before this study helped them understand that the digital literacies they like and some were pieces of knowledge towards their own experiential learning goals. Much of the worries I once had about the class and its potential, I was worried that my digital literacy class would be tough to explain the objectives.

(Figure 3.8 Teacher reflection journal, game #1, day #2, part #1.)
Teacher Reflection Journal

To my students, I was wrong. The students this year were ready for the challenge and they were receptive to the ideas I had about how to get students more involved with digital literacy in school, instead of out of school. From the beginning of the year, students began exploring themselves and their past with digital literacy. They completed these projects and these projects laid the groundwork for the year and this study. Students were asked to re-think about the projects of the beginning of the year. Students work was posted back and students looked at their old work and could see that they have grown in their abilities. The students were also excited because they were able to think about how their academic school year had progressed and how that learning had evolved from not knowing what constituted as digital learning and digital texts, to being able to see things in the present as being applicable and something expected by the student in this class. Students in the class over the year seemed to have a decent amount of awareness of technology, but none had an idea about its proper place in their classrooms, and very few said they had and games.

(Figure 3.8 Teacher reflection journal, game #1, day #2, part #2.)
Gaming Logs

The small group gaming logs were created so small groups could keep track of their progress on paper. This gave students the space to keep track of their game and experiences in the story. Each gamer, each day, assumed a different group role from the gaming log. The role of scribe was employed to give students some written responsibility and accountability that showed they were following the video game’s progression or lack of progression each day. It tracked the new characters they met, new conflicts, new settings, new problems, and gave the small groups a chance to review how they got where they did in the game. For the full gaming log, see appendix. At the end of the gaming log, there were questions that asked the small groups to think collectively about the game after they had played it for ten days, see Figure 3.9.

1) Where did your team end up in the game after all this time? What level, rank, or % did you complete in the game?
2) Did you get any special accomplishment while playing this game?
3) What was the most challenging aspect of this game for your team? Talk with your team about this.
4) What would you do differently in this game from the beginning, now knowing what you know about it?
5) Would you play this game again? Explain your answer after talking with your group.

(Figure 3.9 Questions to answer at the end of the gaming log.)

Small groups were required to track their progress by completing the gaming log, and one student each day took the role of scribe, see figure. The students often wrote very little in the boxes that kept track of their daily progress, but during the final research meeting, they said they found some usefulness in the last five questions on the last page, see Figure 3.10. Students had seen this gaming log before, matter-of-fact, it was used during the pilot study as the only piece of writing students completed after gaming each day in their group. Each group treated the gaming
log differently, but overall as a class, students were not very enthusiastic about logging in their progress on it every day. Most responses were a sentence or less. The gaming log provided snapshots of what groups were doing on any given day, and the logs often helped triangulate other patterns and themes I was saw from the data.

**Small Group Gaming Logs**

(Figure 3.10 Digital gaming log for groups to fill out each day they game, page #1.)
Small Group Interviews

Each small group was interviewed using a set of questions and an audio recorder at the end of the study. For thirty minutes, they answered questions about their experiences while playing video games in their small groups during the study, see Figure 3.11. Students answered interview questions in their small group on the first day of the fifth week of the study. An audio recorder was placed on the table while students answered questions as a group while talking into the recorder. Audio recordings were erased after they were transcribed for confidentiality protection.
### Interview Questions

**Directions**

*Each student in the small group is expected to state their name at the beginning of the recording, and each student is expected to participate in the discussion. Chose a timekeeper in the group and spend no more than five minutes per question.*

What are your thoughts and feelings about what you learned while using video games in the classroom?

For example, what was your favorite experience?

For example, what was your least liked experience?

For example, what are your thoughts about using video games in the classroom?

For example, do you think you learned anything?

For example, what was the most interesting thing that stood out?

For example, did you perceive yourself as a learner?

*(Figure 3.11 Audio-recorded interview questions from the end of the study.)*

During the interviews, students sat out in the grass courtyard in front of the school and each group found their own patch of shade under a nearby tree. Each group used the interview questions and took turns responding. Dr. Pence and I facilitated the interviews and took notes as we listened. The interviews were useful because it gave students the chance to talk instead of write with their group, and to make it more meaningful, it was their last time to discuss the game in the study, see Figure 3.12. There were times when the courtyard was full of laughter from the groups and their discussions, and then there were times of silence where students were trying to find their words as they twisted grass into knots.
Sample Transcription from Audio-Recorded Interview

Question #6 – What did your group learn during the study?
Jake: “I’m really glad I signed up for this class. It actually taught me a lot. Like, it kinda got me more ready for high school than any other class has.”

Electra: “True, because a bunch of the classes are like – ready for high school? And I’m like, no. Then, like in high school there is going to be a lot of people and you have to know how to like not die. So this was all kinda cool because I know how to talk to people now.”

Jake: “I know how to cooperate more in class now. I know more about how to use literacy and how I do and don’t use it in class.”

Electra: “Yeah and it’s also helped with my literacy. Like yeah it’s like a digital class, but it helped me with like writing and stuff, too. Cause then it just lets me be able to be myself and think and be creative no matter what.”

Whole group: “Yeaaaah.”

(Figure 3.12 Transcript piece from audio-recorded interview, group #2.)

Students as Co-Researchers

The idea of using students as co-researchers came from watching my students game as they asked each other questions about why they chose a certain character, or chose to go a certain way in a game over another from the beginning of the year. Students in my class were already inquiring into their own learning while playing games with one another, so it seemed imperative to include them in the study. Throughout the study, students gamed together, read and responded to each other’s writings, talked about experiences as a class, created new reader-response questions, and analyzed data from their thought journals into major themes throughout the study as a class. The implementation of players as co-researchers help foster what Hesse-Biber & Leavy (2006) call a meaning-making partnership that forms between the researcher and participant after discussing, interpreting, and evaluating the data collectively. The use of an entire class of students as co-researchers in the matter of their own meaning making process with video games as literature is something new to the field of literacy studies and game-based
learning. However, the use of using students as co-researchers in the matter of their own learning is not uncommon.

Jørgensen (2012) argues for the use of skilled players as co-researchers when studying games, and the purpose of her work was to discuss how researchers could investigate games using qualitative player studies. Although Jørgensen (2012) used five players as co-researchers in her study, their gameplay experiences were not the focus of the study. Instead, she focused on the player’s interpretations “as a source to understand how game features work with respect to the game as a whole” (p.375). The focus of my dissertation was on the way students experience video games as literature, so it was important to think of my students as player-researchers who were not the object of my study, but rather a source of knowledge predicated on their own understanding, and not just from the researcher’s understanding, their understanding. von Gillern (2016) says, “Experienced gamers may find it easier to identify and utilize in-game affordances, such as what objects can be used to help achieve goals, than less-experienced gamers, and scholars may investigate how players identify and utilize affordances throughout their gameplay, as it can reveal how games function as experiential learning systems” (p.678).

Research Meetings

During the study, I facilitated five research meetings in the classroom, see Figure 3.13. Research meetings included the whole class, and the meetings lasted thirty minutes or less. The study started with a research meeting, and then we all came together for a new meeting every five days of gaming after that. The goal of the research meetings was to bring everyone together so we could all talk about what we were seeing from the data. The first research meeting was used to introduce and invite students to the research project, but research meetings two through five were used to make sense of what students were thinking by talking, looking at data, and
making sense of quotes from students’ thought journals. I worked with the class to find themes and patterns in the data as the research meetings progressed.

The Research Meeting Schedule

(Figure 3.13 research meeting schedule.)

Research meetings were a key part of the research process, and it allowed my students to regroup from the gaming to take a step back and to look at themselves as learners of a game, a group, and a class, see Figure 3.14. After the five days of gaming, students would meet for a research meeting to discuss the latest happenings of the study, new quotes from highlighted thought journals, and any other topic or issue students wanted to discuss. It was always great to
open the floor to comments and everyone would raise their hands in hopes of sharing their thoughts to all. The discussions often lead to themed discussions about something other than the game itself, and I would re-direct them with another question about the data they were seeing. The themes coded for thematic analysis in this study were developed by myself, and I was influenced by my student’s input during research meetings and thought journal entries.

The Classroom Setup for a Research Meeting

(Figure 3.14 Research meeting three after students left the class for the day.)

As students progressed through the study, each research meeting would result in a new set of posters to add on the research wall in the class that was dedicated to the study. The posters on the research wall contained typed quotes from the students’ thought journals during the study, but the typed quotes did not contain the name of the student, see Figure 3.15. The quotes were picked by me as I went through and read and responded to each student’s thought journal each day. As the study progressed, so did the amount of thoughtful comments I typed out from the
student’s thought journals each research meeting. During the research meetings, I would walk around and give each student three to seven strips of paper with quotes from the thought journals. Each strip of paper contained one quote and students did not know who the quote was by, and students were asked to read their quotes and to think about them. Student read their quotes and I opened the floor up for students to share their thoughts with the class. Students were eager to share their quotes and thoughts, and that would usually open the floor up for a class discussion. When the discussion had gone its course, another student would read a quote and we would dissect it for deeper meaning and significance. The research meetings also gave me a chance to share my reflection journal and observation log with students. After the research meeting was over, the quote strips were glued to a poster and put on the wall for the students to see.

During the researching meetings, students worked with the data to come up with themes and patterns that emerged from their thoughts, experiences, and learning. The students looked at the quotes on the poster and worked to come up with themes and patterns that were going on in the data. The research posters made from the students’ quotes were the first step in analyzing the data. I kept track of those themes and patterns made by my students in my observation log, and used them when I finished the study and went back and looked at the data again using thematic analysis on every single thought journal from the first day. The codes used to thematically analyze the thought journals were created in mind with the influence of my students’ thoughts as co-researchers into what the data was expressing.
Research Meeting Poster Boards
(Figure 3.15 Classroom posters with quotes from thought journals from research meeting activities.)
Thematic Analysis

Boyatzis (1998) said, “Thematic analysis is a process to be used with qualitative information. It is not another qualitative method, but a process that can be used with most, if not all, qualitative methods and that allows for the translation of qualitative information into qualitative data, if this is desired by the researcher” (p.4). This study relied on the use thematic analysis to interpret the qualitative data into a framework for understanding the experiences, thoughts, and learning of each group. Braun and Clarke (2006) say, “Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within data” (p.7). The process requires the careful reading and re-reading of the data (Rice & Ezzy, 1999), and applying the process of thematic analysis to my qualitative data gave me a better understanding of what my students were experiencing, feeling, and expressing when I reviewed their responses to literature. This is a strong point for thematic analysis and (Marks & Yardley, 2004) suggest it offers “the systematic element characteristic of content analysis, but also permits the researcher to combine analysis of the frequency of codes with analysis of their meaning in context, thus adding the advantages of the subtlety and complexity of a truly qualitative analysis” (57).

Early in the study, I read through their responses to the literature and I began reviewing academic literature on the areas and topics surfacing from the data, which was recommended by (Tuckett, 2005) as a helpful way to connect to insightful clues and deeper meaning from the data. The thematic analysis of the student’s thought journals ended up being the largest source of data in the study with over three hundred pages of hand-written work. After every five days of gaming, we held a research meeting and students would share and discuss their thought journal responses. These meetings were a time and place for students to come together and participate in the six phases of the thematic analysis process, and it is in part what makes this study unique. My
co-researchers assisted in all the phases of the thematic analysis process during the four research meetings. The students and I created eight themes from the codes created from the thematic analysis process. Boyatzis (1998) defines a theme as, “a pattern in the information that at minimum describes and organizes the possible observations and at maximum interprets aspects of the phenomenon” (p. 161). It took several steps to creating a codebook, and my students reviewed the data over the twenty-five days of the study using thematic analysis.

There are six different developmental stages to the process of thematic analysis (Fereday & Muir-Cochrane, 2006; Braun & Clarke, 2006). Phase one, centers on the familiarizing yourself with your data. Phase two, is focused on generating initial codes from the data. Phase three, begins the search for themes from the use of the codes. Phase four, give the researchers the chance to review the themes for edits, additions, and omissions. Phase five, puts the researchers in the position to choose their final themes. Phase six, entails creating meaning from the themed data for interpretation in some form of a report or write-up. Each of the six phases were explored by the whole class during their research meetings.

My students were my co-researchers and they helped me through each of the six phases of thematic analysis process. Boyatzis (1998) believed that code development is done best with the help of a team or group of researchers. During our research meetings, we created a list of our ideas, shared our observations, discussed the student’s responses to literature, created a basic set of codes. Saldaña (2009) believed it was important to consider the following questions when working with the development of codes from working data: What are people doing? What are they trying to accomplish? How exactly do they do this? What specific means or strategies are used? How do members talk about and understand what is going on? What assumptions are they making? What do I see going on here? What did I learn from note taking? Why did I include
them? All these questions should be asked throughout the data analysis process. We later revisited the ideas and evolved our basic set of codes into an evolved and more meaningful set of codes that everyone in the class agreed with by the end of the study.

At the end of the study, these themes were considered when I re-read all the thought journals and created a final codebook to examine all the data once more. When I went back to the thought journals with the codebook, I began keeping track of the codes represented in each student’s work by highlighting the students writing and placing a code on the side of the paper that linked it to the codebook. This was my interpretation, and Braun & Clarke (2006) say, “There are a number of ways of actually coding extracts. If coding manually, you can code your data by writing notes on the texts you’re analyzing, by using highlighters or colored pens to indicate potential patterns, or by using ‘post-it’ notes to identify segments of data” (p.18). In my study, the written responses were highlighted and categorized by color. Each color represented a new week’s worth of writing, and a highlight meant at first or second glance that the quote was of importance and relevant to the research question. A typical student’s thought journal response expressed about three to five codes per entry. A code was given each time a portion of their writing, say a sentence or a paragraph, related in a majority fashion to one of the codes from the codebook. Cassell & Symon (2004) describe a code as, “…a label attached to a section of text to index it as relating to a theme or issue in the data which the researcher has identified as important to his or her interpretation” (p. 257). The codes were created with the inductive analysis approach, which meant the codes were created after the data was created, as opposed to the deductive analysis approach where the codes would be predetermined and then used to test the hypothesis or research question afterwards (Guest, MacQueen, Namey, 2011). The idea was that the data would reveal its meaning as the study progressed with each research meeting. Students
and myself would pull together the important themes and move on with our experiences with video games and virtual reality as literature. The use of thematic analysis, coding, and research meetings will be discussed in further detail in the methodology chapter ahead.

**Data Analysis**

After finding some basic themes with my students during the research meetings, I created a set of codes to thematically categorize the student’s thought journals. The codes CT, FSG, FVP, RVR, B2C, EV, GS, and FT were used to represent the themes found in the thought journals, see Figure 3.16. I read each thought journal and applied these codes to each entry.

**Coded Themes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>Critical thinking, puzzles, challenges</td>
</tr>
<tr>
<td>FSG</td>
<td>Friendships and social gaming</td>
</tr>
<tr>
<td>FVP</td>
<td>Style of playing: having fun vs. making progress</td>
</tr>
<tr>
<td>RVR</td>
<td>Reactions to games and virtual reality</td>
</tr>
<tr>
<td>B2C</td>
<td>Bonding to characters and games</td>
</tr>
<tr>
<td>EV</td>
<td>Evaluation of game, self, and others</td>
</tr>
<tr>
<td>GS</td>
<td>Gameplay summary and comprehension of digital text</td>
</tr>
<tr>
<td>FT</td>
<td>Feelings, thoughts, and confessions</td>
</tr>
</tbody>
</table>

*(Figure 3.16 Coded themes from thought journals.)*

Thought journal entries varied in style and content, and student responses often contained numerous coded themes, see Figure 3.17. It was typical to find three or more coded themes in a student’s daily entry. The written entries were all given codes on the side next to the response. Not all codes appeared as often in the students writing as others. The thematic analysis found that some students stuck with just a few themes in their writing throughout the study, and some
touched upon all the themes listed. These themes from the gaming experience, captured in writing, were used to express each group’s story about how they thought, experienced, and learned using video games in the classroom. The following chapters about each small group are organized by the coded themes from the analysis. This study used numerical analysis to identify general patterns and tendencies from the coded data, and it allowed me to see the richness of the study. This method was adopted from Miles and Huberman (1994).

**Coded Thought Journal**
(Figure 3.17 Thought journal coded with evident themes with arrows.)

**Timeline of Study**

Day #1 – I reviewed the My History with Media Literacy Projects from earlier in the year with students as an introduction into the study, invited students to participate in the research with script, created small groups, and assigned first video game.

Day #2 – Small groups played their video game for forty-five minutes, learned about the gaming log and roles, and responded to their teacher-made reader-response questions in their thought journal for ten minutes. I also collected consent and assent forms, and began composing notes in my observation log and teacher reflection log. I also started reading and responding to each student’s thought journal.

Day #3 – Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes. I responded to all student’s thought journals.

Day #4 – Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes. I responded to all student’s thought journals.

Day #5 – Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to teacher-made reader-response questions in their thought journal for ten minutes. I responded to all student’s thought journals.
Day #6 – Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to teacher-made reader-response questions in their thought journal for ten minutes. I responded to all student’s thought journals.

Day #7 – Small groups played their game for fifteen minutes, then I facilitated the second research meeting with the students.

Day #8 – Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes. I responded to all student’s thought journals.

Day #9 – Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes. I responded to all student’s thought journals.

Day #10 – Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to teacher-made reader-response questions in their thought journal for ten minutes. I responded to all student’s thought journals.

Day #11 – Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes. I responded to all student’s thought journals.

Day #12 – Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes. I responded to all student’s thought journals.
Day #13 – I facilitated the third research meeting with the students. Students created new reader-response questions for the next half of the study to answer in their thought journals. Students switched to a new video game. Students were instructed they would be reading and responding to a random student’s thought journal each day for the second half of the study at the beginning of class.

Day #14 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.

Day #15 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.

Day #16 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.

Day #17 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.
Day #18 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.

Day #19 – Small groups played their game for fifteen minutes, then I facilitated the fourth research meeting with the students.

Day #20 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.

Day #21 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.

Day #22 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.

Day #23 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.
Day #24 – Students started off by reading and responding to another student’s thought journal for five minutes. Small groups played their video game for forty-five minutes, rotated gaming log roles, filled in gaming log, and responded to their teacher-made reader-response questions in their thought journal for ten minutes.

Day #25 – I facilitated the fifth and final research meeting. Students conducted their thirty-minute audio-recorded interview.

**Ethical Considerations**

The ethical issues and dilemmas that arose in the study involved many of the same issues and dilemmas that other researchers face who study their own middle school classrooms. These are issues of power, control, equity, safety, and confidentiality that must be taken into consideration when conducting a study like this. Ethical participation of the students required supports and structures to ensure their personal safety (Harcourt & Conroy, 2011). This meant maintaining the identity of students and the school site was imperative to this study. Pseudonyms were used for students and the school site during the analysis and data findings in this study.

As a teacher, I was in control of the classroom I taught, as well as what happened in that classroom on a daily basis. As the teacher and researcher, I needed be aware of my power, and with it, the way I treated students and the research that centered on their learning. My first duty and obligation to students was as their licensed teacher, and my second duty to them was being their head researcher. Students in the study were be treated with equal respect and dignity, despite the students’ participation status in the research study. Last, students felt safe in the classroom, thus giving them a safe place to learn and reflect on their learning.
Risk Considerations

For students, there were some risks like the potential loss of confidentiality, coercion, boredom and fatigue. There were also be some benefits, like the chance to work with virtual reality, the chance to learn about the research process, and the chance to explore video games as literature. Bogdan and Biklen (2007) wrote, “Informants are not exposed to risks that are greater than the gains they might derive” (p. 48). Students faced minimal risk in this study due to the fact that the confidentiality of the participants were protected by use of pseudonyms for the school name, and all the student participants.

The video games used in this study were rated as acceptable and suitable for the age group of the students who were using them. The Entertainment Software Rating Board, or (ESRB) has classified all the games in the study as being appropriate for the participants’ age range of thirteen to fourteen-year-old. Video games in this study were rated by the ESRB as “T” for teen or below. “Teen content is generally suitable for ages 13 and up. May contain violence, suggestive themes, crude humor, minimal blood, simulated gambling and/or infrequent use of strong language” (ESRB, 2017). Video games rated “M” for mature or “A” for adults were not used in the study. It should also be noted that current research ethics stated that students and parents must voluntarily participate without coercion, as stated by Bogdan and Biklen (2007). In addition, participants also needed to know of the risks ahead of time. Participants were not put in harmful situations in any way during the study.

My students had experienced playing video games in small groups earlier in the year during an informal pilot study. Students spent time in their groups playing video games for weeks at a time. Students did not lose any instructional time during the study since their last unit of the year was the research study itself. This study examined a unit in my curriculum that gave
students the chance to explore how they think, experience, and learn while using video games in
the classroom. This is why I chose this type of research, I wanted to learn more about my
students’ use of video games in the classroom. This research study concerns itself around the
processes of learning that were already taking place in the students’ daily learning. Students who
participated in the study were not given any extra incentive for taking part in the research,
matter-of-fact, they were graded as usual for their participation and professionalism during their
activities each day, which was the normal class grading system already in place.

Informed Consent

Students and parents who were interested in participating in the study were given an
overview of the research which contained the purpose of the study, a consent form, risks, and
protocols for data collection, analysis, and privacy information. During the course of the study,
the class conducted five research meetings in the classroom. The first research meeting was used
to introduce and invite students to the research project. Students were invited to be a part of the
research study with the use of a script after a classroom discussion about the students’ My
History with Media Literacy projects from earlier in the year. The script introduced students into
the study, and students were expected to bring their legal guardian the required paperwork given
to them by myself with information and paperwork that needed to be reviewed and signed by
both the legal guardian and the student for consent to participate in the study. The consent form
was read aloud to the students when each student had a copy to follow along. Students were
asked to think about accepting the invitation to be in the study with their parents, and the
paperwork was sent home for review. All of the students in the class consented to participate in
the study, but there were plans in place if there were students who did not want to participate.
Students were not given any extra credit or reward for joining the research study, and this was also stated during the invitation to participate during the first research meeting. It was purely up to them if they wanted to participate, as there was no coercion of any kind. Students were told they would be graded based off their participation and professionalism during the unit on game-based learning. I made it clear at the beginning of the study that choosing to not participate in the study would not change a student’s grade one way or another.

The study was of minimal risk because of the use of students as participants and their data that came from their qualitative experiences within a public-school classroom. The minimal risk came from factors like data security and student and school site confidentiality. The informed consent process gave all stakeholders a clear understanding of the risks, benefits, and protocol being used in this study.

Research involving younger students required both parent consent and child assent (Grey & Winter, 2011). Parents and students held the right to decline consent to participate in the study. Parents and students also held the right to cancel their participation in the five-week study at any time. Fuson, Smith, and Cicero (1997) suggest students and parents should be allowed to withdraw or resume participation at any point during the study.

Data Security

In order to de-identify the student participants in the study, a link between the real names of student participants and their given pseudonyms will come from a written key that gave each student’s name a code, and that links them to their pseudonym used in this study. The written key of codes were stored in my locked desk, away from all the other identifiable data and research information in the locked classroom cabinet, in the locked classroom. The key codes
were later shredded, and disposed of in a locked recycle bin in the locked workroom in the school site for waste removal at the end of the study.

The student names and any other self-identifiable information from student work was blacked out when copied into a digital format when saved to the USB flash drive. Students’ thought journals and gaming logs were left in the locked cabinet in the locked classroom at the public school site. The only individuals that had access to the gaming logs and the thought journals were the students and myself. The audio recordings from the small group interviews were erased after the audio tapes were transcribed after they have been recorded during the fifth week of the study. The audio recorders and tapes were also kept in the locked cabinet in the locked classroom until they were transcribed by myself.

The data from this study was properly secured and managed during and after the study. The classroom used in this study contained a safe place to secure the data. Not only was the school site monitored and protected by local law enforcement, but my classroom within the school site was locked as well. Within my classroom, I had a locked cabinet and a locked teacher desk that was used to secure information and data from the study. For the identifiable data, a coding process was used to store and refer to data without identifiers. The link between the real names and the pseudonyms were stored separately from the rest of the study’s data in my locked teacher desk located in the classroom away from the locked cabinet used to store all other relatable data used in the study like consent forms, thought journals, and gaming logs. I also used my school site issued laptop to securely store and collect data from the study until it could be saved on a USB flash drive.

The laptop was protected by an employee user login and password, and it was issued by the local public school district. I used it to record and store collected data such as typed field
notes, interview transcriptions, and analytical findings related to the study. The USB flash drive encrypted the data in order to secure its contents. A USB flash drive was used to store all the study’s data from the laptop so it could be referenced or used in the future by the head researcher. Data from the study like gaming logs and thought journals were shredded after they had been analyzed by students and converted into a digital format for the USB flash drive as soon as the study ended. The USB flash drive also required a password to access the files.
CHAPTER 4

MEET THE GAMES AND THE SMALL GROUPS

Game Features and Design Framework

In order to frame the games to better understand them, I used the Game Features and Design Framework from the GRAD Framework (von Gillern, 2016). The Game Features and Design Framework is comprised of five categories: Story and Dramatic Elements, Multimodal Sensory Display and Feedback, Opportunities for Social Engagement, Opportunities for Personalization, and Game Rules, Mechanics, and System. These five categories will be briefly discussed before the introducing the games for this study.

Story and Dramatic Elements

Most video games contain some form of story and dramatic elements that involve the evolution of plot, characters, conflict, and setting. The story is often the driving force behind the player’s experience. Not all games have a concrete story, and some games allow players to interpret their own meaning as they play instead of uncovering a linear storyline. Games allow players to become the main characters in the games they play, and players get to become part of the action and the dramatic elements of the story. This gives the player a sense of agency over the story, and they can explore the story and dramatic elements at their own pace. The story and dramatic elements found in video games are similar to other forms of literature, but video games operate themselves from a higher level of multimodality than other mediums of story.
Multimodal Sensory Display and Feedback

The multimodality sensory and feedback found in many video games is different than other forms of literacy. Video games give players the chance to experience the literary space in more detail. There are seven categories used to define the types of multimodal symbols: dynamic visuals and images, still images, audio representations, oral language, written language, abstract symbols, and tactile experiences, see Figure 4.1. These types of symbols all play a large importance in understanding how players interpret the gaming space. Most video games use all seven of the multimodal symbol types; however, each game may use them in different ways. Nonetheless, video games engage their players in multimodal ways that make them unique literary pieces.

