

UNITED STATES (US) ADULT TEACHERS' AND LEARNERS'
PERSPECTIVES ON VIDEO GAMES
USED IN THE CLASSROOM

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Yvonne Fulmore
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Examining Committee Members:

Dr. Jan Fernback, Advisory Chair, Media and Communication
Dr. Adrienne Shaw, Media and Communication
Dr. Wazhmah Osman, Media and Communication
Dr. Carmen L. Phelps, External Member, Northern Arizona University

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ABSTRACT

Researchers have explored representations in traditional video games, yet have not significantly investigated the representations in video games used in classroom contexts. Moreover, socially marginalized group members' perspectives are rarely centered in academic research. This dissertation examined representations of people, ideas, and stories in video games for classroom use, focusing on how 16 self-identified US Black women who were teachers, learners, or both have perceived and encountered them. Furthermore, it drew from cultural studies traditions, which encompass theories that provide the language and space for seeing the world as diverse and nuanced, such as social constructionism, intersectionality, and experience. Data were gathered through using three qualitative methods: content analysis, three individual interviews per participant, and a questionnaire. A theme was recognized when four or more participants referenced a mutual idea.

The results of the first research question on in-game representations of race, social class, and gender showed that these constructs were represented through human characters, anthropomorphic characters, or avatar creation options for users. Each game's overarching structure influenced how it approached representation, with longer games and those designed to be played multiple times having more frequent opportunities to demonstrate character building and convey complex representations. Many games also centered the socially privileged via their representations of people, avatar options, ideas, and stories. Social class was often represented through in-game purchases, possessions,

hobbies, and settings. Users often needed to actively create or implement diverse representations in classrooms.

The second research question, which addressed participants' conceptualizations of ideal representations in games for classroom use, showed that overall, participants wanted to see games featuring character, narrative, and ideological diversity across many socially constructed categories, including race, gender, social class, ability, sexual orientation, religion, and age, although they did not all agree on how to approach such representations. They wanted games to be relatable to all audiences while also being sensitive to those who were affected by not being represented. Content-wise, they wanted to see representations that engaged multiple senses and included fantasy elements and opportunities for users to express their creativity. Most participants reported that they would not want games to represent violence, and several participants did not want them to include stereotypes, social -isms, or racial jokes.

The third research question's results showed that the relationship between participants' perspectives on ideal representations, their experiences, and their individual-centered characteristics—which comprised role descriptors, social constructs, and personality traits—was highly contextual. Participants who self-identified using the same terms, or underwent similar experiences, did not consequently share the same views. Rather, participants' thoughts on representation were specific to the intersections of their individual-centered characteristics and experiences.

In conclusion, this study underscores that it is important to privilege complexity and diversity when examining texts and audiences. It demonstrates how academic research can center members of socially and culturally marginalized groups while

preventing myths of group sameness from obscuring individuals' perspectives. Representations in games for classroom use would benefit from teachers, media practitioners, and researchers acknowledging the diversity of classroom audiences while addressing traditional learning objectives.

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CHAPTER 1

INTRODUCTION

It is equally crucial to consider *where* any given media are being used as it is to consider *how* they are being interpreted (Moore, 1993). Such issues are particularly imperative when video games, a media form typically associated with leisure in US popular culture, are used in educational environments. Questions surrounding audience and purpose are especially important for gauging any given game's appropriateness when elementary, middle, and university-level educators alike consider using them as media supplements to traditional learning approaches. There is, however, no preexisting scholarship that specifically addresses how teachers and learners anticipate, employ, or interpret how video games used in classrooms¹ portray stories, ideas, and people. There is also an absence of research on teachers' and learners' perspectives on how said information relates to the educational contexts in which they are being used.

Because this dissertation is driven by the overarching goal to offer nuanced analyses of texts and audiences, it operates from the understanding that although all people are important to study, addressing a wider range of groups would restrict the quality of analysis for any one group in particular. Thus, this study explores how 16 self-

¹ See Table 1 at the beginning of Chapter Three for more comprehensive definitions of this key term and others.

identified US Black² women who are teachers, learners, or both have encountered video games in classroom contexts, along with the representations in these games. Furthermore, in a US social and cultural atmosphere that regularly denies US Black women's nuanced complexities and diversity, this study showcases the distinct differences and similarities in participants' perspectives on representation.

This dissertation's theoretical and methodological concerns align it with cultural studies research. *Cultural studies research* comprises interdisciplinary, frequently qualitative work that examines the subject matter of various media products or genres and the people who use them. Most cultural studies research, such as Ang's (1985) study of *Dallas* fans and Radway's (1991) *Reading the Romance* has historically focused on analyzing either audiences or matters concerning texts.³ In this regard, representation is one of the most important themes cultural studies research addresses. In media products, *representations* are fundamentally proxies; they can never be exactly the same as the people, places, and things that they are symbolizing (Hall, 1980a). From a communication-based, cultural studies standpoint, it is important to research representations because of their relationship to the real-world objects and concepts they are intended to reflect. Consequently, although media representations are different from the actual people, places, and things they are meant to symbolize (Hall, 1980a), they communicate larger social ideas surrounding how the objects they represent are viewed,

² In this dissertation, I capitalize the first letter in the terms "Black" and "Blackness" because of their functioning in contemporary US society, where Blackness is often framed as being so highly visible that in certain social and institutional contexts, Blackness and Black people can even be rendered invisible (Collins, 2000; Lorde, 1984).

³ Johnson, Chambers, Raghuram, and Tincknell (2004) also noted that these two scholarly examples combined an analysis of audiences with interpreting a genre or text.

discussed, and understood in a larger social context. Stereotypes are typically established when particular ideas are more predictably associated with certain people than others, ultimately creating expectations and worldviews about who any given person is and can be. These enduring stereotypes about people's supposedly intrinsic natures can then affect institutional policies and everyday social interactions.

Representations provide a very important starting point in considering how people are interpreting themselves, others, and the world. However, *social constructs*, which constitute notions such as race, social class, and gender, are not the only elements that represent the world and its people. Social constructs may not be preexisting in nature, but daily, they are imposed onto people's bodies and are figured into the inner workings of US society (Pickering, 2008). As such, they are often used to physically and conceptually represent entire groups of people, whether they are considered independently or in conjunction with other social constructs. Although race, social class, and gender share some similarities in how they are read on people's bodies, in US culture, conceptualizations and discussions surrounding social class are not yet as clearly articulated as those of race and gender. Moreover, depending on the person doing the judging, as well as cultural context and location, the same body can be categorized as belonging to a different race, social class, or gender (Allen, 2011). This subjectivity is why self-identification is so important. Self-identification, however, is not the only factor in how people make sense of and apply social constructs to themselves and others in daily life. People learn much about cultural beliefs and ideas from "the media and popular culture" (Corsaro & Fingerson, 2006, p. 148). In other words, these sources

circulate information about how people might be expected to see the world and its people, widely influencing socialization (Corsaro & Fingerson, 2006; Ziegler, 2007).

As a media form, video games offer a particularly fertile ground for both teaching and learning popular cultural beliefs and ideas. When people play video games, they are willingly engaging in the act of learning by devoting hours of their free time to mastering and abiding by the conventions of video game worlds that are unfamiliar to them (Alexander, Eaton, & Egan, 2010; Gee, 2005; McGonigal, 2011). Because this act happens regardless of the circumstances surrounding their usage, it is logical that playing video games have also been understood to potentially positively influence students' "learning outcomes" (Hsu & Wang, 2010, p. 413). It is especially crucial to interrogate the ways representation takes shape in classrooms because education plays an integral role in circulating cultural knowledge. This research, however, focuses specifically on *video games used in the classroom*, which include any narrative-based, interactive multimedia, offline or online, that are used with the primary intention of teaching skills or other forms of knowledge. This definition includes any video games used within the context of an academic setting for the purpose of teaching new information, regardless of whether the game's primary goal is to teach about specific groups of people or completely different subject matter.

Further complicating their use in classroom environments, video games often employ methods that run counter to practices that are generally characteristic of educational institutions (Halverson, 2005). These dissimilarities can fundamentally be described as "rhetorical and practical barriers between the schooling and gaming communities grounded in fundamentally different approaches to learning" (Halverson,

2005, para. 1). Because they are often seen as paradoxical to traditional conceptions of learning, the need to validate video game use in classrooms may be especially pressing for Kindergarten through 12th grade (K-12) teachers, whose curricula and evaluations are increasingly being influenced and regulated by nationwide standards and testing procedures.

Within the context of this study, *teachers* are people who include video games as a component of their instructional strategies, whereas *learners* are people who have been assigned to use video games as a part of their efforts to gain knowledge in classroom environments. Although a number of participants may identify as a teacher *or* a learner, this study has been designed to take into consideration the possibility that participants could identify with both roles, as teachers could have also encountered video games in the classroom as learners.

How do teachers and learners expect representations of people, stories, and ideas to look when they are represented alongside academic or skills-based material? Much can be inferred about any given society from examining what it considers to be acceptable to regularly present to both its children and adults alike through its educational media. This study raises several questions about how representations in video games used in classrooms are being read by US teachers and learners who self-identify as Black women.

The Rationale behind this Dissertation

The origins of this dissertation's topic are partially owed to my own diverse classroom experiences with video games. The games I played as a child learner ranged from the popular *Where in the World is Carmen Sandiego?* and *Oregon Trail* series to *Kid Pix*, *OutNumbered!*, and *Word Munchers*. In contrast, the games I was required to

play as an adult learner were not always designed for education, but were still used to supplement classroom instruction. For example, for a Game Studies course I took as a Master of Fine Arts (MFA) student in Media Arts Production, I played *The Urbz: Sims in the City* (Electronic Arts, 2004) in order to give a presentation on the way the game represented its non-playable characters and urban settings. In doing so, my objective was to consider what the game's design and missions might suggest about producers' perspectives on the game's audience. As a result of playing *Space Channel 5* (2003) for the same class, I wrote a paper discussing how the game's characters and narratives were linked to two themes: immersion (both the game studies concept and the traditional definition of the word) and uncritical, compulsive media consumption. These analyses led to my later focus on the representations of Black women and girls in animated media. In my MFA thesis paper, which explored representations in animation, I found that the vast majority of African American women and girls in US animated media from 1935 to 2009 were depicted to enact the same role, even when doing so ran counter to their established personalities (Fulmore, 2010b). For my thesis project, I produced a computer game about the college application process, titled *Bloom and Beam: An Educational, Animated, Interactive Narrative* (Fulmore, 2010a). In response to my research findings, I designed the game to represent Black women and girls in a broad range of roles and with distinctive personalities.

Black women are a diverse, complex population that is seldom perceived as such in US social and cultural contexts. It is also rare for Black women to be the first or representative population for most scholarly studies. For these reasons, I wanted to use my presence as an African American Black woman to privilege the hearing and seeing of

Black women who are teachers and learners, both individually and holistically. I did not require that teachers and learners identify with a particular social class in order to participate, although social class is also an important focal point within this study. US academics still have much to parse through, make coherent, and ultimately learn about how members of US society are thinking and speaking about social class, especially within educational contexts. In forgoing social class as a criterion for recruitment, I gathered as much information as possible about participants' understandings of social class in the teaching-learning dynamic and video games. Combined with my investment in identifying and reflecting on common representational patterns for the sake of creating media that better reflect human diversity and experiences, this topic reflects several issues that are not only important to me, but could also be used to more fully see and represent a diverse audience including all members of US society within educational contexts.

Why Examine Representations in Video Games Used in Classrooms?

The study's focus on video games used in the classroom originates from the perspective that it may not always be clear whether the representations of people, stories, and ideas that are shown in these video games are intended to teach learners information. Similarly, it bears questioning whether teachers and learners agree on the role representations should play, if any, in video games used in classrooms. Thus, another integral reason for pursuing this project is the current ambiguity surrounding the goal of representations in video games. As Dickey (2006) noted, it is ideal to incorporate "race, gender, and culture" (p. 261) in the design of "any instructional materials" (p. 261). This matter is further complicated by De Vaney's (1998) earlier observation that "most

instructional designers still conceive of student users as culturally unified subjects, a target audience differentiated by age and grade, even by IQ [intelligence quotient], but not by cultural characteristics” (p. 77). In particular, De Vaney’s (1998) concern highlights the notion that a media product’s educational status does not automatically mean that the product is incapable of perpetuating representational stereotypes or biases.

This research study is conducted from the vantage point that the representations in all video games, whether used in education or recreation, are eligible for scrutiny. As such, the study aims to gain a nuanced view of whether the populations using video games in the classroom are being critical of their representational content. If textbooks have been implicated for regularly perpetuating gender stereotypes (Good, Woodzicka, & Wingfield, 2010; Woysner, 2006) and racially-biased retellings of historical events (Loewen, 1999, 2007), it follows that video games used in the classroom are likely to not be an exception to this rule. Academic literature has, in fact, noted the racial prejudices present in two popularly-used video games in education: *Where in the World is Carmen Sandiego?* (De Vaney, 1998; Provenzo, 2000), and *Oregon Trail II* (Bigelow, 1999).⁴ Bigelow’s (1999) textual analysis was the most extensive, whereas De Vaney (1998) and Provenzo (2000) offered analyses that were limited to a few paragraphs. Thus, the literature noting such practices as they pertain to video games used in the classroom is scarce. These issues warrant further attention.

⁴ *Where in the World is Carmen Sandiego?* was one of the most popular video games for education of the 1990s (Games & Squire, 2011). It also inspired television shows during the same era, including an eponymous animated series and two live-action game shows (Games & Squire, 2011). *Oregon Trail II* is one of several versions of the popular *Oregon Trail* franchise, which also comprises many games (Games & Squire, 2011).

In fact, this project fills a significant gap in preexisting literature through addressing the aforementioned scarcity of integrated, in-depth investigations of representations of race, social class, and gender within video games used in the classroom. Even though educational media are used with the goal of teaching concepts or skills, only a small body of research examines representations of race, social class, and gender in video games for education (Provenzo, 2000). Moreover, the vast majority of this research is not intersectional, meaning that it only analyzes one social category at a time, if at all. As a research concept, *intersectionality* recognizes that socially-constructed statuses work in tandem with one another to influence how a person is treated within society (Collins, 1998; Crenshaw, 1991). In other words, people's movement through any given society is informed by the sum of numerous social categories applied to their bodies. Just as hooks (1981, 1984) and Mohanty (2003) have highlighted about feminist research that implies women have universal concerns across race, social class, and culture, video games for education that appear to suggest the implications of one social category function in isolation from others are incomplete.

The few existing studies on representations in video games for educational use suggest that they perpetuate gendered stereotypes (Hayes, 2011; Kim, 2009; Provenzo, 2000; Sheldon, 2004; Šisler, 2008), much like mainstream video games do (Dill & Thill, 2007). Research findings also suggest that a number of traditional video games make use of race and ethnicity-related stereotypes (Chan, 2005; Everett, 2005; Higgin, 2009; Leonard, 2003, 2006; Šisler, 2008; Wilson, Gutiérrez, & Chao, 2003). Recent research that simultaneously analyzes portrayals of gender *and* race in traditional video games is also scarce (for example, Gray, 2014; Leonard, 2003, 2006; Nakamura, 2009; Shaw,

2014). Because audiences' multicultural views of the world can be affected by various media (Mastro & Ortiz, 2008), including video games (Shaw & Linebarger, 2008), it is crucial to observe how video games used in classroom contexts are representing other cultural notions, like race and social class, along with gender. Researchers have considered possibly targeting video games for educational purposes toward students with lower socioeconomic status (Dai & Wind, 2011), but no one has examined how teachers or learners are interpreting representations of social class within educational video games.

A second way in which this project contributes to the current body of cultural studies literature is through investigating the unexplored question of how and whether teachers and learners are looking critically at representations of race, social class, and gender per their portrayals in video games used in classrooms. It also contributes to this discourse by investigating other specific representations that are important to them in classroom contexts. It is important to gain a firmer understanding of how both teachers and learners are thinking about these issues because of the current lack of consensus on how video games should be used in the classroom. Squire (2011) advocated the possibility of choosing video games that do not feign objectivity on a subject as optimal for education, since they have the potential to generate thoughtful classroom discussions and reflections. Presenting such educational materials without discussing them, however, can give the impression that educators are accepting the material in its current state (De Vaney, 1998). The information gathered in this study also has the practical potential to be applied to more effectively designing and employing video games in learning contexts.

The third gap that this dissertation fills involves the lack of video games research that uses qualitatively-based interviews to investigate video game players' disparate

motivations for playing video games (Shaw, 2013). Much of said preexisting research focuses on the relationship between players' social categories and life experiences (Hayes, 2007). This study explores how such information has influenced a number of teachers and learners through using a series of qualitative interviews to gain a nuanced understanding of participants' interpretations of in-game representations and uses of the games in educational settings.

Linking Multicultural Representation, Racial Colorblindness, and Education

Educators have yet to decide on the best way to approach the topic of representation, since flaws exist in both multicultural and racially colorblind approaches. As a result, the cultural knowledge taught in US educational curricula has remained pervasively homogeneous (Gordon & Bhattacharyya, 1992), even in the wake of efforts to diversify it. *Multiculturalism*, despite its often-expressed agenda to give equal consideration to all cultures, tends to be enacted in a manner that is not equally diverse: such efforts tend to be centered on European cultures when used in various US media contexts (Shohat & Stam, 1994), including education (Rattansi, 2011; Yenika-Agbaw, Lowery, & Henderson, 2013). When multicultural approaches result in representing groups out of context, leaving out such shallow representations may be ideal, since including them under these conditions “may do more harm than good” (Banks, 1991, p. 132), sending the message that the featured groups are only worth discussing fleetingly (Banks, 1991). Regardless of these common representational practices, multicultural approaches are generally well-regarded socially because of their seemingly accepting agenda. These attitudes may be in part due to the belief held by some scholars and US citizens, that for however faulty multiculturalism as it is currently practiced in media

might be, it is preferable to not attempting to be inclusive at all (Day, 2000; Shohat & Stam, 1994).

It is also important to note that even with efforts to be inclusive, many forms of cultural knowledge that diverge too sharply from accepted educational ideologies remain either marginalized, disregarded, or even disparaged (Collins, 2009; Loewen, 1999, 2007; Mills, 1997; West, 1999). This systemic refusal to respectfully recognize a diversity of voices and ways of seeing is responsible for the high presence of unwelcoming learning environments that abound throughout various education levels. In practice, accepted ideologies can be reflected in culturally-circulated images, many of which communicate that people's raced and gendered bodies dictate whether they could become, for example, future scientists (Brandes, 1996). Similarly, although many US people have difficulty articulating and seeing the nuances of social class, it has a considerable influence on people's access to resources and life opportunities (Lareau, 2003). Because the majority of people in the US "think of themselves as middle class" regardless of their income and rarely discuss the range of existing social classes (Morton, 2004, p. 46), many people may be unaware of how much influence the construct can have on their lives. It bears questioning how the diversity of social class might be represented when people with significantly-different financial resources, levels of education, and cultural capital identify with the same social class.

As it is now in US educational contexts, multiculturalism, much like racial colorblindness, does not challenge the status quo in its centering and normalization of whiteness. *Racial colorblindness* is the notion that not acknowledging racial differences is a social ideal (Bonilla-Silva, 2006, 2014). As a concept, racial colorblindness is driven

by the idea that US society is entering a supposedly “‘post-racial’” era, and that racism is a figment of the past (Bonilla-Silva, 2013, p. 311). This belief stifles any efforts toward social reform by discouraging communication about race and racism, as though to speak of them is to rehash problems that are only in the past and have no bearing on the present and future. If racial colorblindness were to be applied to creating media representations, it could potentially take many different forms, ranging from the absence of racial diversity to a continuation of current representational patterns. Compared with multiculturalism, however, discussions of racial colorblindness have not yet been extended to analyzing media representations. This research aims to take both into account when discussing representations in video games used in classrooms.

Complicating Identities and Experiences: Individual-centered Characteristics

The often-abstract concept of *identity* fundamentally encompasses various different theories and practices of categorizing people as a means to better understand them and their interactions with other people (Brubaker & Cooper, 2000). As identity constructs, race, social class, and gender are considered “categorical” in nature (Brubaker & Cooper, 2000, p. 15). What often complicates identity is that all identities are not always apparent to others. Moreover, people’s conceptualizations of their own identities may differ from how others perceive them. In this dissertation, identity is discussed in terms of social constructs, but also in terms of role descriptors and personality traits. The sum of these elements provides more in-depth information about the person to whom they are associated.

Together, role descriptors, personality traits, and social constructs form *individual-centered characteristics*, which constitute this study’s distinct model for

conceptualizing identity in cultural studies research.⁵ As such, they encompass the defining features that people think are a part of who they are as individuals and are specific to a given situation. Specifically, these descriptors consist of a combination of roles (such as job titles or interpersonal relationships), social constructs (such as race, social class, gender, etc.), and personality traits. The contextually-shifting salience of each of these three descriptive categories will aid in creating space to recognize people's complexities.

The concept of individual-centered characteristics serves two purposes. First, the concept functions as an extension of intersectionality, on which it is based. Second, it acts as a framework for both seeking out information about and communicating the personhoods of the participants. Within the context of this project, *role descriptors* encompass titles that generally do not change in their association with any given person, although they may mean something different from one person to another. As such, they contain information that can be associated with someone's routine actions. They similarly inform the ways someone moves through the world, but are not always a physical, visible part of that person. One example of a role descriptor is a person's job title. Other examples would be identifiers like "mother," or "friend." *Personality traits* include descriptors like "friendly," or "kind." They are also a part of individual-centered characteristics because although people's interpretations and enactments of their personalities can change over time and due to circumstance, they are still fairly stable and

⁵ For the purposes of this project, "identity" is not a specific enough concept to use, as it is too vaguely defined (Brubaker & Cooper, 2005). Conversely, the "individual-centered characteristics" term encapsulates three particular types of content that figure into people's perceptions of themselves, which are further explained in this chapter.

can influence their interactions with others and the meanings they attach to life experiences (Fulmer & Walker, 2015).

Individual-centered characteristics are significant because of how they delineate the space for naming more nuanced explanations about why and how people come to have different perspectives from one another. The following example, which offers basic conceptualizations for two different people, further demonstrates this point.⁶ The first person, Mary, is a self-identified, upper-middle-class African American woman. Heather, the second person, is an extroverted middle-class African American woman in her 40s who also self-identifies as a teacher and a divorced mother of two children attending private school. Given this information, the images surrounding Heather, a participant in this study, are far more complex than the images surrounding the hypothetical person Mary, depicting a clearer image of who Heather may be as a person. Furthermore, exchanging even one of the identities in Heather's description for another would create a markedly different person, who might in turn value significantly different experiences. Moreover, through adding more information about Heather's personality or life roles, the images of Heather that come into view would further sharpen.

Additionally, comparing the image associated with Heather, who happens to be one of the participants for this study, to yet another person of the same race, social class, and gender, would show significant differences between them. These differences are likely to provide a much more comprehensive view of people's perspectives, which can be expected to vary from person to person. The implications of these more intricate combinations are heightened given the very specific problems that Black women face

⁶ All names are pseudonyms.

with being fully recognized within a US cultural context. I have therefore created the concept of individual-centered characteristics in the interest of attempting to include more information about how a person's body is read in relation to their traits at any given time, and the bearing it may have on their perspectives and experiences. Using this term to describe the act of looking at race, social class, and gender as interacting with context-dependent descriptors offers deeper insights into how people move through and perceive the world.

To this assertion, scholars like Collins (2000) and Harris-Perry (2011) have both justly asserted that there is no uniform Black female identity. Much of cultural studies research, however, subscribes to the idea that people are who they are and have the experiences they have because of how their bodies are read and categorized within their home societies. The cultural studies concept of agency offers people some autonomy (Barker, 2012), but it still does little to protect people from being compartmentalized. This reality is especially the case for those who tend to lack power within the larger social structure on account of race, social class, gender, sexual orientation, age, ability, and related categories. Since people's perceptions of the world are thought to affect how they interpret media (Fiske, 1987; Jenkins, 2013; Morley, 1992), individual-centered characteristics can expand on scholarly understandings of audiences. Therefore, the notion of individual-centered characteristics has been created within the context of this study to advance the goal of seeing people more holistically. Important concepts exist regardless of whether terms have been ascribed to them, but discussing the presence of these concepts and titling them is a necessity in a world that tends to largely afford legitimacy to ideas that are named. Therefore, just as language is an integral part of

hearing and validating ways of being and seeing (Allen, 2011), naming this concept is a crucial component of distinguishing it from others. Doing so is especially important because this concept is used to uphold the individuality and contributions of the study's participants in a cultural context that often refuses to see Black women holistically.

Interviewing US Black Women Who are Teachers and Learners

As mentioned earlier, much like the study's focus on video games used in classrooms as a specific way of using games, the study concentrates on US Black female teachers and learners as a unique population within the teaching-learning dynamic. A number of scholars have focused on how specific raced or gendered subgroups respond to media forms (for example, Bobo, 1995; Mayer, 2003; Radway, 1991). Following this already-instated practice, this study focuses on a pre-selected group that has, incidentally, largely been understudied not only in academic discussions about video games, but has also historically been ignored in numerous media-related and institutional contexts in the US. In the same vein, Black women's collective and individual diversity has routinely been denied in the US context (Harris-Perry, 2011). On its own, racial *Blackness*, within the context of this study, is used in reference to several groups of people with ancestral ties to the African continent, which is how the term is commonly used in the US. As such, and despite what typical portrayals across much of US media would have everyone believe, US Black women are diverse: ethnically, culturally, and as individuals.