Types of Multimodal Symbols

<table>
<thead>
<tr>
<th>Types of Multimodal Symbols</th>
<th>Examples from Video Gameplay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic visuals and images</td>
<td>Constantly shifting visuals one experiences when exploring a 3D digital world</td>
</tr>
<tr>
<td>Still images</td>
<td>Maps, pictures, and items available during active gameplay and the pause screen</td>
</tr>
<tr>
<td>Audio representations</td>
<td>Sound effects and music</td>
</tr>
<tr>
<td>Oral language</td>
<td>Dialogue between characters, narration of events, and verbal language from other human players playing online</td>
</tr>
<tr>
<td>Written language</td>
<td>Notes and journals found during gameplay, commands and suggestions from the game to the player, and written text messages from other human players playing online</td>
</tr>
<tr>
<td>Abstract symbols</td>
<td>Health, item, and ammunition meters and dynamic maps on the heads-up display (HUD)</td>
</tr>
<tr>
<td>Tactile experiences</td>
<td>Vibrating controllers that indicate one is taking damage or driving off the road; additionally, physical interaction with the controller carries meaning about the location of buttons and amount of force necessary to push a button to accomplish an objective</td>
</tr>
</tbody>
</table>
Opportunities for Social Engagement

Video Games can provide a variety of social engagements for players. Some games are single player, but they can be social events if the player plays them in a group. If played in a group, even if it is single player, it can be a vehicle for discourse for gamers. The gaming space will drive the conversation. Other video games are multiplayer and players get to play with or against one another while engaging in conversation. When games are played in at least groups of two, they allow players the opportunity to communicate their goals, ideas, problems, and concerns with one another in and out of the gaming space. These opportunities can be seen as chances for social engagement because they allow the player to create conversation from the game as a focus. Video games themselves, like other forms of literature, envoke thoughts, ideas, and talking points that are best shared with others.

Opportunities for Personalization

Players are unique, and players engage in the gaming space in different ways than others do. This can be seen in games that allow players to customize their characters, weapons, car, house, spaceship, etc. The opportunity for personalization in games gives the player a chance to make items in that game appear the way they want. This can allow players to feel more connected to their customized items since they had a part in picking what it looked like. Players can also personalize their playing styles. This means altering the way the game’s characters act in the gaming space. For example, in Nier: Automata, the protagonist has the ability to change their fighting style at any time, as well as the weapons, and supplemental items that boost certain character attributes. These choices raise the opportunity for personalization for players.
**Game Rules, Mechanics, and System**

Every game is unique, and each game has its own rules, mechanics, and system. The rules of each video game create the boundaries and guidelines that facilitate play in a game. The rules in a game determine what you are allowed and not allowed to do. The rules for each video game are unique, and in part, they are what set it apart from another game. The mechanics of a game define the parameters and guidelines for how much a player can move, operate, advance, jump, fight, sprint, hold their breath, etc. A player might like the mechanics of one game over another because of the way it feels to be a character in one game versus another. The system is the combination of the rules and mechanics used to create an environment for players to experience to gameplay. Even with a system in place, much depends on the player as to how they play and the meaning they make from the experience.

**Meet the Games**

The video games used in this study were all considered to be Triple-A games, which is a term used to classify games with the highest development budgets and levels of promotion. A title that is Triple-A is therefore expected to be a high-quality game or to be among the year’s bestsellers. Some students fell in love with the games they played, and a few students were extremely disappointed with one of the games, despite being initially excited to play it at the beginning of the study. Each group did not play each of the four games for ten days. Each group was given ten days to play two different games. In order to organize the introduction of each game, I outlined each game using the Game Features and Design components from the GRAD framework (von Gillern, 2016). This means discussing the video game’s story and dramatic events, game rules and mechanics, opportunities for personalization, opportunities for social engagement, and multimodality sensory display and feedback for each game.
Bound’s Story and Dramatic Events

*Bound* is a virtual reality game for the PlayStation VR. It was released in 2016, and the game makes the player get to see things from the third person point of view while learning more about the story of the protagonist. This game is simple, and it does not require a large amount of training to learn how to control the main character. The game is considered a platformer, which means it is based on the idea of moving from one place to another as a game with obstacles, and this case, as story as well. The game can be played without the virtual reality headset, but it is best experienced with the headset for the effect. In addition to the headset, a player can use wands to control the movements of the characters hands and devices on the screen. The game’s story is relatively simple to navigate through as the main character since the controls are simple.

The story in *Bound* allows the player to interpret the story as they play. The game’s story can be interpreted as a pregnant woman who seeks to re-connect with her father who left her family when she was child long ago. She wants to let him know he will be a grandfather soon, but when she gets to his place by the beach, she hesitates and ends walking down to the nearby beach where she sits and opens her journal from her childhood, see Figure 4.2.
The Protagonist in *Bound*

(Figure 4.2 Screenshot from *Bound* of the protagonist arriving with her journal to her father’s house.)

The protagonist’s childhood journal is full of drawn images, and soon the players environment begins to change and the player becomes the main character from her journal drawings and they enter the world of the journal. The levels in the game are all visual metaphors from the main character’s dream world. This dream world is a fictitious kingdom which represents the protagonist’s family life and struggles. The journal entries are played out in a fictional world of the imagination from the protagonist, see Figure 4.3.
The Fictional Protagonist Dancing in *Bound*

(Figure 4.3 Screenshot of *Bound* and the protagonist’s dream world.)

Each level connects the protagonist’s story together and the characters in the fictional world with the protagonist’s flashbacks that are based in real life with her older brother, mother, and father after each major section of the game, see Figure 4.4.

**A Flashback in *Bound***
(Figure 4.4 Flashback from the protagonist in *Bound.* )

By the end of the game, the protagonist has relived and replayed those memories of pain and suffering from her past. Each level explores her past and by the end, the protagonist gets up from the beach and walks toward her father’s house. As she walks up, she sees him in the window from afar and the player must make the decision to have her ring the doorbell or walk away from the porch to a car waiting for her nearby. There is no wrong choice.

**Game Rules and Mechanics**

The game rules and mechanics in *Bound* allow its players the freedom to play the game without having to worry too much about controls. The controls are simple, the player can move wherever there is ground to walk on or something to jump to. On top of navigating the main character, the player must also fend off environmental enemies like plant-like vines that entangle the player. She must dance her way out of the evil plants and swarms of bugs at times as she navigates through the level. The game can be saved easily, and if a player loses a life for falling off a platform, they are instantly revived and put back in the same place as they were before. The rules of the game allow the player to explore their surroundings. The rules push the narrative forward by allowing the player to roam around, which leads them to find solutions on how to get the character from one point to another while solving puzzles and piecing together the story.

**Opportunities for Personalization**

This game does not have any personalization features that would make it customizable for the player.
Opportunities for Social Engagement

This is a single player game, and there is not an online component to the game where players can play other players. However, this game can be played with others since the audience can see what the player sees in their headset on the television. The platformer game, which requires solving puzzles and interpreting your surroundings, can be enhanced with the social engagement of others to help solve puzzles and make meaning of the story. The communication between the player and the social group can help the player make sense of where to go and what the story is all about. There are major sections of the game that end in a flashback scene that takes the player away from the fictitious world to rehash some of the protagonist’s past, and these moments are up for interpretation which can lead to discourse and meaning-making within a group.

Multimodality Sensory Display and Feedback

The added layer of virtual reality technology adds the multimodal sensory display and feedback in this game. Players can choose to play *Bound* with or without the virtual reality headset. In order to experience the full effect, a player needs to wear the virtual reality headset. Players who wear the headset become immersed in the world they see whereas others can only look at the nearby screen to observe. The use of the virtual reality headset is an extra lens of multimodality that brings the player closer to the protagonist in the game. A player with the virtual headset can walk across a narrow beam between two tall buildings and look down and get startled, thus illustrating how it makes the brain feel more connected to the literary space of the story because it makes it feel more real than an ordinary print-based text. The use of the virtual reality headset gives the player the chance to see things as the protagonist would. The visuals are stunning and the dream world is an aesthetic reading experience that couples well with the interactive story, see Figure 4.5.
The Fictional Protagonist in *Bound*

(Figure 4.5 The protagonist in *Bound*, a screenshot of gameplay during the study.)

**Super Mario 64’s Story and Dramatic Events**

*Super Mario 64* came out with the *Nintendo 64* in 1997, see Figure 4.6, and it was a legendary AAA game for its time, and still it remains a favorite to many. *Super Mario 64* is simple game to play, even for a beginner, and it relies on its users becoming familiar with a basic set of skills that grow over time.
The game’s story and dramatic events in Super Mario 64 are simple. The main goal of the story is for the player, who takes on the role of Mario, to save the princess who has been kidnapped. The dramatic events leading up to her rescue amount to one hundred and twenty small challenges. Each challenge, when met, earns the player a star. The game’s setting is a large castle. Within the castle are paintings that Mario can jump in, see Figure 4.7.
Super Mario 64 and a Level Painting

(Figure 4.7 Super Mario 64 screenshot of Mario facing a painting which represents a level in the castle.)

These paintings provide levels where Mario explores fictitious places and earns stars from challenges. As the story progresses, Mario gains access to more parts of the castle with more paintings to jump into. Mario meets new characters, challenges, and settings as the game’s story develops.

Game Rules and Mechanics

The game rules and mechanics give the player a wide variety of choices to make with Mario. The player chooses how they want Mario to move, attack, evade, hide, etc. Mario can run, swim, perform various acrobatics, punch enemies, grab items, and wear special hats that give him special abilities for a limited time. The game allows Mario to come back to life if he dies in the game, and he has extra lives to use, as seen in the top left corner in figure. When Mario dies, it is because the player...
has fallen off the level, destroyed by an enemy, or affected by his surroundings. For example, in the lava level, players must be careful not to step into the lava or it will hurt Mario and it will make him bounce around. If he continues to bounce in the lava, he will quickly die, see Figure 4.8.

Super Mario 64 and the Lava Level

(Figure 4.8 Super Mario 64 screenshot of Mario recovering from the lava he recently stepped into.)

Restarting the challenge gives players another chance to make new choices in the game. Once Mario loses his last life, it is game over, and that means the players must start back at the last save. The game allows Mario to roam the grounds of the castle, but he cannot go everywhere at first, and some levels of the castle are restricted by certain requirements. The game allows the player to play a set of introductory levels at the beginning. In each level, there are a variety of accomplishments the player can choose to go after before going into the level. When they complete that accomplishment, they get a star. The stars add up, and the doors to the castle open as the player gets more stars. Once
the player has earned all the stars and beaten the game, they can still go around the game and all the levels for exploration.

**Opportunities for Personalization**

The game does not provide the player with any chances to personalize the main character or any part of the game in general.

**Opportunities for Social Engagement**

*Super Mario 64* is a single-player game; however, in this study players within a group took turns playing as Mario.

**Multimodality Sensory Display and Feedback**

This game’s use of multimodal sensory display and feedback shows players how to navigate through the world with very few words. Mario is expected to navigate the world by examining visual cues around him. The player must look for pathways, and routes from the environment to get from one place to another. Occasionally, Mario runs across friends along the way that guide him, but for the most part, Mario is left to make sense of the visual cues around him as he navigates the castle and levels within it. There are small wooden signs around the caste and in the game levels that provide short bits of information, but they are minimal. Mario’s health is measured by a pie chart that starts off full and the color blue, and as he gets injured his pie chart loses pieces and turns red. This warns players to be cautious in their decision making as a form of feedback to the player. The game allows players to navigate themselves in non-linear fashions in the game since they can access a variety of levels to play at any time, if they have unlocked that level.
**Uncharted 3: Drake’s Deception’s Story and Dramatic Events**

*Uncharted 3: Drake’s Deception* came out in 2011, and it is a third-person action-adventure game, and it was played on the *PlayStation 3*. It is a single-player game when played in story mode, but allows for competitive multiplayer gameplay that is separate from the game’s story. In the main story, Nathan Drake, follows his mentor Victor Sullivan in search of the fabled lost city, the Atlantis of the Sands, in the Rub’ al Khali desert. This action-packed game also contains a healthy number of challenges that keep the player engaged in the story’s progression while meeting new characters and settings that make the player piece together the story through environmental puzzles and their collected clues, see Figure 4.9.

**Uncharted 3: Drake’s Deception and Clues**

(Figure 4.9 Screenshot of Nathan Drake observing his clues, then trying to solve a puzzle in *Uncharted 3: Drake’s Deception.*)

The game is set in real and fictitious places with tangential historical references. As the story progresses, so does the development of the characters. The player lives through the
experiences of Nathan Drake. They get to experience him as an adult in the beginning of the game, and then they are sent back in time to play as Nathan Drake when he was a young teenager. Then, the game moves to the present where he plays as his adult self. As the story progresses, Nathan Drake collects clues with his partner who pushes the story further as they solve puzzles, fight their way through their enemies who want what they want, and make sense of the clues they find along the way, see Figure 4.10.

*Uncharted 3: Drake’s Deception and Puzzles*

(Figure 4.10 Uncharted 3: Drake’s Deception screenshot of Drake trying to solve a puzzle in the game by looking around for clues.)

**Game Rules and Mechanics**

*Uncharted 3: Drake’s Deception* is based on a third-person perspective and it allows the player to navigate the world as Nathan Drake. The game is based on different levels, and some are more open than others, but they all allow the players to make their own choices about how to
overcome obstacles and challenges along the way. The game mechanics give the player the ability to control Nathan Drake by running, shooting, picking up things, evading, searching, operating vehicles and machinery, and referencing data journals and maps as the character. In some levels, the player can wander around without much purpose other than what they player wants to do. In other levels, the player is restricted from deviating from the main path in order to maintain the storyline. For example, as Nathan Drake’s airplane begins to crash mid-flight, the player must act to escape the airplane before it crashes and the player must get past this scenario in order to get further in the story and to open up new experiences to play and live through that are more open to explore. The game gives players the chance to save their progress with checkpoints. If a player loses by getting killed, they can restart from their last checkpoint by accessing their saved file. A player can be killed by taking too much damage from the enemy, or falling off the map, or failing to complete a task in a certain amount of time. The game rules and mechanics give the player a chance to explore the story, but it keeps the reader situated in the storyline as the player engages in the game.

**Opportunities for Personalization**

There is a limited amount of opportunities for personalization in the game, and players acquire more gear throughout the game’s progression, but it is not a big focus. A player can choose whatever weapon they find from their surroundings. The game also allows a player to operate Nathan Drake the way they want, but they cannot change his appearance or his personal decisions in the game. The player must stick with the predetermined progression of Nathan Drake and his adventure until the end of the game.
Opportunities for Social Engagement

This game’s story is to be experienced in single-player mode, but the company of others might be useful as the game requires curiosity, problem-solving, and the navigation of maps to accomplish given tasks, which become easier with the help of others. The evolution of the plot in the game creates questions for the player about where the story could be going, and those are talking points that only a player who has shared that same experience could talk about. These are opportunities for social engagement, and the game’s use of puzzles and challenges make the player examine their surroundings, see figure.

Multimodality Sensory Display and Feedback

The multimodal sensory display and feedback system in Uncharted 3: Drake’s Deception gives the player the ability to make meaning of their experiences by watching, listening, and interacting with the text in ways a traditional print-based text would not. In figure, Nathan Drake must observe his surroundings to solve a puzzle, and there are few words on the screen to guide this activity. The player must walk around, observe, and locate items that push the puzzle forward. If the game realizes the player has not made any progress for some time, it will offer subtle hints for the player to act upon in case they need help. The non-linear fashion to solving many of the challenges give players the ability to navigate themselves throughout the challenges the way they want. The game shows the players what to do rather than telling them. Players get to move Nathan Drake how they want, but the game keeps him within the confounds of the narrative. Players get to be Nathan Drake rather than thinking about what it is like to be him. The game also has a soundtrack that plays music at certain points in the game for the player. The game also provides the player with closed captions that narrate the story as player hears the conversations on the screen. The player can also feel the action,
and controllers vibrate at times when the player engages in certain types of action. For example, when the player is struck with a bullet the controller will vibrate with the damage being taken.

**Wayward Sky’s Story and Dramatic Events**

In 2016, *Wayward Sky* came out as a point-and-click virtual reality game that both told a story and gave its players puzzles to solve. It required the use of the virtual reality headset and wands for controlling hand motions. The main character, Bess, is a young pilot who crashes in an airplane on a floating industrial complex with her father. As soon as they crash, an evil robot kidnaps her father, and soon Bess is found searching for him around the five main parts of the complex. The player uses the wands to point-and-click Bess around the story, see Figure 4.11. Soon a sub-plot develops about the robots who kidnapped her father, and Bess wanders the complex solving puzzles that lead her closer to her father. The gameplay lasts about two hours if played straight through.
Wayward Sky

(Figure 4.11 Wayward Sky gameplay using the wireless wand controllers.)

Game rules and Mechanics

The rules of the game are simple and the mechanics are easy to understand once a player has spent some time wearing the headset and moving the wands. The player learns to become Bess and the gameplay helps facilitate that learning by making introductory levels easier than the levels towards the end. The game requires users to observe their surroundings to solve point-and-click puzzles. The uses of the wands are to grab items and pull levers to activate things around the level. The player can also point-and-click towards things further away in the level, see Figure 4.11. Players can save their progress while playing the five major parts.
Opportunities for Personalization

The game does not provide the player with any chances to personalize the main character or any part of the game in general.

Opportunities for Social Engagement

Wayward Sky is a single-player game, but the storyline and the challenges along the way make it possible for it to be experienced by more than one person at a time. When gaming together in a group, the player wearing the headset sees the same thing as the people who are looking at the screen. However, the person wearing the virtual reality headset cannot see the group who can see him and the screen. When those watching gesticulate to the player with the headset to move in a certain direction, the player does not see it. Communication to the player with the headset needs to be specific to what is on the screen. For this reason, there are social engagement opportunities imbedded in the game if played in a group.

Multimodality Sensory Display and Feedback

The use of the virtual reality headset in conjunction with the wands for the hand movement add to the different ways Wayward Sky engages the player in multimodal ways. The wands give the player the feeling that their arms and hands are now parts of the experience. As the player looks through the virtual reality headset, they can raise their arms with the wands in their hands to see their movements on the screen. This type of tactile influence makes the player feel immersed in the gaming space. This type of feedback engages the player as an active participant in their own experience since their actions are rendered on the screen as they move and think. The multimodal sensory display and feedback in Wayward Sky gives players the chance to act out their thoughts as they connect with the text. The game also provides auditory feedback with music and sound effects that accompany the
player through the journey. The game also provides oral multimodal feedback which allows the player to hear the characters conversations in the game. The player must also interpret the world around them by understanding level maps and pathways towards new content. When working on puzzles in the game, lights turn green when the player does something correct, and lights turn red when they make a mistake. This game has engages the player on many multimodal levels.

**Lego Star Wars: The Force Awakens’ Story and Dramatic Events**

*Lego Star Wars: The Force Awakens* was released in 2016, and it is based off two movies from the *Star Wars* series: *Return of the Jedi* and *The Force Awakens*, and most of the game is about the story from *The Force Awakens*. The game focuses on recovering a map with the location of Luke Skywalker from two different sources, and the story concludes with Luke Skywalker being discovered and his light saber being returned. The game starts with Luke Skywalker meeting with Vader and they go to the Death Star to meet the Emperor. The Emperor warns Luke his friends are in a trap and the Death Star is fully operational, so his comrades are forced to take down the shield on a nearby moon. The fleet does, and they destroy the Death Star. Parts of the story like the one just stated are also understood by reading the scrolling prologue before each level. This gives the player an idea about what is going on before they jump into the level. The player in this game does not play to learn the story, and it appears the story is given to the player as they play out the action scenes from the movie, see Figure 4.12. There are puzzles and challenges in the game, but they are not relative to the story and they are more to make the game exciting and engaging. There are about two hours’ worth of cut-scenes in the game that explain the plot in detail as it follows the movie’s storylines. However, the game is about the action in the narrative rather than the development of the plot, characters, setting, or theme.
Lego Star Wars: The Force Awakens

(Figure 4.12 Screenshot of gameplay from Star Wars: The Force Awakens)

Game Rules and Mechanics

This game can be played cooperatively with two players and two controllers. Each player guides their character on the split screen which allows both players to play at once. The rules and mechanics for this game were based on a low-risk environment for players to make mistakes while casually playing. This means that characters in the game can take repeated damage without much damage, but they can only take so much. For example, if the main character gets destroyed because they have taken too much damage, they will break into many small Lego pieces on the ground and then come back to life without losing any of their progress in the level. The game does not rush the player to complete the levels, but there is a lot action which tends to speed up play. The mechanics
allow for a single-player mode, or a cooperative player mode that provides two players with the chance to play the main story together. The game will not allow the player to save the game unless they beat the level, but there are checkpoints for the player so they can restart from the middle of the level until they get far enough ahead to reach the save point. The rules give the players a chance to choose from a variety of characters at any given time during the level. Each character in the game has different abilities that can help at specific times and places. The player must cycle through the characters while playing to explore their abilities so they can use them effectively. There are also contraptions that can be built one way by the player, or dismantled and put together again in a different manner to solve different problems. Each player has a health bar and when that health bar loses all the hearts in it, the character bursts into a pile of smaller Legos to signify they have lost their life. The game pushes the player to complete each level until they have completed all the levels in the game. After the player has beaten all the levels, the game allows the player to go back into each level with any character they have unlocked to pursue bonus activities that were inaccessible before. Each level contains some objectives that are unattainable until the player has beaten the game to unlock certain characters that can access and do certain things that other characters cannot.

**Opportunities for Personalization**

The player has little influence to personalize this gaming experience.

**Opportunities for Social Engagement**

Since this game is cooperative and it can be played with two players, it makes itself a vehicle for social engagement. The screen splits into two halves and the players can see the same level while they interact with the level’s enemies, puzzles, vehicles, ships, etc. Most activities require teamwork in the game, and the context of the level gives clues to the player as to what they should do next. For
example, a large X emanating from a rock suggests it could be smashed to see what’s glowing inside, see Figure 4.13. One player must distract the enemies, and another player must problem solve to figure out how to get in the rock. When it comes to puzzles, the game incorporates teamwork to solve them, and most require two characters to do things like open a door or engage some contraption. This game is a social piece as it warrants discourse about how to solve problems with others and it highlights the game’s narrative from the cut-scenes for talking points.

**Multimodality Sensory Display and Feedback**

*Star Wars: The Force Awakens* is an engaging game with different types of multimodal symbols, sensory, and feedback that bring the player closer to the text through its animation, sound, and interactivity with the story and characters that make the game come to life. Multimodal texts show better than they tell and this game shows the narrative through cut-scenes and then allows the player to take part in the action as they see fit. The game shows the player what to do, and it will not move on until the player completes the puzzle. Hints on the screen will prompt the player to read certain items or to click certain buttons at times, and the game relies on multimodal cues for players to pick up on in order to locate and solve problems in the levels. The game also relies on abstract symbols like health bars, ammunition meters, and maps for players to interpret as they navigate through the level.

**Gamers and the Games**

Each small group played video games at two different gaming stations. The groups played each game for ten days and then rotated gaming stations. Small groups did not play every game, and their starting gaming stations and where they went from there is explained in figure. I wanted to make sure there was some cross-over between the certain games and certain
small groups. For example, I wanted to see how one of the all-male groups would compare to the all-female group playing the same virtual reality games. I also chose for certain groups to play certain games because I thought it would best match their interests. For example, I knew The Expert Gamers would enjoy playing the virtual reality because they all played PlayStation 4 at home, but had never used the virtual reality system for it, so I put them on that station first. Then, I sent them to play Uncharted 3: Drake’s Deception because I knew the group would enjoy the fast-paced action game. I also started the all-female group, Team Aphrodite, with the cooperative Lego game because I thought it would be a smooth start into their gaming as a new group since they claimed to have little gaming experience with consoles. After they completed their first gaming station, I hoped they would have some experience working together and that would help them with the virtual reality station.
Small Groups and the Games They Played

(Figure 4.13 Small groups and the games they played during the study.)

Introduction to *The Expert Gamers*

Tim, Phillip, Dean, Koby, and Nick were great friends before the study started, and their prior experiences playing video games online with one another showed throughout the study. *The Expert Gamers* gave me the chance to learn how close friends work through problems and have fun at the same time. *The Expert Gamers* were considered by the class as console gamers, and *The Expert Gamers* all played *PlayStation 4* on their own together after school. They created online parties of up to eight gamers and would socialize and play the same or different games for
hours at a time. This was the first all-male group I created for the study. I chose to put these students together because during the pilot study I split them up and it was a mistake. The all-male gamer group was split into all the other groups because I wanted the other groups to have a respected console gamer in their group when they played console games in the class. The students in The Expert Gamers were miserable during the pilot study and requested if they did it again that they wanted to be grouped with their friends. This group delivered after their request to be together, and their story is full of laughter, teamwork, team beratement, and marvel from the use of the virtual reality system in their own classroom. The data from The Expert Gamers tells the story of how they thought, experienced, and learned from the games they played. This group played *Wayward Sky* and *Bound* on the *PlayStation 4 VR* for their first ten days of gaming. Next, they played *Uncharted 3: Drake’s Deception* for the second ten days.

**Introduction to The Comedians**

Darrell, Blake, Tod, Dan, and Clark made up a humorous group of students who had never hung out with each other until the study. *The Comedians* sent positive vibes in the room, and it was *The Comedians* who tried to offset other groups who were sad or simply quiet on different days. Their personalities lined up well together. Darrell was not impressed by much, and he considered himself a PC gamer. Blake was a console gamer and was very intelligent and had a witty sense of humor. Tod was very quiet and he did not have many friends in the class before the study, not that he made it easy, but he treated everyone with respect. Darrell was about having a plan and following the rules. He liked being in control and was a natural leader who was seemingly unaffected by what others thought about him. Clark was always looking for the humor in things and he was smart enough to contribute to his group while having more fun than anyone else. He was usually red in the face from laughing, and was usually entangled in some
joke with a teammate while playing or watching his team. Their thoughts, experiences, and learning centered on themes related to friendships and social gaming, evaluation of self, group, as well as summarizing and comprehending the video games they played. The thematic analysis of the thought journals illustrated The Comedians’ experiences, and there chapter is broken up into the themes found and backed with evidence from other data points in the study. The Comedians started off by playing Super Mario 64, and then played Lego Star Wars: The Force Awakens for the second ten days of gaming.