Identities attached to social constructs "are contextual and malleable" (Shaw, 2014, p. 20). In a similar respect, just as conceptions of being a Black woman will change depending on the Black woman who is reflecting on them, teachers and learners, by virtue of their different classroom roles, may not always agree on the logic or

implications behind any given educational practices.⁷ Moreover, it is equally important to understand how teachers and learners are thinking about representation as it is to find out what they expect of video games used in classroom contexts.

As a population, teachers are an especially relevant audience to discuss because by trade, they are expected to think critically and be reflective about the teaching and learning process as they create their lessons and learning assessments. Moreover, a number of teachers view video games for educational use to be an attractive option; Salen (2007) noted several cases of instructors and students using video games at the college and university level. Even though the literature documents cases where traditional video games were applied to the teacher's learning objectives (for example, Durga & Squire, 2008; Dickey, 2011; Kadakia, 2005; Squire, 2011; Squire & Jenkins, 2003), most teachers who use video games in their practice opt to use ones "that were created specifically for educational use" (Online College Courses, 2009, para. 6 on the chart).

Learners are a crucial audience to also consider because they are expected to absorb and process the information being presented to them through the teaching-learning dynamic. However, although video games used in the classroom target learners, it is often difficult to gauge both whether and how the learning process happens. Learners as a population are not always able to tell when they are learning, and often have difficulty in understanding and explaining their learning processes. These difficulties may also extend into being able to accurately identify what they need to clarify, learn, or build upon to master a subject. Additionally, this content may be laden with a range of cultural beliefs

⁷ Child learners, in particular, were identified as having very different opinions from their teachers on such matters (Gee & Hayes, 2012). It is also possible that adult teachers and learners may have similar disparities in their outlooks.

or biases. The study recruits college-age students because much of the current research on video games in education does not reflect the possibility that video games might also be used in both graduate and undergraduate college classrooms. Several sources have also alluded to their presence in higher education (for example, Dickey, 2011; Sethi, 2012; Wecker, 2012; Zyda, 2007).

In order to understand how people associated with education are conceptualizing video games used in the classroom in relation to themselves and classroom content, this study seeks to interview Black women in the US who are either teachers, learners, or both. In doing so, it examines the range of viewpoints that they have toward representations within such games. It also considers their perspectives on using video games to represent race, social class, and gender in educational contexts. Black women are the focus of this study for several reasons. First, Black women in the US occupy a visible social status that positions the group as disadvantaged in terms of both their race and gender (Jones & Shorter-Gooden, 2003). Black women are routinely exposed to social and media messages that reject and reproach the group as Black people and as women because of the existence of polarized raced and gendered ladders that place both Blackness and womanhood at their lowest rungs (Collins, 2000; Harris-Perry, 2011; hooks, 2000; Jones & Shorter-Gooden, 2003; Morton, 1991; Wallace, 1990). Based on this status, Black women in the US face a unique kind of oppression that comprises amalgamated forms of subjugation, making it difficult to pinpoint a single identity that is the supposed reason for such treatment (Carby, 2009; hooks, 2000). Of the several types of disparaging social images of Black women that attempt to malign the group relative to other groups of women (Collins, 2000; Hobson, 2003; Morton, 1991), Collins (2000) asserted the

following: “[T]he controlling images applied to Black women are so uniformly negative that they almost necessitate resistance” (Collins, 2000, pp. 110-111). Thus, Black women’s distinct social positioning and treatment makes it particularly important to understand the range of perspectives that this population of teachers and learners may have regarding representations in video games used in classrooms.

As a consequence of the various template-like portrayals of Black women that run rampant in US media and culture, Black women’s raced and gendered social statuses have culturally and erroneously been considered to constitute enough information to define all Black women. Therefore, the more information that this study communicates about how the participants view themselves as people, the better it serves toward painting a descriptive picture of each participant in relation to the others, thereby challenging the abovementioned popular mythological notions. Personality traits, for example, are one basic means of doing so, since personalities constitute abstract but significant information that distinguishes one human being from another. As such, this dissertation aims to represent its participants as comprehensively as possible while maintaining their anonymity. The earlier-described notion of individual-centered characteristics operationalizes this goal.

To reiterate, this research does not intend to dismiss or deny the perspectives or importance of members of other groups in its concentration on US Black female teachers and learners. Rather, in order to conduct as thorough an analysis as possible in addressing this sample group, this study focuses specifically on the important perspectives that Black women have with regard to video game use in teaching and learning. Because the numerous stereotypes that are attached to Black women are so powerful, confining, and

pervasive, they often limit the group to being perceived as a population without depth.⁸ For this reason, it is vital to focus the entire study on Black women. With these aims in mind, including a larger number of sample groups would affect the study's ability to provide adequate attention to all of the groups being studied. In one respect, including more groups could perpetuate a variant of the unbalanced form of multiculturalism that Shohat and Stam (1994) asserted is typical of media products all around the world. In another respect, it could also result in creating a balance that resembles what Shohat and Stam (2003) described as a "polycentric" (p. 7), or more equitable form of multiculturalism that is not centered around any culture in particular. This format, however, is more susceptible to not providing in-depth information about any of the groups in question. This practice would be particularly detrimental to groups who are already marginalized, continuing the already-common US cultural habit of saying very little about said groups (Banks, 1991). Both of these outcomes would be inadequate given the study's intention to address the complexities of Blackness as it intersects with femininities. For these reasons, this study concentrates extensively on one intersection of

⁸ US cultural mythologies depict at least five discernible stereotypes of Black women. Each of these stereotypes generally describes a role that Black women are expected to play (for example, to serve or entertain), along with a set of personality traits and behaviors particular to that role. For more specific information about these types, see work by the following scholars: Bogle (2001), Collins (2000), Hobson (2003), Holland (2009), Morton (1991), Jewell (1993), Jones and Shorter-Gooden (2003), and Wallace (1990). Collins (2000) provides the most extensive treatment of these stereotypes, which each have corresponding names to distinguish between them. However, Bobo's (1995) early, astute observation is that naming them results in laypersons and academics alike feeling the license to use them to label Black women, validating the stereotypes' existence and enabling them to function as slurs. With or without their names present, it remains a common US cultural practice for Black women, regardless of behavior and individual ways of being, to be seen through the lenses of one or several of these enduring tropes (Harris-Perry, 2011).

race and gender, with the aim of potentially providing a framework for future studies that might focus on other groups.

Research Questions

This paper examines the following three research questions with respect to how video games used in the classroom deal with representations of race, social class, and gender:

Research Question (RQ) 1: In what ways are race, social class, and gender represented in the video games that participants used in the classroom?

RQ 2: How do the participants' expectations about ideal representations in video games used in the classroom compare with the representational patterns in video games that have actually been selected for classroom use?

RQ 3: How do teachers' and learners' self-reported experiences and individual-centered characteristics relate to how they identify their ideal representations in video games used in the classroom?

Theoretical Influences

Although much of the research that has been done on the topic of video games used in the classroom and their effectiveness has been quantitative or based in cognitive or multimedia learning theories, this qualitative study is based in cultural studies traditions. British cultural studies, as an approach, was originated to study and afford legitimacy to popular culture products and the people who consume, interact, and are represented through them (Garnham, 1997; Hebdige, 1983). Broadly-speaking, this study was also conducted in the spirit of *social constructionism*, which takes the viewpoint that

people assemble their knowledge of the world from interacting with others, resulting in the existence of multiple realities (Allen, 2011; Denzin & Lincoln, 2011; Jensen, 1991; Pickering, 1997, 2008; Saukko, 2003). Partially owing to its roots in the cultural studies traditions, this study is also heavily informed by Hall's (1980) conception of *polysemy*, or the idea that there is more than one way to read a media message.

Researchers have yet to take an intersectional approach to studying players' perspectives on representations in video games used in the classroom. This study connects intersectionality and individual-centered characteristics with Pickering's (2008) definition of *experience*, which is an important concept that "is not simply equivalent to what happens to us. Experience is just as much about what we make out of what happens to us, and for many that is where its value really lies" (p. 19). In other words, experience comprises people's life events and how they attach meaning to and interpret them. It is vital to consider people's reported, meaningful experiences in conjunction with their socially-constructed statuses and individual-centered characteristics.

Social categories may, to a degree, dictate how people are treated within various social contexts, but they cannot explain why people are more complex than even intersecting social categories might predict. Cultural studies theories and concepts all offer valuable contributions to studying both video games used in the classroom and the perspectives of the people who are playing or using them as teachers or learners. Much like Hebdige's (1983) early work on style, Jenkins' (2013) work on fan culture, and Radway's (1991) work on romance novels and their readers, video games used in the classroom, and especially the perspectives of professionals and laypersons who engage with them, are still not entirely understood. Thus, it is necessary to explore, through using

a combination of methods, how people's reports on their experiences might influence how they interpret representations in video games used in the classroom.

Methods and Methodological Influences

Cultural studies research is often qualitative and interpretive, aiming to offer detailed findings while operating from the understanding that knowledge and researchers are subjective (Creswell, 2013; Denzin & Lincoln, 2011; Hennink, Hutter, & Bailey, 2011). Therefore, in keeping with cultural studies theories and concepts, as well as qualitative research and methods, this dissertation uses multiple methods to collect data about video games used in the classroom and teachers' and learners' interactions with them. Specifically, these methods include a textual analysis of sample games, individual interviews, and a questionnaire. The textual analysis explored the qualitative content of the games that the teachers and learners in the study used, including the people, ideas, and stories portrayed. I interviewed all participants individually three times. During the first interview, I focused on learning more about each participant and the contexts in which they used video games in the classroom. This interview laid an essential foundation for gathering the individual-centered characteristics for each participant. The second interview was designed to clarify how participants used video games in classrooms, constructing a more complete picture of their interactions with and thoughts about said games. At the start of the third interview, participants were asked to fill out a questionnaire about their thoughts on ideal video games for classroom use before being asked to clarify their responses and answer additional related questions. Because of the research objective to see each participant as holistically as possible within the context of the study, to be included in the study, all participants were required to have signed the

informed consent form (see Appendix A: Informed Consent and Permission to Audio Record Form) and completed all three interviews and the questionnaire.

An Overview of the Upcoming Chapters

This chapter provided an overview of this study's main issues, along with its rationale, research questions, and relevant theoretical influences. The following chapters present the literature that is relevant to the research topic, the methods that are used, the results of the study, and the conclusions drawn from those results.

In addition to explaining this dissertation's theoretical influences, Chapter Two offers definitions for terms of key importance in the context of this research. Additionally, the second chapter identifies the preexisting literature on representations of race, social class, and gender in education, educational media, and video games. In doing so, the chapter functions to situate this study in relation to said academic discourses.

Chapter Three addresses specific details about the study's research methods. This chapter explains how the three methods that are used to gather the study's data have been designed and carried out. The chapter also details information regarding participant selection, the recruitment process, and the purpose, structure, and procedures as they apply to each method.

In Chapters Four, Five, and Six, which follow the same overall structure, the data gathered from the textual analysis, qualitative interviews, and questionnaire have been thematically organized in service of answering the study's three research questions. Chapter Four addresses the data for RQ 1, which details how that race, social class, and gender are represented in video games used in the classroom. This chapter also conveys

the participants' responses about portrayals of race, social class, and gender within the video games they encountered.

Chapter Five extends Chapter Four's discussion on representations by addressing the nuances of how the study's participants describe their thoughts about ideal representations of race, social class, and gender in video games used in classrooms. In doing so, the chapter presents the results for RQ 2, which covers how participants' notions of ideal representations compare with those they have seen in video games selected for educational contexts.

Chapter Six, which reports findings for RQ 3 on experiences and individual-centered characteristics, is organized in the same manner as Chapters Four and Five. The themes in this chapter have been based on connections between participants' perspectives and their self-reported experiences and individual-centered characteristics.

The final chapter, Chapter Seven, summarizes and draws conclusions from the results in Chapters Four, Five, and Six. This chapter contextualizes the study's results, discussing their media-related, social, and educational implications. The chapter also reflects on the study's limitations and possibilities for future research, which are based on the data and data collection processes reported in earlier chapters.

Fundamentally, this research is being conducted to provide a focused, in-depth study on both a subgroup of texts (video games used in the classroom) and a subgroup of audiences (self-identified US Black female teachers and learners). Through conveying the range of voices belonging to the 16 teachers and learners who took part in this research, I not only demonstrate the intricacies of using video games in classrooms, but I also offer space for the study's participants to express and share their perspectives with

other educators, practitioners, and academics. In addition to creating an avenue through which individual Black women's voices within the teaching-learning relationship are recognized for being as distinct as they are valuable, it is my hope that this research will help elucidate teachers' and learners' thoughts on representations in video games used in educational contexts.

CHAPTER 2

LITERATURE REVIEW

Current research on video games used in classroom settings separates discussions about the video game's form, function, and effectiveness as a teaching tool from those about its representations. When this literature addresses representations in discussions about educational efforts, it tends to be limited to the realm of textbooks (for example, Good, Woodzicka, & Wingfield, 2010; Loewen, 2007; Woynshner, 2006). Most research addressing representations in video games designed for educational use has been brief (for example, Bradshaw, Clegg, & Trayhurn, 1995; De Vaney, 1998; Drees & Phye, 2001; Provenzo, 2000; Sheldon, 2004; Šisler, 2008). With the exception of Bigelow's (1999) more extensive work, these discussions provide limited, if any, intersectional integrations of social constructs. Such research practices communicate that representation and subject matter to be taught may still be widely seen as mutually exclusive in these academic circles. If researchers are intentionally dividing these two conversations, however, it could also suggest that these scholarly communities may face challenges in simultaneously approaching both topics. The intervention this study offers is to not only merge these themes, but to consider how Black women who are teachers and learners conceptualize and navigate representation in classrooms across the US.

This chapter reviews preexisting research on representations of race, social class, and gender in education and video games. In doing so, it aims to demonstrate that cultural studies, social constructionism, intersectionality, and experience are helpful in examining this dissertation's main objectives in the following ways. Cultural studies frameworks

make it possible to explore audience diversity. Social constructionism facilitates accepting that people's worldviews vary and that knowledge is relative. Intersectionality provides a means by which to take several social constructions into account when examining games and audiences. I use experience in conjunction with the aforementioned theories and concepts to diversify intersectionality's application to understanding how teachers and learners use games in classrooms, diminish the likelihood of largely attributing findings to social constructs, and to thwart the process of depending on agency to explain variables that can otherwise be explained.

This chapter is divided into five overarching sections that describe the literature related to this dissertation. The first section discusses the following theories and concepts forming this research project's framework: British and American cultural studies, social constructionism, intersectionality via Black feminist thought, and experience. Subsequent sections narrow in focus, first describing how teachers and learners have used video games in classrooms. After providing an overview of the ways that scholars have analyzed video games as texts, the chapter elaborates on the particular representational patterns presented across video games and educational contexts. Finally, the chapter ends with a discussion on how US social policies like multiculturalism and racial colorblindness relate to educational contexts.

Theoretical Framework

The majority of literature on video games used in the classroom, whether quantitative or qualitative, has focused more on gauging video games' teaching effectiveness and design strategies than on their representations of social constructs (for example, Baytiyeh & Naja, 2010; Charsky & Ressler, 2010; Mayer, 2001; McFarlane,

Sparrowhawk, & Heald, 2002). This study is theoretically based in qualitative cultural studies traditions, and operates from a perspective that conceives “race, [social] class, and gender as social constructions” (Andersen, 2010, p. 176). Therefore, like Bonilla-Silva’s (2013) work, this study was designed to allow space to consider the social and institutional interplay of social constructs, first and foremost through rejecting the standpoint that race, social class, and gender are normative categories in their existence.

Cultural Studies

Seeing audience members as complex is a primary objective in this dissertation. Thus, cultural studies approaches are invaluable to this study because they have historically combined notions of semiotics, polysemy, and social constructionism to transform the way scholars conceptualize audiences by introducing the idea that all audiences are not the same. In communication-based research, cultural studies developed as a response to what some scholars understood as the shortcomings of media effects research. These scholars asserted that media effects research inaccurately depicted audiences as uncritical consumers who were easily and negatively transformed by media (Carey, 2009; Hall, 1980b; Turner, 2003; Williams, 1976).⁹ Bearing in mind this history, cultural studies researchers often question issues surrounding representation (Fiske, 1987; hooks, 1992; McRobbie, 1981) and identity (Gilroy, 1996; Hall, 1996; Hebdige, 1983; McRobbie, 1981). It is common for scholars using cultural studies traditions to study mass media by conducting either textual analyses of a media product (Pickering, 2008; Turner, 2003, 2012) or ethnographic studies, which combine examining audiences with

⁹ See Carey’s (2009) work for a reasonably balanced cultural studies perspective on how media effects research was a necessary stepping stone to the development of cultural studies research.

examining texts (Jensen & Pauly, 1997; Morley, 1997). The majority of cultural studies research focuses on studying texts, audiences (Turner, 2003), and their cultural meanings (Turner, 2012).

Because cultural studies traditions can be used across the social sciences, it does not constitute a traditional academic discipline (Turner, 2003, 2012). Bearing in mind its blurred boundaries, cultural studies is best described as an “interdisciplinary project” (Turner, 2012, p. 40) that began in the United Kingdom (UK) at some time during “the mid-1950s” (Hall, 1981, p. 19) to the late 1950s (Turner, 2003). The significant differences between British and American cultural studies make them both relevant within the context of this dissertation. Cultural studies in both contexts involved considerations of “language, culture, and meaning” (Carey, 1997, p. 10) as a conduit to grasping “issues of power and conflict” (p. 10). Nevertheless, given the difference of historical and political climates within both the UK and the US, it was inevitable that there would be some aspects of cultural studies that would have different meanings for US versus UK scholars (Carey, 1997).

In particular, British cultural studies had the primary goal of examining the ways that people of lower social classes used media products in their everyday lives and afforded said topics more attention and legitimacy within academic research (Garnham, 1997; Hebdige, 1983; McRobbie, 1999). To a degree, British cultural studies research was informed by a desire to diversify how scholarly texts were defining human existence so that it paralleled and was more representative of actual societies. British cultural studies, after all, had come about as a response to the preponderance of elitist writings and beliefs about supposed high and low art (Garnham, 1997). Thus, its mission was to

establish media products and people who were not identified as part of the highest social classes as a valuable part of the definition of culture (Hebdige, 1983).

Being identified as belonging to a culture can afford people status and visibility (Harris-Perry, 2011). The earliest British cultural studies researchers were concerned with redefining culture in a way that included the people and products associated with all social classes (Garnham, 1997). The outgrowth of this concern resulted in creating space for almost anything to be studied or researched (Murdock, 1997). A caveat to being able to study virtually any topic, however, was that in order to demonstrate why studying everyday life was a valuable area of study, scholars first needed to be able to explain how it had been delegitimized. The subjectivity surrounding visibility is further complicated by the reality that the objects and ideas being shown in media products are not and cannot ever become the actual objects or ideas that they are representing (Hall, 1980a). Moreover, being identified is only the first, most basic goal in attaining visibility. To these points, being visible in non-complex ways can be more damaging than not being visible at all (Banks, 1991). When the same images are regularly circulated, to the exclusion of others, they often result in perpetuating stereotypes that do not allow space for their subjects to be seen as having depth or complexity. This insidious practice limits the imaginations of media audiences in a way that can be especially damaging to members of marginalized groups, who often face difficulty in being seen as individuals apart from the groups with which they are associated. These observations, then, invite the following question: are there any ideal ways to center research on culturally marginalized groups of people, who, as a matter of course, are more likely to be recognized not for

who they are as individuals, but for what they may ostensibly represent as part of a collective?

In contrast, American cultural studies, which came about in 1963 (Carey, 1997), expanded on how media audiences were interpreting media products in different ways. It recognized that many people within the US populace have been watching, decoding, and at times creating oppositional readings of the same media that have not always represented members of groups with which they identify, even since the beginning of the history of several media forms. For example, with respect to diverse representations of sexual orientation (Epstein & Friedman, 1996; Jenkins, 2013; Shaw, 2014) and race (hooks, 1992), for decades audiences have been reading the same Hollywood film narratives that have disparaged or omitted characters representing the groups with which they identify (hooks, 1992). These cases exemplify the reality that people do not simply start to exist when the larger society in which they live decides to begin devoting attention to them (Mills, 1997). In spite of this reality, such groups have histories that often go unaddressed in larger contexts.¹⁰ Elaborating on the intricacy of these histories is a necessity for clearly seeing and understanding the people in any society.

The American tradition of cultural studies media research consists of contributions that consider the possibility that all people in the US do not share the same understandings of media products or their own society. For example, Jenkins (2013), hooks (1992), and Radway (1991) all demonstrated facets of this perspective through

¹⁰ This statement applies to numerous cultural groups throughout the course of world history. For example, just as it is important to acknowledge the 500-year history of the Middle Passage and the institution of slavery, it is also important to acknowledge the expansive history of the African continent that occurred prior to and after this period (Clarke, 1993).

their research. In Jenkins' (2013) exploration of fan culture, he proposed that fans do not uncritically consume the media products that they enjoy. In the same respect, hooks (1992) gave voice to the idea that being a Black female moviegoer can complicate the process of deriving enjoyment from US films. Radway's (1991) work also considered the notion that white female readers of romance novels may have different perceptions of romance novels than the general population. By bringing these different ways of seeing to light, these scholars have also demonstrated possible ways for audiences to interact with media on the basis of cultural identification, but it is also worth considering factors aside from cultural identification that may influence people's diverse understandings of media.

Although American cultural studies approaches are highly beneficial to many researchers, they have been heavily criticized and have garnered a negative reputation for presenting its groups of focus in a positive light (for example, McGuigan, 1992; Morley, 1992, 1996; Murdock, 1997). Its critics primarily took issue with how American cultural studies privileged positive representations of marginalized groups. These positive and empowering images were a massive departure from the negative representations of said groups, which often depicted group members as having undesirable traits, such as being immoral or lacking competence in socially-valued activities.¹¹ Nonetheless, it is important to consider that the academic beginnings of American cultural studies occurred during the US Civil Rights Movement, a period of significant social turbulence and legislative changes. In this sense, American cultural studies might have provided space to acknowledge and center research on groups who tended to be represented uniformly, or

¹¹ The history of US animation provides many examples of the negative representations that populated US television screens, especially during the 1930s, 40s, 50s. See Lehman (2007) for more information on these images.

not at all, in academic scholarship. As Carey (1997) asserted, because of the social and cultural context surrounding its development in the US, it was necessary for American cultural studies to take the form that it did at that point in time. Hall (1996) further offered an affirming perspective with respect to American cultural studies, declaring that, “There is no moment now, in American cultural studies, where we are *not* able, extensively and without end, to theorize power—politics, race, class and gender, subjugation, domination, exclusion, marginality, Otherness, etc.” (emphasis in original, p. 274). Thus, in making it possible to discuss these concepts, American cultural studies has afforded more legitimacy to discussing these issues than they formerly had in scholarly domains. Given the current state of social tension in the US, there may still be some value in using certain aspects of such an approach. In cases where a marginalized group is uniformly represented as a matter of course, bringing attention to group histories and achievements that have been obscured from view can be an effective, important starting point in offering more balanced and nuanced group portrayals.

Just as representational patterns and their implications vary depending on the groups being portrayed, all audiences do not interpret people, ideas, and stories in the same way. Audience members’ ideas about what makes for ideal representations regularly differs from person to person. Therefore, polysemy, or the earlier-mentioned presence of multiple possible readings for any given media product (Hall, 1980a), is an important key concept in this study that conveys that it is typical for everyone to arrive at different interpretations, or codes, of the same messages (Chandler, 2014; Hall, 1980a). Hall (1980a) also discussed the concept of a code being *naturalized*, or repeated with a sense of regularity that comes to suggest that the code is afforded a standard, supposedly

normal status by most people within the cultural context, although everyone might not agree with it. Naturalized codes, therefore, have an exalted cultural status over those that are not, often drawing from and reinforcing hegemonic ideals. To function in society, all of its members must be aware of naturalized codes, which are intertwined with social norms.

In contrast, codes that are not naturalized are construed to be abnormal, and at times, even misinformed. *Oppositional codes*, in particular, communicate information that directly counters naturalized codes (Hall, 1980a). *Negotiated readings* are interpretations constructed through blending a dominant, naturalized reading with one that is comfortable for any given audience member (Hall, 1980a). As Hall (1980a) explained, when audiences do not respond the way that producers intend, what is actually occurring is that “viewers are not operating within the ‘dominant’ or ‘preferred’ code” (p. 135). Later research suggested that such readings were quite common among audiences (Fiske, 1987; Jenkins, 2013; Morley, 1992).

Non-naturalized codes offer a different perspective on regularly-circulated media messages and products. Compared with naturalized codes, which are supported by the society-at-large, non-naturalized ones are often marginalized, even though many people are aware of them. Within a US cultural context that sees all Black women as the same (Harris-Perry, 2011), researchers have found that the Black women with whom they spoke were well-versed in various forms of mainstream and non-mainstream cultural knowledge surrounding representation (Jones & Shorter-Gooden, 2003). The first step in diversifying representation is to understand its patterns of occurrence. To this end,

educators, scholars, and producers must be made aware of the range of codes present in and reported by teachers and learners who use educational games.

As media institutions research has demonstrated, differences in interpretation do not only occur between audience members. They also occur between audiences and producers, who both exercise qualitatively unique kinds of power (Ang, 1996; Croteau, Hoynes, & Milan, 2012). Although discussions about active audiences can inaccurately portray audiences as being able to overcome the producer-specific power of creating products by injecting them with meanings of their choosing, neither producers (Mayer, 2003) nor audiences are all-powerful (Ang, 1996). Producers irrevocably have the power to implement media products with the meanings they desire, ultimately controlling media conversations (Croteau et al., 2012). The presence of various readings for the same media message, as well as power differentials between audiences and producers, underscores the necessity of speaking to Black women who are teachers and learners about their ideal representations. Teachers and learners are often the audience for educational games. As such, they have the power to select games they would like to use, but they are not always able to have a say in their production processes.

Social Constructionism

Another key aim of this dissertation is to acknowledge the flexibility of knowledge construction and diversity in the ways different individuals perceive themselves and the world. In its attention to the power of language on a society's sense of interpreting media messages and crafting narratives, as well as on its overall functioning and ideological beliefs, social constructionism is an important cultural studies concept. More explicitly, *social constructionism* is a worldview that entails the understanding that

people are largely responsible for creating the world that they see and enact, not only with respect to themselves, but also in how they see and understand others (Allen, 2011). Because social constructionism encompasses the belief that people have different ways of reading and ascribing meanings to the same objects, words, or concepts (Croteau, Hoynes, & Milan, 2012), it also suggests that for certain interpretations to arise, they must be repeated with a sense of regularity to the point that they become culturally naturalized (Hall, 1980a). In this sense, reality is a relative entity, and its image is malleable, crafted, and controlled by the socially powerful (Carey, 2009; Croteau, Hoynes, & Milan, 2012). As a theory that relates to the audiences centered in this research, social constructionism informs the idea that Black women who self-identify as either teachers or learners may have experiences or worldviews that are influenced by several facets of their social identities.

Because language is a very important part of creating and maintaining all societies (Allen, 2011), this dissertation will also draw from social constructionist traditions by investigating how language and images merge to create and circulate representations. This study specifically draws its definitions of race, social class, and gender from social constructionism and sociology. The definition of race that is used in this research has been constructed based on the works of Allen (2011), Ehlers (2008), Omi and Winant (2002), and Rex (2009). According to these works, *race* is a concept that, in practice, separates human beings into different groups that are considered to be physically distinct from one another; these groups are created and sustained on the basis of ongoing political, historical, and social encounters occurring within and between varying cultures (Allen, 2011; Ehlers, 2008; Omi & Winant, 2002; Rex, 2009). Related terms that have been used

during the study, as they apply to the participants, are terms such as “Black people” or “African American people,” although participants also discussed representations as they relate to other racial groups. The term *Black people* is used in general relation to people whose ancestral origins can be traced to the African continent. The term *African American people*, which actually refers to ethnicity but is sometimes used interchangeably with the term “Black people” in the US, will specifically address the group of Black people whose families have lived in the US for generations and are often better able to connect their lineage with the nation’s colonial origins than to specific ethnic groups on the African continent.¹² Similarly, the term *US Black people* is used in general reference to Black people who live in the US.

The definition of social class that is used in this study has been collaboratively based on the works of Gilbert (2011), Lareau (2003), and Davidson (2011). In this respect, *social class* is a social construct that distinguishes between groups of people on the basis of their access to material, societal, and cultural resources; all of these factors can be expected to benefit a person’s or family’s prosperity, prestige, and financial situation (Davidson, 2011; Gilbert, 2011; Lareau, 2003). When discussing social class, participants used some terms identified by Cookson (2013), such as *middle class*, *upper middle class*, *lower middle class*, *working class*, *upper class*, as well as more general terms like *wealthy*, *rich*, and *poor*. Because the definitions for terms surrounding social class still lack cultural consensus, and since most people living in the US identify as

¹² Because of the practices that occurred during the Middle Passage and the institution of slavery, in many cases, African American people are unable to trace their ancestry to particular ethnic groups or countries on the African continent (Frazier, 1939).

middle class (Morton, 2004), it is likely that participants might use other descriptors to describe social classes as they relate to themselves and others.

Within the context of this study, the definition of gender is based on the works of Allen (2011), Butler (1993), Ehlers (2008), and Gender Spectrum (2014). As such, *gender* is a concept that separates people into different groups along a continuum where cultural behaviors associated with femininities and masculinities are considered to be polar opposites. Like the concept of race, gender is practiced both socially and institutionally. This study includes gender-related terms such as *woman, man, girl, boy, feminine, masculine, transgender, and cisgender*. By simultaneously considering how gender, along with race and social class, are represented in video games used in classrooms by teachers and learners, this research attempts to integrate and extend intersectional discussions of representation within educational contexts.

Intersectionality

Intersectionality advances this dissertation's fundamental goal of considering how various social constructions are simultaneously manifested in people's lives. As mentioned in Chapter One, the notion of intersectionality collectively considers people's several socially-constructed statuses when examining their experiences (Collins, 1998; Crenshaw, 1991). Specifically, intersectionality has also strongly informed Black feminist thought, which acknowledges that US Black women have unique social experiences on account of the group's particular raced and gendered intersections (Collins, 2000). In this vein, intersectionality and Black feminist thought are strongly intertwined, and have therefore both informed this research project. As demonstrated through Collins' (2000) work, employing an intersectional approach enables more

intricate analyses of social phenomena because it acknowledges that human beings have a range of social identities that simultaneously affect how they move through the world (Crenshaw, 1991; Dill & Zambrana, 2009).

Several communication studies include investigations focusing on how audiences at specific raced and gendered intersections read media texts. In an Indian context, Parameswaran (1999) used interviews and ethnographic approaches to explore how the young, upper- and middle-class Indian women in her study were reading English romance novels. In a US context, hooks (1992) discussed intersections between the power of images, Blackness, femininity, sexuality, resistance, and varying conceptions of “Otherness” (p. 21), seamlessly discussing representation from a range of intersectional and conceptual angles. Combining textual analyses with her own experiences and those of others, hooks (1992) addressed representations of Black people across various US media contexts. Bobo (1995), whose research presented a different perspective from hooks’ (1992) work, specifically addressed Black female audiences who had seen Julie Dash’s *Daughters of the Dust* and Steven Spielberg’s movie adaptation of Alice Walker’s *The Color Purple*. To gather information about various Black women’s viewpoints on these films, Bobo (1995) conducted both textual analyses of each and a series of focus group interviews with different people. Much like in the aforementioned research by both Bobo (1995) and hooks (1992), intersectionality will be at the core of this research study in the attempt to ensure a nuanced, social constructionist view of studying representations.

Experience

In addition to using an intersectional theoretical approach, the category of experience will help to address some of the potential shortcomings of cultural studies

approaches. Although cultural studies takes into account the ways various social categories affect people's lives and perspectives on media messages, it can also oversimplify people's perspectives through solely attributing them to their socially constructed identities (Barker, 2012). The cultural studies concept of agency could be partially used to thwart such a generalizing process in that it acknowledges human autonomy; individuals are ultimately able to make decisions in how to interact with the people and world around them. Agency's explanatory powers, however, are limited in that it only tends to cover notions like "freedom; free will; action; creativity; originality; the very possibility of change through the actions of free agents" (Barker, 2012, p. 240). Moreover, agency appears to be focused on the intentionality of the people it describes, which does not account for other variables that may offer some explanations for people's experiences. In this sense, agency may be so inclusive a term that its explanatory powers are substantially limited. Although various scholars have noted the importance of not assuming that social constructions can always accurately predict people's perspectives, they tend to be used in this manner in many cultural studies research endeavors. Agency can be supplemented by considering social constructions in tandem with people's unique experiences.

This study will use Pickering's (2008) conception of experience, in addition to the original supplemental model of identity called individual-centered characteristics,¹³ in order to offer more possible explanations of what leads teachers and learners to their individual perspectives. *Experience*, as defined by Pickering (2008), not only takes into

¹³ This model was first mentioned in Chapter One. It is explained in even further detail in Chapter Three.

account the events that a person has witnessed, but the importance that they ascribe to those events. Although three people may have attended a gathering at the same time and place, their perceptions of it will often be dissimilar. One person might consider one meaningful event to have happened, whereas another may consider an entirely different occurrence, or multiple ones, to be noteworthy. The third person, however, might fail to have recognized anything significant about the event. With respect to this study's definition of experience, the first two people are more likely to report this gathering as a part of their experience, although all three were in attendance. Therefore, because of these diverse viewpoints, it is important to understand the various factors informing teachers' and learners' perspectives as the audience for video games used in classrooms.

The cultural studies objective to reflect on the meaning making process (Carey, 2009) can provide even richer information about an area of study when the topic has been largely devalued or overlooked within the context of culture. By focusing on how race, social class, and gender are represented and read in video games used in the classroom, this research merges key elements from both British and American cultural studies traditions. Through examining social class, which is a distinct element of British cultural studies, this dissertation is designed to avoid one of the biggest criticisms of American cultural studies, which has historically been charged with ignoring social class (Kellner, 1997). Both the audiences and texts of focus in this study have historically been marginalized in academic discourses. This research study aims to further British and American cultural studies traditions by researching video games used in classrooms as texts and centering the perspectives of teachers and learners self-identifying as Black women.

On Audiences: Using Video Games in Educational Contexts

As one component of the audience members for video games used in classrooms, teachers have elected to use both traditional video games and those that were designed specifically for instructional purposes in their classrooms (Charsky & Ressler, 2010; Ferdig, 2014; Games & Squire, 2011; Gee, 2005; Squire, 2011). Many educators and researchers alike have long appreciated the potential for video games to enhance learning in classroom contexts (Gee, 2005; Richard, 2013; Squire, 2011). Video games like *Civilization* and *SimCity*, for example, have been used in classrooms despite their original entertainment purposes (Charsky & Ressler, 2010; Games & Squire, 2011; Squire, 2011). Traditional video games like *Civilization* specifically align with information taught in social studies classes, and as such have been used in those learning contexts (Alexander, Eaton, & Egan, 2010). *World of Warcraft* has also been used within the context of a college-level class on designing video games (Dickey, 2011).

Despite the fact that teachers have used video games in the classroom regardless of their original design intentions, many teachers tend to select video games designed for education (Online College Courses, 2009). During the 1990s, video games that were designed specifically for educational purposes were referred to as *edutainment titles* (Games & Squire, 2011). These games also offered to educate their learners in diverse content, much like those created by researchers. Games such as *Reader Rabbit* teach reading skills (Squire, 2011), whereas *Math Blaster* aims to hone learners' math skills (Ferdig, 2014). Similarly, *Where in the World is Carmen Sandiego?* was initially designed to "attract children to the use of almanacs" (Games & Squire, 2011, p. 28). The current commercial market for video games designed for learning purposes, however, is

not nearly as prominent as it was during the 1990s. By the year 2000, it dwindled significantly, along with the popularity of edutainment titles (Games & Squire, 2011). From my own observation, it appears that many video games designed for classroom use that scholars discuss today, such as *Scratch*, *Storytelling Alice*, *TEAL*, and *Gamestar Mechanic*, have been created by people affiliated with academia.

Members of academia have designed video games for classroom use with the objective to test and ultimately use such games to supplement learning in classroom settings. As Egenfeldt-Nielsen (2007) found in reviewing research on computer game use in classrooms, numerous studies where researchers develop and test games for classroom use typically involve conducting quantitative experiments to determine whether these games are effective. Such studies often involve having several groups of students use the games in instructional settings (for example, Mayer & Chandler, 2001; Rieber & Noah, 2008). In some cases, one control group would use traditional learning methods, and other groups would use video games in their learning (for example, Charsky & Ressler, 2010; Dori & Belcher, 2005). Squire (2011) discussed several experimental cases where he and his colleagues tested how students in high school and college responded to using games in conjunction with learning science. At the start of using Technology Enabled Active Learning (TEAL), John Belcher's game-based learning platform, in the "Introduction to Electricity and Magnetism" (Squire, 2011, p. 94) courses at the Massachusetts Institute of Technology (MIT), students were uncomfortable with the idea of using games in their learning. The students largely worried that the game lacked important informational content that traditional teaching methods might include (Squire, 2011). Nonetheless, the findings of this research suggested that students learned better

with the game than without it (Dori & Belcher, 2005; Squire, 2011). As a result, TEAL was enhanced for more permanent instructional use before being made a foundational component of MIT's introductory physics courses (Squire, 2011).

Teachers and learners have traditionally used video games in classrooms via instructionist or constructionist approaches. Both are potentially valuable to the learning process (Kafai, 2001). The *instructionist* tradition dictates that people are taught new material through using pre-created games that package and directly present the information to the learner (Kafai, 2001). In this approach, researchers or game designers would either create a game that had the purpose of educating learners on a particular subject, or they would use a game in a way that is similar to how other educational materials, such as supplemental texts or videos, might be used. This tradition is the most commonly written-about in research on games and learning (Kafai, 2001).

In contrast, Kafai's (1995, 1996) work is part of the *constructionist* game-based learning tradition, which advocates having learners create their own games in order to enhance their knowledge about the topics of focus. This tradition often requires teachers to provide learners with game software or applications enabling learners to create their own video games. Constructionist game-based approaches have been used to promote student development of a range of skills, but much of the research on these approaches is centered on their use in teaching children computer programming skills. Kafai's (1995) Game Design Project had the goal of instructing child learners on how to make their own video games. In the process, the children in the study decided on the story-based elements of their games, including the characters, setting, and nature of the stories they wanted to

tell (Kafai, 1995, 1996). Participating in this project, therefore, also permitted students to practice their storytelling skills.

Constructionist initiatives use video games like MIT's *Scratch*, a widely successful online program that enables students to create video games, among other programming endeavors (Maloney, Peppler, Kafai, Resnick, & Rusk, 2008). *Scratch* was specifically developed to teach computer programming skills to children living in low-income neighborhoods, and was primarily created for use in after school programs (Maloney et al., 2008). A similar initiative was Caitlin Kelleher's *Storytelling Alice*, which she developed to introduce, teach, and encourage middle school girls to pursue computer programming as a career or educational option (Kelleher & Pausch, 2007).

Investigating how teachers and learners have used video games in classrooms is only the first component to understanding the circumstances surrounding their usage. To create an in-depth picture of how teachers and learners have interacted with video games in classroom environments, it is essential to have content-based information about the video games they used. The next section describes how researchers have approached studying video games as texts.

On Texts: Analyzing Video Games

Much like a number of the media forms that have been researched within cultural studies scholarship, video games have not always been accepted as sites for academic research (Jones, 2008). A common issue that arose when studying video games as texts included how to approach analyzing them, considering their interactive and potentially non-linear storytelling formats (Frasca, 2004; Jones, 2008). Ludologists, who study the notion of play and games (Steinkuhler, 2006), pointed out that video games' unique form

differs not only from other media formats, but also between individual games (Jones, 2008).

Historically, a variety of methods have been used to conduct research studies on video games as texts (Mortensen, 2009). Prior to the late 1990s, textual analyses were the most common way to analyze video games (Mortensen, 2009), but these traditions continue even in more recent scholarship. Castronova (2005) and Nakamura (2009) have conducted textual analyses that offer detailed descriptions of massively multiplayer online role-playing games (MMORPGs). To this end, scholars across anthropology, communication, and sociology have also used ethnographic approaches to discussing MMORPGs (for example, Boellstorff, 2008; Castronova, 2005; Taylor, 2006), which have been largely understood to function much like real-world societies (Boellstorff, 2009). Content analyses, both quantitative (for example, Wilson et al., 2003; Williams et al., 2009) and qualitative (for example, Everett, 2005; Leonard, 2003, 2006) alike, have also been used to examine video game representations. In particular, the idea that video games are cultural products that contain information about the cultural context in which they were created (Nasir, 2005; Steinkuhler, 2006) validates their eligibility for study as texts.

In combining the information on the actual video games themselves with how video games are or have been used, researchers can gather a more detailed sense of audience perceptions of the texts they have consumed. In this study, such analyses are valuable in identifying representational trends, which can help to elucidate the relationship between teachers' and learners' ideal representations and those in the games they have used and are using. Accordingly, the next section discusses how researchers

have approached representations in the following individual contexts: traditional video games, video games designed for educational use, and educational settings.

On Representations: Across Video Games and Education

This research has been designed to acknowledge the many factors that influence what determines each participant's notion of ideal representations. The notion of ideal representations is complicated by the fact that such beliefs shift depending not only on the person being asked, but also on the context surrounding that person's social positioning, experiences, and individual-centered characteristics. The value of any given representation is often relative to the historical background and specific narrative in which it appears (Wallace, 2004). Thus, given the content of preexisting cultural stereotypes, what would be considered a rare representation for one character might be considered commonplace for another. To this end, Wallace (2004) discussed how attempting to address the issue of whether a representation is "positive or negative" (p. 264) can be a defeating enterprise:

[...] I believe that the most important questions to be asking in the study of popular culture are not whether any particular instance is good or bad, positive or negative, progressive or regressive. Despite the certainty and conviction with which we usually approach any occasion of popular culture production, without adequate contextualization, we really are not in a position to decide what is good or bad, or why. (Wallace, 2004, p. 264)

This passage was part of Wallace's (2004) longer discussion on the importance of looking at the ways that Black women, in particular, are contextually portrayed relative to other groups of people. Here, Wallace (2004) asserted that trying to judge the quality of a representation in such a way only detracts from more important matters with regard to the already-complicated topic of representation. As mentioned earlier, representations are made up of social constructs, and as Hall (1980a) has noted, are limited in their ability to

directly and fully reflect reality. This logic makes a strong case for why it is important to continue conducting studies on not only the representations in video games, but on the purposes for which these representations are used. By virtue of everyone's very different experiences and perspectives, what one person considers a negative representation, someone else can regard as positive. Postponing the act of approaching representations in terms of a moral hierarchy enables researchers to have a more elaborate dialogue about the connection between representations and how they allude to and uphold widespread social and historical practices (Shaw, 2014). After examining the range of preexisting representations for their content rather than for the sake of labeling them as "progressive or regressive" (Wallace, 2004, p. 264), discussions on how to reverse or remedy current practices can be more effectively revisited.

Although stereotypes often have specific social and narrative functions, they are also susceptible to change over time (Shaw, 2014). For these reasons, one potentially useful way to approach studying media portrayals is through noting recurring representational patterns. Both experience and individual-centered characteristics, therefore, can establish and elucidate the details about how people judge representational patterns beyond categorizing them as "progressive or regressive" (Wallace, 2004, p. 264). Comparing observations of in-game portrayals with teachers' and learners' reported experiences and characteristics that are unique to them will only yield even more extensive information, providing more information about the kinds of representations that are present across video games used in education.

Before delving into how race, social class, and gender are portrayed within video games used in classrooms, it is necessary to consider how such representations have

conventionally appeared through traditional video games. Although several studies include intersectional analyses of how social constructs are represented throughout traditional video games (for example, De Vane & Squire, 2008; Gray, 2014; Leonard, 2003, 2006; Shaw, 2014), it is still fairly common for video game studies to analyze race and gender as mutually exclusive social categories (Shaw, 2014).

Discernible patterns in traditional video games' racial representations mostly include the number of characters represented, the gaming genres they populate, their visual depictions, and their uses of violence. Both Black and Hispanic characters are featured most frequently in sports video games (Chan, 2005; Williams, Martins, Consalvo, & Ivory, 2009; Wilson, Gutiérrez, & Chao, 2003). In their content analysis of representations across a sample of traditional video games, Williams et al. (2009) found that white characters appear just over 80% of the time, even exceeding what Williams et al. (2009) reported to be the group's percentage within the US population, which was 75.1% at the time of their study. The inverse was common for Black, Hispanic, Native American, and biracial characters, who appeared 10.74%, 2.7%, 1.39%, and 0.09% of the time within the same games, respectively (Williams et al., 2009). Moreover, in a 2001 study on video game content within best-selling titles targeted toward children, video game protagonists were found to be white 87% of the time (Kaiser Family Foundation, 2002). Characters of Asian descent were represented 5.03% of the time, compared with the number of Asian and Asian American people in the US population, which at the time of the study constituted 4% (Williams et al., 2009). Wilson et al. (2003) similarly reported that sports-themed games depicted 83% of the Black male characters in the study, which was also the case for Hispanic male characters, who "only appeared in

sports games, usually baseball [ones]” (Wilson et al., 2003, p. 109). Characters of Asian descent were “often depicted as wrestlers or fighters” (Wilson et al., 2003, p. 109). In particular, Hispanic characters tend to be the most dramatically underrepresented across traditional video games, especially relative to the percentage of Hispanic people in the US population, which was reported to be 12.5% at the time of Williams et al.’s (2009) study.

Scholars have similarly noted parallels between representations of race, gender, and social misbehavior. Black characters are reportedly associated with unlawful actions (Everett, 2005; Gray, 2014; Leonard, 2003, 2006) and hypersexuality (Gray, 2014; Leonard, 2003, 2006), as well as with a noteworthy predilection toward using “verbal aggression” (Wilson et al., 2003, p. 109). They are also more likely to appear immune to the acts of violence inflicted upon them (Wilson et al., 2003). Hispanic characters have been found to use the most “physical aggression without weapons” (Wilson et al., 2003, p. 109), but are also noted to be most likely to not be immune to violence despite primarily “appear[ing] in sports games where athletes are usually unaffected by violence” (p. 109). Asian characters are reportedly “the least likely [of all racial groups] to use weapons when displaying aggressive behavior” (Wilson et al., 2003, p. 109), are most likely to not be immune to acts of violence outside of sports games, and are also reportedly more likely than white characters to be cast as villains (Wilson et al., 2003). By comparison, “White characters [are] most likely to use weapons” (Wilson et al., 2003, p. 109) when behaving aggressively. In video games that showcase violent acts, the chances that a Black female character is victimized by violence are twice that of a white female character’s odds at the same fate (Chan, 2005; Leonard, 2003; Gray, 2014; Wilson et al.,

2003). These odds are particularly significant considering that Black female characters appear in traditional video games only 4% of the time, as opposed to white female characters appearing 61% of the time (Wilson et al., 2003).

It also merits questioning whether and how such character representations may influence both in-group and out-group perceptions that players across various racial and ethnic groups have of one another. Although traditional video games have fewer representations of people of color than of white people, representations of people of color tend to be very consistent across video games (Behm-Morawitz & Ta, 2014; Wilson et al., 2003). Additionally, these representations influenced a number of Behm-Morawitz and Ta's (2014) white participants' perspectives about people of color. DeVane and Squire (2008) correspondingly found that their participants who played *Grand Theft Auto: San Andreas* were thinking about the relationship between representations of race, social class, and the in-game narratives associated with them. They reported that the younger Black male working class teenagers in their study saw the game as a conversation-starting piece for how racism and classism operate within the US (DeVane & Squire, 2008). The boys readily distinguished themselves from the images they saw, yet expressed that those representations might reflect people in other US cities (DeVane & Squire, 2008). In contrast, DeVane and Squire's (2008) older participants, who were white male teenagers from working class and middle class families, pointed out the game's stereotypical representations of Black and Hispanic characters and expressed appreciation for the game's satirical take on gangster-themed media (DeVane & Squire, 2008).

Some audiences are similarly reflective of how others are interpreting them based on how they are represented in video games (Shaw, 2014). To this point, Shaw's (2014)

intersectional research offered insights on video game representation and identification through focusing on audiences who self-identify with one or more marginalized groups with respect to gender, sexuality, and race. Notably, the majority of the study's participants reported that "representation was *socially* important, [but] not important to them as individuals. They wanted *others* to see diverse experiences and identities on-screen" (emphasis in original, Shaw, 2014, pp. 191-192). In other words, the participants did not necessarily prioritize seeing images that reminded them of themselves within the games they played (Shaw, 2014). Nevertheless, they expressed the significance of everyone seeing a range of media representations because they thought others might personally value or benefit from the experience of seeing and being seen (Shaw, 2014).

Within traditional video games, characters of color are often portrayed as aberrant and undesirable, both as non-player characters and avatar choices (Everett, 2005). Moreover, when video game creators provide players with the opportunity to select predetermined, socially-constructed characteristics of their avatars, they are leaving the decision of whether to create a diverse in-game world, via the presence of the playable character, to each individual player (Shaw, 2014). As Shaw (2014) emphasized, this "burden of representation" (p. 35) is one that players can either accept or reject. Accepting it, however, generally does not change the socially-constructed statuses of the non-playable characters throughout every game.¹⁴ For example, in both *Harvest Moon: A*

¹⁴ Various non-console versions of *The Sims* series are an exception to this rule, as they allow players to create entire neighborhoods and delete some of the default families, if they choose to do so. The majority of console versions of *The Sims*, however, tend to be much like many other traditional video games that follow a predetermined story with a range of distinct, non-playable characters that cannot be deleted or otherwise changed.

New Beginning (2012) and *Story of Seasons* (2015), which are two recent US-localized¹⁵ farming simulation games that were originally created in Japan, the non-playable characters remain as they were originally designed by producers, regardless of the skin tones and eye and hair colors players select for their in-game avatars. Additionally, even when players choose to take on the “burden of representation” (Shaw, 2014, p. 35), many of the standardized images throughout these games, which include the icon representing the playable character in both the town map and the save file, continue to show the default skin tones and eye and hair colors. In a US context, these default color schemes coincide with stereotypical US conceptions and depictions of whiteness.

Should players want to be a character of color when visiting the worlds within video games, they often find that the option is not available to them. Although more games than ever before are allowing a broader range of skin tone options for playable characters, many still do not (Boellstorff, 2008; Dietrich, 2013). White characters, as well as characters with lighter skin tones, are still considered the standard across video games (Dietrich, 2013). Moreover, characters with lighter skin tones remain prevalent in online players’ avatar choices, with female characters of color that have lighter skin tones appearing in far higher numbers than female characters of color with darker skin tones (Nakamura, 2002). Similarly, in *Teen Second Life* and *Whyville*, online game worlds targeting teenagers and where avatar content is created by people who play the game and

¹⁵ Much like Carey’s (1997) discussions about the differences between UK and US cultural studies, localized video games have been revised to fit the society for which they are being adapted (Consalvo, 2006). In this sense, it is important to consider the social contexts in which the original game and the localized games both exist, and how they might be read differently depending on these cultural contexts. It is also valuable to consider how the localized product includes facets of both cultures (Consalvo, 2006).

have the skills and time to do so, avatar choices with brown skin are very limited with respect to a range of skin tones (Kafai, Cook, & Fields, 2010). When Kafai et al.'s (2010) study was initially conducted between 2000 to 2005, the shortage of body parts for brown faces resulted in players who wanted avatars with brown skin tones having to select body parts that were shades lighter than the skin color of the avatar's face, often leading to the owners of those avatars being mocked and exposed to racist comments from other players (Boellstorff, 2008; Kafai et al., 2010). In addition to having limited avatar options in simulated games, Everett (2005) also noted the difference in language used to describe characters of color versus white characters in fighting games, with characters of color being characterized through animalistic and often unbecoming descriptions in ways that could potentially depict them as unappealing to players. In contrast, white characters tended to be depicted in ways that emphasized their strengths or were more humanizing (Everett, 2005).