**Introduction to Team Aphrodite**

Anna, Jenna, Autumn, and Linda together made a sensitive and interesting group, and they were the only all-female group in the study. Jenna, Autumn, and Linda were already friends before the study, but the addition of Anna was new to their friend circle. I felt they would get along, even though they rarely spoke to one another in class unless they had to. The females all became friends with one another and their story through the games they played illustrates them as social learners who realized in the process that they were also gamers. Jenna, Autumn, and Linda were seen in school by other students as popular girls who represented the upper middle class, and Anna was not seen in that same way. I wanted to make a larger group so I added Anna as someone who would mix well with the social affluence that Linda, Autumn, and Jenna often spoke from in class. Anna would later write about her stress of being assigned to the group she was because of her judgements about Linda, Jenna, and Autumn. However, Anna would become friends with the other females while they played video games together in class. My other choices were to put Veronica or Electra in this group, but Veronica didn’t like Jenna and Electra was a strong personality that would have clashed with Jenna. This group took some careful
consideration to create. I wanted an all-female group so I could compare the data with the all-male group who played both *Bound* and *Wayward Sky* with their friends.

*Team Aphrodite* was not immune to problems though, and during the second half of the study, and every other day one of the group members would storm into class crying and it would affect their group, and sometimes the whole class. This group would later write about how their emotions would get in the way of their learning and experiences, but later commented on the comfort of having a caring group to feel safe to be themselves. *Team Aphrodite* went through several days where one or more of their members were distressed from something that had occurred at lunch, which was right before class. One day Linda cried and put her head down for almost the entire period. It was clear the social aspect of gaming was an important factor, but it was not until I saw this group lean on each other during low times that I realized how much students can rely on each other while sharing a digital text.

**Introduction to The Outsiders**

Electra, Jake, Tony, Veronica, and Kevin made up *The Outsiders*, and they were the last students remaining from the class of nineteen who had not been placed after selectively making three small groups. I chose to keep these remaining students together because of how well designed the other groups were, and I thought they would be a good mix together despite them not being so fitted for the other groups. I knew this group had some strong personalities that I had left out from the other small groups. For example, Electra and Tony were two strong voices in the class and they were often thought of as being too loud or obnoxious for a wide variety of reasons, but their intentions in class were always good, and students did not have a problem with them. As for Kevin, he was absent most of the year because he missed school to play club baseball, so I put him in *The Outsiders* because I was not sure how he would fit in with the other
groups who seemed to have established friendships or friendly invitations to learn together from my observations throughout the year. Jake was another unique character and he was a kind-hearted trouble maker who would often get pulled out of class to go see someone for something he had done before class, and sometimes he would come back, grab his things, wave to me, and say, “I got in-school suspension, I’ll see you in 3 days” which happened during the study. I was not going to leave Electra alone so I added Veronica to The Outsiders. Veronica was verbose, sensitive, silly, and she did not get along with the females from The Expert Gamers because she felt they bullied her outside of class. The Outsiders turned out to be a good fit for each other because of their unique and strong personalities. It seemed like a perfect fit to keep this group of five students together to make the fourth and final group.

Their story through the study is different than the other groups because of the way they thought and played their video games. The Outsiders started off by playing Uncharted 3: Drake’s Deception during the first round of gaming. The second round they played Super Mario 64. The Outsiders spent a considerable amount of time summarizing the gameplay and their accomplishments in their thought journals. It was common to see the theme of fun versus progress in their coded thought journals, and it was easy to trace back to observational notes and other forms of data to see the same thing. The Outsiders also discussed a lot about friendships and gaming in their thought journals and it would often come up in their group discussions as they played. The Outsiders would often refer to some of their group members like Kevin or Tony as team leaders at different times. The Outsiders were also very evaluative, and even students with a lack of experience playing console games like Veronica had plenty to say about what she was thinking, experiencing, and learning while using video games in the classroom. The Outsiders experienced a wide-variety of issues while gaming, like arguments, leader changes,
absences, and behavior issues. On the other hand, they also had many successes of their own like accomplishing their gaming goals, supporting their peers, and making friends. Their chapter will paint a clear picture of what it was like to play and learn using video games with *The Outsiders*, and its organized by themes found from the thematic analysis of The Outsiders’ thought journals and supported with other data points from the study that show their growth and evolution.
CHAPTER 5
THE EXPERT GAMERS

Phillip: “VR is a little teamwork, but it teaches you how to be descriptive in the language that you’re using, like its more specific because the person cannot see what you’re pointing to. So, it teaches you to be more specific and to word what you’re trying to say better and to try and paint like a visual picture with words.”

Tim: “I think it’s very different because like we have never experienced anything like this before, and I think if they did this more often, and like did this in place of even like some communication skills classes in high school to like get teams together, it would help them learn how to work with others in a new way that works with people like us.”

(Phillip and Tim, Day #25, audio-recorded interview)

Introduction to Each Group’s Stories

The purpose of this chapter, and chapters six, seven, and eight, are to focus on each group by itself to give readers a closer look at how each small group thought, experienced, and learned using their video games in the classroom. The small groups provided some valuable clues about how students think, experience, and learn using video games in the classroom. The idea of using small groups and gaming stations to play, socialize, and learn was a relatively new spin on activities like book groups, literature circles, and other community-based approaches to consuming literature. The idea of using digital texts like video games as interactive learning tools was a new concept for my students. Yet, the idea of using video games to learn and play for pleasure had been around for over forty years. The idea of this and the next three chapters is to give readers an idea of what a classroom can look like that is centered on the learning from four different gaming stations at one time with a class of nineteen students with four groups. These chapters should paint a picture to teachers, administration, superintendents, researchers, parents, curriculum designers, and policy makers about the power of small group gaming and the potential they have in helping students learn in and out of the classroom. It will tell the story...
about how each group experienced their games through the thematic analysis of their thought journals and the other sources of data.

Each group’s story used all six points of data to interpret and make meaning of the experiences each group shared together. Each section about the small group starts off with an introduction about the group and then moves through the eight themes found in the thematic analysis, which are: feeling and thoughts; gameplay summary and comprehension; evaluation of games, self, and others; bonding to characters and games; reactions to games and virtual reality; style of play: having fun versus making progress; friendships and social gaming; critical thinking, puzzles, and challenges in games. Each group’s story highlights different themes over others. The conclusion chapter will compare the groups to each other and discuss the overall findings from all the points of data.

**Preview of Findings**

After looking at *The Expert Gamers’* data, it was clear they were critical thinkers who used their existing friendship to their advantage, and the social nature of *The Expert Gamers* showed in the thematic analysis of their thought journals, see Figure 5.1. The other sources of data support what the thematic analysis uncovered from the thought journals. Twenty-seven percent of *The Expert Gamers* discussed their feelings and thoughts, and twenty-five percent of *The Expert Gamers* discussed the daily progress and comprehension of the digital narrative after they played. Seventeen percent of the group’s thoughts were about critical thinking after they played games. *The Expert Gamers* were a solid team, and they never needed help from me during the study. During the research meetings, *The Expert Gamers* took them seriously, and they wished they were longer so they could learn more about how other groups were experiencing, thinking, and learning using video games in the classroom. *The Expert Gamers*
were an all-male group comprised of console gamers. They worked well with their friends, and it was better to place these students with their friends instead of separating them from each other.

*The Expert Gamers’ Thematically Analyzed Thought Journals from Both Games*

(Figure 5.1 The Expert Gamers’ thematically analyzed thought journals from both games.)

**Gameplay Summary and Comprehension**

While thematically analyzing *The Expert Gamers’* thought journals, it was evident that they naturally responded in writing to the games they played by discussing the plot and summarizing the day’s events that unfolded in the game. Many of their responses to the games they played were like mini game recaps that painted a picture of something that was tough or funny that the group went through. The group would take elements from the plot or gameplay and discuss them in their group, and their discussions that started from the video games would often transform into something else while they played. The game play of each game provided new things for the group to talk about during the study. *The Expert Gamers* would rarely talk as a group about the plot’s development, instead, they would each write about it in their thought
journals. Even though *The Expert Gamers* wrote a lot about their gameplay summary and comprehension in their thought journals, they never related it to their overall learning in the study. To *The Expert Gamers*, learning did not have to do with comprehending the digital text, it was part of experiencing it in the first place. Dean said, “The gameplay is supposed to create moments of learning, and I don’t think we were supposed to learn anything really specific by playing any of the games we did, but those are just thoughts from my group.”

While *The Expert Gamers* played *Wayward Sky*, they responded to the game as literature and they worked hard to try and figure out how to play and what was going on in the story. After the first day of gaming Nick wrote, “So far in the game now we’ve learned how we got trapped with these robots and we were told tales of the rage from this robot named Thaddeus.” *The Expert Gamers* were full of questions after the first day of gaming. Dean wrote, “I actually have a question. During my game, a plane crashed and the main antagonist took off and flew away and then it seems like it took us to a part of the main character’s past. She lived on a farm and I assume that it was either her father or grandfather that was fixing a plane. So I was wondering two things. Why we saw that and why the main antagonist took whoever was in that plan when it crashed?” These questions were lightly addressed in group gameplay as nobody really had an answer to the future of the narrative, but they knew as gamers that the more they played the more likely they were to get more clues as to what was going on. *The Expert Gamers* wanted to know more about the backstory of the characters. Dean wrote, “Today during our gaming we saw this video clip that said basically Thaddeus and his father aren’t very close and that’s what Thaddeus wants. Also, there is another group of robots that are involved in all of this so we are trying to make sense of it all as we play. It’s just like any other story really. Let’s see what happens.” Koby would support this group mentality in his own words, “We got far enough in the game
where the game showed us its backstory. It was nice to see things weren’t so gloomy in the past.”

Koby stated to me once as I walked around the room that, “The game is kind of confusing and
repetitive, but it is fun.” Since Wayward Sky was not an action-packed thriller, it was easier for
the group to focus on the plot and puzzles because the gameplay was very slow-paced and it
gave the group more time to reflect on the game and their thoughts. Nick wrote, “We beat the
game today! It all came together in the last 30 minutes of the game. Also, I was right about the 3
main topics of the whole game itself.” Phillip wrote, “In the ending and throughout this game
showed me that no one gives up on family just as we don’t in the real world. No matter what that
member of the family does we never turn our back and we forgive.”

When The Expert Gamers played Bound, they quickly changed their mentality from the
game before. The Expert Gamers struggled to make meaning of what was going on in the game’s
narrative, which to be fair, was meant to unravel as they played. The game’s narrative started off
with a pregnant woman walking around on a sandy beach on a summer day. The all-male gamer
group was confused and they asked me if they were playing another person’s saved file because
it seemed like they were in the middle of a game when they started, but they were not. The game
started off in a way that introduced the non-fictional world of the game before playing in the
fictional world, all while being in the virtual world. Nick wrote, “Anyway it seems like the
pregnant lady is drawing an alternate universe which reflects on her past. I don’t understand what
she has to do with the alien girl we are playing as in this other fictional world in the game.” Tim
wrote on the first day playing Bound, “I’m pretty sure I might be thinking too hard to find out
what this game is about.” The Expert Gamers struggled to understand the story, but they
performed well and made good progress through the linear platformer. Dean started to make the
connection between the two worlds with evidence from his gaming comprehension of the game’s
events. He wrote, “Also with the lady on the beach, it keeps showing pictures of this world that
we are in and these creatures.” Nick wrote, “I’m interested as to what the whole story is but it
seems as you find that out by exploring the game itself. I’m trying to connect the two worlds in
Bound together. I can’t wait to find out more.” However, the group would not complete the game
and they said they would look up how it ends on YouTube since they did not have time to finish
the game, and they could not finish it on their own time as they did not own it.

Uncharted 3: Drake’s Deception was played for the second round of gaming and it gave
The Expert Gamers the action-packed they wanted to experience together. Nobody in the group
had really played too much of any of the Uncharted series, and it was a great game for the group
to work out a new story with a new set of problems to solve. The Expert Gamers treated the
game as literature, and they recorded their thoughts about the plot and what they thought was
going on, but it was tough for them to pull out any real themes from the game. The Expert
Gamers found themselves writing about certain points in the game that reminded them of other
games they had played. They usually thought they were a lot further ahead in the game than they
were, and they often wrote about how they thought they were getting close to the end. In reality,
the game’s design kept the story going and it always seemed like the story was close to the end,
which kept the gamers hooked. After the study, I logged into the game and found that after ten
days of gaming, they had progressed through sixty-two percent of the campaign.

Feelings and Thoughts

The Expert Gamers were full of thoughts and feelings, and they were often deeper than
most groups because this group had been gaming together for years after school at home. For the
first time, they were given the chance to game together in a classroom. The Expert Gamers were
ecstatic to be together from day one because they knew their dreams of finally being grouped
together had come true. Every point of data collected evidence of The Expert Gamers feeling frustrated and confused while playing. Most of the time students were positive and often thought about things the game related to from their prior experiences. Phillip said during the second gaming day on the first game, “This isn’t like anything new to us, we’ve played games with each other for a long time. It’s just great to finally play them in class together.” Nick wrote, “Being together in class while playing together is better than being alone and being mic’d up at home.”

Even though the group was friends, that did not mean everything went perfectly during the study. The Expert Gamers would encounter problems and they would have to think together about how to solve them. The Expert Gamers shared a lot of their feelings and thoughts from their thought journals, but they also shared a great amount while playing in class. My observational notes captured a lot of this while they played. This group was very vocal and they often joked around with each other as someone played for the group. This group could carry on fluid conversations while gaming, and it was apparent they were used to gaming and discussing things at the same time.

Evaluating the Game, Small Group, Self, and Others

Looking over The Expert Gamers’ data, it illustrated how evaluative they were about the games they played and their performance of themselves and the group. The group often discussed the performance of the person playing with critiques. The Expert Gamers would call this Backseat Gaming. During the audio-recorded interview The Expert Gamers discussed how they evaluated each other while playing and how it was tough to concentrate with so much feedback at the same time. Tim would get frustrated when too many people jumped on him when he made a mistake. Students would often exchange their banter back and forth and things would get tense if someone in the group could not get past a certain part in any game. The Expert
Gamers all wrote about their evaluative thoughts from each game they played. They also evaluated their group and themselves during the study. During the first game station, Koby wrote positively about his group’s day, “I felt good today because we beat Wayward Sky. It made me feel accomplished even though the game wasn’t that hard.” However, there were darker times as well like when Nick wrote, “When I was playing Koby called me trash even though it was very true at the moment. I even had to laugh at myself it was so dumb.” The group was tough on each other and it often made the group laugh and then they moved on. There was always something to comment on or evaluate and sometimes the group would lose it because of something that somebody did in the gaming space. For example, Dean wrote, “I would like to say that Phillip is probably the luckiest person when playing this game. Like one time he stepped on a grenade, and still didn’t die. And then he got shot-gunned right in the face and didn’t die. Also, he gets beat up over and over and shot over and over and still doesn’t die. I don’t get it, why does he always survive the crazy things in games and we never do?”

The group often evaluated the games when they were talking in their group, and sometimes they would mention it in their thought journals. For the first several days the group was not very happy with Bound. Dean wrote, “I would rate this game a 3 out of 10.” Nick wrote, “This game is the worst!” Dean wrote, “The only cool thing in the game so far is the colors.” Tim said, “The game was too artistic for my liking, and it didn’t even make sense.” However, Phillip wrote, “The virtual reality game Bound is so much better than Wayward Sky.” The group did not always agree on their evaluations and the group was fine with people not always agreeing with each other. When playing Uncharted 3: Drake’s Deception, Nick wrote, “This game might be the most thrilling and entertaining game I’ve ever played. Overall I think that this is the best campaign you could ever see.” The Expert Gamers spent a lot of time evaluating their controls in
the games they played, too. In another study, (Guerrero, 2011) observed that students spent a significant amount of time familiarizing themselves with their game controls and game context during their first several sessions using video games. It is up to the player to interact with the video game to play it, and learning how to play a game is part of basic game literacy (Gee, 2007).

The controls and camera angles were of concern to *The Expert Gamers* when they played their three games. While playing *Uncharted 3: Drake’s Deception*, Nick wrote, “The controls are super sensitive which could make you die with the slightest mistake.” The group claimed their controls on the games they played could have been better based on their experience with games they had played before. While playing *Uncharted 3: Drake’s Deception* Dean wrote, “The controls and the camera angles were super bad. Also, when you climb, it wouldn’t do what you wanted it to do.” It was common for this group to respond to their reader-response questions in a way that would critique the design of the game. Phillip wrote, “If I was able to change some things about *Uncharted 3*, I’d change the way some of the gun’s recoil since they are annoying to deal with and the shooting in this game feels rushed in my opinion. And also the camera angles get so annoying especially when jumping. Now these things are easy to control, just annoying to deal with.” The group was aware that things in the games would not be perfect, but that it was a matter of dealing with the problems each game had rather than hoping that each game did not have any problems to deal with. The group’s evaluations on controls and camera angles brought to light the differences and conventions of game design that differed from one game to the next. Tim wrote, “It’s just like an author of one book might have a different style of writing from another author of another book series. This could be said for video games.” The controls and angles used when designing a game world are similar to the conventions used in writing a story.
and creating different perspectives and angles on the narrative itself. While playing *Uncharted 3: Drake’s Deception*, Koby said, “I don’t understand why the designers chose to make you play this way. If I could change the game anyway I wanted, I would change the camera angles. Even though I wasn’t playing today, I saw the way the camera always moved. It looked really annoying and not easy to get used to.”

**Bonding to the Game and Characters**

*The Expert Gamers* attempted to connect with some of the games and characters and it shows throughout the data collected from the study. *The Expert Gamers* tried to find out more about the narratives in the games they played, and most group members wrote about it rather than talked about it. The group wanted to know why some of the characters did the things they did, and others acted as if they could care less. *The Expert Gamers* commented in their thought journals about the characters after they played from time to time. While playing *Wayward Sky*, Dean wrote, “Now the main thing that stood out to me is that we still have no idea what the story is about and we are learning and getting connected to the characters.” Even though *The Expert Gamers* were not sure about the plot, they still attached to the characters. Dean wrote on the third day after playing *Wayward Sky*, “But the story and the characters aren’t that fascinating or cool, it’s just very confusing. Also for this game, I guess that I would love to get more into the game to understand the story and see if it gets better.” Since everyone was not always playing, there was a lot of game watching and backseat gaming. The group learned from the others who were playing. Nick wrote, “It is really hard to explain watching and playing. Playing you know exactly what to do. It’s like you are the character and you can embrace what to do easier than watching.”

Students discussed and wrote about the characters they liked or disliked, regardless of whether or not they played that day. Playing as the character did not always result in a student
commenting on a bond they had made. It seemed by chance, or by relativity, that characters were brought up in the group’s discussion and writing. For example, Nick did not play Uncharted 3: Drake’s Deception the day he wrote, “I like the traits and personality of Nate. First off, he is very sneaky with everything he does, and I like that. Also, he is funny along with Sully and Charlie with what they say.” This comment was not supported by another thought about the characters either, and it just happened to be on his mind while writing. In the end, Dean would find the most connection to the characters he experienced out of his group. Towards the end of the game, Bound, Dean wrote, “Now I still have no idea what this could mean as for the story but to me I feel the character we are playing as is a bad guy because I feel like this creature is protecting its loved ones and we are invading it, and somehow causing damage to its family.” These were his last written thoughts before the study ended. During the end-of-unit interview he said, “Of course you’re going to bond with the characters in the game if you like it, that’s probably why you liked it in the first place. It’s because you have connected with him or her, it or whatever, in some way. Sometimes like you have no reason why, but you like something and that’s why you reflect to see why I guess. It’s a lot easier for me to connect to a digital character than it is for me to connect with a book character. Like did you see how the girl moved around in Bound? How do you describe that? Would it not be best experienced with virtual reality or in a book?” The Expert Gamers connected to some of the characters in the games, but it was not their focus of interest during the study. This group often claimed that a certain character on the game was theirs, and that it would be foolish to let someone else play as that character.

Reactions to Games and Virtual Reality

Since The Expert Gamers had never played with a virtual reality headset before, it was a novel experience observing their reactions to it in the classroom. The Expert Gamers provided a
large amount of data about their reactions to virtual reality and the video games they played in
the classroom. When the thought journals were thematically analyzed, it was clear their reactions
to the games they played were meaningful and thoughtful. At first, *The Expert Gamers* had a
little trouble getting used to the virtual reality headset. While playing *Wayward Sky*, Nick wrote,
“It was cool to see everything around us. I was stuck for twenty minutes trying to learn how the
VR works. I did find out how to switch the camera angle so I could get past whatever it is I was
trying to do.” The first experiences with the virtual reality had to do with adjusting to a new
technology and a way of seeing and thinking. While playing *Bound*, Koby wrote, “I liked how
the game/VR made you feel like you’re there. I thought about how the VR made you actually
feel immersed. I know that’s the point but, it’s still fascinating.” The student’s reactions from use
of the virtual reality illustrated a group who were trying to connect their new experiences with
their prior knowledge about what it meant to experience a digital text. Even though each student
in the group had acquired thousands of hours of experience playing games in their life, it was a
new experience to play a game in virtual reality. It appeared the group felt there was an extra
layer created by the virtual reality headgear that gave them a deeper sense of appreciation of the
narrative and technology at large. While playing *Bound*, Nick who rarely said much, commented,
“It’s cool to be the character instead of feeling like the controller is our connection to it. It’s
different”

Their initial issues with virtual reality would pass with time, and some of their initial
reactions would surface again later. For example, Koby often reacted negatively about feeling
like he had a headache after playing, but it was worth it and that he would play again once he felt
better. After playing *Wayward Sky*, Tim wrote, “At first it was really scary, but then I got used to
it. After playing I was pretty dizzy, but it stopped now that we are writing in our thought
journals.” He later mentioned he thought he needed to work on adjusting the device on his face so it would feel better. Nick wrote positively about the virtual reality experience on that same day by saying, “My experience with the VR has been fun and it helped me play the game itself, and it has made me feel better about my day.” Each group member reacted differently to the virtual reality experience. That same day Dean wrote, “Now when I was getting ready to play I was excited because everyone else was saying that the experience with the VR was trippy, but it wasn’t that trippy.” Even though Dean was not that impressed, Phillip wrote, “It was my first fruitful experience with the VR. I have to say, it was a mind-blowing experience. I was teleported into another world and it was so immersive. This game is mostly just a moving art piece right now. Maybe some time in the near future a story will be clear.” However, Dean wrote a few days later, “Also what makes this even better is the fact that it is a VR game which makes it a bit more challenging because you have to get into it. I guess that I would love to get more into the game to understand the story and see if it gets better.” *The Expert Gamers’* reactions to their games were mostly positive and the use of virtual reality in the classroom was noted as a success.

*The Expert Gamers* would talk further about their reactions to the games with the virtual reality headset. Phillip wrote, “I felt very scared at first in the virtual world. I had never played *Wayward Sky*, so when I put on the virtual reality headset the design of the game made me go wow.” Phillip and his group were impressed with the aesthetic of both *Bound* and *Wayward Sky*. Phillip reacted very positively to the virtual reality headset and claimed it had changed his feelings by playing with it. In his thought journal Phillip wrote, “I was upset before I played and stepped into the virtual world. So when I put the virtual reality system on and played for a bit I was an amazing feeling.” Phillip connected with the virtual reality headset, and he was the most
affected by the immersive experience as he often talked about how amazing it was after he took the device off his head. His group would tell him to calm down about it, and that they knew what it was like since they had tried it before. Nick stated, “Go snap about it, we know. Tell the world, not us.”

**Style of Playing: Fun vs. Progress**

*The Expert Gamers* worked hard on the games they played, but they rarely took up the issue of chiming in on what was more important when gaming, fun or progress. *The Expert Gamers* might have let their actions speak louder than words because it was very apparent their group knew how to have fun and play games at the same time. It was Nick who realized the all-female *Team Aphrodite* had beaten *Wayward Sky* in a shorter time than their group had. However, *The Expert Gamers* did not care. Dean wrote, “Today we didn’t get very far, but we had a lot of fun.” *The Expert Gamers* never focused much on having fun or making progress, they usually blended both together equally and found themselves laughing when things got too hard. Each group member wrote about completing *Wayward Sky* and wanting to complete *Uncharted 3: Drake’s Deception*. When *The Expert Gamers* passed The Outsiders’ progress in *Uncharted 3: Drake’s Deception* towards the end of the study, Nick wrote, “Yes we beat the prior group’s position in *Uncharted 3*. It seems like we are nearing the end.” On the same day, Koby wrote, “The good thing that came out of this was that we got farther than the last group. We also had some laughs.” Tim and Dean stated in the audio-recorded interview how making progress makes a player feel good and that it keeps them wanting to come back for more. Phillip said, “Nobody likes a book to end, unless you don’t like it. Then it’s like, thank God! But not for a sweet video game. You might feel relieved when you’re done, but then you get real sad real quick when you realize that’s the end, pal.”
On the fourth day of playing *Uncharted 3: Drake’s Deception*, *The Expert Gamers* were watching a cut scene with the closed captions when Electra from *The Outsiders* turned around in her group and said, “You don’t have to watch the cut-scenes you know, just skip them!” Dean replied, “Well, we want to because we actually care about the story over here.” *The Expert Gamers* wanted progress, but above all else, they wanted to understand the game they were playing, too. Progress was important to *The Expert Gamers*, and there were times when the group got frustrated because they were not doing so well in the game. During *Uncharted 3: Drake’s Deception*, Nick wrote, “To start today off was Koby, and it was frustrating to know we didn’t go anywhere for his fourteen minutes playing. Every time he would shoot, he would miss everything. Next up we had Phillip, and he died climbing up chains like nine times. Every time it got worse and worse to watch, but it was so funny though. Next up was Tim, and he died eight times from falling down a hole and eating an RPG bullet. But overall, today was the funniest day of all to laugh about. It was just so funny.” *The Expert Gamers*’ attitude about fun versus progress showed they did not care too much about which was more important, and they just wanted to make sure they gamed and had a good time.