Researchers have found that gender representations, like racial representations in traditional video games, often tend toward stereotypes. In particular, Kim (2009), who studied video games targeted toward Japanese women, found that gender stereotypes are often more pronounced when women and girls are a video game's target audience. Traditional video games feature significantly more male characters and fewer female characters than are present in the US population (Williams et al., 2009). Female and male characters alike tend to reflect persistent gender stereotypes. Dill and Thill (2007) found that aggressive behaviors are more typical for male characters than female characters, and that sexualized depictions are more common for female characters than male characters.

Female characters of color, however, were more likely to be sexualized than white female characters (Gray, 2014; Leonard, 2003).

Although these representational patterns support the observation that video game portrayals support and perpetuate outdated portrayals of all the groups in question, they are only one media manifestation of US cultural beliefs and dynamics that inform many of the media circulated within it (Shaw, 2014). Indeed, the aforementioned representations replicate some of the oldest stereotypes, encouraging the persistence of racism and sexism. The confluence of these representations across traditional video games does invite the question of what manner of representations are present in video games used in educational settings. Managing representational pitfalls in any media used in classrooms could markedly improve said learning environments.

Researchers have historically used two methods to analyze representations in video games for education: qualitative textual analyses or quantitative content analyses. The majority of the information available on representations of race, gender, and social class in video games used in classrooms is currently limited to discussing either race or gender, as opposed to both. To date, only a few scholars have discussed racial representations in video games used in classrooms. Bigelow (1999) has offered the most in-depth and intersectional textual analysis of representations of race, gender, and history in an educational video game. His work specifically discussed *Oregon Trail II*, a game that is part of the larger *Oregon Trail* series, which has its beginnings in the early 1970s as a “text-based [computer] game” (Games & Squire, 2011, p. 19). In his analysis, Bigelow (1999) found *Oregon Trail II*, which is replete with text, audio, color visuals, and animation, to be “sexist, racist, [and] culturally insensitive” (p. 356), along with

communicating “bad values and wrong history” (p. 356) to learners. Bigelow (1999) discussed how the game visually represented characters across raced and gendered intersections, even assigning each character voices that stereotypically aligned them with the groups they are meant to represent. In doing so, however, the game did not acknowledge how race and gender markedly influenced people’s experiences in traveling to Oregon and acquiring land there, which is inconsistent with the actual history of the Oregon Trail (Bigelow, 1999). In particular, Bigelow (1999) noted how the game was designed to encourage learners to prioritize themselves over others. After identifying these issues, he underscored the need for US teachers to “begin a dialogue toward developing a critical computer literacy. [Teachers] need to figure out ways to equip students to recognize and evaluate the deep moral/political messages imparted as they maneuver within various computer software programs” (Bigelow, 1999, p. 362). In doing so, he offered a preliminary list of questions for teachers to pose to learners as they use this game in the classroom (Bigelow, 1999).

De Vaney (1998), Provenzo (2000), and Šisler (2008) all briefly address representations in video games used for education. Šisler (2008) discussed the educational potential for three different “serious games” (p. 215) produced about Palestine and Israel.¹⁶ Both De Vaney’s (1998) and Provenzo’s (2000) analyses touched upon representations in *Where in the World is Carmen Sandiego?*, a renowned educational computer game series. The storyline associated with this game involves the

¹⁶ *Serious games* are yet another term that some scholars use to refer to video games that are used or designed for educational or training purposes. The terminology that scholars and practitioners use in referring to video games used in the classroom can be as diverse as the games they use.

player, who is supposed to be an Interpol agent, traveling to various countries while on the search for the world-famous Carmen Sandiego, who steals national treasures. De Vaney (1998) characterized the earliest versions of the game as one that assumed all players were white because they were designed to only have players encounter in-game characters who were white, regardless of the countries they visited. De Vaney (1998) also disapproved of Carmen Sandiego's characterization as a formulaic Hispanic female villain by Hollywood conventions. Provenzo (2000) was similarly concerned about educational simulation video games that were told from one perspective. De Vaney (1998) proposed the possibility that when teachers use educational software that includes such images, they may well be condoning them. Nevertheless, the absence of preexisting research on how these games are being used in classrooms would suggest that scholars are actually unclear on whether teachers are speaking with their students about such representations. It is therefore worth examining how teachers are using video games in the classroom, and whether and how they are discussing issues of representation with their students.

Quantitative content analyses have provided information about character roles, behavior, and gender representations in educational computer games. Sheldon (2004) found that in educational games that were targeted toward pre-school children, the majority of the main characters were male. Moreover, the male characters in these games tended to behave in ways that were stereotypical of male behavior (Sheldon, 2004). In contrast, although female characters were more likely to appear stereotypically feminine in their physical design, they were also more likely to behave in ways that defied female stereotypes (Sheldon, 2004). Conversely, Hodes (1995) and Drees and Phye (2001) both

found that during the 1990s, it was becoming increasingly common to feature “gender-neutral characters” (Drees & Phye, 2001, p. 50) in educational software.

One study used a combination of qualitative content analyses and interviews to examine how English children attending primary school would conceptualize gender on video game characters that were designed to not represent a specific gender (Bradshaw, Clegg, & Trayhurn, 1995). This research found that although girls and boys often perceived such characters as male, girls were more likely than boys to characterize these figures as female (Bradshaw et al., 1995).

Collaboratively, these findings about portrayals of race and gender suggest that intersectional scholarly investigations of representational patterns in video games used in education would benefit from further analyses. This dissertation will extend such work by analyzing social class along with race and gender. In doing so, it is also vital to consider how popular US social policies and ideologies can influence US classrooms and educational materials. As social constructs that are used to create and sustain hierarchies across US society, representations of race, social class, and gender have historically been at the center of many educational contexts in terms of constructing curricula and affecting students’ learning trajectories and classroom experiences. The next section discusses how representations of these social constructs fundamentally affect everyone in US educational contexts, not only through policy, but also through media.

The Connections between Multiculturalism, Racial Colorblindness, and Video Games Used in the Classroom

Media products are created by people who have been socialized according to the norms of their home societies (Cortese, 2008). Thus, the representations within them

generally reflect the state of the society they are addressing, thus helping to perpetuate these cultural beliefs and values (Cortese, 2008). It remains the case that outside of video game worlds, race, social class, and gender can have powerful consequences¹⁷ due to the ways they converge and act on the bodies of the people within US society. Media representations, too, are a product of these real-world constructs. Classrooms are not immune to these dynamics. In fact, parallels can be drawn between US institutional and social policies and US media representations.¹⁸ Just like advertisements reflect our society's -isms (Cortese, 2008), media design can be said to mimic how policies are constructed. This research study is conducted from the vantage point that it is important to consider the implications of both multiculturalism and racial colorblindness in US educational contexts and video game representations alike.

By way of their symbolizing real-world constructs, representations in educational contexts can have real-world effects that dictate the endeavors students choose to pursue for their livelihoods (Brandes, 1996; Brownlow & Durham, 1997; Nosek, Banaji, & Greenwald, 2002). For example, a working class Black female student may be more likely to have difficulty in finding resources about how to advance her educational goals than an upper middle class Black female student. Once arriving to an academic institution, however, research has found that race can have a greater influence on a student's

¹⁷ As Castronova (2005) and Dickey (2011) have both attested, what happens within MMORPG worlds can also have real-world consequences, with people forging partnerships and severing social ties as a result of what happens in online gaming spaces.

¹⁸ For example, several screenwriters and producers within the US animation industry have expressed that they consider multiculturalism to be a representational ideal (Marx, 2004; Ward, 2008; Ward & Pyle, 2011). As will be suggested later in this chapter, their perspectives are arguably to be expected when considering how Rattansi (2011) characterized where the US stands on multiculturalism.

educational journey than social class (O'Connor, 2003 as cited in Williams & Nichols, 2012).

Issues surrounding representation can also influence the information available in academic environments, including K-12 classrooms and college departments. To this end, teachers' perceptions of their students can also affect their learning experiences (Henry, 2010). Bearing these ideas in mind, it is worth considering how students' decisions about their futures, as well as the support they receive from family members and educators (Nosek et al., 2002), may be influenced by how race, gender, and social class are represented in US educational contexts.

Although culture and race are not the same (Phillips, 2007), representations of race have largely been addressed in US educational contexts through discussions of multicultural education policies (Rattansi, 2011). *Culture*, as understood via cultural studies traditions, constitutes a shared understanding and interpretation of a distinct set of ethics, customs, and daily life routines (Hebdige, 1983; Williams, 1965 as quoted in Hebdige, 1983). This practice may partially be because of race's conflation with *ethnicity*, which is "a common origin or culture based on shared activities and identity relating to some mixture of race, religion, language, and/or ancestry" (Allen, 2011, p. 67). In other words, as a smaller element within the definition of ethnicity, race is often used as a proxy for both ethnicity and culture.

As Lentin and Titley (2011) have pointed out, *multiculturalism* is a nebulous term that can be used to suit the needs of anyone who speaks it, which may be part of its appeal when used in relation to racial representation in educational contexts. In spite of the definition of multiculturalism being in constant flux (Lentin & Titley, 2011), in a

pedagogical sense, the term is generally used to promote a sense of inclusive consideration of a broad range of culturally-distinct groups (Fernback, 2015). Although the intent behind multicultural efforts in education can be well-meaning, striving toward accepting all cultures (Banks, 1991), many multicultural projects demonstrate significantly unequal distributions of attention among portrayed cultural groups.

What further complicates discussions on multiculturalism is that multiculturalism's typical manifestation in US media often does not achieve what its name suggests (Shohat & Stam, 2003). According to Shohat and Stam (2003), multiculturalism would ideally be "polycentric" (p. 7), or equally inclusive and representative of people of all cultures. Typically, multiculturalism in US media usually takes the form of *Eurocentric multiculturalism*, which refers to the practice of temporarily showcasing a variety of cultures while devoting the most careful attention to representing European cultures (Shohat & Stam, 1994). Shohat and Stam (1994, 2003) highlighted that the issue with Eurocentric multiculturalism is not in its attention to European cultures or people of European descent; rather, it is in how Eurocentrism is being used to replicate standard practices for cultural representation, making complex representation difficult for people of all racial categories. In other words, using a Eurocentric multicultural approach in social contexts that already often privilege European cultural representation largely results in minimizing how diversely each of these groups are being represented.

In US classrooms, an example of Eurocentric multiculturalism in practice is when the curriculum follows several European groups at different time periods and suggests that those groups made the US what it is today, versus African, Asian, and Native

American groups, who are only discussed in relation to their exchanges with European groups in the Americas (Banks, 1991). Moreover, many US history textbooks regularly “leave out and distort [historical] events and processes” (Loewen, 2007, p. 8) and avoid including details and information that could be seen as provocative by non-marginalized populations from existing within their pages (Loewen, 2007). Such practices paint a reductive picture of the cultures, and ultimately the people, being represented, implying that only particular European groups are truly relevant to US history and cultures (Banks, 1991; Prato, 2009).

Educational approaches that prescribe to gender-based expectations of aptitude have also been implicated in upholding how gender relates to the majors and careers that students choose to pursue (Brownlow & Durham, 1997; Nosek, Banaji, & Greenwald, 2002). Members of math and science-related fields continue to report that far fewer women than men work in these disciplines, and have undertaken initiatives to rectify these issues (Good et al., 2010; Kelleher & Pausch, 2007). Nevertheless, the representational stereotypes surfacing through educational media do help to perpetuate the sense of cultural normalcy that surrounds this lack of balance (Brandes, 1996).

The middle class identity is often circulated as an ideal and norm throughout US schools and the greater society (Cookson, 2013). As Cookson (2013) noted, “[m]ost Americans think of themselves and their friends as middle class—to be in the middle of the social pyramid seems to be the cultural and political sweet spot in the American social imagination” (p. 9). It therefore follows that in a social climate where those who are middle class “are considered typical Americans” (Cookson, 2013, p. 10) and where most people have accepted the same social class identity in spite of their dissimilar

incomes (Kochhar & Morin, 2014; Morton, 2004) and access to resources (Lareau, 2003), it can be difficult to have intricate conversations about diverse social class representation. Social class, however, has been argued to have a significant influence on students' academic journeys (Allen, 2011; Lareau, 2003), especially in terms of the support they receive from their high schools in preparing for the college admissions process (Cookson, 2013; Davidson, 2011; McDonough, 1997). Across grade levels, students of higher social classes tend to be enrolled in schools that provide them more resources to succeed academically and in their career pursuits (Blustein, Chaves, Diemer, Gallagher, Marshall, Sirin, & Bhati, 2002; Lareau, 2003). Because of how social class affects students' educational trajectories, it is especially crucial to think about its current absence in scholarly discussions about representations in educational media.

In US educational contexts, race, gender, and social class have often been addressed as separate, isolated entities. For example, within academia, race and gender studies both have departments or disciplines that now acknowledge them as areas of study, with multicultural education initiatives being undertaken in the 1960s and 1970s (Banks, 1991) and women's studies gaining a foothold in academia during the 1970s (Vaz & Lemons, 2012). In contrast, there is not a comparable field for social class studies, which, in addition to the cultural proclivity of most people who live in the US to identify as middle class, could explain the limited information addressing representations of social class in communication research.

In practice, multiculturalism also applies to how race and gender have recently been employed in US academic settings. During the 1960s and 1970s, the US, along with Canada, Australia, and countries in the UK, included "movements [...] to reform the

school curriculum so that the images of ethnic groups and the roles they played in the development of their nations would be accurately and comprehensively depicted” (Banks, 1991, p. 129). Conversely, critics of multiculturalism often assert that it takes the form of “tokenism” (Prato, 2009, p. 2; Rattansi, 2011), constitutes “a reductionist celebration of diversity” (Prato, 2009, p. 2), and values certain ethnic groups more highly than others (Rattansi, 2011; Shohat & Stam, 1994, 2003; Žižek, 1996). In this respect, Rattansi (2011) characterized the US as a “modest adopter” (Rattansi, 2011, Varieties of multiculturalism section, para. 4) of multicultural policies. Thus, across US institutions, multicultural efforts are regularly carried out in terms of a “tokenistic policy adoption and implementation” (Rattansi, 2011, Varieties of multiculturalism section, para. 4).

If multiculturalism operates from the vantage point that US society consists of a variety of cultural groups, racial colorblindness functions from an understanding that mentioning the presence of various groups is counterproductive. As a concept, *racial colorblindness* is the belief that race is irrelevant in all aspects of life, and that people should be perceived on individual merits alone (Richeson & Nussbaum, 2004). In and of itself, racial colorblindness is an ideology, not a practice. When racial colorblindness translates into practice, however, it is used to deny the large-scale importance of race in US society, resulting in the perpetuation of colorblind racism. *Colorblind racism* is how racial colorblindness manifests both institutionally and socially. As Bonilla-Silva (2006, 2013) underscored in his research, colorblind racism is a form of discrimination that encompasses four major ideas. These ideas include the advocacy of institutionally holding everyone to the same standards while dismissing that institutions routinely treat people differently according to their racial categorization; that racism has ended or is

ending; that people have an inherent affinity for those who are racially like themselves; and that people's cultures directly correlate with their successes in life (Bonilla-Silva, 2006, 2013). Despite the fact that racially colorblind beliefs and colorblind racism are often communicated through using coded language that does not directly reference racial terms, they both oppressively center whiteness in their protection and maintenance of current racist practices and hierarchies (Bonilla-Silva, 2013).

Although racial colorblindness and multiculturalism are considered to constitute “two fundamentally different approaches to the reduction of interracial tension and stratification” (Richeson & Nussbaum, 2004, p. 417), they both function under a shared assumption in US contexts. This shared assumption is that European perspectives and cultures constitute the normative center of the world. As prominent ideological perspectives in the US (Richeson & Nussbaum, 2004), components of multiculturalism or racial colorblindness may also be present in a number of US video game representations. Because social constructs and the representations and stereotypes surrounding them are at the heart of these ideologies, both ideologies actively inform various elements of US daily life. It therefore follows that should they influence US society at large, they would also in turn affect video game production as well as that of nationwide educational curricula. In this respect, US multicultural and racially colorblind approaches are both flawed, but they are also reflections of the same society from which they have originated.

Nevertheless, contemplating Black female teachers' and learners' perspectives on video games used in classrooms may offer insights into how educators might navigate addressing representation in not only video games used in classrooms, but in other educational media. As illustrated through the literature discussed in this chapter, diverse

representation is often attempted in US media contexts through relying on a limited number of visual representations per case (Williams et al., 2009). In industry-created video games, unless a marginalized group is the explicit target audience for a media product (Shaw, 2014), characters that represent those groups often occupy peripheral narrative roles that deny them the opportunity for characterization and to share their histories within the in-game context (Bigelow, 1999).

Despite their representational issues, if prudently selected and managed, video games in the classroom can be used to expose learners to different perspectives (Gee, 2005; Squire, 2011) and critically discuss them (Squire, 2011). Because context is so important in selecting and using video games in classrooms (Charsky & Ressler, 2010), teachers are tasked with finding out ways to work around the weaknesses in these games (Bigelow, 1999). It is challenging work, but the better teachers are able to foster respectful learning spaces that work toward centering and providing complex attention to a diversity of people and experiences, the more likely it will be for them to maintain harmonious classroom environments that are conducive to learning for all students. For these reasons, it is crucial to focus on Black women's perspectives as one group whose socially constructed statuses often demand that its members navigate these questions, whether consciously or unconsciously, and at times unexpectedly, in their daily lives.

The Link between Black Women and Education

This dissertation's focus on Black women becomes especially important because of how race, social class, and gender are often imagined to operate within various aspects of US culture. This section discusses the amalgamation of elements that are particular to Black women's social positioning within the US context. Such elements have also

figured into focusing this research on Black female teachers and learners. In addressing these points, it is not my intention to suggest that Black women are the only group to be affected by any singular factor addressed here, or that Black women are the only group of teachers and learners who have important information to offer on this research topic. Rather, Black women are the sample group for this research because all of these social and historical factors, when considered simultaneously, are exclusive to Black women's US social status, demonstrating a necessity to center research on this particular intersection of race and gender. In fact, the prevalent US social inclination to read the array of reasons provided within this section as a way to rationalize studying other groups, in addition to or in lieu of Black women, is indicative and symptomatic of the social and institutional racism and sexism that is currently widespread in mainstream US society. This brand of combined -isms implicitly and explicitly discredits the value of Black women as an important group of people worthy of research attention as an isolated group. These entrenched ideas demonstrate the depth to which this group has been so thoroughly dismissed in US social, historical, and institutional contexts; massive efforts are required in order to undo the centuries of damage that have been done, are being upheld, and are not effectively being challenged, even now. The aforementioned assumptions inherent in this act of rationalizing are precisely the reason why Black women must be focused on independently within the context of not only this academic study, but of many others. As Gray (2014) noted, it is vital that academic research explores Black women's experiences and perspectives in order to "make black women visible" (p. 80) and to find potential ways to remedy ongoing institutional and social disparities.

It is crucial to note the role that Black women, whose contributions to US society are often overlooked, have culturally played in the history and ongoing development of inclusive educational efforts. In this regard, this study explores video games as one of many alternative means through which the Black women in this study who are teachers have practiced inclusion in education. To this end, it is just as important to consider what video games used in classrooms symbolize as it is to consider what academic material they are being used to teach.

In order to elaborate on why Black women have been selected as the sample group for this study, it is important to first discuss the historical contexts surrounding education for US Black people. The foundations of this connection are largely rooted in how education was historically denied to US Black people during much of US colonial history and slavery. Beginning in 1705, the US colonial government declared an edict that anyone whose mother was a Black woman was a slave, thereby ending an era in which people across racial groups could be enslaved (Giddings, 2006). Incidentally, this edict was also pronounced around the same time that enslavement became a lifelong contract, as opposed to one with a limited tenure (Giddings, 2006). US colonial history and the institution of slavery, which preceded the founding of the modern-day US, are associated with and continue to affect Black people across the world in contemporary times (Clarke, 1993). Ultimately, in the US context, neglecting to discuss these relationships only perpetuates and upholds shortsighted and persistent mythologies that involve not only US Black people, but an entire nation whose most prevalent ways of thinking continue to undervalue the intellectual worth of an entire segment of its constituency.

Contrary to ongoing US cultural depictions of Black people as unintelligent and averse to education,¹⁹ for centuries, education has had high cultural value for many Black people in the US (Ballard, 1973; Franklin, 1979; Woodson, 1968). These cultural affinities toward education have historical roots dating back to well before the beginning of US history, and are also tied to the institution of slavery (Anderson, 1988; Woodson, 1968). Prior to 1740, Black people were able to pursue educational endeavors, but were prohibited from educational access by the start of the Industrial Revolution (Woodson, 1968). When wealthy colonists needed more slaves to support the expansion of southern plantations, they decided that educating Black people who were slaves would result in them aspiring toward freedom from slavery (Woodson, 1968). In the face of this shift, many enslaved Black people still aspired to learn and found educated people across racial boundaries who believed in the importance of their education and were still willing to teach them, regardless of its prohibition by law (Woodson, 1968). Even after slavery's legal abolishment, Black people across the US often had to "go out of their way to become educated, and to provide education for their children" (Franklin, 1979, p. xi).

The accessibility of learning remains important to and within many US Black communities (Anderson, 1988). The ramifications of slavery continue to bear influence on many aspects of US Black people's lives (Clarke, 1993; Bonilla-Silva, 2014),

¹⁹ The inclination to deny the contributions of people of African descent is global in scope (Mills, 1997; Mudimbe, 2012), as many societies invest in the belief that anything intellectually revolutionary that people of African descent have created must have actually been created by someone else (Mudimbe, 2012). Because the US constitutes one of these societies, images that exist in the social imaginations of many US people persistently and pervasively portray Black people, especially those who are African American, as "intellectually inferior" (Jones-Wilson, 1991, p. 72). Such limiting and disparaging stereotypes continue to persist in academic environments, affecting students and educators alike (Williams & Nichols, 2012).

including the quality of US Black people's educational experiences. For generations, numerous US Black people have campaigned for and been in favor of equal access and excellent educational standards within public schools (Franklin, 1979; Jones-Wilson, 1991; Woodson, 1968). Jones-Wilson (1991) noted that "[h]istorically, black Americans have been ardent supporters of and advocates for high-quality public education" (p. 72). To this end, Woodson (1968) credited African American people for developing the first successful public education system in the US South, which occurred at some point within the Reconstruction period. It was around this time—at the start of the 20th century—when Black workers turned to teaching in Black communities, since new, prohibitive white labor unions were making it increasingly difficult for them to find work in the trades that they developed during and directly following slavery's legal abolishment (Ballard, 1973).

Although slavery's legal tenure has ended, the effects of such a longstanding institution remain ever-present in the social and institutional workings of US society (Clarke, 1993; Bonilla-Silva, 2014). One manifestation of this remnant of US history is that contemporary Black women are regularly on the receiving end of racist and sexist treatment in a cultural context where Blackness and womanhood are considered to be the least privileged racial and gender identities to embody from binary race and gender standpoints (Collins, 2000; Harris-Perry, 2011; hooks, 2000; Jones & Shorter-Gooden, 2003; Morton, 1991; Wallace, 1990). Given Black women's highly visible yet simultaneously invisible status in US society (Lorde, 1984), for many Black women, thinking about how race and gender function in US society is a matter of course that has served as a way to navigate, manage, and attempt to circumvent and self-protect against day-to-day acts of racism and sexism, many of which can surface without warning

throughout their daily lives (Jones & Shorter-Gooden, 2003). Black women's distinct positioning within the US context, in addition to the group's reputation for often interpreting texts in ways that significantly differ from the larger population while also being aware of representational norms (Bobo, 1995; Collins, 2000), demands that the intricacies of Black women's perspectives be further explored in communication research.

Black Women: Individual Identities versus Group Identities

In particular, as an extension of both British and American cultural studies traditions, this communication-based research study seeks to understand how race, social class, and gender interconnect with individual-centered characteristics for US Black female teachers and learners who are using video games in classrooms. Individually and contextually-speaking, social class, which especially in the US context is not always given due attention or deeply articulated, may both overtly and covertly affect Black women's lives, experiences, and perspectives. As a general population, Black women are regularly subjected to racism and sexism within and beyond academic contexts, regardless of social class standing (Williams & Nichols, 2012) or the group's statistically high levels of educational and professional achievements in the face of US society's -isms (Kaba, 2008). The nuanced relationship between education and social class for Black women who are teachers and learners, therefore, must be more deeply investigated.

Because the participants in this study are all highly educated people, it is important to consider whether their educational experiences, either as teachers or learners, have affected their outlooks on using and selecting video games for classroom use.

Preexisting studies have asserted that Black women often face significant

microaggressions²⁰ in educational contexts (Sue, 2010; Williams & Nichols, 2012), in addition to having to navigate both racism and sexism (Wilson, 2012). To this end, Williams and Nichols (2012) noted that Black women often encounter microaggressions in educational contexts because the group is so widely stereotyped with respect to intellectual ability. Significantly, such occurrences were chiefly “in academic spaces like classrooms and advising centers rather than social spaces” (Williams & Nichols, 2012, p. 85). Therefore, it is crucial to begin asking Black women who teach and learn in these environments about whether their experiences have informed their use of video games in classrooms.²¹

Williams and Nichols (2012) advocated using an intersectional approach to discuss Black women’s experiences in academia. They asserted that “the intersectional ‘Black woman’ identity is more representative of participants’ experiences in college than either their ‘Black person’ identity or ‘woman’ identity considered separately” (Williams & Nichols, 2012, p. 79). Many Black female undergraduate students noted that their racial identities often felt more salient to them than gender or social class when they experienced discrimination in academic contexts: “Although it is clear that experiencing racial discrimination in college can, at times, be a gendered phenomenon, it is important to note the primacy of race in many of these encounters” (Williams & Nichols, 2012, p.

²⁰ Sue (2010) specifically defined microaggressions as “the brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial, gender, sexual-orientation, and religious slights and insults to the target person or group” (p. 5).

²¹ The next step, which is outside of the scope of this study, would be to consider whether, and how, teachers and learners who have not participated in this study and are, or are not, Black women have also experienced facets of what the participants in this study have shared.

79). For these reasons, within the context of the study's intersectional approach, issues related to race, at times, take prevalence over discussions surrounding social class and gender, although all three remain relevant to this research project.

In focusing only on Black women who are teachers and learners, this study is devoted to privileging and providing space to communicate the personhoods of its 16 participants. Through employing a social constructionist perspective, this study considers that US social images of Black women inform how the group tends to be seen and heard within US society. In order to eliminate the static preventing many people in the US and beyond from seeing individual African American women as people with a combination of distinguishable traits and motivations from one another, Harris-Perry (2011) advocated the use of what she termed "a framework of recognition politics" (p. 42). Through using Blackness as an example, she demonstrated how for some African American people, being recognized as a member of a group is inseparable from being acknowledged as human:

Individuals from disempowered social groups desire recognition for their group but also want recognition of their distinctiveness from the group. Thus many African Americans bristle at the idea of [racial] color blindness because it suggests that race is irrelevant to identity. They want to be understood as black and thus tied to a history and culture associated with blackness. At the same time, they do not want to be reduced to their racial identity alone. Just recognition means being neither blind to nor blinded by identity differences. (Harris-Perry, 2011, p. 39)

In this example, it is important to emphasize that wanting "recognition" (Harris-Perry, 2011, p. 39) is not the same as being willing to be stereotyped. Rather, it is connected with multiple facets of people's identities and experiences being validated. Furthermore, because giving voice to a sense of collective group awareness can have the potential to

facilitate positive social changes (Bobo, 1995), it is important to be careful to avoid dismissing the act of noticing in-group similarities as essentialist thinking. In this study, the intention behind identifying participants as Black women is to acknowledge their perspectives, along with their self-reported individual-centered characteristics and recollection of their experiences. Through making the distinction between the individual and the collective, this research intends to preserve the participants' individuality and experiences.

Much like Bobo (1995) asserted in her research about how her Black female interviewees were interpreting a variety of texts featuring Black women, I do not intend for my focus on Black women who are teachers and learners to be read as tantamount to making the claim that all Black women share the same thoughts or experiences. Although all of the respondents in the study will self-identify as Black women, as individual people of varying personalities, ages, social classes, ethnicities, and more, this study acknowledges that every Black woman will not have the same opinions or experiences. As Collins (2000) noted, “[t]he existence of core themes [of experience] does not mean that African-American women respond to these themes in the same way. Diversity among Black women produces different concrete experiences that in turn shape various reactions to the core themes” (p. 157). Thus, she asserted the following about the individual and collective relationships between race and gender identities for Black women:

Being Black and female may expose African-American women to certain common experiences, which in turn may predispose us to a distinctive group consciousness, but it in no way guarantees that such a consciousness will develop among all women or that it will be articulated as such by the group. (Collins, 2000, p. 158)

In other words, sharing these social statuses may result in similar treatment socially and institutionally, but it does not automatically equate to sharing minds or even naming the same events as significant. Due to the difficulty that Black women must often endure in having their personhoods acknowledged and accepted in the face of enduring, widely propagated, demeaning social images (Harris-Perry, 2011), the earlier-discussed notion of individual-centered characteristics will serve to ensure that this idea is upheld throughout this study.

I enter this study acknowledging and accepting that all Black women are not the same, but that as Collins (2000) noted, various Black women may have undergone comparable experiences. As will be demonstrated in the chapters to come, rather than reading these shared experiences as indicators of uniformity among different individuals, I would assert that when various Black women voice similar experiences, it is not due to a lack of in-group difference. Rather, it is likely due to the fact that US Black women, as Harris-Perry (2011) pointed out, are living in a society that insists on routinely refiguring Black women as familiar cultural caricatures despite individual Black women's diverse ways of seeing and being. Considering everyone's perspectives to sound exactly the same, regardless of circumstance and the ways in which individual Black women express their thoughts, constitutes yet another way that Black women's perspectives are dismissed and silenced, both separately and as a group. For these reasons, certain collective experiences among very different Black women may most aptly serve as an indicator of the ongoing racism and sexism that needs to be addressed within US society. With respect to this dissertation, information about how Black women who are teachers and learners navigate

the waters of representation can similarly provide valuable insights about what is happening, working, and missing in representations of video games used in classrooms.

Conclusion

Bearing in mind the representational issues across video games, including ones that may arise in relation to their being used in educational contexts influenced by systemic -isms, it is important to be wary of demonizing and blaming particular media forms for a society's shortcomings. The relationship between media products and their society of origin is recursive; the content in all media are products of the culture from which they originate, reflecting and perpetuating what are already social, institutional, and cultural matters-of-course (Cortese, 2008). Thus, all media are equally accountable for their representations. In this respect, it is crucial to remember that certain questionable edutainment titles can "seem more socially aware than the blatantly culturally insensitive materials that still fill school libraries and bookrooms" (Bigelow, 1999, p. 363).

The concepts and theories addressed within this chapter have influenced this study's methods and methodologies in two overarching ways. First, cultural studies research traditions and social constructionist perspectives allow for a highly-integrated qualitative exploration of representations as they concern both audiences and texts. Specifically, by analyzing video game texts, conducting interviews, and administering a questionnaire, this project uses multiple methods to investigate the dissertation's research questions. The literature has illustrated how video games are legitimate objects of study as texts, also underscoring the importance of understanding how teachers and learners are using video games as learning tools. Second, intersectionality and experience have informed the development of individual-centered characteristics, which were used in

service of highlighting participants' diverse motivations, interests, and perspectives on their use of video games in the classroom. To this point, these theories also relate to the particular social and historical contexts surrounding Black women's representation throughout US society and media. Both contexts have directly influenced the coding scheme and the design of the interview questions and questionnaire. This connection, along with a more extensive discussion on the details surrounding the methods and methodologies used within this research, will be further addressed in the next chapter.

CHAPTER 3

METHODS AND METHODOLOGY

This chapter provides a detailed explanation of the methods and methodologies used in this study, which has been approved by Temple University's Institutional Review Board (IRB). Because no singular method can present a complete picture of everything occurring within a topic of study (Johnson, Chambers, Raghuram, & Tincknell, 2004), several scholars have asserted that the most effective way to establish triangulation is through using a combination of methods (Bechhofer & Paterson, 2000; Berg, 1995; Gillham, 2000). Therefore, the design of this study seeks to use multiple angles and response formats to answer the abovementioned research questions, doing so through the following qualitative approaches: conducting a textual content analysis on the specific video games the participants used, holding individual interviews, and administering a questionnaire.

Methods and Methodology: A Brief Overview

In this dissertation, I interviewed each participant a minimum of three times. I located, played, and analyzed representations in select games that participants played, focusing on those played by two or more participants and ones featuring human or anthropomorphic representation. When examining race, social class, and gender, I referred to the study's key terms and definitions, as outlined in Table 1, which is shown later in this chapter. I found out which games participants played in the first interview, which was also devoted to learning more about the participant, whether she was a teacher and/or a learner, and the environments in which she taught, learned, and lived. The

second interview focused on how the participant used the games in the classroom and what she remembered about each one's content. The third interview began with an open-ended questionnaire I created that asked participants to describe representations they found ideal and less-than-ideal, and ended with more detailed questions about their responses and thoughts on in-game representations. I transcribed the interviews I had consent to audio record, and used these data, along with my interview notes and textual analyses, to form the themes that I used to answer the study's three research questions.

This study uses the aforementioned methods simultaneously, taking a *grounded theory* approach. Grounded theory entails examining what patterns are materializing from the research, and then categorizing the information afterward (Charmaz, 2011, 2014; Glaser & Strauss, 1967). This approach allowed me to make informed changes to the study in response to the data I gathered. Furthermore, I identified themes that contributed to answering each research question. I considered themes to be categories where at least four participants expressed a particular idea. In identifying themes, I used the *constant comparative method*, which entailed reading the transcripts, interview notes, and questionnaires multiple times in order to uncover the themes within them (Charmaz, 2006; Glaser & Strauss, 1967).

Structurally, this chapter has been divided into several parts. After restating this project's research questions and key definitions, one section is devoted to each of the three aforementioned research methods.

Research Questions Revisited

The three methods discussed at length in this chapter address the study's three research questions, which are the following:

RQ 1: In what ways are race, social class, and gender represented in the video games that participants used in the classroom?

RQ 2: How do the participants' expectations about ideal representations in video games used in the classroom compare with the representational patterns in video games that have actually been selected for classroom use?

RQ 3: How do teachers' and learners' self-reported experiences and individual-centered characteristics relate to how they identify their ideal representations in video games used in the classroom?

This chapter frequently references these research questions, especially as they pertain to the specific purpose, structure, procedure, and procedural concerns of each method.

A Reprise of the Key Terms and Definitions

The next two pages include Table 1, which contains a list of the key definitions used in this study. All of these terms have been defined in Chapters One and Two of this study. These terms will be used regularly throughout this chapter and those to come.

Table 1. Key Terms and Definitions

Term	Definition
African American	Actually refers to ethnicity but is sometimes used interchangeably with the term “Black” in the US. In this study, the term will specifically address the group of Black people whose families have lived in the US for generations and are often better able to connect their lineage with the nation’s colonial origins than to specific ethnic groups on the African continent.
Black People	Used in this study to refer to people whose ancestral origins can be traced to the African continent.
Ethnicity	Often used as a proxy for race, it encompasses cultural ties between people that are the result of but not limited to traditions, “race, religion, language, and/or ancestry” (Allen, 2011, p. 67).
Experience	Comprised people’s life events and how they attach meaning to and interpret them (Pickering, 2008).
Gender	Collaboratively based on the works of Allen (2011), Butler (1993), Ehlers (2008), and Gender Spectrum (2014): A concept that separates people into different groups along a continuum where femininities and masculinities are considered to be polar opposites. Like the concept of race, it is practiced both socially and institutionally.
Individual-centered Characteristics	The defining features that participants think are a part of who they are as individuals and are specific to a given situation. Since people are complex, these characteristics will be descriptors of contextually-shifting salience for any given participant. These descriptors are expected to consist of a combination of roles (like job titles or interpersonal relationships), social constructs (like race, social class, gender, etc.), and personality traits.
Learners	People who are or were associated with K-12 or college education, and have been assigned to use video games as a part of their efforts to gain knowledge in classroom environments.
Multiculturalism	A nebulous term that can be used to suit the needs of anyone who speaks it (Lentin & Titley, 2011), it is generally used to promote a sense of inclusive, yet often unequal, consideration of a broad range of culturally-distinct groups.

Table 1. (continued)

Race	Collaboratively based on definitions by Allen (2011), Ehlers (2008), Omi and Winant (2002), and Rex (2009): A concept that, in practice, separates human beings into different groups that are considered to be physically distinct from one another. These groups are created and sustained on the basis of ongoing political, historical, and social encounters occurring within and between varying cultures.
Racial Colorblindness	The notion that not acknowledging racial differences is a social ideal (Bonilla-Silva, 2006, 2013). Racial colorblindness is driven by the idea that US society is entering a supposedly “post-racial” (Bonilla-Silva, 2013, p. 311) era, and that racism is a figment of the past (Bonilla-Silva, 2013).
Representations	They are fundamentally proxies that can never be exactly the same as the people, places, and things that they are symbolizing.
Social Class	Collaboratively based on the definition by Gilbert (2011) and studies conducted by Lareau (2003) and Davidson (2011): A concept distinguishing between groups of people on the basis of their access to material, societal, and cultural resources. All of these factors can be expected to benefit a person’s or family’s prosperity, prestige, and financial situation.
Teachers	People who are or were associated with K-12 or college education, and have included video games as a component of their instructional strategies.
US Black People	A general reference used in this study to refer to Black people who live in the US.
Video Games Used in the Classroom/ Classroom Contexts	Any offline or online narrative-based, interactive multimedia that are used with the primary intention of teaching skills or other forms of knowledge.

Method: Textual Content Analysis of Video Games

This section respectively addresses the following information as it relates to the textual analyses of the sample video games in this study: the purpose, structure, video game selection process, procedure, and procedural concerns.

Purpose

This study operates from Jones' (2008) logic that video games constitute texts that can justifiably be analyzed in scholarly circles, much like other more traditional media forms. Thus, the textual analytic method employed in this study was used to qualitatively examine the content of several video games. Specifically, the textual analytic method was used to search for themes across a series of games that participants used, thereby being in service of answering RQ 1, which is to identify the ways that race, social class, and gender are represented in video games used in the classroom. It was also applied to answering and contextualizing the comparative components of RQ 2, which drew from the analyses for RQ 1.

Structure

Given the abovementioned objective to answer RQ 1, the structure of the textual analysis conducted in this study is informed by British and American cultural studies and social constructionism in their focus on themes surrounding aspects of representation. The selected video games were analyzed for patterns in their representations of race, social class, and gender, as they apply to the study's research questions. These themes were used to analyze the characters, the diversity of the roles they occupy, and the storylines in the sample games. The textual analysis thereby focuses on addressing what these patterns could say about video games used in the classroom as a genre and the expectations that teachers and learners have of them.

In its focus on representational conventions as they occur within video games used in classrooms, the textual analytic component in this project will privilege my perspective as the researcher. This distinction is important because the nature of reading

media messages is subjective. As a standard practice, researchers establish validity through their theoretical expertise, making their role an integral and irreplaceable component of qualitative research. Therefore, researchers' subjectivities do not nullify the importance of scholarly voices; they enhance them. Scholarly perspectives are important and necessary because of the group's expertise. It is, however, beneficial to balance academic insights with those of audience members, who are larger in number and include various ways of seeing that do not always coincide with academic opinion. Understanding how media are shared and interpreted in a cultural context necessitates gathering multiple people's vantage points (Sender, 1999). Because the opinions of researchers and media users are both important, the findings from my textual analysis further contextualize what teachers and learners have reported in their interviews.

Video Game Selection Process: Choosing and Analyzing Video Games

Because this study involves teachers and learners across disciplines and grade levels, it would be nearly impossible to preselect a sample of games that would accurately represent each participant's specific educational history. In addition to the immeasurable potential to use traditional video games for education, there are countless video games that have been designed for educational purposes. For these reasons, the textual analytic component of this research study has been inspired by Radway's (1991) inclusion of participant-referenced texts in her research. Thus, the video games analyzed for the textual analysis are those the participants encountered in classrooms.²²

²² When I could not access the original games or participants could not recall the exact version they used, I used game versions that were accessible to me or were likely to have been the same or similar versions participants used, given descriptive information they provided during interviews.

Participants had varied notions of what constituted a video game for classroom use. These differences of opinion can be seen in the games, programs, and technologies they reported having used (see Appendix D: Participants, Roles, and the Games They Used). Considering whether the video games or websites were available for analysis, whether the material constituted *video games*,²³ and whether there was any anthropomorphic representation,²⁴ the study gives special consideration to the following video games and websites I was able to access, which were used by two or more participants: *Math Blaster*, *Mavis Beacon Teaches Typing*, *OutNumbered!*, *Oregon Trail*, *Scratch*, *Super Munchers*, *Type to Learn*, *Where in the World is Carmen Sandiego?*, ABCmouse.com, ABCya.com, BrainPOP.com/games-main, Coolmath-games.com, PBSkids.org/games, and Starfall.com.²⁵ It does not take into consideration websites that do not include video games, such as KhanAcademy.com and LearnZillion.com, as these are outside of the scope of this dissertation. The analysis also includes games played by only one participant to the extent that they illustrated themes in the games used by two or more participants.

²³ Within the context of this study, a *video game* is “an artifact in a visual digital medium, is intended as an object of entertainment, and is intended to provide such entertainment through the employment of one or both of the following modes of engagement: rule and objective play or interactive fiction” (Tavinor, 2009, p. 26).

²⁴ During the interviews, some participants mentioned video games like online versions of *Jeopardy!* or *Atom Builder*, which did not represent any anthropomorphic characters. In this study, however, such games will only be mentioned with respect to how they connect with representations of race, social class, and gender.

²⁵ Heather and Mrs. Cordova only used the content on Starfall.com that did not require a paid subscription to the site.

Websites and programs such as ABCmouse.com, ABCya.com, BrainPOP.com/games-main, Coolmath-games.com, *Imagine Learning*, PBSkids.org/games, and Starfall.com, comprised such a large number of games, many of which the participants did not use. Playing and examining all of the games on the extensive websites that participants used, the majority of which were Flash games, would not have been possible within the scope of this study. For example, as of May 17, 2016, the Coolmath-games.com website featured 623 free Flash games and mobile games, and as of May 26, 2016, the BrainPOP.com/games-main website featured 105 Flash games for grades K-12 and ABCya.com consisted of 350 Flash games for grades Pre-K through 5. In such cases, I examined the specific games that participants used, when this information was available. When it was not, I examined the games the site listed as their most popular ones, which I did with respect to Coolmath-games.com. If neither of these details were available, which was the case with ABCya.com and BrainPOP.com/games-main, I selected and analyzed games on the basis of whether the titles or the images associated with them featured or referenced human or anthropomorphic representation.²⁶

Although the textual analysis examines the video games that participants used in classroom contexts, many of which are available on the Internet for free, two of the video games they used were not available for me to play directly. For example, *Kid Pix* from the 1990s does not run on most of today's computers and I could not find a version of it in print to analyze. Therefore, references made to *Kid Pix* in this study are based on my own memories of using it in elementary school and on participants' comments about it.

²⁶ In relation to a key theme, Chapter 5 briefly mentions *Ghost Typing* on ABCya.com, a rare example that references human or anthropomorphic representation through text rather than visuals.

Imagine Learning was licensed to the schools for on-site use only, so my textual analysis was limited to visiting the ImagineLearning.com website and reviewing their 414-page Supplemental Guide (Imagine Learning, 2011), available online. To expand my knowledge of *Imagine Learning* given that I could not play it, I asked the participants who used it extensive questions about it, noting the difference between their reports about the game and my own observations from the information I gathered. Ultimately, the game's sheer scope, user-tailored design, and my lack of access to it made it impossible for me to fully analyze everything it had to offer.

Procedure and Procedural Concerns

With the exception of *Imagine Learning* and websites like ABCmouse.com, ABCya.com, BrainPOP.com/games-main, Coolmath-games.com, MathBlaster.com, PBSkids.org/games, and Starfall.com, which all include many games designed to be played either independently or over a long period of time, I analyzed games featuring human or anthropomorphic representation.

I played the games to the extent I was able to gain an understanding of their characters, narratives, and recurring ideas. In doing so, I noted the races, genders, and social classes for each game's key characters where possible. I then identified recurring themes surrounding race, social class, and gender as portrayed within these games. Much of this information was subjective because it is not always overtly announced in video games and is often chiefly visual or implied. Therefore, different audience members may identify the same character in different ways, as is common in daily life. Nevertheless, my own expertise as a researcher and multimedia artist who specializes in animated representations is significant because I have spent many hours contemplating and having

been exposed to many different animated images from both the perspective of audience member and independent producer. Because I am only one person, it is important to consider my own perspective in relation to people who have expertise as teaching practitioners, as well as those who have encountered such games as students. The individual interviews provide an opportunity to understand how this study's participants are thinking about representations in video games used in classrooms.

Coding Scheme

When coding race in the textual analysis, I played the games while taking notes. I referenced the information in Table 1²⁷ in conjunction with the appearance and, when available, any discussions about characters' countries or cultures of origin that were evident through in-game plots, scenarios, or contexts. In this sense, race was coded in the video games much like race is coded in everyday life in the US. People in the US often use a combination of visual cues and terms associated with each racial group to apply race to one another, often without asking people directly how they self-identify. Ethnic terms (for example, *African American*, *Chinese American*, *Italian*, *Jamaican*, *Mexican American*, etc.) were also categorized under race because of their often interchangeable use in US quotidian life. Using this coding scheme meant that much like in reality it is possible that a character was coded to be representative of one racial group when the game's production team may have actually intended said character to represent another, or a combination of groups. The analysis therefore took into account the implications of this classification process and what it meant for character and plot design. To mitigate

²⁷ Table 1 is at the beginning of this chapter. It includes this study's definitions and key terms, including race, social class, and gender.

this difference of interpretation from happening, observations made about the game were checked against those of written materials associated with each game, like the text on the game's case, accompanying guides, or on the production company's websites.

Much like with race, US people similarly gender one another using visuals cues and terms. Gender, therefore, was coded much like it is in US daily life. This coding scheme was based on the gender-specific titles, pronouns, and appearance associated with the person or character in question. Characters were coded according to whether their titles, pronouns, and appearance characteristics tend to be socially categorized with the female or male gender. Much like with race, it is possible that in the absence of pronouns or the direct mentioning of a character's gender, certain characters may be coded differently in this study from how the producers coded them in their texts. There were no cases in which characters overtly identified as transgender, gender-neutral, or non-binary.

For social class, the coding scheme for the textual analysis relied on term-based, descriptive, and visual cues. Much like with using similar cues for race and gender, it is likely that they may not be read as producers intended.

Dialogic, Deconstructive, and Contextual Validities: Definitions

Through its objectives to further contextualize elements of social class, race, and gender, the textual analytic component of this study takes into consideration Saukko's (2003) three qualitative validities: *dialogic validity*, or the question of whether the research is faithful to representing the narratives of its participants, *deconstructive validity*, or the degree to which a study is able to question or challenge long-accepted, widespread ideas about a group or a concept, and *contextual validity*, which is the consideration of time and place along with the data gathered during the study.

As mentioned earlier, the textual analytic component of this study aimed to preserve dialogic validity into account by considering producer-created materials as a representation of producer intent with respect to representations of race, social class, and gender. Deconstructive validity is maintained via the textual analysis through examining a diverse representative sample of video games used in different educational contexts. To ensure contextual validity, I have also noted the year and production goals, when available, of each referenced video game.

Representativeness

The goal of qualitative research is to gather nuanced understandings, a combination of realities, and a variety of potential worldviews (Denzin & Lincoln, 2011; Jensen, 1991; Pickering, 1997, 2008; Saukko, 2003). Because technological access issues made it impossible for me to examine every game that participants used, the video games studied through this textual analysis do not fully constitute a random sample. Nevertheless, because this study's participants taught or were educated in such a wide variety of subjects and grade levels (and often used more than one video game while doing so), the games can be considered representative of what they used in those contexts.

The next section addresses details surrounding the qualitative interview method as it pertained to this study.

Method: Qualitative Interviews

The length and details addressed within this section of the Method chapter appropriately signify the importance of the interview method in this study. Although this section on qualitative interviews is structured much like the previous textual analysis section and the upcoming questionnaire section, the scope of this chapter necessitates a

more detailed explanation of its contents. If the conceptual structure of this section on qualitative interviews were to be visually depicted, it would take the form of a funnel. In this respect, the section begins with the overarching purpose and structure as they apply to this dissertation as a whole, and works its way down to the smallest unit: each individual interview itself.

After discussing the aforementioned purpose and structure-related information, the section elaborates on the study's specific participant population: adult Black female teachers and learners of varying social classes who have used video games in classroom contexts, explaining the rationale behind using each category in the participant selection process. This section then elaborates on the social and historical reasons why Black female teachers and learners are the raced and gendered intersection of focus for this study. In doing so, it addresses issues that are particular to US Black women's social status, elaborating on how this study has been tailored to be mindful of and work toward remedying, at least in this research, the challenges that members of this group often face in being fully seen and heard. After describing this information, this section addresses each interview more specifically, focusing on their unique objectives and procedures. As the top of the funnel that makes up this section on the qualitative interview method, the following paragraph outlines the overall purpose behind selecting this method for this research study.

Overall Purpose

Regardless of some scholars' warnings about using interviews too frequently because they have almost become a staple in the social sciences (Bechhofer & Paterson, 2000; Berg, 1995; Briggs, 1986), interviews are invaluable when used to gain a better

understanding of issues that involve nuance and have important cultural relevance. In addition to using semi-structured interviews to collect nuanced data about participants' past experiences with video games in classrooms, in this study, interviews were a necessity because of their functioning in asking participants to imagine the ideal forms that video games used in classrooms could potentially take. As such, they constituted a more immediate form of interaction than questionnaire responses. Interviews, therefore, were useful because they allowed and encouraged some participants to speak spontaneously and be introspective about their own beliefs (McCracken, 1988). Thus, interviews were an irreplaceable component of answering the research questions about what teachers and learners both expected from video games used in the classroom.