**Friendships, Social Gaming, and Communication Skills**

*The Expert Gamers*’ friendship was a key factor going into the study. They were used to social gaming, but they had never been able to play together in class. *The Expert Gamers* loved to game together at home on their own *PlayStation*. The mentality of *The Expert Gamers* was very social and it was common for them to be mic’d up while they gamed and did homework after school at home. Even though each of these students sat in their room with their headset on after school, they were not disconnected from the world, they were socializing, playing games, and even helping each other with their nightly math homework. It was common for Tim to be
working on his math homework after school while mic’d up online with his PlayStation friends. He would ask questions about how to complete certain math problems, and he would even get on Phillip to make sure he did his math homework from time to time. The Expert Gamers looked after one another in class and online while they learned and gamed together.

The Expert Gamers were proud of their gaming group, and throughout the study their sense of pride never got carried away. Dean wrote, “I am proud of our group because we got past the people before us that played Uncharted 3.” The Expert Gamers prided themselves on how they were able to work around the problems they faced in the games. Nick wrote, “One thing I want to see me and my group fix for tomorrow is observing the surroundings.” Koby agreed, and he also wanted his group to slow down so they could look for more treasures in Uncharted 3: Drake’s Deception. Once they did, and they found more treasure, Koby wrote in his thought journal, “I think we should keep up the flow we have had while we game for the rest of the study.” The group wanted to try and make everyone happy but it was impossible to please everyone. Tim could care less about the treasures and he wanted to make progress in the story, but the group sided with Koby’s thoughts about the treasure search and they slowed down and the group moved on. The group would have ups and downs in their discussions while playing, and a down moment like Tim being frustrated about, “looking for a stupid piece of treasure” would be lifted by some comedic relief from someone losing a life in the game from falling or doing something silly.

The Expert Gamers usually had a positive mindset, and collectively they balanced themselves out in their own ways. The group seemed to balance out the other groups in the class who were either super excited or super quiet on a day-to-day basis. Their joy appeared to play a large role in their behavior while playing in the classroom. Meyer and Whitmore (2010) promote
the idea that students need to be given the chance to reclaim the joy involved with exploring literature and reading at large. The Expert Gamers were engaged because they had bought into the idea of using games to learn and they wanted to see for themselves how their experiences with the games would evolve as the study progressed. The students had agency over their learning and that was fueled from the excitement and joy of using video games in the classroom. After playing Uncharted 3: Drake’s Deception, Phillip wrote, “This game influences me to laugh and to have an amazing time with my team.” The laughter from The Expert Gamers often signaled my attention to observe their group during the study. I observed The Expert Gamers exchange their thoughts about this or that and it would often start a discussion about something within the group. The social interactions from the gaming experiences were often moments of joy and confusion, or even a mixture of the two. The group enjoyed laughing about moments in the game where someone had done something wrong or they kept on making mistakes, and the more they made those mistakes, the funnier things got. Nick wrote, “For some reason, being the first to die is a big thing for everybody in our group, and today was my first day to die first in the game out of my group.” Nick took a fair amount of flak from his group about his gameplay because for whatever reason, he kept getting stuck on his gaming turn having to do some of the most difficult parts of the levels in all the games. Nonetheless, Nick was ok with that and he wrote, “I do also like my group. I feel as if your group makes you either joke around and play, or sometimes even both. I love how much fun this has been.” Nick often reflected about his group’s joy throughout the study. At one point while playing Uncharted 3: Drake’s Deception, the group had taken down an enemy that had been giving them trouble and Phillip wrote, “My group and I had to stop and pay our respects for the guy I took down because it was the funniest thing we had ever seen. Writing about it just makes me laugh so hard.” During the audio-recorded interview,
the group laughed about their thoughts and experiences about using video games in the classroom, and they recalled that moment in the study where they all had to pay their respects to the enemy. Phillip was hopeful that video games would be in his future in high school, and he was going to find a way to start a gaming club to make this happen. His comments excited the group and they agreed to work together to make it happen the following year.

Discussing The Expert Gamers’ social side means discussing their use of interpersonal communication skills. Dean wrote after playing Uncharted 3: Drake’s Deception, “The first puzzle was very annoying. Our whole team argued about it a lot for like ever. We figured it out while we were arguing. It was pretty frustrating. I also think we should stick to how we were communicating today.” There were times where the tension in the group would raise and an argument would arise about how to solve a certain problem in the game. The group would all get invested into the issue and it would usually find itself being rather solved quickly in a group of five students than if it was just a single student. Dean wrote after playing Uncharted 3: Drake’s Deception, “I think this type of game teaches you to work together, but not really, like I think it would teach you more if it were two player, that way you could work together to solve things.” Dean helped his group interpret many of the puzzles and dilemmas the group encountered while gaming. He wrote, “And when we got to these puzzles we all had different ideas so we started to agree and debate on what to do and whose idea would work. But the good part was we didn’t argue very much.” Tim also agreed that collaboration and communication were key factors in making their group succeed. Tim wrote after playing Uncharted 3: Drake’s Deception, “Also this game definitely wants us to collaborate and work as a team on puzzles. The game lately has been really pushing the combat where my team and I have to come up with strategies to overcome our current problems that happen in the game.” This was great for the challenging
aspect of the gaming, but not everyone in the group appreciated the verbal banter. Tim wrote, “This game made me frustrated today when my team was yelling at me because I couldn’t pass a point in the game where I was having to kill two riot shield guys.” Communication played a large role in the way The Expert Gamers experienced the study. The group connected itself to the games they played and they worked together to collaborate and communicated their feelings and ideas while playing in the classroom.

The Expert Gamers were the first to use to use the term backseat gaming to describe what the group did when they were watching and reacting to another gamer’s actions throughout that player’s turn. During the audio recorded interview The Expert Gamers expressed their ideas about backseat gaming. Phillip said, “It’s where you get to talk to the player who has the controller to help them make better decisions while playing. However, sometimes it gets a little crazy and the backseat gaming turns into bullying.” The group equally made fun of each other while playing and there was nobody who took on most of the backseat gaming, and it seemed like healthy banter from fourteen-year-old students to joke around with each other. Data from The Expert Gamers suggested that the students were excited not only to play, but they were excited to observe others play, too. They enjoyed gaming together and making discussion as they gamed. Dean said towards the end of the audio recorded interview, “Backseat gaming is part of being together, it means listening to your friends, or not, and seeing what happens because of that decision.” The group would often chirp at the player about how they could be better or they would offer up some type of critique about their gameplay. Phillip wrote, “Imagine trying to tell someone what to do as you watch, but you can tell they are torn because they want to do things the way they want to and they have to listen to their group, unless you’re like Tod from The Outsiders group who never listens.” For The Expert Gamers, backseat gaming was an important
tool in their journey with the games they played. It was common to hear The Expert Gamers giving the player with the controller some flak for their performance, even if they were doing a good job.

**Critical Thinking, Puzzles, and Challenges**

The Expert Gamers were no stranger when it came to critical thinking while playing games, and their long history with gaming had given them experience with video games that some groups did not have. The Expert Gamers were good at working together to solve problems and puzzles, and their efforts in doing so would often lead to comments and questions about their gaming experiences. After Dean played Wayward Sky he wrote, “Now I would say that this game relates to some people in the way that most people try to reach a goal or objective and there is usually something that is making your goal harder or more challenging.” The group enjoyed discussing topics related to the game for an extended amount of time, and the conversation would either pass or it would turn into an argument about a solution or an idea. The Expert Gamers were good at pulling out themes from the games they were played, and it led to self-reflection for much of the group. Koby was also able to reflect about what had challenged him while he played. He wrote, “Wayward Sky’s puzzles and controls challenged me, and I realized I like that feeling. I could tell my group saw that I was struggling today. I think that is because I realized I was gaming in front of others and that made me think of how I look when I game. I’m sure I looked pretty dumb.” Koby was not alone, and his group was there for anyone who needed some help when they got stuck in the game. It was common for The Expert Gamers to get stuck at some point each day in the game they were playing, and they would have to re-think about how they would get past the issue. The player with the controller was ultimately in control, and when they felt they had exhausted their ideas they would listen to their buddies for ideas. The
Expert Gamers enjoyed thinking together, and it was clear they also liked to prove each other wrong. At one point, Phillip told Dean he could not go a certain way in *Uncharted 3: Drake’s Deception*, and despite the declarative tone of Phillip, Dean proved him wrong by somehow getting up and over where he was stuck. Phillip was shocked, but said, “Or, you can do that, I guess.” The puzzles and problems in the games got students to critically think about finding solutions while having fun through the game’s narrative. The Expert Gamers were able to think about their own thinking using metacognition while they played games, and this helped them understand what they could do differently when addressing questions and problems in the gaming space.

The Expert Gamers critically looked at the games they played and the themes that came from them. Group members also critically thought about themselves and even applied metacognitive strategies in their group discussions and writing as evidence of their thinking. Nick wrote after playing *Uncharted 3: Drake’s Deception*, “Today the main part that stood out to me during our gaming/learning session was that the game had to do with strategic problem solving, like when I had to escape the compound.” Nick could identify what parts of the game challenged him daily, and much his group was the same way. On top of being able to identify challenges in the game, the students could relate these struggles to the real world. Dean wrote after playing *Bound*, “I would also like to compare this game to people in real life because some people wish they weren’t in certain situations, but they are, and sometimes they just need to find a way around them or a way to deal with them.” While playing *Wayward Sky*, Tim wrote, “I would have to say that this game is sort of showing how much humanity relies on these machines to do certain things, and I can see this slowly happening in our society.” The Expert Gamers were able to take a step back from the game to see other things at play. They had questions and
comments about issues and ideas related to the game. For example, Phillip wrote, “Based upon the gameplay I feel like the developers wanted to teach us problem solving skills and to view situations or any problems through different views and to use observation skills.” Thoughts like this suggest the group was able to look at their gaming experiences in a thoughtful manner that led to them having meaningful experiences while they played. Tim wrote after playing Wayward Sky, “This might be showing how much technology will advance and how most things that humans do now will be done by machines in the future.” The group would talk about their ideas, but the game would always draw them back in towards a new issue or problem to solve.

There were numerous puzzles and problems for The Expert Gamers to solve in the three games they played. After playing Uncharted 3: Drake’s Deception for a few days, Nick wrote, “I don’t think those who played this game before the study were able to help much with the puzzles like they thought they could, but it was more like we were more capable of helping each other when the time came.” In the audio recorded interview Tim defined a puzzle as, “Something that makes you have to take another look at something to see it right.” After playing Uncharted 3: Drake’s Deception for a few days, Tim wrote, “This game teaches you to work with others because of the puzzles. You’ll rarely find a puzzle that does doesn’t need teamwork. This game is really hard to play solo. You’d have to be very good at puzzles to play this by yourself.” The next day he would share some of his pain with the group as they did not make as much progress as they had hoped due to some tricky puzzles that ate up most of their class time. Towards the end of the study Phillip wrote, “Then the puzzles… oh my gosh the puzzles were the worst. They came at the wrong, wrong time. I thought this game would be fun but from today’s experience and the last eight days of Uncharted, I was wrong.” Dean also mentioned in his writing that the
puzzles were a little more than he expected, “Today when we were playing we experienced three puzzles which I think caught us off guard. I mean three puzzles? Come on.”

*The Expert Gamers* were easily able to see when a puzzle was in front of them or if one was coming up in the gameplay. They called this gamer knowledge, and Phillip said, “If a person plays games long enough they will form this vision and that helps them see how the game works and what you can do to solve the puzzles, or even know when they are coming.” The challenging puzzles in the games made the students look at the problems from a variety of perspectives. Tim wrote about *Bound* and said, “This game itself influences me and my friends to think about all the different ways we could solve the puzzles, and that was cool since there was usually no one answer.” After playing *Bound* Nick wrote, “Some of the puzzles have gotten a little complicated and to know that there’s so much more to go makes you feel a little stressed, but I can’t wait to fit the pieces into the plot.” Some students were interested in how the game’s narrative was a sort of puzzle when they played *Bound*. Tim wrote, “The way our game challenged us today was like how any platformer/puzzle game would. It made us think about our gameplay and that helped us solve our problems. It got us to think I guess.” It was common for the group to encounter several puzzles a day in any of the games they played. Dean wrote, “During our game we made it through two different puzzles that we were kind of confused on and in my opinion, it took us too long to figure them out.” Sometimes the group would take more time than usual on a puzzle, and that either meant the puzzle was very challenging or the group was simply talking about something unrelated and they were not necessarily as focused as they needed to be. When this happened, someone in the group, mostly Koby would stop everyone and say, “Ok, guys, what the heck is going on here? We need to focus for a sec.”
“This game was boring. There was not one exciting moment in this whole freaking game. Adam spent five minutes building a thing on the floor, and do you want to know what it did? IT MADE THE CHARACTERS DANCE FOR FIVE SECONDS!!! That tipped me over the edge. I would rather be washed down a fresh-water shark infested river covered in dead fish than play anymore of this game. I think it would be more enjoyable to watch grass grow, or paint dry. This entire game was just terrible.”

Clark

(Thought journal entry, game #2, day #20)

Preview of Findings

*The Comedians*’ story illustrated an all-male group of gamers who did not know each other very well before the study, and because of the games they played, the discussions they had, and the writings they composed, they learned a lot about themselves and how to work with others towards a common goal. Thirty two percent of the thought journal entries related to feelings and thoughts, see Figure 6.1. Nineteen percent related to game summaries and the comprehension of the video game’s events. Sixteen percent related to the evaluation of the games, group, and self. It was noted *The Comedians* did not express much interest in bonding with the games or characters. *The Comedians* played *Super Mario 64* first, then *Lego Star Wars: The Force Awakens*. The group wrote in their thought journals that both games did not have enough depth or meaning to them to be considered as works of literature. *The Comedians* believed *Super Mario 64* lacked a solid narrative platform and *Lego Star Wars: The Force Awakens* did a poor job of building a story and foundations for character development. *The Comedians* illustrated a small group who applied their prior knowledge and video game
experience to the games they played in the classroom. They expressed their thoughts, experiences, and learning from both games using all the data points.

**The Comedians Thematically Analyzed Thought Journals from Both Games**

(Figure 6.1 The Comedians’ thematically analyzed thought journals from each both games.)

**Gameplay Summary and Comprehension**

*The Comedians* started with *Super Mario 64* on the projector setup with a pulldown white screen attached to the whiteboard on the wall. The students sat their five desks in a semi-circle behind the projector while they played so they could see and talk to one another. *Super Mario 64* was a good fit for *The Comedians* as the written and verbal responses from the students were positive during the study. *Super Mario 64* gave this group the chance to explore and choose their own routes through the game. As I passed by Clark and his group early on in the study he said, “I hope we play *Uncharted 3*, because it looks like you can move around in the levels and that’s better than being trapped in a game. I hate games like that” However, *The Comedians* did not
end up paying *Uncharted 3*, and they moved to *Lego Star Wars: The Force Awakens* for their second round of gaming.

When *The Comedians* played *Super Mario 64* it gave them a chance to work together to solve puzzles and complete challenges that pushed the group to their limits at times. Since the game was comprised of individual levels that the player could explore, the game gave the group an individualized approach to how each student could spend their time in their group when they played. However, most of the time the students wanted to play the same levels as the previous player. Students would often go back to whatever had given the last player trouble. On the fifth day of the *Super Mario 64* Darrell wrote, “We have stopped trying to go for all the red coins in the snow level because we repeatedly die to a penguin on an ice slide. I called it the Suislide. It was evident we were wasting our time, but not on purpose.” *Super Mario 64* gave the students choices when they needed to move on. One of the goals of the game was to get all the yellow stars located in each level. In order to access different levels, the player needed to collect a certain number of stars.

As the group progressed through the game, they documented their progress on the gaming log as well as in their thought journals. It was also observed that *The Comedians* were very interested in the amount of stars they were getting each day. During the first few days, Darrell emerged as an early leader since he had played the game before. He said, “I’ve seen some tricks on YouTube before, so don’t worry guys. I have a plan.” The group listened to his plan of going for all the stars in the first map so that they could have options to choose from after since some of the levels required more than just a few stars to enter. The plan worked for the first couple of days, then the group ran into a problem. One of the stars in each level required the collection of one hundred yellow coins, which usually took a player on a journey around the
entire level. The running around in the level looking for the coins usually caused the player to lose a life from falling or making a wrong move at some point. Tod wrote, “Today we decided to get 100 coins in the first level to get a star. We thought it was going to be challenging and it really was but then… disaster struck after Blake got 95 coins and Clark took over and lost it for everyone. Classic day.” *The Comedians* changed their plan of attack, and they started to work on the stars they knew they could get first, even if it was in a different level. After that, Darrell stepped aside as leader and said, “You guys do what you want then, I can’t make your decisions for you.” However, this did not deter him from having fun in his group, and it may be the case that he started having more fun after that, see Figure 6.2. Darrell wrote later that day, “Today we got a few more secret stars. We (Me 😊) reunited a mother penguin with her child, then stole her child. We also caught a bunny that was late for his date. We got a lot of stuff done in the game. And to think after all these years who could have guessed you were able to jump on the ghosts to destroy them in the courtyard. It was a good day for gaming.”
The Comedians comprehended their daily gameplay and they were able to recall specific events that took place after playing each day. Many of the events that The Comedians would talk about together related to past events that had taken place that related to their current conversations about the game. Blake wrote, “We have learned that Bowser has some tricks up his sleeve.” His comment suggested his past encounters with Bowser, the antagonist, had given him some ideas that there were going to be problems involving him in the future. He wrote, “Through our gameplay I’ve learned how to use the flying hat and I learned more about how boss fights go in the game. When I see him in the future, I’ll know what to do since I studied his moves last time.” Blake never got his chance to face Bowser, but Tod did and he used the coaching from Blake to defeat him on his first try. Dan was pleased the group finished the game
with twenty-seven stars, but during the interview he stated, “The game was fun, but in terms of comprehension, I remember the things we did in the game, but I don’t recall a long story or anything. I like that there wasn’t some weird expectation of us to know something specific in the game after we played it.”

During the second ten days of gaming, The Comedians played Lego Star Wars: The Force Awakens and they responded differently to the two-player game than they did with Super Mario 64. The start of the game gave the students some excitement with a new plot, characters, theme, and setting, but after five days of playing the group began to get frustrated with their experiences in the game. Their gameplay summary and comprehension of their experiences, thoughts, and learning were captured in the data as the group went from liking the game to hating it by the end of the ten days. The timeline of events that led to this were found from looking at all the sources of data. Since there were two controllers, it meant the group could spend more time playing and less time watching, and that excited them. Each of the students in the group were familiar with Star Wars as a story, but they said during the fifth research meeting that they had not watched all the movies, and that made it tough because the game did not do a good job at giving the player a clear idea about what was going on in the plot. During the meeting, Clark said, “It’s like a game that plays the levels from scenes in the game, but there is not really any information passed through as you play. You pretty much have to have seen the movies or this game doesn’t make sense.” Blake followed up by saying, “Yeah, if we were looking at purely like reading and this game, it would not count really for a reading log kinda thing because there is no real in-depth journey that the player goes on, they just play levels related to the movies like what he said.” It was evident the group could tell that Lego Star Wars: The Force Awakens did not have much depth to its narrative. This thought from Blake showed his ability to examine his
past experiences with a digital text for its literary merit. This meant he had the prior knowledge about what it meant to read and write in the digital world, and he could think about if the game he was playing matched up with what he knew about video games and literature.

On the first day of the game, they argued about who was going to play because they were all so excited to play it. Tod told Blake he would give him a dollar if he let him take his place to play on the first day, and Blake laughed and then refused. On the last day of gaming, Tod wrote, “As soon as our game session ended, we turned off the X box as soon as we could.” The transformation of how quickly a group could turn from enjoying a video game to quickly despising it was illustrated in this group’s story about their ten days playing *Star Wars: The Force Awakens*. The first day of gaming was exciting and full of laughter. The students enjoyed the introduction, cut-scenes, and the gameplay, and it was apparent the group enjoyed learning how to play a new game since they were smiling and laughing. On the first day Blake wrote in his thought journal, “This game is going to be fun since two people can play at once.” They finished one level in the game on the first day. The second day went as planned, and the group completed another level. However, on the third day, the group found that the game had not saved their progress from the day before. The group had to redo the same level that day and Dan wrote, “Today was a more humorous day than day two because of the amount of failures we had. I can’t believe we had to go back and redo the level.” On the fourth day, the group was still having a good time playing, but they felt they had bad luck with the game. Dan wrote, “Today we did not finish our mission and we had to stop because we didn’t have enough time, and we will most likely have to restart the same level again tomorrow. And on that note, I would like to give an idea on what I would change about the game. Help us save the game like a book uses a bookmark. You wouldn’t make a reader wait three more pages until they could save their place,
regardless of what checkpoint or chapter end was coming. When you’re done, you’re done. The Dickenson cliff hanger should not exist in video games.” Their next few days went a little smoother, but after they past the five day mark, the group complained of the same issues each day all the way until the end. On day six Dan wrote, “Well today, our game crashed at the worst time possible. So that will be fun to look after tomorrow. I bet we have to redo the level.” Day eight Darrell wrote, “After we completed a puzzle the game just froze and it was so heart-breaking.” The gaming log showed students were tracking their progress in the game by tracking new characters and places, but they had a hard time piecing together the conflict or theme in their responses. The interviews at the end of study revealed the students were very disappointed and claimed it was the worst Lego game they had ever played.

Feelings and Thoughts

Between the two games the group played, they expressed their feelings and thoughts about how they liked and disliked their games from a wide variety of viewpoints. To be more specific, The Comedians illustrated how their group changed based on their feelings and thoughts towards a video game in a classroom. Most of the thematically analyzed quotes from the thought journals were about Super Mario 64 and the difficulties of navigating Mario on his missions. Clark wrote, “Today I felt triggered. I got angry because when Mario hits lava HE BOUNCES INTO MORE LAVA! The physics in this game are terrible. Mario is like a rubber duck covered in butter, he bounces and slips and slides everywhere. That is why Mario made me angry today.” Rosenblatt (1997) said, “Without conscious admission of the relevance of the literary experience to our own practical situation, our attitudes may be clarified either by a violent reaction against what we have read or by assimilation of it” (p.41). Clark’s complaint to the group was that he had never really played before so he was not good at it, but his teammates would laugh at him.
and tell him to not make excuses and to try again. While playing *Super Mario 64* Clark wrote, “Part of the reason the game made me frustrated was simple, it made me disoriented although the map was simple. Today I learned not to over-use the cannons because it causes you to fall off the face of the Earth and die.” Darrell had deeper thoughts, and he realized during the beginning of *Super Mario 64* the group was going to be divided between two different playing styles. Darrell wrote, “This game makes people into two categories. People who want everything and people who move on when they can.” When the group got stuck trying to get the one-hundred coins to get the final star on one of the beginning levels, students started to get frustrated that they could not move on to a new level since Darrell refused until his group overruled him and went against his orders and went to a new level. When it was Dan’s turn, he went against what Darrell was saying, and went into a new level. More than half the group cheered and within minutes, the group was laughing and enjoying themselves again.

When they switched to *Star Wars: The Force Awakens*, so did their thoughts and feelings about their gaming experiences. The overall thoughts and feelings from the game were reflective and geared towards emotions of disappointment, frustration, and anger. Dan wrote, “I am going to do my best to try not and get bugged by how others play even though my thoughts are that you should try and get the most out of our time while we can in class getting progress since the game can’t let you save until you beat a level.” Blake wrote, “My thoughts about this game are positive but over time it just got extremely annoying and frustrating. I’m way excited to be done with it because I just straight hated it.” Tod wrote, “I just feel like the narrative in the video game does not do it justice, but it was a good attempt I guess. If you want the feel of the narrative, you should play the full length non-*Lego* stars wars games. They are good.” It was easy to spot from all the data points that the game did not fit well with the group. Darrell suggested during the final
research meeting that he thought the game was good at helping people cooperate, but it did not take those who played it on an adventure like some of the other games in the study probably did.

**Evaluating the Game, Small Group, and Self**

Sixteen percent of the thematically analyzed thought journal responses from the group related to the evaluation of the game, the small group and the self. The evaluations were spread equally between both games. When it came to *Super Mario 64*, the students evaluated the game’s graphics and controls whereas in *Lego Star Wars: The Force Awakens* they focused on the game’s design and flaws. *The Comedians* evaluated the games they played based off their own ideas about the game. When the students played *Super Mario 64* they found some of the controls and graphics were of interest, but it was Darrell who had the most to say about the game. He was the most evaluative in the group and he often had something to say about everything. He wrote, “The camera is very awful at some points but it’s just one con against all the pros. *Super Mario 64* has aged well for its graphics, but the controls are sometimes the true enemy. That and camera angles.”

When it came to evaluating *Lego Star Wars: The Force Awakens*, the students did not hold back on their thoughts. After the eighth day of gaming, Darrell wrote a short declarative sentence, “*Lego Star Wars*, the game that punishes you for even playing the game.” By the end of the ten days of gaming, Darrell’s thoughts about the game were mostly negative. Dan was not as upset as Darrell, but he wrote, “As a developer, I would add an anti-troll measure because I hate when people waste time to troll at the wrong time.” Dan was mad that his teammate would not take things as seriously he would when they played, and that caused delays while playing and it would make Dan upset. While playing *Star Wars: The Force Awakens* Dan also wrote, “The story is more of a childish approach to the narrative and as a game designer, I would create an
adult edition to the game with the actual dying involved and what really happened in the movies.” Blake had his own ideas about the game, but overall, he agreed with everyone else. Blake wrote, “This game really isn’t that great, but it’s not bad either. The Lego concept and how the split screens work are really the big flaws to me. They made too many games. Simple business mistake.” Blake also wrote, “If I had the ability to change the game I would have had the camera angle go to first person angle whenever shooting Storm Troopers.” Clark discussed the difficulty of the game in his writing. Clark wrote, “I believe that this is also the hardest Lego Star Wars game I’ve played, even though I have only played 3 Lego Star Wars games in total.” On the last day of writing, Tod wrote, “We have finally got to stop playing Lego Star Wars: The Force Awakens, thank goodness. I have a really high resistance to things considered bad but I just did not like this game at all.”