Along with providing a direct approach for asking participants about their perspectives on the video games they used, the individual interviews were also helpful in gathering participants' individual-centered characteristics. To do so, this dissertation used a three-step qualitative interview structure, which was loosely based on Seidman's (1998) three-step phenomenological interview method. Because this study is embedded in the cultural studies paradigm and not phenomenology, Seidman's (1998) influence was only in a methodological sense, and not a theoretical one. Seidman's (1998) method was designed to use three interviews for the purpose of gathering in-depth information, making it particularly valuable to use in this study. His method also encourages participants to reflect on their earlier responses in the third interview (Seidman, 1998). This practice has the potential to help ensure that participants' thoughts are being accurately represented. It is also useful to this study because each participant's set of

interviews develops cumulatively and over time, promoting a sense of rapport between the interviewer and interviewees (Seidman, 1998).

The abovementioned three-step interview method was also conducive to this study's grounded theoretical approach. In addition to granting participants the ability to more easily recall and expand upon information from previous interviews (Charmaz, 2014), it presented several opportunities for me as the researcher to cross-check information and introduce further questions. These elements are hallmarks of both qualitative research and grounded theory (Charmaz, 2014). The next section discusses the structural similarities between all three of the qualitative interviews conducted per participant.

Overall Structure

For this study, each of the three semi-structured interviews began with a list of questions but evolved to incorporate clarifying questions based on the data provided by each participant. Each interview was initially designed to last approximately one hour,²⁸ for an expected total of nearly three hours spent interviewing each participant. Although some participants' individual interviews ran longer or shorter than the anticipated hour, meeting a minimum of three separate times was imperative for each participant. I

²⁸ As opposed to Seidman's (1998) interviews, which are each a minimum of one hour, thirty minutes. Phenomenology and cultural studies are widely considered to be incompatible paradigms (Tracy, 2013), largely because phenomenology places utmost importance on the mind as isolated from the body and cultural studies places primacy on the body in a given social context. Although both paradigms are considered to conflict with one another, I would assert that the phenomenological interview structure does offer a valuable methodological intervention for seeking more information about participants' thoughts within cultural studies research. Since this dissertation is situated within cultural studies research and is not a phenomenological study, the interviews did not need to be precisely as long.

contacted participants for clarification in the rare case where I had questions about an individual participant's data after her set of interviews had ended.

The primary reason for requiring all participants to meet three separate times was in order to develop *rapport*, or feelings of trust and camaraderie (Berg, 1995). These feelings take time to cultivate and therefore do not occur as an immediate consequence of the researcher's expertise or appearance (Berg, 1995). It was particularly important to develop rapport in this study because of its emphasis on learning about participants' thoughts on video game design and representational patterns of race, social class, and gender. As the study's only interviewer, I set out to establish rapport with the participants through employing two structural strategies: first, by having multiple interviews, and second, by McCracken's (1988) suggested method of having questions that are easiest to answer occur at the start of the interview.

Because knowing the context surrounding the participant selection process will elucidate the logic behind the interview procedures, the next few sections will describe the study's recruitment procedures and participant population. After discussing all details concerning the participant population, including the rationale behind focusing on this group for study, the remainder of the section on qualitative interviews will address the procedural similarities between all three individual interviews.

Participant Selection Process: Recruitment Procedures and Attrition

The study's participants consisted of 16 US adults who are or had been college students, instructors, or K-12 teachers. Recruitment for the study initially occurred through circulating the announcement by word of mouth, paper, and electronically. I located participants outside of Philadelphia, Pennsylvania, where the study originated,

through the aforementioned means and through asking participants to identify other Black women who fit the study's criteria. As long as an adult fulfilled these criteria, and for ethical reasons, could give direct consent for participation (see Appendix A for Informed Consent and Permission to Audio Record Form), they were eligible to participate in the study. Participants were compensated for their time with a \$25 gift card at the end of the third interview.²⁹

Participant Population

Although the study required certain criteria for participant eligibility, recruitment procedures took into account the often political nature of self-identification by honoring how all participants self-identified in relation to the information on the recruitment materials. The following sections will explain, in further detail, the logic and manner in which these criteria were applied to this study's participants.

Adult Teachers or Learners

This study was designed to include teachers and learners because both roles constitute indispensable components of the classroom dynamic. To take part in the study, eligible participants had to meet the following criteria: they either are or had been a teacher or learner in a K-12 or college/university setting, were 18 years of age or older at the time of the study, had to have used video games in the classroom, and self-identified as Black or African American women. As mentioned in Chapter One, this study specified an age requirement because of the lack of preexisting research on video games being used in settings with adult learners. Video games are being used in college settings (for

²⁹ The study's 16 participants completed all three interviews and the questionnaire. One additional person was not included in the study because she only completed the first interview.

example, Dickey, 2011; Sethi, 2012; Wecker, 2012; Zyda, 2007), but are not being researched to the same degree as those in elementary, middle, and high schools.

Nevertheless, this study will still address video games used by younger learners, albeit from the perspectives of their educators.

Teachers and learners were equally eligible to participate because of their respective roles in the teaching-learning dynamic. No limits were placed on the number of teachers versus learners within the study, but the study included a total of five teachers, seven learners, and four participants who discussed their experiences as both teachers and learners. Although teachers and learners were not expected to self-identify as frequent or casual video game players, the participants were selected based on their use of “video games in classrooms.”

Using “Video Games in the Classroom”

Although this dissertation refers to the media products in question as “video games in the classroom,” for recruitment and during interviews, I often used the term “educational video games,” as it most clearly communicated the specific structural elements of the software I wanted to explore in this study and was most effective in recruiting participants. Moreover, using the term “video games used in classrooms” at the first point of contact (through recruitment) appeared to be unclear to gatekeepers. All participants were recruited using the term “educational video games,” but during the interviews, I would also use the term “video games for classroom use.” A white male principal at a school I approached during recruitment responded to my asking to speak with teachers or learners who “used video games in classrooms” with the question, “You mean like *Mortal Kombat*?” I replied that *Mortal Kombat* would qualify if participants

used it in the context of classroom instruction. I added that I also wanted to talk to participants who used educational games like *Carmen Sandiego* and *Oregon Trail*.

Although none of this study's participants came from the school mentioned above, it is important to consider the influence of terminology on people's attitudes toward video game use in classrooms. Video games are currently becoming more widely played and accepted in the general US culture (Carr, 2005), and many researchers have attested to how they may be able to revolutionize classroom learning (Gee, 2005; Richard, 2013; Squire, 2011; Zyda, 2007), but the concept of using video games in educational contexts is still often met with resistance (Squire, 2011). In this study, however, avoiding the term "video games" would have made it difficult to distinguish between *Oregon Trail* and Blackboard.

Additionally, because of preexisting complications in distinguishing "hardcore players" (Juul, 2010, p. 51) from "casual players" (p. 51), and because not everyone who plays video games considers themselves to be "gamers" (Shaw, 2011, p. 29), recruiting people based on what they do rather than how they identify with respect to video games is more reliable in drawing a diverse participant pool. Since the study's focus is on cultural conceptions of video games used in the classroom, this study's participants are people who have played or otherwise come into contact with a video game in the classroom in the past.

Social Class

Similar to the earlier-mentioned issue that arose from people who play video games not self-identifying consistently (Juul, 2010; Shaw, 2011), social class in this study will be conceptualized through what participants say and report rather than how

they overtly identify. In US society, where capitalism and the myth of the American Dream romanticize financial wealth and security, suggesting that such resources are attained through talent and drive, poverty is socially and institutionally stigmatized and those experiencing it are stereotypically associated with ineptitude, a flawed work ethic, and questionable levels of integrity (Gans, 1995; Goode & Maskovsky, 2001). Similarly, US Blackness (Gans, 1995; Goode & Maskovsky, 2001) and femaleness (Gans, 1995; Kingfisher, 2002) are often widely presumed to correlate with the lowest social classes (Gans, 1995). A clear lexicon and articulation surrounding social class does not yet exist in the US, but there are a variety of derogatory “labels [...] that stereotype, stigmatize, and harass the poor by questioning their morality and their values” (Gans, 1995, p. 1).

To further complicate matters, most people in the US have historically perceived themselves as being middle class, regardless of their income (Morton, 2004). Although the number of self-described middle class people in the US is dwindling (Kochhar & Morin, 2014), it seems that many people disagree on how to interpret and use the language describing social class. Under these conditions, asking that participants belong to a particular social class in order to participate in the study would likely cause inconsistencies in the data that might also limit its richness. Because of this pronounced cultural lack of consensus surrounding social class, for the purposes of this study, the respondents were of varying socioeconomic statuses. It is for these reasons that social class was not used as a factor in selecting research participants, but was addressed in the interview and questionnaire. Although social class was not a criterion for participation, this study used one intersection of race and gender as a control measure for participant sampling.

The next section discusses the methodological reason why US Black women have been selected as the group of focus for this research.

Teachers and Learners Who are Black Women

To focus on the diversities within a defined group of people, the study's respondents all self-identified as Black or African American women who are or have been teachers or learners. Black women were selected as the focal group for this study for several reasons. Being both Black and women in a social context that fails to fully recognize the value of both statuses, as several scholars have noted (for example, Collins, 2000; Giddings, 2006; Harris-Perry, 2011; hooks, 2000; Jones & Shorter-Gooden, 2003; Morton, 1991; Wallace, 1990), places Black women who are teachers and learners in a unique position to elaborate on representation in educational contexts. Moreover, Black women have been selected because of the group's historical and contemporary connections with education, both through traditional and nontraditional³⁰ means.

In addition to the rationale discussed in Chapters One and Two on the importance of focusing this study on teachers and learners who are Black women, the study will benefit from my own statuses as a Black woman who is a learner, teacher, and multimedia artist. These characteristics give me a distinctly nuanced perspective that is not typically addressed in academic research. This same perspective, which is unique to me, has two major points of significance within this study. Through these axes of experience, I am able to look at video games from the vantage point of both an independent game creator and audience member. In addition to my perspective, my years

³⁰ Even though video games are becoming “increasingly popular tools in the classroom” (Online College Courses, 2009, para. 1 on the chart), it is still unclear how many teachers are using them across grade levels above middle school.

of experience in studying and creating representations of Black women, as well as my body, also enable me to privilege the hearing and seeing of other Black women who are teachers and learners. Specifically, my status as a Black woman, combined with an interview script that used questions with direct phrasing, may have helped the study's participants to feel more comfortable with talking about difficult-to-discuss issues like race, social class, and gender in classroom contexts, which have traditionally, and at times aggressively, encouraged the suppression of such discussions from the vantage points of socially marginalized people.

The next section addresses the procedures and procedural concerns that applied to all three of the interviews, including the following: coding scheme, qualitative validities, representativeness, reliability, the phrasing of the interview questions, and data reporting methods used to preserve anonymity. After these commonalities are discussed, the following sections will chronologically detail the procedures for each of the three individual interviews.

Procedure and Procedural Concerns: Similarities across Interviews

Although the differing objectives of each of the three interviews required that there be slight procedural differences between them, there were several similarities between interviews with respect to procedures and procedural concerns. For each interview, I used the bolded questions from the prepared Interview Script (see Appendix B: Interview Script).

Informed by Schott and Horrell's (2000) procedural approach, the interviews allowed space for participants to play video games throughout the interviews, making it possible for them to demonstrate points that they described. This option, however, went

under-explored in a number of the interviews for two reasons: first, because many participants did not have access to the specific games they used in the classroom, and second, because although some interviews were held in person, the majority of the interviews occurred via Skype, a similar service, or by phone.

Coding Scheme

Another procedural similarity concerned the coding scheme. In the interviews, race was coded depending on the terms that the participants used to discuss it. These terms included any references to a person or character's country or culture of origin. Gender was coded on the basis of the terms that participants used to answer gender-related questions. In precisely the same respect as it was carried out through the textual analysis, coding for gender was based on the gender-specific titles and pronouns associated with the person or character being referenced. Conversely, social class was coded based on the terms that participants used in response to particular questions. This coding procedure differs from the coding for race and gender because of the lack of US cultural understanding and consensus surrounding the identification of and nuances within the social class construct. In the interviews, for example, questions about the neighborhood where participants teach or go to school were coded based on the descriptions and terms the participants used to reference them.

Dialogic, Deconstructive, and Contextual Validities³¹

Yet another procedural similarity encompasses how all of the interviews address dialogic, deconstructive, and contextual validities. To maintain dialogic validity, I took

³¹ To revisit the definitions for each of these terms, see the section in this chapter titled, "Dialogic, Deconstructive, and Contextual Validities: Definitions."

notes during all interviews, and recorded the interviews when given permission to do so. I transcribed the interviews participants gave me consent to record and referred to my interview notes and the transcripts when analyzing interview data. Throughout the upcoming Results chapters, the participants are cited in numerous cases when I report or interpret their words. I also attempted to draw conclusions that are within the context of what participants reported, refraining from doing so when the collected data did not provide enough information to do so.

I attempted deconstructive validity through combining the structure of the phenomenological interview method, which privileges participants' thoughts, with a cultural studies theoretical base. Interviewing participants over three meetings yielded a more nuanced data set that more fully represented the participants and their perspectives. As mentioned earlier, the notion of individual-centered characteristics was also designed with the goal of acknowledging the complexity of each participant, in service of countering the pervasive cultural stereotypes that make it difficult for Black women to have their individuality acknowledged by others. Stereotypes are often contextually dependent in their usage (Spears, 2002) and are perpetuated due to a lack of information and little awareness of their existence (McGarty, Yzerbyt, & Spears, 2002; Spears, 2002). Thus, to circumvent such stereotypes, it was crucial to design the study so that it could accommodate and anticipate complexity, nuance, and context.

The interview script has been designed to uphold contextual validity in that the structured questions inquire about the contexts in which the video games were played. Although the questionnaire is phrased to accommodate the various forms that the ideal video game for classroom use may take (depending on the teacher or learner responding

to it) the questions in the third interview are intended to further contextualize those responses.

Representativeness

The diverse opinions, subjects, and grade levels of the 16 teachers and learners in this research study raise the following question: ultimately, who does and can this study's focal group represent? When qualitative interviews seek to offer explanations for phenomena related to the study's content, they are done with the sense that they still may not offer a complete picture of what is happening (Bechhofer & Paterson, 2000). As such, qualitative studies have the goal of building on the knowledge associated with given situations (Creswell, 2013).

Participants were selected through using snowball sampling to recruit people outside of Philadelphia and uphold representativeness as much as possible. In this study, *snowball sampling* specifically entailed asking participants to recommend potential participants for the study. Above all, this research aims to reflect the worldviews of its 16 participants as they relate to video games used in classrooms. Nonetheless, RQ 3, which questions the relationship between the participants' responses and their individual-centered characteristics, enhanced the possibility of being able to generalize the data to the broader communities of US teachers and learners.

Reliability

Procedurally, all three of the interviews were informed by Hennink, Hutter, & Bailey's (2011) viewpoint that qualitative research supports the investigation of how the participants perceive and report their own experiences. Thus, the participants' truths were examined as they expressed them (Tracy, 2013). This viewpoint also regards reliability to

be determined through the discernible, consistent path created by means of each participant's recollection of her experiences (Seidman, 1998). The way that participants opt to present themselves and the information they report are not only indicative of their realities. They also constitute parts of their identities. As such, they need to be respected as much as possible.

In this study, there are only two cases where participant-provided data may be considered incomplete. The first case would be if a participant herself expresses this idea. The second case would occur in the event that a participant is unable to explain any relevant differences between any of her self-reported information. In all cases, this study provides the timeline relating to participants' use of video games in the classroom.

Phrasing the Interview Questions

The final procedural similarity concerns the actual phrasing scheme of the interview questions. Because the interviews were such an important data gathering device, their design needed to be effective. In this regard, asking vaguely-worded questions created obstacles in encouraging participants to share their perspectives. If questions are unclear to participants, or if they think researchers have something to hide, they will be understandably wary during the interview process.

US Black people must protect themselves daily against racism, so “are familiar with dominant group interpretations of reality and, therefore, have knowledge of racist ideas and interpretations of reality” (Essed, 2000, p. 176). In doing so, many Black people are able to detect and decode such language, having “profound and often sophisticated knowledge about the reproduction of racism” from numerous life experiences with it (Essed, 2000, p. 176). To this point, Bonilla-Silva (2014) observed

that generally, the Black people he interviewed expressed their thoughts on racial matters directly, whereas the white people he interviewed used what he referred to as “verbal pirouettes” (p. 212), or indirect speech, when discussing the same issues, even with interviewers of the same race. Because speaking indirectly is also an increasingly popular way to express racist ideas in contemporary times in the US (Bonilla-Silva, 2014), anything resembling this language in interview scripts can make a researcher appear untrustworthy. Even as a Black female researcher who, from my appearance, is typically perceived to be Black by most US people I encounter, using language in the context of my study that seems reminiscent of indirect language would impede the rapport-building process. After rewording certain questions in the initial interview script, the rapport that developed between the first and third interviews strengthened significantly, beginning with the third participant.

It is important to note that speaking directly is not the same as being impolite. I in no way mean to suggest that participants who speak directly are being discourteous, or that they should be spoken to in such a way by researchers. On the contrary, because of the disrespect that many Black people face via the “everyday racism” (Essed, 2000, p. 177) that Essed (2000) addressed in her research, I would assert that all researchers treat their Black participants with respect. Being direct within the context of this study does not mean forgoing social niceties (for example, using terms such as “please” and “thank you”), which are essential throughout the interview process. It only entails asking questions in ways that avoid vague or heavily-coded language.

Data Reporting Methods Used to Preserve Anonymity

Although one of this study's key objectives is to privilege the seeing of Black women as complex individuals, it is also crucial to ensure each participant's anonymity. For this reason, some of the more specific information participants provided has been obscured, such as the names of schools they attended and clubs in which they were members at the time of the study. If a participant shared that she belonged to a specific organization, the information included only presents the type of organization she joined (for example, if someone were a member of a specific sorority, this study would only list that they belonged to a sorority.) Similarly, the cities, neighborhoods, and states in which participants worked, lived, and attended school are not referenced by name.

The next three sections will discuss the unique objectives and procedures of each of the three individual interviews, beginning with the first.

The First Interview

The first interview, which was largely devoted to answering RQ 3, had three major objectives that were used to begin forming a sense of each participant's individual-centered characteristics as they related to video games used in classroom contexts. This information included asking participants to describe their personalities and other identifiers that they considered to be integral to the way they were seeing themselves. The first objective of this interview was to ease participants into the interview process by asking them general questions. As mentioned earlier, this objective was important in creating the safe space environment that needed to be developed and maintained throughout all of the interviews. The interview's second objective was to gather information about their unique experiences as teachers and learners, including specific

details about their teaching or learning environment. This objective included trying to discern information about each participant's social class by asking them about the communities in which they taught or attended school, which is an approach that Bonilla-Silva (2006) took in his interview script when discussing social class with his participants. The third objective was to find out which games participants had used in classrooms. I used this information to see whether I could gain access to said games. If I could, the game was included in the textual analytic sampling for this study. Ultimately, these three objectives were used to establish the tone of the interviews and become familiarized with each participant, fostering a foundation of trust and rapport that was important for the remaining two interviews.

The Second Interview

Overall, the second interview focused on how teachers and learners were thinking about how the video games used in the classroom connected with the subject matter being taught. In addressing components of RQ 1, RQ 2, and RQ 3, this interview had two overall objectives. The first objective, which was applied toward answering the component of RQ 3 that related to experience, was to determine whether participants played video games outside of the classroom. The second objective was to glean information about the capacities in which teachers and learners were using video games in the classroom. In particular, this objective provided insight into what aspects of learning they valued, and how video games in classrooms could, could not, did, or did not support these values. To this end, the second objective included asking participants about how they perceived the games to relate to their teaching and learning experiences. This interview's third objective entailed identifying the memorable aspects of these games as

they pertained to matters of representation. Questions related to this objective revealed general information surrounding the kinds of details, including the characters and subject matter that participants remembered about the video games they encountered in classrooms. These responses were used to answer RQ 1 from the participants' vantage points, as well as RQ 2.

The Third Interview

Arguably the most important interview in the circuit, the third interview had five specific objectives. In corresponding with RQ 2, the first objective was to ask participants about their ideal representations in greater detail. The questionnaire provided an alternative first point of entry for asking participants specific questions about their opinions on representations of race, social class, and gender in video games used in the classroom. Per McCracken's (1988) advice on creating interview settings that feel welcoming to participants, these questions were asked at this time because they were expected to be the most difficult to discuss. Asking that participants speak about their written responses helped to clarify and add even more nuance to the information they shared throughout all three interviews.

The second objective was for participants to discuss how their opinions have been affected by their experiences. This information contributed to answering RQ 3 on participants' individual-centered characteristics. The third objective addressed both RQ 1 and RQ 2 in that it inquired whether participants had any specific kinds of representations they wished to see in the games they used. This objective also allowed participants to provide more information about representations they were accustomed to seeing in

classroom contexts. During these discussions, some participants even elected to share their thoughts about representations in video games and general media.

Another important purpose of the third interview was to provide closure to the interview process. The fourth objective, in particular, was to allow participants time to add relevant details or information that they might have forgotten to mention or ask during earlier interviews. This objective helped to ensure that collected data were as complete and accurate as possible. The fifth and final objective was to ask participants whether they knew anyone else who might wish to participate in the study. This objective was vital to my ability to continue the study since snowball sampling was an integral part of the study's recruitment procedures.

The next section elaborates on the questionnaire used during the third interview.

Method: Questionnaire

This section will specifically address elements relating to the questionnaire's purpose, structure, procedure, and procedural concerns.

Purpose

The questionnaire used in this study was designed and administered in the spirit of both grounded theory and constructionist research, which both often allow for participants' written words, charts, and drawings to be considered along with the spoken information from interviews. This study draws from both cultural studies audience research and constructionist traditions by encouraging participants to engage with the question of representation by imagining certain design elements of their ideal game. Methodologically, the questionnaire helped to identify representational factors that

participants valued and found objectionable in video games used in the classroom, which addressed RQ 2 and RQ 3.

Structure

The questionnaire comprised three questions, and was three pages long. Each question was open-ended, and printed on white, unlined paper (see Appendix C: Questionnaire for the Third Interview). Structurally, the questionnaire allowed for participants to use images and text in their responses. Participants' answers could include, for example, the way they wanted the game to be structured in terms of narrative or aesthetics. They could also include information about characters and instructional content they would find appealing. The questionnaire was designed so that participants could share their thoughts on ideal representations in video games used in classrooms. Creating a questionnaire and basing an interview on the results could constitute observation-centered research, which by definition "situates the researcher in direct interaction with research subjects" (Nightingale, 2008, p. 122) and "provides opportunities for discussion and negotiation between them" (p. 122). When participants can define the context, it opens the possibility to create "new knowledge through the exchange of ideas and debate between researchers and research participants" (Nightingale, 2008, p. 122). It can also potentially spotlight issues that researchers might not foresee. In particular, "elicited documents" (Charmaz, 2014, p. 47) such as open-ended questionnaires permit participants to write, draw, chart, or type their own responses, giving them a sense of agency that interviews alone may not be as able to provide (Charmaz, 2014).

The questionnaire's structure enabled me to address issues that are important to me, as the researcher, and to the study's participants. Its primary purpose was to shed

light on how teachers and learners were thinking about representations in video games used in the classroom by having them describe their own ideal representations. Expressing their thoughts in words, charts, and images revealed more nuance with respect to this topic. Thus, this technique revealed the representations that participants already see and value, those that they perceive to be absent and wish to see, and ones that are in-between.

Procedure

At the start of the final interview, I provided participants with the questionnaire and asked that they complete it before continuing. Participants were encouraged to respond by either singularly or collaboratively using text, drawings, or by making charts. Some participants who were interviewed via Skype, a similar service, or by phone elected to type their responses into the Microsoft Word document containing the questionnaire. The content of the completed questionnaires were discussed during the final interview. By asking participants these questions in this format, I was able to more concretely visualize how what they would like to see compared with what they expect from representation in video games used in classrooms.

Coding Scheme

Much like with the interviews, in the questionnaire, race was coded depending on the terms that the participants used to discuss it in answering the questions. These terms included any written mentioning of a person or character's country or culture of origin. Similarly, gender was coded according to the terms that participants used in their responses. These terms included gender-specific titles and pronouns associated with the person or character being referenced. Social class was coded based on the neighborhood-

oriented terms that participants used in response to particular questions. This coding procedure differed from the coding for race and gender because of the lack of US cultural understanding and consensus surrounding the identification of and nuances within the social class construct.

Dialogic, Deconstructive, and Contextual Validities³²

The questionnaire maintained dialogic validity through providing participants the opportunity to represent their own realities in their own words. In the chapters to come, I cite the participants' questionnaires in a number of cases when reporting or interpreting their words. Much like with the interviews, I attempted to only draw conclusions within the context of what participants wrote on the questionnaires. I similarly aimed to preserve deconstructive validity by relying on participants' questionnaires as a means to represent them as individuals. Contextual validity is attempted through using the questionnaire to ask participants to design a video game for educational use based on their own teaching or learning objectives. In this sense, what one participant identifies as ideal elements will not always align with another participant's objectives or interests.

Representativeness

Because the questionnaire was administered during the final interview, it was considered to represent the views of the participant who completed it. The time spent interviewing participants both before and after the questionnaire increased the likelihood that participants' questionnaire responses accurately reflected the views they expressed throughout the study.

³² To revisit the definitions for each of these terms, see the section in this chapter titled, "Dialogic, Deconstructive, and Contextual Validities: Definitions."

Reliability

The reliability of the questionnaire was largely ensured through the third interview. During this time, participants were able to elaborate on their questionnaire responses. This process helped to strengthen the overall consistency of the questionnaire, both in isolation and in relation to the interviews.

Conclusion

Through combining cultural studies approaches with qualitative textual analyses, interviews, and a questionnaire, this study explored representations of race, social class, and gender in video games used in classrooms while also investigating teachers' and learners' perspectives on representations in video games used in the classroom. The next chapter will explore the results for RQ 1, detailing how the video games participants used in the classroom represented race, social class, and gender in the people, stories, and ideas depicted within the worlds of these games.

CHAPTER 4

REPRESENTATIONS IN VIDEO GAMES USED IN CLASSROOMS

Chapter Four explores this study's first research question (RQ 1): In what ways are race, social class, and gender represented in the video games that participants used in the classroom? To answer RQ 1, this chapter's overall findings are that although race, social class, and gender are represented through human characters, anthropomorphic characters, customizable avatars, in-game storylines, and ideologies, these games tend to center worldviews associated with socially privileged groups, whether through their representations of people, ideas, or stories. In particular, context, which also influences how teachers and learners receive these representations, is manifested through the overall structure of the game playing experience and how teachers are selecting and approaching the games in the classroom.

This chapter is divided into six themes because each one takes into consideration both the participants' reports and my qualitative textual analysis. Because participants all played different games depending on their experiences and the courses they taught or took, these themes are based on what emerged from analyzing and considering all of the games in relation to one another. For these reasons, some themes encapsulate larger numbers of games than others. I arrived at each theme by considering what patterns emerged from the video games and from what participants said about them during their interviews. Following the cultural studies framework while also being mindful of each game's structure and how it might figure into its representational approaches, I also considered multiple possible readings and interpretations for the information I gathered.

The first theme in this chapter addresses the three ways that *diversity*, which refers to and includes the entire range of representations of race, social class, and gender, including socially privileged groups, is represented in the video games participants used in classroom contexts. This theme contributes to answering the research question by highlighting the areas in which diversity is represented, including via human characters, anthropomorphic characters, or users' own implementation. The second theme details how approaches to representing race, social class, and gender may vary depending on the video game's design structure, which is broken down into three categories: nebulous umbrella programs with indiscernibly large structures, stand-alone games meant to be played from beginning to end in under an hour, and stand-alone games meant to be revisited in many sittings. This theme addresses RQ 1 by discussing the different ways in which representation is affected by a game's design structure. The third theme explores how many video games used in classrooms tend to center perspectives associated with socially privileged groups according to race and gender. In particular, this theme addresses RQ 1 by focusing on how ideas and storylines represent, and ultimately center, socially privileged perspectives. This finding applies to RQ 1's goal of understanding representations in an ideological sense. Distinguishing ideological trends in representation from visual ones, the fourth theme discusses the observation that physical characteristics associated with socially privileged groups are more likely to be represented in avatar creation systems. This fourth theme answers RQ 1 by focusing on how the visual aspects of representation center socially privileged groups. The fifth theme elaborates on how social class is often represented through the presence of an in-game purchasing system, as well as through portrayals of possessions, hobbies, and users'

ability to change settings. This theme answers RQ 1 through identifying social class in the games and the forms it typically embodies in a number of games despite the fact it was indiscernible to some participants. The sixth theme's discussion describes how because of the lack of diversity in video games, both traditional ones and those designed specifically for educational use, users who want to experience diverse options are often placed in the position of seeking out and constructing environments that include diverse representations. This theme answers RQ 1 through acknowledging the user's role, which in the context of this study is often occupied by teachers, in constructing an environment in which they can surround themselves with the representations they want to see. All six of these themes will be addressed in further detail the following sections.

Appendix D contains a table of the video games used by each of the study's participants.³³ The video games are listed in alphabetical order under each participant's pseudonym. If participants were addressed by their title during the study, their pseudonyms follow suit. For participants who were teachers and learners, (L) was placed following the video games they used as learners, and (L, T) was placed following those they used in both capacities.

As explained in Chapter Three, in order to provide more in-depth analyses of each video game, the textual analyses in this study primarily focus on analyzing those used by two or more participants, prioritizing the video games that most participants used. This information is in Table 2. Table 2 is important because it lists not only the games that

³³ This table is in the appendix because it lists programs that either fell outside of the scope of this study or games that were not the focus of this study's analysis.

were at the heart of this analysis, but the sample game publication dates, the participants who used them, and whether they used them as teachers or learners:

Table 2. Video Games with Anthropomorphic Characters, Used by Two or More Participants

Game or Website	Sample Game Publication Date	Participants	Roles
<i>Imagine Learning</i>	2015	Heather, Isabella	Two teachers
<i>Kid Pix</i>	None available	Asha, Gwen	Two learners
<i>Math Blaster</i>	2014	Fayola, Gwen, Zahira	Three learners
<i>Mavis Beacon Teaches Typing</i>	1998-2004	Asha, Brittany	Two learners
<i>Oregon Trail: 5th Edition</i>	2006	Asha, Fayola, Isabella, Brittany, Gwen, Dawn	One teacher, five learners
<i>OutNumbered!</i>	1990	Isabella, Gwen	One teacher, one learner
<i>Scratch</i>	2016	Lila (L, T), Maeve	One teacher, two learners
<i>Munchers Series (Super or Number)</i>	1991 (<i>Super Munchers</i>)	Asha, Gwen, Isabella	One teacher, two learners
<i>Type to Learn</i>	2007	Fayola, Brittany	Two learners
<i>Where in the World is Carmen Sandiego?</i>	1990 and 2001	Asha, Isabella, Gwen, Dawn, Zahira	One teacher, four learners
ABCmouse.com	2007-2016	Isabella, Mrs. Cordova	Two teachers
ABCya.com	2016	Naomi, Mrs. Paxton	Two teachers
BrainPOP.com/games/game-finder	1999-2016	Heather, Mrs. Cordova, Mrs. Paxton	Three teachers
Coolmath-games.com	2016	Maeve, Mrs. Cordova, Mrs. Paxton, Mrs. Walcott	Four teachers
PBSkids.org/games	2016	Maeve, Mrs. Walcott	Two teachers
Starfall.com	2002-2016	Heather, Mrs. Cordova	Two teachers

In summary, the majority of the video games participants used were designed specifically for educational use, which coincides with the findings in the Online College Courses (2009) infographic referenced in Chapter Two. A number of teachers who used video games in the classroom reported trying to do so in order to foster an inclusive classroom environment in which students felt motivated to learn. Finding inclusive video games, however, can be challenging.³⁴ The next section elaborates on the first theme as it relates to the literature addressed in earlier chapters.

Theme #1: Diversity's Many Forms

A number of the video games that participants used included no human representation. For the ones that did, however, many participants reported that diversity as it relates to race, social class, and gender was uncommon. Gwen, a learner who grew up playing many educational games and as an adult plays video games an average of three times per week, noted that in her experience, users are more likely to encounter “a funny animal character, or an alien, or a big blue blob” in a video game than a Black character or a gay character. Mrs. Cordova, a sixth grade teacher, similarly commented that the human characters she usually sees in educational games are “usually Caucasian, usually male” and that animal characters are also typically male. Other participants, like Dawn, noted that “there is some [racial and gender] representation,” but that it could be more diverse since most video games still comprise male characters. She cited *Carmen Sandiego*, *Dora the Explorer*, and *Doc McStuffins* as characters that went against the status quo for representation.

³⁴ For further elaboration on this finding, see Theme #6, which appears later in this chapter.

As this section illustrates, there are three common themes surrounding how diversity is represented in games used in classrooms. First, a handful of series among the samples in this study represent diversity through using portrayals of human characters to represent race, social class, and gender. The second theme in representing race, social class, and gender is that if human characters were not present, which, as noted in the aforementioned paragraph, tends to occur frequently, representations of race, social class, and gender can be portrayed or read symbolically through the use of anthropomorphic characters. Other series create opportunities for users to create their own characters, thereby implementing their own conceptions of diversity (Shaw, 2014). In this study, these opportunities occur through users inputting or otherwise creating their own avatar representations by selecting physical traits from a preset number of options. The remainder of this section is devoted to describing and providing examples of these three different categories of games.

Race, Social Class, and Gender Portrayed via Human Characters

Although the *Carmen Sandiego* series discusses a broad range of countries, its gender representations are in many ways more complex and sensitively expressed than its racial representations. Between the 1990 and 2001 versions, the language used to describe Carmen Sandiego's criminal associates has changed from "VILE henchmen" to "VILE agents," highlighting the series' sensitivity to using gender-neutral language. The series also hosts both female and male characters in both its 1990 and 2001 versions, and characterizes characters of these genders as capable of being athletically inclined and intellectual. Across both games, the eponymous Carmen Sandiego has been described as a "prodigy," "genius," and "champion skier" whose hobby is "tennis." Although all of the

former traits and the majority of the following ones are listed in connection with Carmen Sandiego and her female associates, in representing women as diverse people who could be librarians, docents, motorcycle racers, yogurt bar owners, mountain climbers, tennis players, book readers, have tattoos, and more, its gender representations were arguably ahead of other games that were available in 1990. It is important to note, though, that the in-game dossiers give detailed information about the criminals on the run, but there is no similar information for the characters who are not VILE agents, who are giving hints to the player about the whereabouts of the VILE agents. Therefore, the VILE agents are represented as more complex than the game's law-abiding women.

Based on the samples in this study, large websites appear to be more likely to include diverse games with respect to race, social class, and gender. ABCmouse.com, BrainPOP.com/games-main, and Starfall.com feature a more diverse set of games than ABCya.com, which hosts a large number of games with white male protagonists and some white female protagonists.

Coolmath-games.com, which carries the largest number of individual games of any website in this study, also hosts several games using diverse images with respect to race, social class, and gender. To date, there are 12 *Papa's* series games on Coolmath-games.com: *Papa's Bakeria* (2016), *Papa's Burgeria* (2010), *Papa's Cheeseria* (2015), *Papa's Cupcakeria* (2013), *Papa's Donuteria* (2014), *Papa's Freezeria* (2011), *Papa's Hot Doggeria* (2012), *Papa's Pancakeria* (2012), *Papa's Pastaria* (2013), *Papa's Pizzeria* (2007), *Papa's Taco Mia* (2011), and *Papa's Wingeria* (2012). All of these games, which were made by Flipline Studios, operate based on a similar premise, using many of the same characters. The most popular *Papa's* game on the Coolmath-

games.com website is *Papa's Freezeria*, a game in which users work in a frozen yogurt shop and make desserts according to customer specifications. In all of the *Papa's* games, which represented human characters, racial representation is diverse, as is gender representation. The Papa character, who wore a chef's outfit, owns each store in each *Papa's* game, whereas the character that ran the store and represented the user changed for each game. In the first game, *Papa's Pizzeria*, this character was a white male character, and users had no options to select another avatar. In later installments, however, users were able to choose between two predetermined characters (one male and one female, often not with the same skin tone) or create their own customized avatar. Characters entering the store either presented as female or male, both through their appearance and their given names. Social class was portrayed similarly in each game, in large part being represented through the shop itself. At the start of the game, the main character was paid \$100.00 weekly. S/he made extra money in tips and spent her/his tips on improving the shop. In *Freezeria*, in particular, thinking about how much money a person would have to make to be able, on a daily basis, to afford to spend \$2.00 or more in tips for take-out food or drink items, in addition to the cost of the food/drink itself (which was not disclosed in the game) could potentially raise questions of social class for players. Body diversity was also high in these games, especially in later installments such as *Papa's Donuteria*, *Papa's Cheeseria*, and *Papa's Bakeria*, when players can design their own avatar to run the store.

Although diversity is present in a number of games featuring human characters, there are some persistent racial and gender stereotypes still surrounding certain roles in a number of games. In all cases, images are chiefly used to convey these stereotypes. One

of the most notable examples, as Brandes (1996) emphasized, is in the overrepresentation of scientists as older white males. ABCya.com hosts at least two games that make use of this trope: *Math Quiz* and *States of Matter*. Although earlier games include role stereotyping with respect to the scientist role, a few other games participants used, especially ones made within the last decade, presented a variety of people in the scientist role. ABCmouse.com featured a crystal-counting game with Professor Hester, a Black female scientist dressed in a white lab coat. *Outbreak at WatersEdge* (2004) featured an ethnically-diverse team of scientists and specialists at the Department of Health; they tried to determine which water sites in their city were contaminated and causing people to become ill. Although images are used to characterize each character in *Outbreak at WatersEdge*, they are also characterized through their names and text biographies, which are included on an in-game bulletin board. The characters' races/ethnicities and genders can be implied from a combination of their accompanying images and full names. In the order they are introduced to players, the staff comprised one Hispanic woman (Leslie Hernandez, the Health Planner), one woman of Indian descent (Shoua Shinde, the Staff Epidemiologist), one man of Middle Eastern descent (Mohammed Fayad, the Laboratorian/Microbiologist), one white woman (Terry Tower, the Public Health Nurse), one woman of Asian descent (Mai Xai Ping, the Environmental Health Specialist), another white woman (Kathy Tomaso/Thomaso,³⁵ the Health Educator) and one Black man (Ted Hawthorne, the Public Health Information Officer).

³⁵ This character's name is spelled both ways throughout the game, so it is unclear which one is the correct spelling.

Race, Social Class, and Gender Portrayed via Anthropomorphic Characters

Also made by Flipline Studios, *JackSmith* follows a similar premise to the *Papa's* games, but this time, the user must create weapons such as swords, bows and arrows, axes, shields, pikes, and maces, depending on the in-game characters' specifications. The two main characters are JackSmith, a donkey blacksmith and his sidekick, a dog named Scout. Because they need money, they create weapons for warriors that are on a mission to save King Plumpfeather's daughter, Liliana. The King and his wife, Queen Hildread, are brown and white birds. Liliana is a blond "beautiful [bird] princess" in a pink dress that has been kidnapped by "a lonely wizard named Dudley," a rat that is the game's antagonist and is "obsessed with" Liliana (Flipline Studios, 2012).

The game uses no human characters, but it is a raced and gendered game. The vast majority of its characters are male. The game's medieval-themed soundtrack, characters, and fonts clearly place it within a European, medieval context. The anthropomorphic warrior characters wear medieval armor and request certain categories of weapons from JackSmith. The weapons they request are reliably associated with their animal families, much like the way social constructions of race are used to stereotype groups of people. A pig will always request a sword. Conversely, a ram will request an axe; a rooster, a bow and arrow set; a sheep, a shield; a cow, a pike; and a bull, a mace. In other words, the game could be understood to symbolically represent the workings of racial stereotypes in that every time users see, for example, a sheep, they are primed to expect the sheep to request a shield, much like people associate stereotypes with particular racial groups. The notion that sheep like shields or are shield-practitioners is akin to assuming a characteristic is common to a particular group of people. To revisit a

relevant example addressed in Chapter Two of this dissertation, relative to people in other racial groups, Black people are globally stereotyped as lacking intellectual prowess (Mudimbe, 2012). Social constructionist logic, therefore, would suggest that representations of Black people across media would often follow suit in depicting Black people's intellectual abilities and contributions as being absent, unremarkable, or the products of another group (Mills, 1997; Mudimbe, 2012). When someone judges Black people to be less intelligent than non-Black people based on their Blackness, the person doing the judging is making a racist assumption based on a stereotype. Furthermore, this real-world example is directly relevant to the participants in this study. Rina, who specifically contextualized these experiences in relation to self-identifying as a "darker skinned Black female," also "experienced a lot of [these] stereotypes in middle school and high school." She noted that a lot of her teachers and fellow students "were surprised she was in AP [Advanced Placement] or honors classes," but that they were not surprised about a white student being in the same classes.

Unlike this real-world example of how stereotyping is discriminatory, it is important to note that within the context of *JackSmith*, the information users are committing to memory is used to make associations between them. If players are able to notice the connections, however, they know beforehand which weapons they need to create, which could be seen as a discriminatory practice if real-world logic were applied. For example, if a store owner refused to show or sell a hypothetical product, Product Z, to a customer who could potentially purchase Product Y or Product Z because the store owner believes "group X usually cannot afford product Z," that would be discriminatory. In this respect, users who consider this information to mean something significant about

pigs, sheep, rams, bulls, rams, and roosters, although making such connections is not required in the game, are still making connections between the animal families and their weapons of choice. This parallel coincides with how stereotypes function within any given context in daily life: information begins to inform how people behave in relation to a subject when it is repeated many times in connection with said subject (McGarty, Yzerbyt, & Spears, 2002).

Although *JackSmith* lacks diversity with respect to ideas about the connection between the anthropomorphic warriors and their preferred weapons, it represented a range of social classes: a blacksmith, an apprentice, warriors, royalty, and a wizard. In particular, JackSmith's need for money is well-established in the game's introductory sequence. His social class underlies his motivation to save Princess Liliana, which sets the stage for the remainder of the in-game narrative.

Diversity is also symbolically represented in *Super Munchers*, which Asha, Gwen, and Isabella used. In *Super Munchers*, there are two variants of Muncher characters: normal Munchers and Super Munchers. All Munchers are walking, "e"-shaped, barefoot creatures with large eyes and "L"-shaped legs. In some versions of the game, the Munchers are bright green. Munchers eat words that are inside of the game board, which resembles a bingo board. Users start with three Munchers on reserve and one Muncher on the board. Each level has a new topic and new words are generated for each box on the board. For example, if the topic for a level is "Kitchen Utensils," the Muncher survives as long as it eats words such as "spoon," "kettle," and "ice cream scoop." Were it to eat the word "tennis," it would disappear and be replaced by another Muncher. If no Munchers are left to replace it, the game ends, but if a normal Muncher eats enough correct words

in a row, a platform will appear that will transform it into Super Muncher. What distinguishes normal Munchers from Super Muncher is that Super Muncher wears a cape, which gives it the power to fly and destroy Troggles, their larger, egg-shaped nemeses that eat Munchers and change or eat the words on the game board. Troggles come in four different variations and have four distinct movement patterns: the olive green Smartie, the red Reggie, the purple Worker, and the blue Bashful. Although this game symbolically represents racial diversity through Munchers and Troggles, and in turn represents the very concept of diversity through its broad range of puzzle topics, its text is devoid of gender pronouns. One potential reading of its absence of gender pronouns, however, is that the game is giving freedom to users to determine the genders of the characters on-screen. It is important to note, however, that Bradshaw, Clegg, and Trayhurn (1995) found that when this scenario occurs in games, most of the English children in their study interpreted these characters to be male, although boys were more likely to do so than girls, who at times saw them as female.

A game that symbolically represents race, social class, and gender in an arguably more complex manner than *Super Munchers* is *Zoombinis* (2015), which Gwen played.³⁶ *Zoombinis* requires the user to start by creating 16 distinguishable Zoombini characters, none of which look exactly alike despite their similar physical characteristics, and assign one of many randomized names to them. After creating 16 unique Zoombinis, the user needs to guide them through unfamiliar lands by moving each Zoombini to the right location in order to solve puzzles.

³⁶ This study examines the 2015 version of *Zoombinis*, which is a remake of the earlier game that uses the same puzzles and scenarios.

In the game's animated introduction, the Zoombinis are characterized through their hard work, success, and decision, as the narrator phrased it, "to escape and build a new home in a distant [uninhabited] land" in the face of adversity. Zoombinis are small, round, fictional blue creatures that lived on an island that was inhabited by another fictional group, the Bloats. The game's narrator noted that they "offered to help the Zoombinis grow their businesses, expand their trade routes, and improve their quality of life." When the Bloats ended up dishonoring their agreement by "stealing profits, canceling holidays, and piling on work," the Zoombinis left their land in search of a new place to call home. From the premise itself, many users may connect with the Zoombinis, an oppressed group wanting to escape their current home, Zoombini Isle, and feel motivated to follow their in-game journey.

The premise also has some characteristics in common with the American Dream in that it portrays the Zoombinis as an upwardly mobile, proactive population that was once financially wealthy and settled until the Bloats arrived at their shores. In the game's introduction, the narrator made a statement about the Zoombinis' character-related tendencies as a cultural group: "you can push them only so far before they take matters into their own hands." This characterization of the Zoombinis links them more closely with how Goode and Maskovsky (2001) described the enduring US cultural notion of the "deserving poor" (p. 8), or people "who embrace the spirit of entrepreneurship, voluntarism, consumerism, and self-help" (p. 8). People who are considered a part of the deserving poor are generally viewed with more compassion than people labeled the "undeserving poor." In comparison, the "undeserving poor" (Goode & Maskovsky, 2001, p. 8) would be "those who remain 'dependent' on the state" (p. 8). They are often blamed

and dismissed for being poor and are not treated or perceived empathetically by many US people (Allen, 2011). The Zoombinis' characterization places them within the boundaries of the deserving poor in a US social context that generally lacks empathy for people who are poor.

Race and gender are both symbolically represented in the world of *Zoombinis*. In this world, race was more diversely represented than gender, which appeared to occur on a binary scale. Gender was largely portrayed through voices, which read as female or male. Each Zoombini was gendered through the connection between their hairstyles and voices (three out of five hairstyles were characterized by male voices, and two out of the five by female voices), but in the game world, female Zoombinis and male Zoombinis appeared to be treated equally. When users do not complete puzzles correctly, the Zoombinis affected by the mistake are sent back to the previous step or checkpoint, which, in some cases, is accompanied by slapstick animated sequences of them being flung through the air, knocked backwards and sent rolling courtesy of the in-game characters that are blocking their way, sucked into a whirlpool, or being dropped down a hole after face-planting into a crystal.

Racially, the game includes Zoombinis, Bloats, Tree Trolls, talking boulders, a hotel-owning talking squirrel, frogs, a fairy, a ferryboat captain with green skin, and Fleens. Fleens are the group that is presented as possible evolutionary descendants of the Zoombinis. Their physical features correspond to those of Zoombinis' but Fleens are larger, thinner, yellow, and associated with criminality in the game. With respect to race, Captain Cajun and Ulla, in particular, are anthropomorphic characters that are raced in a real-world context. Captain Cajun is primarily raced through his name and audio. He

speaks with a US Southern accent, but his skin is light green and he wears large dark green pants held up with suspenders. Ulla is a jazz musician and is also the innkeeper of Hotel Dimensia, where the Zoombinis stay for a night. A talking squirrel with toffee-toned fur, Ulla wears a purple kerchief and apron and sweeps the ground using a broom and dustpan as she speaks with the Zoombinis. Through her characterization, she reads as one stereotypical portrayal of a Black woman, drawing upon jazz music and servant imagery. Much like with Captain Cajun, her accent also characterizes her, reading as one of several accents stereotypically associated with African American people in audiovisual media.

In discussing the representations in *Zoombinis* and all of the other games in this study, it is important to note that many researchers and designers are focused on how well the games are designed to teach and present academic subject matter (for example, Charsky & Ressler, 2010; Dori & Belcher, 2005), at times to the exclusion of considering how said subject matter intersects with the representations of the game's characters, ideas, and stories. For this reason, it is possible that the connection between representations and instructional content may not have been considered in tandem with the educational goals. According to the User's Guide for the 2001 version of *Zoombinis*, the game is intended to teach math-related skills pertaining to "organizing information in relevant ways, reasoning about evidence, and testing in a systematic manner" (The Learning Company, 2001, p. 34). The story premise of *Zoombinis* is that the Zoombinis were a group undergoing discrimination and that they were to search for a new land to improve their quality of life. However, through the ways in which users must guide the Zoombinis to Zoombiniville, the game arguably requires players to discriminate between the

Zoombinis as much as the in-game characters blocking the Zoombinis' path. Users start the game by creating 16 individual Zoombinis from five different possible hairstyles, five nose colors, five eye styles, five different variations of feet, and a vast array of randomly-generated names. In guiding 400 total Zoombinis from Zoombini Isle to Zoombiniville, they must create several Zoombinis with the same appearance. The game allows players to only create a certain number of Zoombinis with a particular trait combination; after this number is met, players will need to randomly generate Zoombinis to continue the journey. They can only continue to choose a randomly generated name for them after their visual appearance is set.

In these new lands, the Zoombinis are treated differently according to the nuances in their appearance (for example, nose color, eye style, hairstyle, and feet). In this respect, it could be argued that players are asked to perpetuate symbolic discrimination based on these different characteristics. Regardless of the stated fact that Zoombinis see themselves and one another as unique, the characters blocking their way along their journey do not see them in the same way. Some of them are unyielding or unpleasant characters that throw tantrums, laugh at, lack empathy toward, and abuse Zoombinis (as noted in the previous paragraph) because of it, yet because users must meet these characters' expectations to progress in the game, the game is priming users to see and categorize Zoombinis accordingly. Solving puzzles often requires the user to look for patterns and note differences and similarities between Zoombinis. To look for such differences between objects, which occurs in a mini-game with Tree Trolls that demand Zoombinis bake them pizza with specific topping combinations, has different implications than Captain Cajun not allowing one Zoombini to sit next to another on the

ferry because s/he has no physical features in common with the already-sitting Zoombini. When applied to anthropomorphic characters, such in-game practices may have the effect of reinforcing discriminatory behaviors that people are expected to use in categorizing one another as members of any given society. For these reasons, it is important to consider such aspects of representation in video games used in classrooms.

Portraying Race, Social Class, and Gender via Users' Implementation

Although certain segments of the *Papa's* games, *Zoombinis*, and games with avatar-creation systems, which will be explained in further detail in Theme #4, allow users to customize or create characters, *Scratch*, which was developed within constructionist teaching traditions, has been constructed in such a way that its design allows for diversity to be implemented at users' discretion. Users can create or upload their own sprites, which are images that will be used in programming a project in *Scratch*, and are limited only by their imaginations. Sprites comprise backgrounds and characters alike, which also allows users to create their own landscapes. There are some users whose imaginations may be limited due to their not having or wanting to include representations that are not often portrayed into their work, but for the users who want to create projects that do, *Scratch* provides them this ability. Projects in *Scratch* can be games, animation, or applications. Another way that *Scratch* allows for diversity is in the videos and projects posted to the site. For Lila, who used *Scratch* as both a teacher and a learner, one of the program's educational benefits was its structure, which encourages collaboration. When joining the *Scratch* website, which is free of cost, users are potentially positioning themselves within a community in which they are able to upload their own work to the

site or view what other members have created. In doing so, they are able to use and learn from *Scratch* both individually and from interacting with others.