*The Comedians* saw each other as a great team. The students evaluated their group and thought of each other as a bunch of guys who should have started hanging out a lot sooner because they got along very well.” On the third day while playing Lego Star Wars: The Force Awakens, Clark said, “Today we advanced a lot and my group was like a well-oiled machine.” During the research meetings, *The Comedians* would talk about how the games were making them work together a lot more than they thought. The students found themselves evaluating their group and how they interacted with the games. During the end-of-study interview, Blake stated, “Our group was awesome. I think we did a good job at listening to each other, especially when we were frustrated about how things were going.”

The group also evaluated themselves when they played each game. *The Comedians* contained a sense of self-awareness that showed in the data. The students could self-identify if they were lacking in skill or if they were good at something. Dan wrote, “I need to be a better
player because I suck in *Star Wars* which I used to be good but I lost my *Star Wars* goodness a long time ago.” While playing *Super Mario 64*, Blake wrote, “I will for sure get better because everyone gets better, it just depends on how they adapt to the game and how intrigued they get. Plus, I already get the hang of what the game wants me to do.” *The Comedians* messed with Clark when he made a mistake, but it was less picking on him than it was having fun with the coincidence that he was always the one playing when something tragic would happen like when the game would freeze during *Star Wars*, or he when he fell one coin short from earning a star before falling off the map in *Super Mario 64* and having to restart the mission again.

**Bonding to the Game and Characters**

*The Comedians* did not write much about bonding to the game or any of the characters in the game. The group enjoyed playing as Mario and Tod enjoyed talking about beating Bowser, but there was not much discussion past that. *The Comedians* had two games that were tough to make deep connections with the characters, and Blake was the only one to really think about them in the games. Blake wrote, “I would like more games where you can switch characters in the middle of the story to either find alternate endings or to really get a grip on the other characters and even the main characters.” He stated in his thought journal how the character select feature in *Lego Star Wars: The Force Awakens* was interesting and he thought it was an important because it allowed the player to choose who to be, as each character had their own set of skills that made them unique. Blake was not attached to any of the characters in the game, but he liked the idea of being able to change out characters on the fly when playing as it gave him a choice.
Reactions to Games

Only three percent of the thought journal responses related to how the group reacted to the games they played. Their written responses varied in content and students made personal connections to moments in their past that related to their games. Blake wrote, “*Mario 64* brought back some memories from my childhood. I used to always play Mario with my brother in our spare time on the *Game Cube*, and that thing really brought us together.” Sometimes during gaming time, Blake would talk about the times he played with his brother to the group. Darrell also thought about his family when he played *Lego Star Wars: The Force Awakens*. He wrote, “This game makes me think of when my brother bought *Lego: Lord of the Rings*, and we 100% completed it.” Clark found himself asking questions about where he should go and what he should do while playing. His group would aid him by giving him directions, and sometimes by sending him into traps, which made the group laugh. Clark wrote while playing *Super Mario 64*, “The game does not tell you where to go, but it expects you to know where to go. I don’t think that is a great strategy right off the bat.” Along with the written responses, the overall reactions from the games during the interviews were positive. In regards to *Lego Star Wars: The Force Awakens*, the group understood the game would not be a good fit for future use because as Clark said, “Its levels were too long and it was not a game with enough meaning to it.” Blake said, “It was a pretty cool game for groups to explore, play, and solve problems. We got to explore a lot, and we like that. Even though it’s single player game, it requires people to pay attention to the same thing as the player.” The reactions to the games indicate connections were made between the player and the game during the study.
Style of Playing: Fun vs. Progress

Despite *The Comedians* only mentioning their style of play in regards to fun and progress in six percent of their thought journals, it was evident from the other data points just how big of a deal this became as the study progressed. *The Comedians* worked hard in the games they played and for the most part, they had a good time. However, there were occasions in the study where *The Comedians* got caught up in some argument about who was having fun and who was trying too hard while playing. If someone in the group was trying too hard, they were called a *tryhard*. The group labeled a tryhard as someone who tried too hard or tried to get attention for their efforts when they played. The stigma was that it was not cool to be a tryhard. *The Comedians* did not define themselves as tryhards, but they were competitive-minded and goal oriented and they made sure they tried to make progress in the games they played. However, they did make fun of each other by calling one another tryhards on a regular basis. On the other hand, they were not afraid to stop their game progress to have some fun with some side quest or some other self-made activity.

When they played *Super Mario 64*, they set a good pace each day by earning several stars until they hit a roadblock. On the third day Blake wrote, “Today stood out because we got all the stars in the first level and it was a load of fun doing it.” Once *The Comedians* stopped collecting a constant number of stars each day, their gaming style changed, but they continued to have fun when they played. They never took the game too seriously, and *The Comedians* thought that *The Outsiders*, who played the game after them, took the game too seriously and were simply racing through it just to beat *The Comedians’* progress. This caused some disagreement between the groups and when *The Outsiders* started boasting about their number of stars they had already collected after the first few days, it made *The Comedians* upset. During the fourth research
meeting, the following quote was read aloud by a random student who elected to read their quote strip: “The last lesson I learned was a big deal, to get the objective and try to do it as effectively as possible. That does not necessarily mean that you can’t have fun along the way, but you can’t mess around too much.” Darrell quickly replied, “I said that!” He then looked over to *The Outsiders* and said, “If you only focus on the numbers, you’ll miss out on the fun you’ll have when you take chances and the time to let the game show off.” When students were given other student’s journals to read and respond to during the second half of the study, Dan read and responded to Tony’s thought journal from *The Outsiders* about the issue. Dan wrote in his own thought journal, “I need to not write comments saying that you’re going too fast because Tony is now coming at me hard and square over my comments.” Dan’s entry is below, see Figure 6.3.

**Dan’s Thought Journal**

(Figure 6.3 Dan’s thought journal entry about his reactions to Tony from *The Outsiders*)

It was a different story with *Lego Stars Wars*, and the group had constructive things to say about being productive and making progress in the game. Not only did they mention they
were interested in their style of play, but the group often spoke about it when they played. Not everybody was a huge fan of the free-for-all type playing that could happen when the two students who were playing decided just to mess around. Dan did not like people fooling around for the first few days of the game and he vocalized his disagreement with the team. He thought the group could make more progress if they focused on the mission at hand instead of fooling around. On day six Dan wrote, “I am doing fine with my group for a day when only three fifths of the people were here, which means make as much progress as possible and we can do that while having fun even though we died two times, but it isn’t like Super Mario Bros. where you must restart if you lose all of your lives, which is never fun.” His attitude changed over the course of the game. Dan loosened up and by the end of the game he wrote, “Today I am having fun with a new hover board that the game allowed us to ride and because the planks wouldn’t allow me to take the skateboard, I kept trying until I could no more due to time. We enjoyed our time because of how fun it was.” The overall tone of the group was about having fun and going with the flow of the game. Blake wrote, “We all have such a good time even though we all suck at the game in our own ways. Who cares about progress when you’re learning and having fun, isn’t that progress in itself. Mic dropped.” Blake thought a lot like Tod who wrote one day, “There was a lot of messing around happening in the group today. Which was fine by me honestly. As much as I would think today was really productive with having a level done for once, it feels like we could have gone further, but no that isn’t really what happens in this group.”

**Friendships, Social Gaming, and Communication Skills**

*The Comedians* wrote about their thoughts, experiences, and learning from their newly created friendship and the banter between them while they played games. Fourteen percent of
their thought journals entries were coded with the theme of friendships, social gaming, and communication skills. Class observational notes were also important points of data and many of the entries about The Comedians related to their discourse as they played the game. *The Comedians* were verbose and they enjoyed engaging with each other when it was gaming time. By the end of the study, the interview captured the discussion of a group who had learned to game and work with each other from the experiences they shared.

Since *The Comedians* had never been grouped together before the study, they had not spent much time with each other. *The Comedians* became friends almost immediately and the group worked well with each other. On the eighth day of *Super Mario 64*, Dan wrote, “We are giving ourselves a chance to become friends. We have been told we should start our own YouTube channel with just the five of us because of our humor playing *Super Mario 64*. And to make things competitive, I added who gets the most stars a dollar and we got progress today in exchange so now we have 27 stars vs. our 22 stars before.” Dan, who was not very social, cared more about his status and acceptance in the group than anyone else. Dan missed a day of school during *Super Mario 64*, and when he came back he wrote, “Today was a challenge because I was a day late to the start of all the fiasco. However, I am accepted by my group and achieved an impossible task of climbing the hill (or so say the group).” Everyone liked Dan and students who were quiet like Tod were also becoming more involved in the discussions and laughter.

The social nature of *The Comedians* was evident from the way they engaged with their video games. Most of the time, players talked to each other while they played. On top of the verbal discussions, the written responses in their thought journals captured the social nature of the group. Blake wrote, “Our team does argue and get frustrated all the time, but we pull it together and do our best on Mario.” The group would write about the decisions made while they
played and whether they agreed with them or not. After his group stopped listening to him in *Super Mario 64*, Darrell wrote, “I know I am in a group, and you can’t make everyone happy, so I’ll go with the flow of my group then.” There were also times where the group would write about something that had made them laugh while gaming. Blake wrote, “The game is really fun until someone gets 95 coins about to hit one hundred then someone by the name of Clark dies right when he’s getting the last coins. R.I.P. making three stars a day.” Everyone in *The Comedians* wrote about Clark the day he failed to collect all one-hundred coins from a level in *Super Mario 64* after falling off the map when he was messing around. Clark was not the only one to take the heat from his group and Blake wrote, “We started off strong today, but Clark failed pretty hard, but it’s okay because tomorrow I am guaranteed to die a lot in the game too.” The group could mess around with each other and it appeared it was all in good fun as nobody ever wrote or said anything about being upset. There is one point in *Super Mario 64* where the player has to capture a fast rabbit in the castle and Dan wrote, “One of our players was able to redeem himself because of his effort to catch the bunny very quickly without problem (well 5 minutes) but we got the star.” The group had created a space for themselves to succeed and fail without feeling embarrassed. Tod said during the end-of-study interview, “It was just nice to be able to do something in a group where it wasn’t a big deal to fail. Super low stakes when you’re playing a game. If you mess up when you read aloud in a class people laugh at you and that seems to be more hurtful than when I am with my group and I make a dumb mistake and die in the game. However, sometimes it takes a while to get back where you were, but nonetheless it’s no big deal.” Clark replied to Tod in the interview and said, “Yeah, even though you guys all made fun of me when I messed up, I was still learning as I played, but we were laughing a lot, but that got me thinking, and I figured that even though one person is the best at some things,
individual people in a team bring their own knowledge and skillset to the group. I just did not have much to contribute to the two games we played.” The group laughed, and Darrell replied, “This study would have sucked if we played the games by ourselves for the whole time.”

**Critical Thinking, Puzzles, and Challenges**

The thematic analysis of the thought journals revealed that nine percent of them related to critical thinking, puzzles, and challenges. *The Comedians* used the experiences from the video games to discuss ideas and topics outside of the gaming space in their writings and in their discussions. The reader-response questions gave students a chance to take a deeper look into their daily experiences with the games and their group, and their responses show it. Blake and Clark were the primary critical thinkers in the group and most of the written responses came from the two of them. Both took the time to go beyond the video game to relate what they were thinking about while they played in the classroom.

*Super Mario 64* gave students an open world to explore what they thought was interesting instead of having to follow a linear path like in a traditional narrative. When Blake decided to go explore a new level after the first few had been played, he found himself thinking about the design of the game. He wrote, “What really stood out to me today was how the haunted house gave you no hints on how to get stars but on other levels it gives you the small hint at the beginning. I think they now expect me to know what to do I guess.” The levels allowed the player to choose from a variety of challenges to complete. The game required the player to learn a variety of moves as the game progressed and Clark responded to this by writing, “Today was very enlightening as to how the human brain adapts and learns to change its habits to complete a task.” He was amazed at how hard it was for him to control Mario, and every time he had to learn something new, like how to fly for example, he had a difficult time figuring it out. If the
group got stuck on a specific part of a level, they would team up to figure out a solution.

Students were challenged by Super Mario 64, but once they started getting the hang of it, they switched to the next game due to the schedule of the study.

On the first day The Comedians played Lego Star Wars: The Force Awakens, Blake wrote, “The game doesn’t give instructions or hints whatsoever so we just end up going around every level shooting everything in sight. Like how much critical thinking does that take? Observation skills alone don’t mean shizzle if you can’t make sense of what you see.” The group struggled to understand what to do and they spoke together to form an understanding at times. It usually took more than the two players who were playing to figure out what was going on and the solution typically came from somebody who was watching rather than playing. For example, one time the group was stuck, and it took each group member to try out their idea in the game before Darrell finally found the solution. Clark wrote, “I think the creators of this game wanted you to learn to trust your teammates and to put faith into them. It’s great to work with others for that reason alone.” Blake wrote, “I think the creators want us to work together and build trust in others.” The Comedians approached the games they played with their prior knowledge and gaming experiences. The students used the reader-response questions to critically think about the motives and game design in both games. Super Mario 64 challenged the group and Lego Star Wars: The Force Awakens gave them puzzles to solve.
CHAPTER 7

TEAM APHRODITE

Jenna: “Why aren’t you allowed to play video games at home?”

Anna: “Because like my parents think that I’ll get exposed to too much. I’ll be exposed to too much technology and I’m going to end up taking everything for granted in life and I’m going to end up thinking that my first world problems are third world problems. So they decided to take away my electronics. So, I was like wow, thanks mom.”

Autumn: “So how did they let you stay in this class?”

Anna: “Because well they thought since you can’t have them at the house this should be fun for you.”

Jenna: “My dad wanted to take me out of this class. He was like you’re wasting an elective, and I was like oh do you want me making freaking pancakes in class or would you rather me do this? And he was like, ok you can stay, and I was telling him how we were like doing coding and everything so I guess it worked.”

(Jenna, Anna, & Autumn, Team Aphrodite, day #25, audio-recorded interview)

Preview of Findings

Team Aphrodite went for a bumpy ride during the study and it was up and down with their performance, but it was slow and steady with their progress. The group’s thoughts, experiences, and learning surfaced through the themes found in this chapter, see Figure 7.1.

Nearly a third of Team Aphrodite’s thought journals entries were related to their feelings and their thoughts during the study. They were a very caring group and they were open about their feelings with the games. They also summarized their gameplay and progress about twenty percent of the time in their thought journals. The third highest represented theme found in the thought journals for Team Aphrodite was friends and social gaming. Each member of Team Aphrodite wrote about their growing relationship and their social nature as a team during the study. Team Aphrodite worked hard every single day and they had a good time doing it. There were times where emotions were high, and the group was confused and frustrated, but overall
they managed to pull through. *Team Aphrodite* showed just how important the social element to gaming really was to them with all their examples from when they needed each other to understand the plot, to get through puzzles, and to discuss things that were brought up during gameplay. The small group and the games were places where they could deal with their personal issues from outside the class, too. For *Team Aphrodite*, the great thing about gaming in the classroom was they could talk and game at the same time, and that meant a looser structure for natural learning that stemmed from their conversations while the gamed. Their group was the most vocal about giving directions and supporting one another while they played. It was clear from their cooperation they could overcome anything, if they had the time. *Team Aphrodite*, the all-female group, progressed further in *Bound* than the all-male group who played it. During the end-of-study audio-recorded interview, Autumn said, “So does this mean we’re gamers now?” Jenna replied, “Yeah, I think so.” The group had grown and the way they viewed themselves had also changed.
Gameplay Summary and Comprehension

Even though none of the reader-response questions asked about what students did in the game that day, each student in Team Aphrodite would write a short one or two sentence summary about what happened, or why they were confused about what happened. Since this group had never seen Star Wars, something I did not plan on, it was tough for students to get into the game as the game’s plot was based off the movies. During the first ten days of the study when they played Lego Star Wars: The Force Awakens, it was a scramble to understand what to do and what was going on. However, at the beginning of each level, I noticed their group would skip the prologue even though they had no idea what the game’s story was all about.

On the first gaming day, Linda claimed to have played another Lego Star Wars game in her past, so she clicked “x” or (enter) a bunch of times at the opening screen saying, “Don’t worry these games are all the same. I know what I’m doing.” The game started and action
immediately followed with bullets whizzing and mayhem. I wrote in my observations about how the group instantly started arguing about what to do and why the game had suddenly started. It would take a couple days until the group would find some sense in what was going on. On the second day Linda said, “The official game started today and yesterday was the prologue. The story is starting to make sense now.” However, things turned for the worse as they got farther into Lego Star Wars: The Force Awakens. The group was not able to complete one level each fifty minute period and that often led to them having to shut off the machine without saving, which meant they would lose their progress that day. Anna said, “It really sucks though because we will have to restart it completely which is never fun.” Anna, who was optimistic, would often rally her group when they realized they were not going to finish before the end of the period. She would tell them, “Don’t worry, we can get it done even faster next time.” Jenna would often reply back with a, “Oh, save it would ya, Anna?” Team Aphrodite would complete five levels during their ten days with Lego Star Wars, and their gaming log showed they were not really interested in figuring out the plot to the game. They claimed the game was not helping them to understand the story or how to play it, and that it made them frustrated and confused.

During their second ten days of gaming, they moved on to the PS4 VR and played Wayward Sky. This was a big change from the first game they played, and I could tell students were eager and excited to play the new game. The group was enthralled by the technology, the story, and the characters. Anna wanted to know more about the plot, and she stated in her thought journal that she was going to go online that evening to figure out more about the story because she was, “certain the protagonist is a boy.” It was evident from their thought journal responses that the group was trying to figure out the plot to Wayward Sky. Autumn made note, “This game looks a little easier to follow along than Star Wars: The Force Awakens, and I hope
we finish it.” Students picked up on the detail of the gaming world and often wrote about it in their thought journals. Autumn said, “When I played it was kind of freaky. This huge robot was rising and a whole bunch of things were flying at me. It was cool, but at the same time I didn’t know what to do.” As the group experienced their game, they often wrote about what stood out to them during the class period, and sometimes that was not about playing the game, but the performance of others who had played the game before. Autumn had spent time watching Jenna look up YouTube videos while Anna was playing, and when it came time to write she said, “Jenna found this video of this guy that beat the whole game in an hour, like how is that even possible?” It was fascinating to Team Aphrodite to think that someone played the whole game in an hour, and it was not like they were interested in speed running games. After they watched that video, they made quicker progress than the all-male group who never looked up videos during their time with Wayward Sky. Team Aphrodite finished Wayward Sky quicker time than the all-male group. After completing Wayward Sky, they played Bound.

Team Aphrodite played Bound for five days and they were fascinated by the gameplay and they wrote about it in their thought journals. Autumn wrote, “This story is really weird too. There’s this pregnant woman on the beach, a family where the parents are always fighting and the main character, I’m not even sure what her name is.” Since Bound was basically wordless, it left students to create their own meaning as to what was going on in the plot. The job of the player was to keep playing to unlock more clues about the story. Linda wrote, “Maybe the world is an imaginary world for the children, but what does the pregnant lady have to do with that? Today was fun, but still confusing.” The group discussed what was going on with each other because they were confused about what they were seeing. While playing, Linda said to her group, “Ok, we need to stop for a second. I just need to figure out what happened with the kids,
and I don’t know if I can go back and replay that part. Does anybody know?” During the end-of-study interview, the group stated that *Bound* was their favorite game in the study.

**Feelings and Thoughts**

There were lots of feelings of frustration and confusion for *Team Aphrodite*, and it often came from an experience in the game or from some social drama that occurred before class at lunch. Either way, video games were at the center of it all and students responded well to them as learning tools. Students were observantly frustrated with *Lego Star Wars: The Force Awakens*, and it was clear from their thought journals that they were angry with the design of the game’s save system. Nonetheless, they persevered and managed to make good progress on their games. Most of the group wrote about the same topics in their thought journals and observations of their group interaction noted they often spoke to one another about the same things, and conversation would either be based on in-game problems or personal love problems. It was common for these students to write about how they thought the day had gone on the first line of their thought journal. The audio-recorded interview also highlighted the idea that gaming could be a very social act of learning because it took place from the interactions with one another while they played and grew together. Jenna commented that her group’s frustration with their games often ended in a sense of accomplishment if they had enough time to figure things out. However, there were days when they felt like giving up because their *Lego* game had punished them for not being able to complete the level in one class period. There were other days where the group felt proud of themselves for getting a level done before the class period ended. At the beginning of the third day of gaming, *Team Aphrodite* called me over with a distraught tone, they could not find their saved game from the day before. The group looked mad and worried. They were angry and discouraged because they were sure they had lost their progress, and that they were going to
have to do things over again. Tim came over from *The Outsiders* and found their saved game file on another profile on the *Xbox*. That same day, the group would lose all their progress because they could not finish their level to save before it was time to write. *Team Aphrodite* was a constant rollercoaster of ups and downs that ultimately led to a wild ride of learning throughout the study.

**Evaluating the Game, Small Group, Self, and Others**

*Team Aphrodite* evaluated the games they played and their group performance throughout the study. It started early, too. On the first day of *Star Wars: The Force Awakens*, Linda stated in her thought journal how when she started the game, “it was too hard.” This evaluative statement was probably predicated on her hasty decision to skip the prologue before the game started. This had caused chaos in her group, and they were all flustered that they did not know what to do and everyone in class turned around to see what was going on as Jenna yelled at Linda, “What the hell is wrong with you woman? Why did you skip the intro?”

The group evaluated their performance daily, but it was mostly about how the group was doing in a short sentence or two and it often connected to either being excited, confused, or frustrated. The students were critical of their performance as a group each day, and sometimes the group would comment on the gameplay itself. Linda stated in her journal, “The game is glitchy. BB-8 (Autumn) got stuck a couple of times when the contraption in the game would mess up her character. We were close to finishing. This game doesn’t work well for our group.” The students could self-assess their group’s needs and the game itself to see if it was going well with them or not. Their inability to save in *Lego Star Wars* kept the group in an evaluative mindset since half of their time with the game was spent replaying levels they had played from
the day before. On days when the group had to replay a level from the day before, they would ask themselves how they could get it done quicker.

The group was excited to start a new challenge going into the second gaming station with the virtual reality system. Their evaluative perspective on their progress from *Lego Star Wars* may have helped them complete *Wayward Sky* quicker than the all-male group, *The Expert Gamers*. *Team Aphrodite* did not enjoy *Star Wars Legos*, but they really enjoyed *Wayward Sky* and *Bound*. The day they started their new gaming station, Autumn wrote in her thought journal, “I’ve been getting the hang of things and in my opinion, we’ve all been doing really good.” The group would continue to perform well over the next nine days. Once they completed *Wayward Sky*, they moved on to *Bound* and they evaluated this game while keeping in mind the experiences of the group who had played it before them. Linda said, “I 100% agree with Tim when he said *Bound* was too artistic.”

At the end of the study during the audio-recorder interview, *Team Aphrodite* stated that the study was helpful, fun, and it was a great way to learn how work with others to solve problems. Jenna believed, “I probably won’t get anything like this in high school, and that sucks. This class was helpful. This study should show people it’s cool to use this stuff in the classroom.” *Team Aphrodite* overall evaluated their performance, the study, the class, and their games they played. Jenna wrote, “This class is a box of Legos. In order to strive and become a tower we must help each other, show everyone new tricks and styles of play. That’s how we grow to become better learners. It’s a community where expression isn’t something to be scared of. Not all of us get along but we grew and loved together with the games we played. These moments are worth caring about and I couldn’t see it ‘til this study.”
Bonding to the Game and Characters

*Team Aphrodite* bonded to the games and characters in a way other groups did not. After playing *Bound*, Anna stated in her thought journal, “I am surprisingly enjoying this game today so I am proud of myself for learning to create a bond with something I used to not wanna do.” Beyond their bonds with the games and characters, this group developed an interest in gaming, much like a reader would develop an interest to pick up a second novel after reading their first. *Team Aphrodite* were not gamers by any means, but their developed interest with the video games they played allowed them to create a relationship with them that they did not have before the study, as noticed from teaching them throughout the year.

*Team Aphrodite* would often talk about the game or characters as if they were theirs. While playing *Star Wars: The Force Awakens* Linda said, “Finn is still my character. Everyone makes a special bond to a character. When you learn and expand your knowledge with a character, they start to mean something to you. The character is no longer a video game character, he is your character and no one else should play with them.” Linda had developed an early attachment to a character and her group soon followed as I observed the group talk about their characters in possessive tones. Linda said, “I made a special bond with Finn and he will be my dominate character from now on.” Linda was upset to find out that she could not play as Finn in every level, and she was forced to find new characters that she enjoyed being in the game.

Since Anna had missed the first day of *Bound*, she was very lost at the beginning of the game. She had missed the opening clues about the story it was hard for her group to explain what was going on since there was little to go off in the first place. Anna said, “I don’t really enjoy this game though. I wasn’t there for the first part of when we started this game so I really don’t
know the story or who this character is.” Since she was not there to form that initial bond like everyone else, she felt disconnected from the story and the group. The rest of the group bonded with the game, and it was impossible to start the game over for Anna, so the group did their best to catch her up. Autumn suggested she go on YouTube to catch up, but Anna declined and stated, “I’ll either get it from watching you guys, I’ll watch at home if I’m not grounded, or I’ll just be lost I guess.” This did not stop the rest of the group from getting into the story. Linda said, “Another thing I would like the game to do is elaborate more on the characters, so you become attached.” *Bound* left a lot of the plot for the player to figure out as they played. *Team Aphrodite* would not complete *Bound*. Jenna said, “It’s crazy to see how attached to the characters we are without even knowing the whole story line. I am pissed we can’t finish. That’s why I love you YouTube.” After playing *Bound* Autumn wrote one day, “Like I’m not the character, but I’m close to the character and I’m telling her what to do, and I thought that’s cool. Like it’s weird to say, but the headset is like me putting on her head and making her decisions like a thinking cap.” This was an interesting comment because it expressed how the virtual reality headset may have helped her get closer to the character in the story. It is a whole new level of empathy for gamers to gain access into the experiences of others by getting into the minds of other characters like in *Bound*. The virtual reality headset was an immersive experience that allowed the group to engage with the characters in the story in a way they had never done before. Jenna said, “This game is so artistic and it’s amazing to see how the main character expresses her emotions in such a unique way. When she’s hurting she holds her head and screams. It has such strong meaning to it even though none of us can quite grasp what she’s doing.” Students in this group were able to bond with their games and characters on a deeper level than their peers and it showed in the data during the study.
Reactions to Games and Virtual Reality

The reactions to the video games and virtual reality from *Team Aphrodite* were indicative in understanding the overall experiences for the all-female group in the study. *Team Aphrodite* was the most emotional group and their emotions played a large factor in their reactions to the games and virtual reality. Their thoughts and feelings of frustration, confusion, anger, and excitement were often noted immediately in their reactions to the games they played. When I told *Team Aphrodite* they would start off by playing *Lego Star Wars: The Force Awakens* Lego they were excited, but that quickly faded within a few days. On day three Linda said, “That’s me, the one who gets all excited about something and then realizes I jumped the gun. As a kid, my sister and I played some of the other *Lego Star Wars* games, so I was excited to play when we started, but you can’t bank on the past. That’s what the company wants you think.” The group ran with this confidence until the students all agreed that the older games from *Lego* for *Star Wars* were far better. During the end-of-study interview, Jenna stated, “Linda was so pumped about the game, so it got us all amped up, but the game’s true colors shined. I guess our reactions showed that we were open to being impressed, but our personalities shot it down pretty quick when we got disappointed.”

When the group played *Wayward Sky*, it was clear their reactions to the gaming space depended on the quality of the experience and the connection to the characters. Jenna said, “We weren’t sure if we actually wanted to play, but once we saw Anna having fun we knew the game wasn’t going to piss us off like *Lego*.” The group fell in love with their first virtual reality experience. Linda said, “Virtual reality was a lot of fun, different than I expected.” She later said, “With virtual reality, the actions get really close to your face. That’s what makes it so much fun.” During the first days of gaming on the virtual reality system, I observed *Team Aphrodite* closely.
I reviewed their thought journal entries to make sense of some of the things I was hearing and seeing from the group while playing. It was common to see the whole group looking at the screen, then to the person with the virtual reality headset on, then back the screen, and then back to the person with the headset. They were just as interested in what the player was doing with the headset as they were with what the main character was doing on the screen. Many times, I would look over to see the group in silence, but they were engaged in their gaming experience, and I was left to interpret their facial expressions. Those facial expressions would often be expressed in their thought journals after gaming. Anna stated in her thought journal after playing Wayward Sky, “I’m confused about what gender the main character is supposed to be. I think he’s a boy, but my group thinks she’s a girl, so I don’t know.” During one class period, Anna stared at the screen trying to figure it out all period. During Wayward Sky, Autumn explained in her thought journal why she would giggle to herself as she watched others play. “When we had to throw an object, we looked like idiots but we all just laughed and had fun. When you’re wearing the headset, you can’t see your friends, but they can see you.”

As Team Aphrodite played Bound, their reactions to the game represented their connection and curiosity to the story. Autumn wrote, “Today I feel like playing this game is going to change my whole perspective and thoughts on everything. I saw the boys play it, so we’ll see.” Anna later said that even though she was looking through the headset, she wanted to, “see through the eyes of the character.” She wrote in her thought journal, “Also the perspective is weird in Bound. I like first person point of view more.” To her surprise, on the ninth day of gaming she found out how to change the perspective of the character and that made her happy. Anna wrote in her thought journal, “Today I got to play first but it was really cool because the point of view had changed from the first day I played. I have not played a game where you could
do that before.” While playing both virtual reality games, Jenna claimed the virtual reality headset gave her a small headache if she wore it for too long. Nonetheless, Jenna stated in her thought journal, “Bound is so extremely deep and has a powerful message without words. I just wish it didn’t hurt my head.”

**Style of Playing: Fun vs. Progress**

Making progress was more important than having fun to Team Aphrodite. Even though they had a lot of fun on certain days, their story through the study tells of their struggles they went through to make progress in their games. The group loosened their grip on making progress when playing the virtual reality games, but they still were primarily focused on what was going on in the game and how they were getting closer to the end. Linda once thought she was close to beating Lego Star Wars, but her group was only 23% complete with the game once they returned to the login screen. Linda’s thought journal would dive deeper into her thoughts as she tried to lead her group to complete the game, “We lost all progress today. Our game does not have save points, so we had to stop the level. Today was pretty much pointless.” The group found purpose in making progress, but they were not in competition with anyone per say. It was The Expert Gamers, the all-male group, who were taken back by the fact that the all-female group had out-performed their group when playing Bound. I recall seeing Koby look over at Team Aphrodite who were nearing the completion of Wayward Sky. He tapped Nick and gestured towards the screen of Team Aphrodite. “Are you freakin’ kidding me? Look Koby, they’re already fighting the final robot!” Koby said, “How’s that possible? They probably didn’t have to deal with all the setup like we did in the first day or two.” No matter the reason, it was a shock to The Expert Gamers. Team Aphrodite did a great job at sticking to their game plan of chipping away at the storyline of each game they played. However, Team Aphrodite was also interested in how their
progress compared to other groups, too. At the beginning of the second gaming station with the virtual reality headset Linda wrote, “P.S. Group two is progressing too fast through Star Wars.” She was upset The Comedians had quickly passed their progress by only the third day of gaming at that station.

**Friendships, Social Gaming, and Communication Skills**

Nineteen percent of the thought journal entries from Team Aphrodite involved friendships, social gaming, and communication skills. At the start of the study Anna wrote, “I judged the group I was in. I thought I wouldn’t get along with anyone in this group but I actually am. I am enjoying playing games with these people.” Anna was a kind-hearted girl who did not hang out with Autumn, Linda, or Jenna. Team Aphrodite made friends with one another rather quickly and the group began to work together, even when Anna was participating in the Day of Silence and she could not speak, she gestured and found ways to contribute to her group’s progress. Jenna wrote, “Today, Anna did the pledge of silence for suicide prevention and with that I realized our group didn’t rely on communication that much, but at certain times I saw myself and others struggling.” Team Aphrodite was good at communicating with each other, and they often evaluated themselves about how they were working together and how they were doing in the game. Autumn wrote in her thought journal, “We worked together better than we did yesterday because we actually communicated.” It was clear that the group needed to work on how they interacted with one another so they could communicate more effectively. Jenna wrote, “I think we need to be more interactive with each other while playing. There seemed to be some miscommunication as far as helping today.” Team Aphrodite built themselves into the team they were, and that meant communicating with each other about how they were performing as a group. Anna wrote “I think we are now closer as a team today and not how we were the first day.
of playing.” Linda also wrote about her group, “I also think our team works really well together and we have a lot of patience.”

It was clear from all the data points in the study that Team Aphrodite liked each other and their experiences together. Linda said, “I love working with my group and if I didn’t have that group, it wouldn’t be as much fun.” The fact that the group got along and understood each other was important to the group and it showed the way they treated each other during the study. Autumn remarked halfway into the study in her thought journal how, “Working together as a team has gotten better. We communicate good rather than yelling at each other like we did in the beginning.” This was helpful as communicating well would help them progress during difficult times in their games where yelling and frustration would lead to arguments and lost interest in the game. Autumn said, “We’ve been doing so much better from working as a team to figuring puzzles when we were stuck.”

Strong communication played a large role in the cooperative Lego game and the single player virtual reality games for Team Aphrodite. It was noted on many occasions that Team Aphrodite worked hard to communicate with each other on how to solve a problem or issue in their game experiences. After playing the virtual reality system, Autumn wrote, “In this game we really have to communicate. Having a headset on is way different than just sitting next to everyone with a controller in your hand. For example, when you want the person playing to turn a certain way you can’t just point where you want them to go. You have to say turn left or turn right.” Linda would add to this idea in her writing, “It was also hard to tell the person playing where to go or how to do something.” It was clear the use of prepositions was important when directing fellow group members in the virtual world. Anna wrote, “We had to be able to listen to others and it was a lot harder to do then it was on Star Wars.”
Team Aphrodite was the most emotional group of the four groups and they appreciated each other as a gaming group. It was common for the females to support each other in difficult times when they were frustrated at the game or when they were upset from something that had happened at lunch before class. It was observed that Team Aphrodite would support each other, but would also crumble at the same time when their emotions got too high. When the students took their attention away from the game and focused it on their group’s problems, they changed the way they applied themselves during the class period. Towards the end of the study, there were several days when one of the females came into the classroom with tears coming down her face. The group recognized this and students in the class mentioned it in the audio-recorded interviews. Around the time Team Aphrodite started Bound, Jenna wrote, “Everyone was in a bad mood in my group today which limited conversation and how we work together.” It was true, every time one of the group members were upset the group did not perform to the best of their ability. Autumn wrote, “Whenever one of our group members is sad or something I feel like it’s not as fun and there’s a weird vibe.” Things were at their worst on the seventh day of the second gaming station when Linda had come in bawling. Linda cried in her scrunched up red sweatshirt on her desk as her group played Bound. That day Anna wrote in her thought journal, “Today was a very awkward and somewhat decent day. Linda was very upset today so we all helped her to try to feel better, but it kind of affected the whole group.” Anna tried to be positive about her group when she wrote in her thought journal. Anna wrote, “I wish that we will all be in a good mood tomorrow so we can get stuff done and not struggle as bad today.” The social element to gaming in the classroom was a critical component to the study. Students in Team Aphrodite were there for each other and through their games, they bonded with each other with
emotional support as they experienced the dramas and plots of the games unfold at the same time.

It was easy to see through all the data that Team Aphrodite had utilized each other to get through their literary experiences in class. Jenna stated one day in her thought journal, “We all like know what our roles are now since we’re a good team already.” After playing the cooperative Lego Stars Wars game Autumn wrote, “Part of this game required so much teamwork. You needed to stay alert at all times to make sure you both were on the same track.” Team Aphrodite fed off each other’s energy when they played games and it showed by the way they slowly changed to adapt to the needs of one or more of the group members. Anna wrote, “Linda and I get really focused into the game which actually helps me understand more and not slack off. I need someone like her when I game.” Despite all the negative emotions, there were plenty of moments filled with joy, and that is what kept this group going. Jenna wrote, “I love my group more than the games we play. I know we will have more laughs along the way.” The thought journals and group discussions from the study also illustrated how critical thinking, puzzles, and challenges also played a large role in the way they gamed together in the classroom.

**Critical Thinking, Puzzles, and Challenges**

Even the class knew that Team Aphrodite was going to be analytical about their games and their own group during the study. Dean from The Expert Gamers said, “They’re just going to focus on the game like a machine, watch.” The all-female group was seen by the class as a strong group that had some strong thinkers and talkers in it. Linda was seen by the class as strong analytical thinker. Autumn was seen as a hard worker. Anna was good listener, and these students matched well with Jenna who was both smart and verbose. Team Aphrodite could handle many of the challenges they experienced, and it was usually a team effort to accomplish
some of the more difficult problems and puzzles in the games. While playing *Lego Star Wars*, *Team Aphrodite* complained about the lack of clues they were given in the game, and they often felt clueless about what to do next. Linda wrote in her thought journal, “They spawned us into the middle of a battle. We had no knowledge of the game and it did a poor job of explaining and using hints to help us solve certain problems.” It was during times of frustration and confusion that the group asked each other questions in hopes that it might lead to something. During the first day the group played *Lego Star Wars: The Force Awakens*, Linda said, “How are we supposed to figure this out? We’ve been smashing everything around us for like five minutes, and there is no sign of what we’re supposed to be doing.”

*Team Aphrodite* could critically think while playing their games and it showed in the collected data. Linda wrote in her thought journal how she thought, “The levels are long and challenging. The levels really test your problems solving skills.” Even though the challenges were tough, the students enjoyed being pushed by the game, but not too hard. Jenna wrote, “To think *this is easy*, then be confused, is a weird but satisfying feeling.” Even though *Lego Star Wars* was challenging, it did not bring the group down. Matter-of-fact, they were a little excited about the extra work they had to do. Anna wrote, “I love how yesterday though we had to stay after class to finish everything in our game because we restarted and the level we were doing was really complicated.” The students took ownership of their learning and were proud of what they did. Linda and Jenna were the most critical gamers in the group. These two were able to look at the gaming space in a way that gave them a critical stance. One day after playing *Bound* Linda wrote, “Playing a game is more than a game, it involves your feeling, surroundings, and your concentration. All of those can make a game fun to play or it can ruin your day.” The group knew they were not just affected by the game, but their group, the class, and the world at large.
In the audio recorded interview, Jenna said, “The game is just the beginning. I understand now, but it took a while. I get now why we read books and play games. It’s funny to say that because I’m fourteen, but it’s true. I mean, I hate reading books, and I know why my teachers make us read them. They want us to experience the world. I get it, but those methods don’t really work I don’t think anymore. Look at us!” When Team Aphrodite came to a puzzle in their games, they would take a tactical approach to solving them. While playing Lego Stars Wars Linda wrote, “I look for context clues in the game to find things I might need to break or build. Sometimes the game will use some type of imagery to catch your eye. Like sometimes there will be a shiny thing or some light coming from behind something, and that means you gotta go check it out.”

The group was interested in how the games drew players in with their clues and challenged its players through puzzles. Jenna wrote on the fifth day of the study, “I wanna talk about how my game challenges me and my group. My group, not to brag, but is so smart. They are all so creative and smart so when the game challenges us, automatically we fix it, we know what to do by how good we’ve become at the controls.”

The virtual reality games gave Team Aphrodite some tough puzzles to figure out while they played Wayward Sky and Bound. Not everyone attacked each problem in the game in the same way either, and during the third day of gaming with Wayward Sky, Autumn wrote, “I got frustrated because when I was playing I couldn’t figure out this puzzle. Right when Lauren got on she figured it out. I missed a whole step I guess.” Team Aphrodite observed each other a lot and it was funny to watch the countless times the group waved their hands in front of the person with the virtual reality headset on to see if they could see them. The girls would always laugh and they were curious how they looked with the device on their face. It was the unique perspective on how students saw things and how their unique perspectives led to different
approaches to solving puzzles that arose from the data. Autumn said to Linda, “I just showed you what to do and you got it real quick. Like I loosened the lid for you.” Linda laughed, and rejected her claim and stated, “I am good at puzzles, and you were doing it wrong.” *Wayward Sky* was a great introduction game for the virtual reality unit, but their next game *Bound* would push their problem-solving and critical thinking skills.

*Bound* gave Team Aphrodite the chance to respond to literature in a way that was unlike any of the other games they played. The game was unique because it made the students debate with each other about what was going on in the story. The needed to mediate their understanding through discourse while and after playing, and that reaffirms the ideas of (Rosenblatt, 1976; Gee, 2005; and Hourigan, 1994) that the consumption of literacy is usually a social practice that invokes an emotional response. Since there were very few words in the story, it left much of the gameplay and cut scenes up for interpretation, see Figure 7.2. As the story progressed, the gameplay illuminated the growing plot, characters, and themes. As soon as one of the players in the group got to one of those cut-scenes, which occurred after completing portions of the game, they would all *sshhh* each other to be quiet, then focused on the screen.
Series of Fragmented Screenshots from *Bound*
Autumn said, “Ok, so let’s figure this out, what just happened? Is the main character in real life writing a story, and we’re playing as the story character in the fictional world?” Linda replied, “I think so, the pregnant lady on the beach was sketching in a notepad at the beginning on the beach, remember? So probably. We just need to figure out the story we are playing, and probably why she is thinking about all of this. There has to be a motive. Did you notice how the beads from the mom’s necklace were the same color as the big huge orb-like things we had to jump on in the last level. I’m pretty sure the design is there on purpose but I can’t be sure. Did you guys see that or no?”
Most of the game was split into two worlds, a fictional and non-fictional world, and the game mostly situated itself in the fictional world. It went back to the non-fictional world occasionally with fragmented flashbacks that pieced together over the course of a couple minutes as the player moved throughout the experience with the headset on. The idea during the flashbacks was for the player to slowly infer what was going on based on the fragmented images that were moving all around them to form a still picture that told a story. At first, it was hard to make out what was going on as the fragmented parts rejoined, and this process gave the reader the chance to interpret the scene that was unfolding around them. There were no words to accompany the scene above, but the woman’s beaded necklace was busted and her body language presented her as an angry and threatening woman. The man and the kids recoiled in fear from her actions. Rosenblatt (1976) stated, “The youth senses in himself new and unsuspected emotional impulsions. He sees the adults about him acting in inexplicable ways. In literature he meets emotions, situations, people, presented in significant patterns. He is shown a causal relationship between actions, he finds approval given to certain kinds of personalities and behavior rather than to others, he finds molds into which to pour his own nebulous emotions” (p.42). *Bound*, above all other games, gave *Team Aphrodite* a supreme chance to explore the literature as an esthetic experience that evoked emotions and personal connections to the group. The scenes of parents fighting started conversations not only about their comprehension of the events in the game, but also relative statements that led to short discussions about their lives in general. For example, after watching the cut-scene with the parents fighting, Jenna said, “Look how pissed she is. That would suck if that was my mom.” Autumn then said, “Are they being abused by the mom?” Linda replied, “That’s not how it normally goes down though. So, I don’t think so.” Their exchange demonstrates their personal and emotional connections to the text, and
it shows how students can take the smallest parts of a moment and turn them into meaningful conversations.

Linda said, “These literary puzzles keep showing these two kids unhappy about their family fighting. I am having trouble figuring out how that plays in the storyline. It’s confusing.” Anna wrote, “So what does the pregnant lady on the beach have to do with these flashback things? They have to be related, right?” Jenna replied, “The pregnant lady on the beach is writing a story, and we are playing the story. I don’t know what the cut-scene flashback things are all about, but they seem to connect in a way I guess.”
CHAPTER 8

THE OUTSIDERS

Tony: “I learned so much. Like, I learned that literacy is not just literacy. It’s not just reading and writing and stuff, it’s more like – it goes deeper. Like it goes into the background, the history, like why the game was made and stuff. It’s just crazy to think about how deep it goes and how like one thing can move into another thing.”

Electra: “I agree with you. Honestly, this class helped me more than some other classes would though. Like I said, I don’t need to know how many watermelons Johnny is buying. I need to know how to help Johnny so he doesn’t need to buy that many watermelons because he obviously has a problem.”

(Tony & Electra, The Outsiders, day #25, audio-recorded interview)

Preview of Findings

The Outsiders at first glance could be considered statistical outliers by the way they were perceived by their classmates before the study. They were The Outsiders of the class that were put together from circumstance as a result of making the other three groups. However, by the end of the study, The Outsiders had shown not only themselves, but the rest of the class that they were a force to reckoned with. Uncharted 3: Drake’s Deception and Super Mario 64 were perfect games for this group as it allowed me to see the differences in the way they thought, experienced, and learned while they played. The Outsiders were motivated by progress, and they were motivated to prove to the class that they could out-game any other group. The class was impressed by The Outsiders’ progress, but dismissed their ambitions because most of the other groups were not motivated by progress as much as they were. The thematic analysis of the thought journals indicated that thirty-one percent of the responses related to their feelings and thoughts, see Figure 8.1. Twenty-five percent of their written entries expressed the group’s interest in summarizing their daily progress. Twelve percent of the coded responses related to their evaluations of the game, the group, and the players themselves. A close fourth was friends
and social gaming, followed by critical thinking. Seven percent of their entries related specifically to the theme of fun vs. progress, and of the ninety pages of thought journal entries from *The Outsiders*, only five comments were coded in relation bonding with characters or the game itself. *The Outsiders* were thematically unique from the other groups and their thoughts, experiences, and learning and they depict a group who came together because of the digital texts they shared.

**The Outsiders' Thematically Analyzed Thought Journals from Both Games**

(Figure 8.1 The Outsiders’ thematically analyzed thought journals from both games.)

**Gameplay Summary and Comprehension**

At the beginning of the study, *The Outsiders* were calm compared to how they would end the study. Electra started off the first day of gaming by stating how she had played *Uncharted 3: Drake’s Deception* with her brother, but she didn’t think they beat it. Tony was quick to reply, “I beat this game before, like a long time ago in like three days or something like that.” Electra and Tony were both known for putting their achievements out there for people to see, but it was no interest to the group. Kevin said quietly, “I used to play it, too.” Veronica stated that she had,
“never heard of the game before, but it looked good based off the cover.” Jake had heard of the game, but claimed to have never played it. Going into the first round of gaming, *The Outsiders* were eager and optimistic about their gaming journey. Jake said, “We are going to beat all our games, and the other groups are going to be like how the heck did they finish?” It was true, everyone except for Veronica was progress minded, and they realized this when someone read a quote aloud during the second research meeting. It read, “I only wish we (*The Outsiders*) took the time to watch the cut-scenes, we miss out on a lot of info it seems. I am lost.” The class looked around after it had been read, and Tony asked, “Veronica, was that you because I know we like to skip those a lot?” Veronica blushed and replied, “Yes.” Isaac quickly replied, “Well why didn’t you tell us to stop so you could see it then?” Veronica explained that she had a hard time feeling comfortable enough to say much to her group since it appeared they had more gaming knowledge than she did. She made it clear that she would do a better job at speaking up in her group. *The Outsiders* agreed during the research meeting to play all the cut-scenes for people who had not played the game before. Veronica made it clear in her thought journal entries that she was having a hard time keeping up with the game’s characters and plot development. Veronica wrote, “I’m not completely sure of this guy’s background because we skipped the movie parts of the game, and now I feel so lost.” It was after the sixth day of gaming that Tony confessed to not really having much knowledge about the plot either, but just about how the game went in terms of action and its direction. On the first day of gaming Tony wrote, “So far in the game we have met a new character named Sully. We have learned that the guy we are following left a lot of secrets and other stuff behind.” Tony was unclear about the narrative behind *Uncharted 3: Drake’s Deception* because he had never really focused on it when he played it the first time. However, since he was in a group, he had to take his time and do what the
group wanted, and this may suggest why he started to try and make more sense of the game’s story since he had to slow down as he played. As a few days went on, Tony wrote, “I am still really confused, I heard the enemy talking to Nate and he said not to trust Charlie, but Charlie is still helping us, so I have no clue what side he is really on.” Tony was making an effort to understand more from the game with his group and Kevin would chime in when he could to try and fill in what he knew about the game, but even he was often clueless about it. Kevin wrote, “I had already played this game, but it’s been awhile so I don’t remember everything we need to do. I know there will be a lot of puzzles at the beginning though.” Veronica asked the group on the seventh day of gaming, “Haven’t you guys played this before, how do you have no idea what to do right now?” Jake replied back, “It’s like a book, you have to re-read things to remember things sometimes, I forgot.” That same day after gaming Jake wrote in his thought journal, “Although the story has a criminal and a lot of action to it, I feel like it has a deeper meaning into the characters and how the storyline develops.” I noticed on several occasions that the discourse of The Outsiders turned into fuel for their thought journal writing. The Outsiders summarized their gameplay and the series of events that unfolded each day. Tony wrote, “Today as we were playing we made it to a part where Charlie got drugged and starts seeing some weird things and the girl says he tripping out and that made me laugh.” By the end of the gaming cycle for round one, The Outsiders had completed forty-one percent of Uncharted 3: Drake’s Deception, and they had a good time getting to know each other and the characters in the gaming space.

By the time The Outsiders reached the second round of gaming, they became a solid group who began to work more cohesively together with each day that passed. Their next task for the second round was to play Super Mario 64, and they made it clear from day one that their main goal was to make it further along in the game than the group before them. They wanted to
beat *The Comedians* and their efforts to get as many stars as they could in *Super Mario 64*. It was clear the social element of playing the same games that other groups had played bred competition between the groups in the classroom. However, it was not clear when the class got together to talk about their gaming styles, whose way of playing was better or worse. Was it better to play a game to beat it as soon as possible, or was it better to experience it by playing it at a slower pace? *Super Mario 64* was a good test for *The Outsiders* since most of the group had never played it before. Of course, Electra and Tony stated they knew of the game and that they had played it before. However, Tony was the only one who played it a lot. He said he had gotten all one hundred and twenty stars, but that it was a long time ago. When the group started playing, it was apparent from the group’s thought journal responses that they were keeping close track of their progress each day. Tony started almost every entry with a summary of what his group had accomplished that day, as well as how many stars they had earned. Electra was the same way, and the both of them rarely discussed the plot, and usually focused on their progress instead. During *Super Mario 64* Electra wrote, “We have eleven stars, but it’s only going to get harder.” The group discussed their adventures that got them the stars, but those adventures did not string together to form a narrative in any way. *The Outsiders* focused their writing on their gaming summaries and their actions in the games while they tied in character names and levels into their thought journal entries. In the last couple days left playing *Super Mario 64* Tony wrote, “We only need like two more stars to get more stars than the last group! A lot is happening, and we only have two days left to collect more than them.” *The Outsiders* made quick progress through some of the levels, and others gave them some challenges. Nonetheless, *The Outsiders* got more progress than the group before them, and that made them extremely excited.
This group reached several tough spots in the early levels of *Super Mario 64* that gave them the option to ditch the level to move on to something else, or tough it out. Often, they ran away from their problems until they had to come back to face them. They said it was the most efficient method for getting progress. Veronica said, “The way I see it, it’s like a test, if you don’t get it right away, just move on. Which is funny, because in the real-world you shouldn’t just move on from your issues just cause their tough.” Tony wrote, “Today we attempted to beat the “suislide” as Electra calls it. We almost made it, but we kept getting close and then we would fly off the slide towards the end. I mean, it is made of ice, and come on, the guy we’re racing is a penguin.” There were two straight days of gaming that the group dedicated to beating the penguin, and they would finally fly past him after learning how to pull back on the joystick to slow Mario down on the slide so he could take the sharp turns at the end of the slide, see Figure 8.2.
The group even found shortcuts by sliding off the ends and falling onto lower sections of the slide beneath it, then sliding to the finish line. However, the game knew they had cheated, so it did not award them the star. The students were amazed the game knew they tried to cut corners to save time, and it would not let them get away with it.

Finally, the group got it, but even after the big race and the experience of working together to beat the penguin race level, they were no closer to understanding the story of why Princess was taken away and what Mario’s plans were once he saved her. Kevin wrote in his thought journal on the last day, “Well, we didn’t save the princess, but our story ended happily ever after I guess. That’s all that matters.” This group took agency over what they wanted to do in order to save the princess as their ultimate goal. Jake wrote, “I was not really sure what the game was about, but it was kind of free, but at the same time it wasn’t because you can choose your levels but you still have to bear with it and get your stars.” The Outsiders would collect
thirty-one stars during their ten days playing *Super Mario 64*, and they would outperform the group who played it before them.

**Feelings and Thoughts**

Twenty-nine percent of the thought journal responses from *The Outsiders* were specifically related to their thoughts and feeling about how they gamed during the study. *The Outsiders* had an active voice in the research meetings, and they were verbose about their ideas within their group and in the class. *The Outsiders* knew their group was different from the other groups, and their personalities were very intense, and it gave them a lot to work with. Jake said, “I feel like everyone got to be in the group they needed to be in. I like my group even though I know some of the students in the other groups have a tough time with some of the students in my group.” *The Outsiders* had to work through some things that other groups did not and that showed in the data. Observational notes about *The Outsiders* showed them constantly comparing themselves to other groups and measuring their ability based off their conclusions. This began to grow as the study went on into the second round of gaming. The social element of gaming together brought a wide variety of emotions up for the students in *The Outsiders*. The thoughts and feelings were also compounded by the experience of playing the games together. There were thoughts of boredom, excitement, intrigue, and frustration.

*The Outsiders’* thoughts and feelings from their experiences playing *Uncharted 3: Drake’s Deception* started early on the first day of gaming. Each group assigned their daily rotating gaming roles on the first day, and Veronica was not able to play the first day as she was assigned the scribe. This made her pretty upset, and she wrote in her thought journal, “I never get to be first, I know it sounds petty, but even in a group where I think I have a say, I have none. Guess who’s going to be the scribe and probably get tasked with having to do this every day –
me. I probably got put in this group because Mr. Harvey did not know where to put me. It’s ok, I understand.” Tony shared a similar thought on day seven of the first round of gaming, “It gets very boring when everyone in your group plays two or three times as much as you in a day.” One thing was absolutely clear, the students were excited to play, and they were easily upset when they did not get a chance to play each day. The Outsiders were also honest about their thoughts and that may be what allowed them to connect and learn together quickly. On the last day of gaming, during the first round, Electra wrote, “It seems as if we’re playing the same parts over and over again. The class routine is pretty monotonous: walk in, play some games as always, write, leave, comeback, repeat.” Electra was not afraid to write about her thoughts and feelings, and she was very blunt about it with her group and in her thought journal. Jake was also the same way and he wrote, “When you face something really challenging in the game and you accomplish it you get really excited and it makes you feel like you can do anything.” While playing Uncharted 3: Drake’s Deception, The Outsiders were full of thoughts and feelings that illustrated their differences that separated them from the other groups in the study.

While the students played Super Mario 64, they were thrilled with the openness of the game’s settings. Veronica wrote after playing, “It’s cool that you can roam around and what not unlike Uncharted where it seemed like you didn’t have any options.” The openness of the worlds in Super Mario 64 were talking points for The Outsiders, and they wished that most games were setup like this.” The fun of playing this game gave the group some time to shift their focus from learning the narrative of Uncharted 3: Drake’s Deception, to exploring and completing the individual levels of Super Mario 64 the way they wanted. Jake discussed in the audio-recorded interview about how he enjoyed the open-world format of Super Mario 64. “I was happy to switch to Super Mario 64 because it was nice to do whatever you wanted in a level. I thought
that was the coolest part. Imagine if you could choose to learn whatever you wanted in a class instead of having your teacher tell you want to learn.” Jake’s feelings and ideas were supported by his group and they wondered if high school would give them the academic freedom they desired.

Overall, *The Outsiders* were moved by the study and they hoped this would not be the last time they experienced something like this in their education. Electra said during the final research meeting, “I hope to see more education like this in the future. It was great to be in this study.” During the audio-recorded interview, *The Outsiders* shared their culminating thoughts, and it was clear from their comments the group did not learn as much from the content of the game, but instead focused on how that content transacted with the small group and how they made meaning of their games together. Kevin said, “That’s the thing, teachers think there has to be educational games made for like, let’s say -- social studies, or whatever, and that’s dumb because you get the learning from the game’s experiences that are fun, not the boring black and white educational games. Like games don’t have to be educational, they are already just like anything else. I know I wasn’t here much, but that’s how I feel ya know? That’s like a history teacher only using textbooks about history instead of using other things to teach about it instead. I don’t know how to explain it.” Electra and Tony backed this notion up by discussing the value in the other things they did in their other classes. Electra said, “Who the hell gets to decide what Mr. Harvey does in his classroom? Like why can’t he do whatever he wants as long as he teaches us what we need to know?” Tony said, “Like he has a goal and they just let him do his thing, which I think he already does. I think that’s why like Mr. Harvey is always saying experience is education all the time.” *The Outsiders* were very observant and thoughtful, and that came out in
the data throughout the study. It was The Outsiders’ keen observation skills that may have fueled their evaluative thoughts about the class, the games, and the students who played them.

**Evaluating the Game, Small Group, and Self**

*The Outsiders* evaluated their class, their small group, and themselves, and it helped shape their experience during the study. The small group knew they were different and their reflections about their uniqueness were present in the data. The group members evaluated themselves and each other early on during the first round of gaming. Veronica told her group on the first day of the study, “I’m just going to lay it out there. I have no flippin’ idea what I’m doing ok? Don’t expect much, but I’ll do my very best.” In her thought journal, Veronica evaluated her group and found she was the least experienced with video games, and she felt as if she was the least helpful at the same time, but this changed as she worked with her group over time. As for Electra, she evaluated herself early on as being knowledgeable and a capable gamer. Electra claimed to know of many video games, but explained how she mostly watched her brother play them growing up. She was a useful teammate in the pilot study and she knew her way through *Portal 2*. Jake and Kevin kept their evaluations to a minimum and it was easy for them to say very little over the course of the whole class period. Their evaluations were mostly about the game itself and the group’s social problems. Kevin wrote about his self-worth to the team since he had played games in the *Uncharted* series before, and he knew a little about it, but once the group got to a point he had never been, he acted like he was useless. Jake had also played the game, but said not to rely on him as he had forgotten what to do in the game. When it came to Tony, he evaluated his group members every once in a while, but there were times when he would assess his teammates verbally, and in some cases, he would write about it. Tony wrote, “I think that tomorrow before we start playing I should show everyone in my group the controls
because man they suck at this game!” Tony was very blunt about his thoughts. He would get upset when someone died in any of the games for a silly reason like walking off the edge of the map or jumping into lava or something, and when a level was reaching a tough part and he knew his group might not make it, he would cover his eyes. Near the end of the second round of gaming while playing *Super Mario 64*, Tony wrote, “I think that without me they would not of gotten this far in the game.”

There was no shortage of evaluative comments and ideas from The Outsiders’ data findings. Electra and Veronica would evaluate their peers while they played and they would write about it in their thought journals on a regular basis. Every couple of days one of the females would write a brief evaluative summary in their thought journal about each of the group member’s overall performance. Electra wrote, “I’m so proud of our group. Veronica is a very hardworking player and does what it takes. Jake is a hard worker and never gives up. Tony is so intelligent and funny and did a spectacular job gaming the whole way through. Hell, even Kevin played a large role in our team’s success in *Super Mario 64*, so that’s why we got 33 stars!”

**Bonding to the Game and Characters**

*The Outsiders* bonded with their games and characters in many of the same ways as other groups did in the study. There were instances where the group would like or dislike one character in a game over another because of his/her ability or special power. For example, Veronica would freak out when she turned into metal Mario, which was different from the regular Mario in *Super Mario 64*. When Mario turned into metal Mario, he became liquid metal and that changed his physical properties when he moved around the level, which made him harder to control. That threw off Veronica, and she had a harder time controlling metal Mario which frustrated her. She wrote, “Look, I like Mario, we’ve made a connection, he’s a weirdo for sure. Don’t get me
wrong, he’s a great guy and all, but when he turns into that metal Mario guy, he can be a real pain in the butt, ya know?" I just don’t prefer to play as metal Mario because it ruins it all for me. When it came time to use metal Mario in the game, she would get very upset and pass the controller to someone else in frustration. There were also instances in *Uncharted 3: Drake’s Deception* where it nice to be certain characters because of their attributes, like Nathan. Jake wrote, “I feel drawn into the game when I play because the storyline is fun and interesting how Nate is doing all this and how he’s looking for treasure because he just wants to be rich and have a good life instead of a bad one.” Nathan was seen by Jake as a cool character because, “He can move around and do what he likes, and he has confidence and I’d like to be him because of that.” Other than that, the group really did not connect with any of the characters from *Uncharted*, but they did grow a fondness for Mario and his fictional world.

**Reactions to Games and Virtual Reality**

The Outsiders’ experiences with the video games they played were not out of the ordinary, but the thematic analysis showed they rarely wrote about their reactions to games, but they did talk about them amongst their group and to the class. They were also a little upset because they did not get a chance to play the virtual reality gaming station like two of the other groups were able to do. It was not until the last couple days of the study that *The Outsiders* were able to use the virtual reality system. They were given time on the last week of the study to use the virtual reality system so they could experience it, but they did not get to play a game for the full ten-day cycle. Most of *The Outsiders* reacted to the games and the characters they played by bringing up previous life and gaming experiences, and it was common for the group members to elaborate their ideas afterwards in their thought journal. After playing *Uncharted 3: Drake’s Deception* Jake wrote, “This game brought up when me and my brother would go outside and do
parkour and its really good memories.” Veronica’s was blown away by the difficulty in *Uncharted 3: Drake’s Deception*, but after some practice she got the hang of it rather quickly. Kevin’s reactions to *Super Mario 64* were unexpected, and the group was curious why he did not like the game despite him saying before the study started that he enjoyed playing Mario games. Kevin stated in the audio-recorded interview, “I don’t know, the game’s controls are just too hard to use and it’s tough to control Mario and what he is doing. I kept dying because I couldn’t make Mario do what I wanted him to do.” The reactions to the games and characters from *The Outsiders* led to discussion and experiences in their other classes. Tony wrote, “I learned so much. Like, I learned that literacy is not just literacy. It’s not just reading and writing and stuff, it’s more like – it goes deeper. Like it goes into the background, the history, like why the game was made and stuff. It’s just crazy to think about how deep it goes and how like one thing can move into another thing.” Electra replied, “I agree with you. Honestly, this class helped me more than some other classes would though. Like I said, I don’t need to know how many watermelons Johnny is buying. I need to know how to help Johnny so he doesn’t need to buy that many watermelons because he obviously has a problem.” *The Outsiders* were able to see the bigger picture of their own learning system and how they were fitting into it. The gameplay had helped them see bigger issues in the way they were learning and the idea of what it meant to learn in a group with video games. Their evaluative perspectives led to their style of gaming that made them competitive, strong thinkers, and progress-minded.

**Style of Playing: Fun vs. Progress**

*The Outsiders* were the most progress-minded in the study, and they did not always agree with *The Expert Gamers* about their ideas on how to game. *The Outsiders* believed that making progress over simply having fun in the game was more important, and they wanted to beat the
games as if the ten days were a challenge rather than an opportunity. The first round of gaming provided some clues to this, but it was not clear. When they started with *Uncharted 3: Drake’s Deception*, a leader emerged and they followed Tony’s instructions as they played. It was a tough start and attitudes were sharp about who would play and how. Veronica stayed out of the matter, but the other four rushed into the new game and decided very quickly that their goal was to beat the game. I walked around their group on the first day of gaming and asked them if they had any goals for the study. Jake said, “We just want to beat the games we play.” The rest of the group was fixated on the seventy-two-inch screen, and they nodded their head in agreement. For the remainder of the first round of gaming, they kept a slow but steady pace. They had hoped to get much further, but said they had been spending too much time on the puzzles during the game’s main story, and that held them back from making the progress they wanted. It was a slow progression at first for *The Outsiders*, but as they kept gaming into the second round it was clear that they were progress minded from their writing and their comments during gameplay. It was tough to see the competitive nature of *The Outsiders* during the first round of gaming because I had nobody to compare their gameplay to, and when the second round in the study came, I was able to compare their play to other groups. That marked the turning point for them and there was shift in the way the group as a whole began to focus their attention while gaming. The group went from focusing primarily on game summaries, evaluations, and critical thinking to getting the most progress in their game at whatever the cost.

In 2017, the world record for speed running *Super Mario 64* with all one hundred and twenty stars was in 1:39:28, and even Allan Alvarez the record holder could not have beaten the game in one class period of fifty-seven minutes. *The Outsiders* earned thirty-one stars in their ten days of gaming, and they gamed for about forty-five minutes each day. The progressive nature of
The Outsiders was not realized until the third research meeting when students began responding back to each other. Dan read Tony’s thought journal entry about him talking about how they were going to beat the group’s progress in Super Mario 64, which was Dan’s group. Dan replied with this sharp and straight-forward response, see Figure 8.3. He was concerned that their goal of beating his group’s achievements would mean they would lose out on having fun. This argument lasted several days between The Comedians and The Outsiders.

Dan’s Thought Journal

(Figure 8.3 Dan’s reply to Tony in his thought journal about having fun while playing.)

As the second round moved towards the end, The Outsiders and The Comedians wrote a lot about their ideas related to having fun versus making progress and what was more important when played and why. Electra wrote, “Why do people think we’re not having fun doing the main objective in the game? The main objective is what intrigues me and draws me into the game! It’s absolutely awesome trying to get stars because of instead of wandering we have reason for adventure.” The class was aware of Electra and her group’s way of thinking and they wanted to
know more. Jenna wanted to know what the issue was all about so she asked *The Comedians* and *The Outsiders* to talk about their problem during the fourth research meeting. Tony stated his views, and then Darrell stated his about having fun and the other groups were supportive of both ideas as they were in the middle of the fun vs. progress spectrum themselves. Electra said, “Dan said he thought we were just doing it for the stars, but no, getting the stars is how we have fun.” After the fourth research meeting, *The Outsiders* began to have more fun and Dan got another chance to read and respond to Tony about his fun versus progress ideas, see Figure 8.4.
Tony’s Thought Journal

(Figure 8.4 Tony’s thought journal with a response from Dan about having fun while playing.)

That same day, the rest of the group wrote the same things in their thought journals, as if to prove a point. Electra wrote, “WE ARE HAVING FUN. Yeah Dan, hard to believe, shocker haha.” Veronica wrote, “P.S WE ARE HAVING FUN! Why does everyone think we’re not?” Finally, Kevin wrote, “WE ARE HAVING FUN! P.S Tony came and made me write this.” The responses from students back to The Outsiders were positive, and they encouraged The Outsiders to have as much fun as they could while making some progress at the same time. The Outsiders were able to achieve their goal of getting more than twenty-seven stars, which The Comedians had achieved. Tony wrote, “We got all of the things that I wanted us to get done today. As soon as we hit thirty stars we can fight Bowser again. I can’t wait. I know we can make it as a group.
I’m proud of the learning in my group. I feel like my group has what it takes.” *The Outsiders* managed to accomplish their goal and have fun by the end of the study.

**Friendships, Social Gaming, and Communication Skills**

*The Outsiders* thought of themselves as the group that did not fit in with the others, and Tony said on the first day of gaming, “Ahhh, I see, you put us all together to see what would happen, huh? You asked for it Mr. Harvey.” He was correct, I wanted to see how all the class outliers would do with each other in one group. It was not like they were going to argue and fight the whole time, the group was full of hard workers who also knew how to have a good time. Electra wrote, “There are some jokes and humor to prevent the seriousness level from going to high in our group.” When *The Outsiders* reached a point when they were frustrated, it would often turn into laughter from something or other. *The Outsiders* did not argue much in their group, and when they did, it was over decisions that were being made in the game when someone could not control the other player’s actions. Tony and Electra were verbose and energetic and their previous outbursts and actions throughout the year suggested they might cancel out each other’s energy, and they did. Electra wrote on the last day of gaming, “It’s a great learning experience for all of us and Mr. Harvey made a good decision putting our group together.”

*The Outsiders* came together like the last few pieces of a puzzle, and it was not clear from the beginning if their group would ever work out. While playing their first game, *Uncharted 3: Drake’s Deception*, the leaders were Jake and Kevin, and that put Electra, Veronica, and Tony on the backburner compared to their gameplay with *Super Mario 64*. *The Outsiders* played *Uncharted 3: Drake’s Deception* before they played *Super Mario 64*, and this gave some of the group members a chance to contribute to the small group in different ways. Veronica was the
only teammate who had never played either of the two games, but it was not a problem for the group. Electra wrote, “I feel we have very logical teammates. I’ve been helping Veronica understand the controller more and we have been progressing.” The team was helpful when it came to having patience for players who did not know what to do. On the first day that Veronica was gaming, Kevin presented the controller to Veronica and slowly went over the buttons. Kevin said, “Look, I know it’s a lot of buttons to remember, but you got us to help you, and who cares if you mess up. It’s a game.” The group was very helpful to each other and it was clear from their first ten days with *Uncharted 3: Drake’s Deception* that they were going to be able to work together on the next game as well. When someone was missing from the group, especially a leader, it was apparent in their writing that it affected their gaming session. Electra wrote, “Without Kevin we don’t have all our resources but that’s ok. We’re having a lot of fun and I enjoy that.” With the absence of Kevin, there was a controversy over the decision-making process in the group. For example, Electra wrote, “I said to keep the rapid-fire gun but instead Jake made us get a gun that you can only shoot twice because he said he was “better with it” and everyone else would have been able to take advantage of it, but nooo. *Rolls eyes.*” Without the most experienced player, Kevin, the group was left to dispute their gameplay choices which sometimes led to frustration. *The Outsiders* turned out to be very social and their behavior indicated a group who was ready to take on anything. The discourse of *The Outsiders* represented a fierce and strong group who were able to handle social dilemmas and mitigate tough problems that required critical thinking skills.

During the school year before the study, Veronica, Tony, and Electra were in different groups for different activities, so they did not have much time to work together. Electra and Tony were both outspoken individuals who usually took over any conversation they participated in.
However, when these students were together, they canceled each other out. They embraced each other’s audaciousness and it seemed to work for them. When there were problems, something was said and done about it right then and there, which was unique from the other groups who would often deal with their problems by writing about them instead of fixing them on the spot. *The Outsiders* were not perfect by any means, and there were times that the group wrote about their problems instead of fixing them, too. While playing *Super Mario 64*, Jake wrote, “I felt frustrated with the lack of teamwork today. It’s good, but today everyone was tired and I think we just didn’t talk as a team much. I felt like Tony just takes overs and instead of guiding us through the game he tries to take it and that’s not good because teamwork is being helpful to each other.” *Super Mario 64* gave the group the most to talk about. Since the non-linear path of the game gave way to a variety of options about how to play and what to do, it bred some interesting issues for the group to solve. Plus, Tony and Electra were the only players who had played the game before, so it made them leaders in their group. Jake and Kevin were often quiet when the group started to deliberate something and they usually went with whatever the group said. Not only did Kevin and Jake not say much, they were also lazy in the eyes of Tony who was trying his hardest for his group to get the most stars out of any group who played *Super Mario 64*. Tony wrote, “What really irks me is that some people think they don’t need to do research, but I’m not going to tell them where the starts are much longer, and they will need to learn by themselves. I know the real-world will have lots of this so – yay :)” Electra was on board with Tony’s gaming style and wrote, “I gotta research and focus as I am 2nd player tomorrow and I need to be something other than comedic relief.” With the vested interest from Electra, Tony wrote, “Nobody listened to me today but Electra, I don’t know what kind of la la land they think they are living in.” That same day Jake wrote, “I think we should fix the yelling
and controlling of the group, but we can keep talking about what levels to do and how to do them.” That same day Kevin wrote, “I didn’t play today but I noticed a lot of stress from the group members because they were getting stuck. I was like calm down, it’s Mario were talking about, like come on.” It was easy to see that both Tony and Electra were motivated to make the most progress, but Veronica, Kevin, and Jake were along for the ride, but did not share the same zeal as their group leaders. During Super Mario 64 when Kevin, Veronica, or Jake would get the controller, they would often leave the level they were on when they passed the controller so they could go where they wanted in the game instead of picking up where the last person finished. That perturbed Tony and Electra. Nonetheless, they would get over it and began assisting them in whatever they wanted to do after a few minutes went by. One favorite of the group was the penguin slide race which seemed to haunt the group for days as they could never beat it. Jake was so obsessed with it that at one point he drew out the course of the slide on a piece of paper to analyze it as if he was planning a bobsled run with his teammates. Jake said, “Ok, here’s the deal, the turn six gets crazy right here, you see, we can’t go so fast here because we lose control, so pull up. We have to manage our speed going into turn six so we can adjust for turn seven and eight because that’s what always gets us. How could this be so hard. Come on guys.” When Jake finally beat the penguin slide race he was so excited he threw his hand up and cheered, and at the same time, he accidently ripped the controller chord out from the console, which rocked the console off the desk and it fell to ground and the system turned off. The group was shocked and they all turned and looked at me. Jake quickly said under his breath, “Oh shit!” Luckily, I had been watching the group from across the room when this happened so I knew what was going on and I calmly came over to assess the damage. The group was more hurt than the equipment at the thought of losing their progress. The time it took to get the console back up and running and into
their saved game was the longest several minutes and the group rejoiced to find the game had saved their progress. Moments like this synched the cohesiveness of the group as they felt their experiences had made them the group they were. Kevin said during the interview, “We’re the tough group right, I mean look at us and what we have been through. We could play any game huh?” *The Outsiders* turned out to be very social and their behavior indicated a group who was ready to take on anything. The discourse of *The Outsiders* represented a fierce and strong group who could handle social dilemmas and mitigate tough problems that required critical thinking skills.

**Critical Thinking, Puzzles, Challenges, and Questions**

The thematic analysis of their thought journals made it clear that *The Outsiders* were able to see the imbedded learning in the games they were playing. It was refreshing to overhear the group discussing the possible designer’s intentions in both *Uncharted 3: Drake’s Deception* and *Super Mario 64*. Their conversations about critical thinking, puzzles, and challenges were on point with the level of sophistication that other groups had achieved from their thoughts about their game’s challenges. While playing *Uncharted 3: Drake’s Deception* Jake wrote, “I think the game teaches us to keep trying because when we fail we feel like giving up. It tries to help you keep moving just like in life. Games don’t make you feel as stupid as my math textbook makes me feel.” *The Outsiders* could look at their learning in relation to their current lives, like what it feels like to fail in math and how that feeling is nothing like it is to fail in a video game. *The Outsiders* were challenged by their games in different ways, and it was easy to tell from the amount of responses related to critical thinking and challenges that the students were actively thinking about themselves as players and how they fit into the gaming space that the game designers had made for them. After playing *Uncharted 3: Drake’s Deception* Kevin wrote,
“What I think this game is saying about life is that people are not all nice. People can be mean like the secret agents in Uncharted 3. When it comes to talking about life, the creators are trying to say it’s not always going to be perfect and peaceful. You never know who to trust; look at other country’s governments.” The students were connecting their thoughts from the gameplay to their lives outside of school. While playing Uncharted 3: Drake’s Deception, I asked Tony if the main character was immoral for stealing and raiding treasure that belonged to others. Tony wrote, “In a way it kind of depends on the reason someone is doing evil. Some may see themselves as good and others as evil when they think opposite. It really just depends, you have to look at Drake’s full story, you could take it both ways. Sure, he’s a criminal, but people who steal probably don’t do it because it’s fun. It comes from their personal struggles that nobody may understand.” Thoughts like this were indicative that triple AAA thriller games can give students the chance to critically think about a character’s motives in relation to how people act in the real world. Tony wrote, “I saw this show on Viceland, like it’s not bad or anything, and it talks about why people sometimes have to do what they do to survive, and sure it’s not pretty, but what would you do if you’re back was up against the wall? Like, how are you supposed to plan you’re going to end up being a thief one day? You don’t.”

The group also commented on the game’s design and the challenges they encountered while they played. Jake wrote after playing Uncharted 3: Drake’s Deception, “I think the creators wanted us to learn problem solving because most of this game required you to solve problems, and this game challenges me in the area of hand-eye coordination and timing. In timing, it is because you have to time when to jump and turn and everything is mostly on timing.” Jake also wrote, “I think the game helped me in observation and problem-solving skills and you need those things in life. I also think that all the action in the game brings out more fun
and makes the game more engaging.” Jake’s thoughts about his gaming experiences reflected an observant player who was thinking about his own thinking while playing, which represented mindful behavior. Tony could relate his experiences with *Uncharted 3: Drake’s Deception* with the games he had played previously at home. Tony wrote, “This game kind of reminds me of *Assassin’s Creed* because we can climb buildings, kill people, and do impossible things.” Tony was able to notice patterns in the gameplay and he commented about his thoughts in his writing often. Tony wrote, “I was confused because of the puzzles that we had, angry because of the fact that we had so many, and annoyed because they took so long.” He wasn’t the only one in the group that noticed the puzzles and challenges in *Uncharted 3: Drake’s Deception*. I noticed that most of the group was aware of the growing difficulty of the puzzles and challenges. Kevin wrote, “What’s funny about relating this to books is that a book doesn’t get harder to more you read it. That would be awful. But games do this, like *Uncharted*, the puzzles get harder and harder.” Even Veronica began to chime in about her thoughts on the puzzles and challenges. Veronica wrote, “I realized this game is becoming a puzzle game, but not a very serious one. I felt this made the game punishing/not/challenging!” She was relating what she had learned from a YouTube series we had watched in class on video games and learning from earlier in the year. It was not just the games that challenged her either. Her group would motivate her curiosity about her own potential as a gamer. Veronica wrote, “I watch in awe as the boys played today. That made me think, could I have perfectly completed the level as they did! Would I feel the same way? Would I succeed in the same way?” Veronica wanted a piece of the action and she wanted a chance to complete a puzzle and to get some high fives from her group, too. I recorded in my observational notes about the competitive appetite that Veronica began to acquire as she started to taste power of her own accomplishments in her group. The challenges and puzzles
found in *Uncharted 3: Drake’s Deception* were great learning opportunities for the group, and it showed in the way the group would methodically dissect a puzzle to solve it. Electra wrote, “The puzzles are getting trickier, but that’s the fun in it right? If this game was all shooting that would get pretty boring. Humans like to think, not just run and gun in games. I mean, I think that’s true.” The Outsiders’ experiences with *Uncharted 3: Drake’s Deception* were significant because they illustrated how good commercial games could challenge students to solve problems and to work together towards a common goal.

*Super Mario 64* did not warrant any comments about critical thinking. *Super Mario 64* surely challenged *The Outsiders*, but they did not write about it. It was observed that *The Outsiders* faced challenges differently when playing *Super Mario 64*. There was little teamwork required for players to overcome challenges, and if there was assistance to be given it came in the form of someone saying, “Here, let me do it.” There were few puzzles to solve, and players were often left to navigate the levels however they wanted without much forethought.
CHAPTER 9

THE CONCLUSION

The purpose of this research study was to learn more about how students experience video games in the classroom when they treat them as literature. The idea of using video games and virtual reality to bring students together in the language arts classroom with transactional reader-response was new. It connected the fields of media literacy and game-based learning together as important fields to think about when looking at how students experience digital texts in the classroom. The way students read and write in the world has evolved, and this study illustrates the way groups of students make meaning from the virtual worlds they explore when they treat video games like literature in the classroom. This chapter will address the research study’s main question, sub questions, and key findings. The literature review chapter covered four main components to this study, transactional reader-response, GRAD Framework, experiential learning, and game-based learning as the underlying theoretical framework. These four main components will be re-addressed with the present data to further the body of knowledge in these areas, see Figure 9.1.

Theoretical Framework for the Study

(Figure 9.1 Theoretical framework related to the study.)
Main Research Question

How do my students experience, think, and learn with console gaming as members of small groups when they treat them like literature in the classroom?

Sub-Questions

When asked to respond to their gaming experiences in writing and discussion, on what did students focus?

What meanings did the students create in relationship to the five video games?

What similarities and differences were evident across and between the various games and groups?

As a language arts instructor and an experienced gamer, what did I notice about group interaction and interpretation of the games?

Summary of Each Small Group’s Findings

Expert Gamers’ Findings

After looking at *The Expert Gamers*’ data, it was clear they were critical thinkers who used their existing friendship to their advantage, and the social nature of *The Expert Gamers* showed in the thematic analysis of their thought journals. The other sources of data support what the thematic analysis uncovered from the thought journals. Twenty-seven percent of *The Expert Gamers* discussed their feelings and thoughts, and twenty-five percent of *The Expert Gamers* discussed the daily progress and comprehension of the digital narrative after they played. Seventeen percent of the group’s thoughts were about critical thinking after they played games. *The Expert Gamers* were a solid team, and they never needed help from me during the study.
During the research meetings, *The Expert Gamers* took them seriously, and they wished they were longer so they could learn more about how other groups were experiencing, thinking, and learning using video games in the classroom. *The Expert Gamers* were an all-male group comprised of console gamers. They worked well with their friends, and it was better to place these students with their friends instead of separating them from each other.

**Highlights from Findings**

- *The Expert Gamers* wrote about their thoughts and feelings after they played twenty-seven percent of the time.
- *The Expert Gamers* critically thought about their gaming experiences in their writing twenty-six percent of the time.
- *The Expert Gamers* learned how to better communicate with each other from the use of the virtual reality games.
- *The Expert Gamers*’ written responses related to their progress and comprehension of the games they played twenty-six percent of the time.
- Students grew closer to game’s story from the use of the virtual reality experience.
- *The Expert Gamers* used their prior knowledge and gaming experience to make informed decisions, as well as gamer-specific discourse to navigate when they played, i.e. backseat gaming.
- *The Expert Gamers*, an all-male group, did not progress as far in *Bound* as the all-female *Team Aphrodite*.
- *The Expert Gamers* progressed further than *The Outsiders* in *Uncharted 3: Drake’s Deception*. 
**The Comedians’ Findings**

*The Comedians’* story illustrated an all-male group of gamers who did not know each other very well before the study, and because of the games they played, the discussions they had, and the writings they composed, they learned a lot about themselves and how to work with others towards a common goal. Thirty two percent of the thought journal entries related to feelings and thoughts. Nineteen percent related to game summaries and the comprehension of the video game’s events. Sixteen percent related to the evaluation of the games, group, and self. It was noted *The Comedians* did not express much interest in bonding with the games or characters. *The Comedians* played *Super Mario 64* first, then *Lego Star Wars: The Force Awakens*. The group wrote in their thought journals that both games did not have enough depth or meaning to them to be considered as works of literature. *The Comedians* believed *Super Mario 64* lacked a solid narrative platform and *Lego Star Wars: The Force Awakens* did a poor job of building a story and foundations for character development. *The Comedians* illustrated a small group who applied their prior knowledge and video game experience to the games they played in the classroom. They expressed their thoughts, experiences, and learning from both games using all the data points.

**Highlights from Findings**

- *The Comedians* wrote about their thoughts and feelings after they played thirty-two percent of the time.

- *The Comedians* evaluated their gaming experiences in their writing sixteen percent of the time.

- *The Comedians* learned the value in collaboration and socialization when they gamed, and they wrote about it fourteen percent of the time in their thought journals.
• *The Comedians*’ written responses related to their progress and comprehension of the games they played nineteen percent of the time, and one percent of the time it related to bonding to the game and characters.

• *The Comedians* wrote about friendships and social gaming experiences fourteen percent of the time.

• *The Comedians*, an all-male group, progressed further in *Lego Stars: The Force Awakens* than the all-female *Team Aphrodite*.

• *The Comedians* did not progress as far as *The Outsiders* in *Super Mario 64*.

• *The Comedians* wrote about having fun vs. making progress in the game six percent of the time, but they frequently discussed this theme during the research meetings, when they gamed, and during their end-of-study interview.

• They believed having fun when they played was more important than making progress in the game.

**Team Aphrodite’s Findings**

*Team Aphrodite* went for a bumpy ride during the study and it was up and down with their performance, but it was slow and steady with their progress. The group’s thoughts, experiences, and learning surfaced through the themes found in their chapter. Nearly a third of *Team Aphrodite*’s thought journals entries were related to their feelings and their thoughts during the study. They were a very caring group and they were open about their feelings with the games. They also summarized their gameplay and progress about twenty percent of the time in their thought journals. The third highest represented theme found in the thought journals for *Team Aphrodite* was friends and social gaming. Each member of *Team Aphrodite* wrote about their growing relationship and their social nature as a team during the study. *Team Aphrodite* worked hard every single day and they had a good time doing it. There were times where
emotions were high, and the group was confused and frustrated, but overall, they managed to pull through. *Team Aphrodite* showed just how important the social element to gaming really was to them with all their examples from when they needed each other to understand the plot, to get through puzzles, and to discuss things that were brought up during gameplay. The small group and the games were places where they could deal with their personal issues from outside the class, too. For Team Aphrodite, the great thing about gaming in the classroom was they could talk and game at the same time, and that meant a looser structure for natural learning that stemmed from their conversations while the gamed. Their group was the most vocal about giving directions and supporting one another while they played. It was clear from their cooperation they could overcome anything, if they had the time. *Team Aphrodite*, the all-female group, progressed further in *Bound* than the all-male group who played it. During the end-of-study audio-recorded interview, Autumn said, “So does this mean we’re gamers now?” Jenna replied, “Yeah, I think so.” The group had grown and the way they viewed themselves had also changed.

**Highlights from Findings**

- *Team Aphrodite* wrote about their thoughts and feelings after they played thirty-two percent of the time.
- *Team Aphrodite* critically thought about their gaming experiences in their writing eight percent of the time.
- As novice gamers, *Team Aphrodite* quickly learned how to play all three of their games.
- *Team Aphrodite* bonded with the games and characters more than any other group, but they only wrote about it six percent of the time in their thought journals.
- Virtual reality helped *Team Aphrodite* connect with the video game stories and characters.
• **Team Aphrodite** expressed significant interest regarding their friendship and their collaboration when they played.

• **Team Aphrodite**, the only all-female group, progressed further in *Bound* than the all-male group, *The Expert Gamers*.

• **Team Aphrodite** did not progress as far as *The Comedians* in *Lego Star Wars: The Force Awakens*.

• **Team Aphrodite** completed *Wayward Sky*.

### The Outsiders’ Findings

*The Outsiders* at first glance could be considered statistical outliers by the way they were perceived by their classmates before the study. They were *The Outsiders* of the class that were put together from circumstance as a result of making the other three groups. However, by the end of the study, *The Outsiders* had shown not only themselves, but the rest of the class that they were a force to be reckoned with. *Uncharted 3: Drake’s Deception* and *Super Mario 64* were perfect games for this group as it allowed me to see the differences in the way they thought, experienced, and learned while they played. *The Outsiders* were motivated by progress, and they were motivated to prove to the class that they could out-game any other group. The class was impressed by *The Outsiders*’ progress, but dismissed their ambitions because most of the other groups were not motivated by progress as much as they were. The thematic analysis of the thought journals indicated that thirty-one percent of the responses related to their feelings and thoughts. Twenty-five percent of their written entries expressed the group’s interest in summarizing their daily progress. Twelve percent of the coded responses related to their evaluations of the game, the group, and the players themselves. A close fourth was friends and social gaming, followed by critical thinking. Seven percent of their entries related specifically to the theme of fun vs. progress, and of the ninety pages of thought journal entries from *The
Outsiders, only five comments were coded in relation bonding with characters or the game itself.
The Outsiders were thematically unique from the other groups and their thoughts, experiences, and learning and depict a group who came together because of the digital texts they shared.

Highlights from Findings

- The Outsiders wrote about their thoughts and feelings after they played thirty-one percent of the time.
- The Outsiders evaluated their gaming experiences in their writing twelve percent of the time, and often discussed their evaluations together as they gamed.
- The Outsiders critically thought, spoke, and wrote about their ideas from the games they played.
- The Outsiders built a common understanding of each other and they progressed through their games at almost the same pace as groups who were already friends before the study.
- The Outsiders concluded that video games should be used in a variety of classrooms in high school to further their learning.
- The Outsiders wrote about having fun versus making progress in their games more than any other group.
- The Outsiders involved themselves in many verbal disagreements with The Comedians and the class during the study about making progress over having fun in their video games.
- The Outsiders progressed further in Super Mario 64 than The Comedians.
- The Outsiders did not progress as far as the other all-male group, The Expert Gamers in Uncharted 3: Drake’s Deception.
How Did Small Groups Respond to Video Games as Literature?

Each group was unique, but the combined data from all the group’s thematic analysis gave a clear depiction of how they responded to video games as literature in the study, see Figure 9.2. Thirty percent of the small group’s thoughts journals related to their feelings and thoughts. Twenty-two percent related to the summary and comprehension of the games they played each day. Fourteen percent of the thought journals related to their friendships and social gaming. Eleven percent related to the evaluation of the game, group, and students. Another eleven percent related to the critical thinking, puzzles, and challenges the groups faced. Five percent of their responses related to their reactions to the video games and virtual reality system. Four percent related to the amount of fun the small groups were having versus the progress they made in their games during the study. Last, three percent of the responses related to bonding to the characters and the games themselves.
Combined Thematic Analysis of the Whole Class

(Figure 9.2 The thematic analysis of all the group’s thought journals combined.)
All Four Small Groups and their Thematic Analysis

(Figure 9.3 All the small group’s thematically organized thought journal responses.)
Small Groups and Their Responses to Video Games as Literature

Nineteen students split up into four different groups and they played two games each for ten days while they responded to reader-response questions in their thought journals after they played each day. Every five days they would come together to talk about their experiences as a class to find some common themes across the class. At the end of the study, each group conducted their own audio-recorded interview with their overall thoughts. After the study, I thematically analyzed over four hundred pages of thought journals in conjunction with the audio-recorded interviews, observation notebook, teacher reflection journal, gaming logs, and research meetings. In doing so, I wanted to know more about how my students experienced, thought, and learned while they treated video games as literature.

The small group responses to their video games pointed out some interesting details about how my students made meaning from their video games as pieces of literature. Each group’s thematically organized thought journal data addressed the eight themes represented in the study in relatively similar ways despite each group not being able to play every game used in the study. When it came to the feelings and thoughts of the small groups from the video games, the highest represented percentage was thirty-two percent and the lowest represented percentage was twenty-seven percent. This indicates that each group was affected by their games, whether they liked them or not. All the games in the study evoked an emotional response from the groups, and those feelings and thoughts were the largest represented theme in each small group. This may exemplify the groups’ aesthetic stance towards the games they played. It also points to how each group was affected by the games they played on a daily basis from the large number of recorded responses that related to their feelings, thoughts, and emotions.
Across all groups, the second largest represented theme involved the daily summary and comprehension of the gaming space. When it came to the small groups’ summary and comprehension of the video games they played, the highest represented percentage was twenty-six percent and the lowest represented percentage was nineteen percent. This indicates that each group found it important to summarize the daily events from their gaming space. Each day the students were interested in keeping track of the plot, setting, characters, theme, and conflict in their games. They found it important to record small details and new information in their thought journals, and someone in each group summarized their daily progress in some way whether there was a developing plot, setting, conflict, theme, or character present or not. I never asked for this, and it may have come from their previous language arts experience that could have stressed literary comprehension as an efferent stance on literature which demanded they take away something from the text after they read it, so be it a simple fact or the progression of the storyline through small details.

The other analyzed themes (evaluation, critical thinking, friendships and social gaming, fun versus progress, reactions to games, and bonding to the game and characters) were recorded less than game summaries and feelings and thoughts. However, these themes were important in uncovering the way the small groups treated their video games as literature. Using the efferent and aesthetic stance on reading continuum from Rosenblatt (1994), I wanted to know how the small groups’ responses fell onto the continuum with their themes.

The Small Groups’ Responses and the Efferent and Aesthetic Reading Continuum

The small groups’ responses to their video games as literature helped uncover their interpretative stances towards the medium. As each group played their game for ten days, they interpreted them in different ways. These interpretations took different stances on the literary
event, and Rosenblatt’s work lent itself to better understanding how the players positioned themselves when they made meaning in the gaming space. When students played in their groups, they interpreted the literary events in their own ways, and each group varied in their interpretations. The game itself did not dictate the literary experience. Instead, the gamers and their group took stances on the game based off their lived through experiences and the information they took away from playing the game.

These gaming stances indicated a relationship between the game and the gamer, and it also provided a window into the interpretive processes students went through as they transacted with the text. These experiences with the video games as literature were indicative of the reader-response theory that readers naturally take certain stances on literature based on their own meaning making process. As students lived through some of the gaming experiences and took away information from others, they were given agency to interpret the game as they pleased. This parallels with the aesthetic and efferent reading continuum from Rosenblatt (1994). The student’s lived through experiences while gaming aligned with the aesthetic stance on reading and the information that students took away from their gaming experiences aligned with the efferent stance on reading. The data from the students illustrates this point from the thematically organized thought journal responses.

The thematic analysis with the combined data from the whole class illustrates how their experiences fell onto the continuum of efferent and aesthetic stances with video games as literature, see Figure 9.4. The thematic analysis of the small groups’ responses to video games as literature illustrated the different stances they took when reading. No matter the game, gaming console, or group, students approached their experiences, thoughts, and learning from two different stances on the continuum when looking at the eight presented themes from the study.
The themes representing the efferent stance on reading were (game summaries and comprehension, critical thinking, puzzles, and challenges, and evaluation). The themes representing the aesthetic stance on reading were (feelings, thoughts and emotions, friendships, and social gaming, reactions to video games and virtual reality, fun versus making progress, and bonding to characters and the gaming space). There was one stance that prevailed as the most represented stance, and that was the aesthetic stance which represented fifty-six percent of the whole class and their thematically organized responses. Forty-four percent of the whole class thematically organized responses related to the efferent stance of reading. This shows the range in how individuals approach a text much like Rosenblatt (1994) believed. This study helps show the range in the way readers experience not only print-based texts, but digital texts as well. This study primarily illustrates an aesthetic stance on literature that was based on the student’s feelings, thoughts, emotions, and connections with the text based off social evocations. However, students also took an efferent stance on their literature by picking up facts, recording details, and solving puzzles and mysteries related to the text.
Continuum of Efferent and Aesthetic Stances on Reading with Class Thematic Analysis Data

(Figure 9.4 Continuum of Efferent and Aesthetic Stances on Reading with the combined thematic analysis data from all groups separated into each reading stance.)

What I Learned as a Gamer

As a gamer, I reflected throughout the study about my own gaming experiences to get a better understanding about how my students might have been thinking, experiencing, and learning when they played their video games. I thought about the times I had felt completely immersed in the gaming worlds I had played in and how I felt like I was playing a story as if I was reading a book or watching a movie. I wondered if my thoughts about playing games related
to what the students were feeling when they played their games in our classroom. As I shared this thought during the third research meeting, the class agreed with me and confirmed I was not alone. The class believed that the game designers of today were the new authors of tomorrow, and the most immersive stories of the future would come in the form of digital storytelling. As a gamer, it made sense that the stories I had played on the consoles growing up were different than the print-based stories I had read at home or in school. Tod asked me during the third research meeting, “What was your favorite story growing up? Was it one that you followed the character around, or was it one that you led the character around yourself?” It took me by surprise, and I did not know how to answer it at the time. I said, “I am not sure to be honest.” After thinking about his comment, I wrote about it in my teacher reflection journal later that day. I thought about what it meant to follow the author, or authority of the text, and how many games give the player the authority to do as they please in the story, even if what they decide to do does not progress the story forward. I realized I liked having control over the text, and I thought back to the most recent game I had played, *Nier: Automata*, which gave me the chance to experience up to twenty-six different endings depending on the choices I made in the game. I enjoyed guiding myself through the digital text, and I enjoyed reading it at my own pace with my own style. This realization aligned with my findings in the study that students navigate through digital texts in their own ways, as expressed in thematically organized thought journals and other data points. I realized many of my students may have connected to the games they played because of the agency, emotions, and personal connections they made towards the games they played in their small groups.
What I Learned as a Researcher

As a researcher, I realized there was much more to explore surrounding the topic and use of video games as literary tools in the classroom. This study scratched at the surface of using video games as a medium for exploring stories in the language arts classroom. The use of the virtual reality system gave students the chance to explore new spaces of literacy. The advances in augmented and virtual reality are creating new opportunities for educators and students to explore the scene of new literacies and game-based learning. The question is how will these changes in technology affect the way students learn in and out of school? How will the education systems adapt to the new literacies that their students are using at home, but not in school? More work needs to be completed to better understand how to harness the learning potential out of games that already exist with technology that is not new to society at large, but new to educational classrooms. The use of reader-response in this study aimed to give researchers some basics to think about, and more work needs to be completed to better understand how students respond to video games as literature in the classroom. In this study, small groups of students thought, experienced, and learned from the video games they played, but it was a limited sample size of students and they only used five popular games from four different popular consoles at the time. There will need to be more research in the way students use virtual and augmented reality to think, experience, and learn in the classroom. Since there is a connection between video games and literature, it makes sense to further explore the latest video games and technology and their relationship to how students interact with digital texts in a variety of digital spaces. Those who teach language arts should entertain the idea of creating literary spaces from digital mediums that harness the power and pleasure of video games.
A recent meta-analysis of literature on the subject of video games and learning from (Ke, 2009) revealed weaknesses from previous studies, and I tried to address these weaknesses in my study. Some of these weaknesses were that many of the studies did not last very long, and most lasted about a one day or two. It was also noted that in most studies players played their video games for short amounts of time, and the research about games and learning did not occur in a classroom or even with a class of students. Many studies involved after school clubs which delineated from the overall point of the study, which was to model effective instructional strategies for use in the classroom. The weaknesses from the reviewed studies highlighted the strengths in my methodology. My study gave students more time to play games and create data than any other study by giving them twenty-five consecutive days with an hour per class to conduct the study. My research also stands out because my students were also participants and my co-researchers in their own study. The use of my students as co-researchers proved to be an effective strategy that helped to uncover the emergent themes from their thoughts, experiences, and learning in the study. I also focused on adolescent students instead of elementary students, college students, corporate workers, or military personal, which appeared to be popular focus groups for other studies. My study was conducted in a middle school classroom during normal school hours as the main curriculum in a media literacy elective course, instead of being conducted during a before or after school club. In addition, the study contained multiple small groups who gamed together for twenty-five consecutive days. My study also gave small groups the chance to play multiple games during the study, and my study contained more data points and qualitative data to analyze than most relatable studies.

Rigby and Ryan (2011) note that much of the collected data on video games and learning is often very correlational. In many instances, studies “simply collect data on gaming behaviors
in an effort to correlate them with this or that outcome. Detractors focus on challenging negative outcome data while proponents of gaming counter with positive correlations” (p.167). LeCompte (2000) discusses the analysis of qualitative data in detail by breaking it down into smaller components. “Researchers must continually ask the question: Do I, the researcher, really understand what I am studying in the same way that the people who live it do” (p.152). As a gamer, teacher, and researcher, I am living in the literary scene of video games. Dubbels (2009) explained that educational gaming research is difficult, especially when conducted in a classroom. It is very difficult to monitor everything that is going on while a person is playing a game. He explains how educational gaming research will require new methods, methodologies, and instruments to examine learning and teaching with gaming. This study’s methodologies should act as a starting place for teachers looking to implement video games as literature in their classroom.

The ideas to create this study came from the unification of experiential learning theory, print-based and media literacy, reader-response theory, and video games as literature. This was an exploratory research study that utilized the power of experience as the driving force towards understanding more about how small groups think while they play video games for extended amounts of time in the classroom. This study centered itself within phenomenological studies which was used to describe what an experience means to an individual or small group who participates in that same experience, and can restate their experiences to one another, as suggested by Moustakes (1994). Experiential learning theory was also used to help explain the series of events that unfolded as students played and responded to video games as literature. This fits well with the use of transactional theory and reader-response since they both interest themselves with the transactions of meaning that occur during the reading and writing process.
The employment of transactional reader-response theory was used in this study to learn more about what students were thinking, experiencing, and learning from the video games when they were positioned to respond as literature. Since most of the study surrounded itself around the interactions between the reader and the text, it made sense to use the transactional reader-response theory from Rosenblatt (1988). She discussed how literacy itself is a transaction of thought between the reader and the text, and my work aims to extend this form of data collection with media literacy like video games as literature. This study looked at the responses of students after playing video games to better understand their stance on the literary medium with open-ended reader-response questions. The GRAD Framework from von Gillern, (2016) was used in the study because I was looking to explore the gamer’s response to the literature. This framework was made from theoretical thinkers who all showed consensus for the methods and theories that coincide with the use transactional reader response as a means for better understanding how readers engage with a text.

What I Learned as a Teacher

As a teacher, I learned that using video games as literature was an effective way to get my students to experience literacy in a different way. Students who were disinterested in traditional print-based literary practices were excited and invested in their learning experiences during the study. As a teacher, I spent time before the study looking for ideas on how to use video games and virtual reality as literature. I had a difficult time finding anything besides a few texts that looked at theory, and there was very little empirical material to suggest what it looked like in practice. The research in the fields of new literacies, game-based learning, and media literacy were quickly growing, and I wanted to contribute to the growing body of knowledge as a teacher with evidence from my own practice. The past and present research suggested there were
plenty of theories and frameworks that projected speculative ideas, but few that put it to practice with empirical evidence, especially in the classroom setting for extended periods of time with students as co-researchers like in my study. Furthermore, research like this study, which used video games as literature, was new along with the use of high quality virtual reality equipment for literary experience.

We as teachers have a lot to gain by using game-based learning in school sites across the United States, and at the same token, we have a lot to learn from researching them as well. As noted by Hill and Hannafin (2001) the field of educational pedagogy must be willing to shift its paradigm of thought to an increasingly digital model. However, it comes with controversy. As it stands in the many school sites I have seen, game-based learning is looked at as an add-on to a curriculum’s potential, rather than a useful vehicle for learning. One of the main reasons why textbooks were initially adopted for the masses in the United States involved the adoption of curriculum-based objectives and learning benchmarks, which textbooks used, and still use, to reinforce their importance in the classroom (Breivik, 1996). Spires (2015) suggests that there may be an epistemological issue emerging in society with video games in school. Will the digital shift in society mean a shift in curricular standards and materials over the next decade? Squire (2002) explains that just because video games are used in curricula does not mean they are a be-all-fix-all, self-driven tool that promises it will teach its user anything. There is no silver bullet in using game-based learning in the classroom. It should also be noted that not all video games teach useful skills needed to function in the real-world. Same argument can be made for classroom activities that find little relevance with students and their future.

There have been many parallels drawn between print-based texts and video games in this chapter, and that is because they are indeed very similar. It has not gone without notice, and
scholars have been working to bridge video games and literature for years. For teachers, this is a new concept for the curriculum bag, but it is something the video game industry has been working on for much longer than the education world. This is because a good story and a good video game were often two very different things, and since the mid 90’s the ability to blend both together has increased the pervasiveness of the medium. Still for some, the idea has stuck with them that video games are strictly meant for fun, and they do not provide the same experiences as reading a book, as suggested by Greenfield (2015). For years, it seems the field has looked to edutainment games for clues about how students think, experience, and learn when they play, but it is rare to look at AAA games for the same thing.

The trick is that most AAA games are already educational and contain many of the same literary elements that print-based texts have, and they parallel with the social practice of making meaning of a text through personal connections and emotions, which are at the cornerstone of teaching practices centered on critical thinking and reading in K-12 education. Using video games as literature meets the learning objectives in the ‘Reading Literature Strand’ found in The Common Core State Standards. There are even hybrid forms of this as some video games allow players to read print-based stories in the gaming space. For example, *Skyrim*, contains over four hundred and fifty stories for the player to read with over thirteen hundred pages of text. The comparison between video games and books has never been more literal than it is today with traditional reading practices being more synonymous with video games than ever before.

There is no question that students can benefit from the use of video games in the classroom, but the questions are how and what do we learn when they treat them as pieces of literature? The problem for language arts educators is how to facilitate the medium of video games in order to harness their powers. Fortunately, the average age of a video game player in
the United States nears the average of a teacher, so the likelihood that modern teachers are familiar with the technology and stories found in today’s video games is more probable than ever before.

The evolution of print-based to media literacy has created a fresh wake of change for stakeholders interested in the way students make meaning in the world. The reading habits of students have changed over the years, and it seems there is good cause to be alarmed as traditional reading habits have stagnated or declined over the years. The increase in media has spawned new ways of reading and writing in the world, known as new literacies, and video games are a part of this. Research suggests students should maintain a diverse literary appetite that embodies the plurality of literacy. The idea is not to abandon print-based literacy, especially in classrooms, but to understand more about media literacies in order to supplement instruction and to make a shift towards a digital world where information is often sent and received in multimodal ways. This study highlights the importance in studying how students respond to playing video games as literature. If we continue to give them the authority and opportunity, we as educators and researchers can learn a lot about reading and video games.
REFERENCES


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