Whether games represent race, social class, and gender through human characters, anthropomorphic characters, or options relating to user implementation, they, like television programs (Ang, 1996) and movies (Bobo, 1995), are susceptible to multiple possible readings. As a researcher, I recognize that only a few of these multiple possible readings have been included throughout this chapter, and that these readings have been informed by the theoretical context in which I played the games, my own perspective, and those of the study's participants. Cultural studies researchers and theorists have discussed the notion that audiences may come to different conclusions about the portrayals they experience (Ang, 1996; Hall, 1980a; Morley, 1992), which often depends on their unique conceptions of the world. Although an array of potential interpretations are available for any given media message (Ang, 1996; Hall, 1980a), the in-game representational patterns suggest how race, social class, and gender are perceived and regularly portrayed within that game. When multiple games repeat the same representational patterns, they suggest information not only about representational trends in video games used in classrooms, but also about those within that society. In the context of this dissertation, cultural studies theory helps to explain that if representational patterns occur with enough regularity, they will become culturally naturalized, or normal within the majority of the society's worldview (Hall, 1980a).

As a whole, video games used in the classroom are not always diverse with respect to race, social class, and gender. Because many of these games are not diverse or are diverse but within the context of anthropomorphic representation, audiences must

consider the context in which they will be discussed and used. Using other modes of communication that encourage critical thinking is crucial when incorporating texts, whether games or textbooks, into classroom environments (Bigelow, 1999).

A game's structural design can also influence how it navigates representation, with certain representational approaches more commonly surfacing in the context of particular details, such as how long the game is expected to be used and whether the games are stand-alone titles. Theme #2 addresses the ways in which representation and structure are interrelated.

Theme #2: Structural Trends in Educational Game Design Influence Representation

Much like how *Scratch* is designed to foster an environment where one learns through creating, a game's design structure can significantly influence how representations occur and are presented within them. Game studies research has traditionally considered how video games are structured relative to other games and media forms (Jones, 2008). In doing so, researchers have analyzed games' storytelling and interactive elements (Frasca, 2004; Jones, 2008). Thus, it is important to consider how structure may inform a particular game's representational approach.

The video games in this study—not to be confused with websites like ABCya.com, BrainPOP.com/games-main, and Coolmath-games.com, which include many games that are unrelated to one another³⁷ and are developed by separate companies—appear to follow one of three general structures: 1) a nebulous umbrella program with many short games on various topics that are meant to be played and saved

³⁷ These games can be categorized according to any of the three general structures put forth in Theme #2.

incrementally, over long periods of time; 2) a stand-alone game designed to be played in one hour or less; or 3) a stand-alone game designed to be played over a long period of time that has a cohesive narrative structure with a clear ending and a means to save progress. Each of these structures has different benefits and downsides when it comes to representing race, social class, and gender. Moreover, there is a particularly strong relationship between the structure a game follows and its decade of origin.

Nebulous Umbrella Programs with Many Short, Multi-topic Games

A number of the recent programs included in this study fall under this first category: ABCmouse.com, *Imagine Learning*, *Math Blaster*, and Starfall.com. These programs host a large range of mini-games, videos, and quizzes that can make the overall product seem almost endless in scope. Each of these programs includes games on a wide range of topics within their areas of focus. According to their website, ABCmouse.com's target audience is children between the ages of two and seven, and covers the following subjects: art and colors, math, reading, and science (Age of Learning, Inc., 2007-2016). Each unit has a range of mini-games that children earn in-game credit for completing. *Imagine Learning* also includes a range of mini-games for elementary school students. It then records the students' responses, which teachers are able to refer back to as needed. Each of these programs, with the exception of Starfall.com, allows students to create avatars to represent them throughout their learning process.

One benefit to this format, however, is that creators can change the representations they have presented or add new ones over time, so the process of representing race, social class, and gender functions like part of building and diversifying the game as a microcosm of the world. For example, within its free content, Starfall.com,

a website designed for use by students in “preschool, kindergarten, first grade, second grade, special education, homeschool [sic], and English language development” (Starfall Education, 2002-2016, para. 2), provides a host of Flash-based interactive storybooks and videos representing a diverse range of people with respect to race, social class, and culture, depicting girls and boys alike. Their stories represent children of all colors who surf, live on farms, ice skate, and live in cities. Starfall.com also includes storybooks of Chinese fables, Greek myths, folk tales, and Shakespearean quotes.

A notable limitation to using this structure is that because of its scope alone, many users will never see all of what it has to offer. It is important for media practitioners and people who use these games in instruction to consider how to navigate representation and make it available to users when the amount of content on subscription-based websites like ABCmouse.com, *Imagine Learning*, and Starfall.com is so vast that many users may never consume everything the site has to offer. If the only content teachers and learners can access or see is not diverse, they will remember the program accordingly. Heather and Mrs. Cordova, the two teachers who used Starfall.com, did not recall it having a diverse range of representations, which differed from my own findings after reviewing the site. This discrepancy between our experiences can perhaps be explained through how each of us navigated the site, and which games and interactive storybooks we chose to use. In my analysis, I looked at each section of free content on the site, which means I could have covered a broader scope of content than Heather and Mrs. Cordova did in using it within the context of their classes. In particular, Heather noted that she did not use it much because she used *Imagine Learning*, which her principal ordered for teachers in her school to use, in its place. Another potential barrier to accessing diverse

representations is when programs provide limited access to content unless users pay to use it. Both *Math Blaster* and Starfall.com follow this approach. If the content users access is not diverse and cost further limits the range of content they could access, they may remember the program as lacking diversity.

Stand-alone Games Designed to Be Played in Under One Hour

Although the structure of the more recent games tend to facilitate the process of creating diverse representations of race, social class, and gender, the earliest games of the samples mentioned in Appendix D, such as *OutNumbered!* and *Super Munchers*, were far more likely to be narrative-based, and depending on the skill level of the player, were able to be completed in under an hour. Games with long histories such as *Oregon Trail* and *Where in the World is Carmen Sandiego?* (*Carmen Sandiego*) have seen changes in their formats over the decades that also affected the ways in which they represented race, social class, and gender. Their 1990s versions were designed to be completed in one sitting, much like *OutNumbered!* and *Super Munchers*.

Several teachers also used websites featuring a large variety of games. They typically reported having done so as a reward and reinforcement for having completed the day's activities. When used in this manner, teachers permitted students to play any game on the site. In contrast, Maeve used games on large websites as an instructional tool that connected directly with her lessons. It therefore follows that she was the only teacher using games on such a website who was able to identify the specific games students used. Maeve told her students to play *Build the Bridge*, a game featuring bridges and trains and no anthropomorphic characters.

A primary advantage to this structure is that users may be more likely to complete games designed to be played under one hour than games that are longer. In the case of shorter games such as *Super Munchers*, *OutNumbered!*, *Oregon Trail*, and the 1990 version of *Carmen Sandiego*, users may even elect to play these games more than once. Zahira and Asha noted that if they finished their work, their teachers would sometimes allow them to play the games in class, and that they could select which one they wanted to play from the fixed set of games available on the computer. Asha, in particular, expressed how in her experience, teachers used games in the classroom “as a distraction and reward” for students. Supporting both Asha and Zahira’s observation, Mrs. Walcott also noted that she would allow students to choose which game they wanted to play from a site such as Coolmath-Games.com or PBSkids.org/games. Since students are rarely, if ever, allotted an hour or longer of class time to play video games because the majority of the day is devoted to other modes of instruction, games that can be completed under one hour are often an ideal point of compromise for both teachers and students. Teachers can permit students to spend a short amount of time playing video games in a way that does not detract from other classroom responsibilities. In turn, students can see all of what a game world has to offer in either one or several brief sittings, depending on their game-playing skills.

Conversely, the versions of *Oregon Trail: 5th Edition* (2006) and *Carmen Sandiego: Treasures of Knowledge* (2001) were still narrative-based, but designed to potentially be played in multiple brief sittings. For these two games, this change in representational patterns resulted in producers adding representational information via the cast of characters they created. Creating characters in this manner also appears to

coincide with relying on visuals to convey representations of race, social class, and gender. As more schools obtained color computers with the rapid advance of computer technologies occurring between the 1990s and 2000s, it would follow that producers were able to create more detailed images and characters. The ways in which *Oregon Trail* and *Carmen Sandiego* have been updated over the years illustrates how the very ways race, social class, and gender are represented can change when image quality advances. For example, with more comprehensive graphics and audio capabilities, social class can be portrayed through more immediate and subtle means, such as through intricate information in characters' clothing choices, home environments, regional accents, and similar content. Although this information could also be conveyed in games using computers without color graphics and high-definition audio, it can be conveyed to and interpreted by users more directly via computers with enhanced capabilities, allowing creators and users alike to broaden their imaginations and modes of expression.

The disadvantage to this structure is that shorter games may provide fewer experiences to implement diverse representational content. If producers want to include diverse representations in shorter games, they will have to be especially prudent about doing so. For example, one play-through of *Super Munchers* reads as far less complex with respect to race, social class, and gender representations than does one play-through of *Zoombinis*, a game that is designed to be experienced multiple times and over the course of many more hours. Because *Super Munchers* was designed to be played in such a short amount of time, playing it for many hours would result in the narrative repeating itself, but without adding any depth to the users' understanding of the world being portrayed.

Stand-alone Games with Concrete Endings, Designed to Be Played Many Times

In contrast, more recent games and websites like *Imagine Learning*, *Mavis Beacon Teaches Typing*, *Type to Learn*, and ABCmouse.com were designed to be played cumulatively. Many of these games ideally include a feature whereby users can save their progress, as they are expected to come back to it as many times as they wish. The largest difference between *Imagine Learning* and ABCmouse.com versus *Mavis Beacon Teaches Typing* and *Type to Learn* is that the former appear to be immeasurable and have no concrete ending. Both *Imagine Learning* and ABCmouse.com require a paid subscription, whereas *Mavis Beacon Teaches Typing* and *Type to Learn* are a one-time software purchase. Within the context of this discussion, *Mavis Beacon Teaches Typing*, *Type to Learn*, *Zoombinis*, and the 2000s versions of *Oregon Trail* and *Carmen Sandiego* are games that fall within this “Stand-alone Games with Concrete Endings” category, whereas *Imagine Learning* and ABCmouse.com are conceptualized as “Nebulous Umbrella Programs” because of their vast scope.

With respect to representation, games like *Mavis Beacon Teaches Typing* and *Type to Learn* operate much like the 1990s games in the study, *Oregon Trail: 5th Edition* (2006), and *Carmen Sandiego* (2001). To an extent, all of these games rely on visuals to convey information about race, social class, and gender. Specifically, as they are read on the bodies of in-game characters, these social constructs, and others, are presented as identifying and characterizing information. Although this information is often presented visually, especially with respect to race and gender, it is also presented within text and audio. *Carmen Sandiego* and *Type to Learn*, however, also use considerable text and audio to convey this information. In these games, such details often appear in the form of

facts about historical events and people representing various nations and cultures. While *Carmen Sandiego* presents these facts as clues that users must use to solve a larger puzzle and track down VILE agents, *Type to Learn* embeds them into its typing lessons and mini-games, encouraging users to kinesthetically process them through the act of typing. To this end, *Carmen Sandiego* and *Type to Learn* function more within the frame of multiculturalism than does *Mavis Beacon Teaches Typing*, which does not overtly discuss race or ethnicity.

Formats that do not allow users to veer from the game's predetermined trajectory also affect representation by demanding that such aspects are already included in the narrative. In this respect, neither of the typing games that participants used have customization features for the way the user's hands are visually represented on the keyboard, and both elect different approaches to representing the user's hands on the keyboard. In the version of *Type to Learn* that Fayola played, she remembered the fingers at the keyboard being raced as white. Conversely, in the version of *Type to Learn* that was sampled for this study, the hands users see at the keyboard during each lesson are raced to have three different human skin tones, although users can only see one set of them per lesson: beige, tan, and brown. The hands appear in a randomized order for that particular lesson, and users cannot choose which color hands they want to use for every lesson. *Mavis Beacon Teaches Typing* also represents the specific user's hands at the keyboard; however, the hands are a somewhat translucent shade of brown, to the degree that their actual coloring is unclear, making it easier for users to mentally project their own skin tones onto the image. In both series, the hands are neither gendered nor classed.

Mavis Beacon Teaches Typing, in particular, emphasizes the importance of roles and characterization in representation, and how they can result in users experiencing the game differently. In gauging different experiences to the same event, Pickering (2008) asserted the significance of taking into account the event and what the person considers to be meaningful about it. This information can then be used to piece together more information about how and why two people can have qualitatively unique interpretations of the same event. Asha and Brittany, two learners who played *Mavis Beacon Teaches Typing*, had significantly different interactions with the game. Asha, a learner whose mother purchased *Mavis Beacon Teaches Typing* for her while she was taking a high school typing class that was not conducive to her learning, attributes her having successfully learned to type to the *Mavis Beacon* program.³⁸ She noted at one point that it was empowering and meaningful to her that Mavis Beacon was represented as a Black woman. In contrast, Brittany did not recall seeing Mavis Beacon at all in the version she played of the game, so did not feel that she could speak to representations of race and gender in the game. For this reason, she also noted that she could not recall Mavis Beacon's racial identity. The difference between both women's perspectives may be explained through the importance each of them attributed to the visual presence of the Mavis Beacon character. Asha did not recall seeing her in-game, but did recall seeing her on the product's packaging, which left a lasting impression on her.

³⁸ Both Brittany and Zahira also noted that while they were in school, their mothers purchased certain educational games for them. Their mothers reportedly conferred with their teachers, asking for recommendations on which games they could purchase for their children.

Roles (such as protagonist, support character, and antagonist) are symbols of social status in story and game worlds. The visuals of the opening classroom and the keyboard suggest that the producers were considering ways to incorporate visual racial and gender diversity into the game. In the 1998-2004 version of the game, the two-dimensional (2D) image in the center, which represents Mavis Beacon, is of a Black woman dressed in a matching blue blazer and skirt. Here, Mavis Beacon's business outfit operates as an indicator of her social class, establishing her as a professional who will teach students how to type. For other versions of the game, Mavis Beacon is also represented as a Black woman in a business suit. Although different women are used to represent Mavis Beacon on the packaging for these games, Mavis Beacon is always represented as a Black woman with straight hair wearing business attire. The majority of the three-dimensional (3D) computer generated characters represented on the opening screen read as white characters, but Mavis Beacon's role as the educator and eponymous character, however, offsets the difference in numbers. She is the only character with a voice and an image in which users can see her face. Her indispensable role as the game's typing instructor dictates that for some users, she is the game's most memorable character. Although Asha did not recall seeing Mavis Beacon herself in the game and could not recall specific information about the game's content, the meaning she ascribed to Mavis Beacon was largely related to her role and representation as the game's typing instructor.

Although *Oregon Trail: 5th Edition*, like *Mavis Beacon Teaches Typing*, follows a structure that is tasked with ensuring that diversity is embedded in the narrative, Bigelow (1999) observed significant racism and sexism in his analysis of *Oregon Trail II*. This study's analysis finds that *Oregon Trail: 5th Edition* (2006) operates following a

combination of Eurocentric multicultural and colorblind racist ideologies, much like the 2001 version of *Carmen Sandiego*. Although many of the same issues and images Bigelow (1999) mentioned were in *Oregon Trail II* are still present in *Oregon Trail: 5th Edition*, one new addition is that it featured a series of brief, animated cut scenes that were able to be skipped. These new scenes give further context to the game, serving to visually and symbolically cement the series' centering of whiteness.

Earlier versions of *Oregon Trail* followed a largely text-based structure whereby users had to list the names of people they were taking with them to Oregon. At the start of the game's 2006 version, users are presented with a drop-down list including 25 professions with specific skill sets and funds for the journey assigned to them. The relationship between professions, skills, and funds will be addressed in further detail in Theme #5. In the game's earliest versions, users are unable to see themselves in the game; their names are all that represent them. By the 5th edition of the game, users are still unable to see themselves as avatars, but the introduction of cut scenes projects a specific story and representational information onto users.

The advantage to longer games with contained narratives is that producers have more time to incorporate diverse representations into the story. In this respect, as the game's instructional content becomes more complex, so can its representations. For example, playing *Zoombinis* only once would provide a more shallow interpretation of its representations of race, social class, and gender, since as the game gets harder, the amount of characters blocking the Zoombinis' path increases and they become more particular in the requirements Zoombinis must meet to advance, both of which affect characterization and users' perspectives on representation.

Nevertheless, a significant limit to these longer games is that students may never be able to complete them in classroom settings because of reluctance to allow students to use the in lieu of traditional classroom instruction. Maeve and Mrs. Walcott both commented on the pervasive attitude that teachers, parents, and even students have against using video games in educational environments. Moreover, stringent Common Core Standards also limit the material teachers are permitted to cover in their classrooms. As Mrs. Walcott, who teaches fifth graders, shared during her interviews: “I think the whole educational system is scared of games.” Maeve, a high school science teacher, observed “that there is some resistance to move to more aggressive and progressive instruction that’s nontraditional. For some reason, people hold on to traditional teaching even though it’s not very effective for most students.”

Heather, whose principal purchased *Imagine Learning* for her to use with her students expressed an alternative perspective. *Imagine Learning* is designed to be customized to each individual learner. In this context, Heather explained that if the school’s principal were to enter the room while one of her students, who is male in her hypothetical example, was doing a learning activity that appeared to be below his skill level, she would tell her that it was “not appropriate” for him to work on that activity, even if Heather knew that his understanding of that information was below grade level. However, if the student were honing those same skills by using the *Imagine Learning* program, she said that the principal “wouldn’t question it because the program is tailored to the student’s needs as a learner.” Heather’s example could also potentially speak to the opposite phenomenon, whereby school supervisors hold a game’s assessment of a student’s skills in higher esteem than they trust a teacher’s judgment. Overall, both of

these vantage points greatly dictate how much time teachers can spend using video games in classroom environments.

Video games have a structural complexity that differentiates them from many other media (Jones, 2008). Their capacity to incorporate audio, text, visuals, and interactivity into the same product makes structure an important component to address in analyzing them. The significance of this theme is that it dictates how producers could potentially approach representations of race, social class, and gender in video games for classroom use. Gauging the structure of their game could help media practitioners determine how to implement diverse representations so that they are most likely to be seen by the majority of users. In summary, a structural advantage to many umbrella programs that are large in scope and accessible online is that producers may be able to change and add diverse content more readily. Conversely, it may be ideal for producers to consider that many users may not see all the game has to offer, and place diverse representations where they are most likely to be seen. Teachers must also consider this information and plan accordingly. Games that are meant to be played in under an hour have the structural advantage of being more likely to be seen in their entirety in classroom spaces. Including diverse representational content, however, can be more challenging in shorter games. In games designed to be played in multiple sittings, producers have more opportunities to implement diversity and complexity in their representations. However, longer games pose a challenge in that teachers often cannot or do not want to devote too much in-class time to using them.

Another important consideration when thinking about the structure of educational games is access. Many games cost schools a substantial amount of money to purchase for

classroom use. A number of games available in classrooms, such as *Super Munchers*, *OutNumbered!*, and *Carmen Sandiego*, were only able to be used in classrooms during the 1980s and 1990s. In current times, these and a number of other games, such as ABCmouse.com, *Math Blaster*, games on websites such as PBSkids.org/games, and Starfall.com, are accessible via the Internet. *Imagine Learning* is a rare case of a current-day program that can only be used in classrooms and not outside of them. As Mrs. Paxton noted, however, if students do not have Internet access—which she reports is still common in parts of the community in which she teaches—they cannot access even games that are available via Internet at home.

Theme #3 extends Theme #2's discussion on the link between structure and representation by elaborating on the ways that many games focus their narratives on the perspectives of socially powerful groups.

Theme #3: The Act of Centering the Socially Powerful Remains Prevalent

There are several examples of the process of centering the socially powerful within *Oregon Trail* and *Carmen Sandiego*, the two series that were used by the most learners. In *Oregon Trail*, the socially powerful people who are centered are white pioneers and their perspectives on traveling the Oregon Trail, whereas *Carmen Sandiego* centers English-speaking populations and European cultures. Although both series include bountiful educational information, they also operate within the frames of both Eurocentric multiculturalism and colorblind racism.

Oregon Trail primarily centers white pioneers' perspectives on the historical period. It centers these perspectives to such a degree that Fayola, who used the game as a learner, had thought it possible that people of color were not associated with the history

of the Oregon Trail. This finding coincides with Bigelow's (1999) assertion that *Oregon Trail* misrepresents history to learners. The new cut scenes support an interpretation of history that centers white pioneers through featuring three fictional white children that are siblings: Cassie, Parker, and Jimmy Montgomery. With the recent passing of their mother, they plan to head to Oregon to see their father. He arranged for them to be escorted to Oregon by a "mountain man" they have never met named Captain Jed Freeman. When they met Captain Jed, a Black man dressed in a cowboy hat and buckskin clothing, they asked him whether he works for Jed Freeman. From Captain Jed's answers, Cassie finally deduced that he is the man that will take them to Oregon. Once she does, Jimmy, the youngest, responded by saying to Captain Jed, in confusion and alarm, "But you're..!" before being interrupted and ultimately ignored. As users complete the standard *Oregon Trail* game, they can either watch or skip the cut scenes that are scheduled to play once they reach certain points in the game. During the trip, the siblings made comments that could be heard in the cut scenes via audio or read later on in the game's "Journal" portion, such as, "Today, I saw my first Indian." Cassie, in Parker's words, "saved an Indian woman's baby" from being harmed by a wolf while the baby's mother was tending to her other child. The woman never speaks, but gives Cassie a pendant necklace to show her thanks. Jimmy survived being bitten by a snake, and Parker "saved" their wagon from being destroyed as they guided it down a hill. When they arrived in Oregon, Captain Jed highly praised their actions to their father.

The sequence of events occurring through the cut scenes suggest that the game's narrative is affected by both Eurocentric multicultural and racially colorblind ideologies. Racially colorblind ideologies often present themselves in the absence of referencing race

(Bonilla-Silva, 2006, 2014), while multiculturalism presents itself through referencing a range of people's ethnic and cultural practices (Banks, 1991). Both ideologies are conveyed in the 2006 rendition of *Oregon Trail*, and in particular, the differential treatment of Black, Native American, and white groups is evidence of this complicated approach to racial representation. In the game, Native American people are always referred to by race or ethnicity, either as "Indians" or "Pawnee" or "Shoshone," and are at times spoken about as though they are not human. The phrase, "I saw my first Indian," for example, trivializes and objectifies entire groups of people. White people are referred to as "white people" in the game's "Journal" portion. Blackness, however, goes unnamed both via audio and text. Captain Jed's Blackness is never directly referenced in the scene when he meets the three siblings, nor is his race overtly mentioned anywhere else in the cut scenes. In the written "Journal" portion of the story, Captain Jed is referred to as a former "slave" that Cassie admitted to originally judging "by the color of his skin"; again, Blackness is not directly mentioned. In naming white people and Native American people, but refusing to name Captain Jed's race in the cut scenes when it is clear that users are supposed to be noticing his race, the game operates within a racially colorblind framework. As noted by Bonilla-Silva (2006, 2014), racially colorblind approaches typically reference race indirectly while also suggesting that the reference has nothing to do with race. Nevertheless, by focusing the story on the Montgomery siblings' perspectives and having Captain Jed recount tales of the Shoshone, the Donner Party, and Jim "Old Gabe" Bridger and the Gold Rush, the game takes users through the history of the Oregon Trail from a primarily Eurocentric multicultural lens. Together, these two

ideological approaches complicate the in-game narrative, sending users confusing messages about race and ethnicity.

Through these representations, the game's cut scenes are constructed to create a warm mood for users who identify with the siblings. As Bigelow (1999) observed in *Oregon Trail II*, the guidebook in the game itself includes literature with "comforting words" written to the users in the spirit of "advice and social vision" (p. 360). This tradition continues in the game's 2006 version. Captain Jed, although central to the story, ends up being the Black token character of the cut scenes. He taught the siblings history while protecting them and shepherding them all the way to Oregon. The unnamed Native American woman who gave Cassie the necklace expresses gratitude, along with her family, to Cassie for her bravery in scaring away the wolf that would have hurt her baby, when routinely, "Native Americans [were] victimized by the Oregon Trail" (Bigelow as quoted in Schrum, 2002, para. 11) and the incoming settlers (Bigelow, 1999), rather than by wolves. Cassie, Parker, Jimmy, and their father all are deeply grateful toward Captain Jed for his knowledge, enduring friendship, and for keeping them all safe at time when historically, as an African American person, he would have been "excluded from many Oregon Trail wagon trains" (Bigelow as quoted in Schrum, 2002, para. 11). Although the game portrays a time period of much legalized discrimination, hardship, and "hostility and violence" (Bigelow, 1999, p. 360) against marginalized groups and amongst settlers, the hopeful mood in the cut scenes seems designed to sugarcoat that history while reassuring users who identify with the white siblings' perspective that the history of the *Oregon Trail* was more harmonious than it was likely to be in reality, and that it welcomed and was full of people like the game's characters.

Although the vast majority of the characters in the 1990 version of *Carmen Sandiego* visually present as white, notable patterns of race and gender representation persist throughout this game. In this version, Carmen Sandiego herself has green eyes and is listed in her dossier as having “reddish-brown” hair. As De Vaney (1998) observed, in the version created in 1990, the user interacts with white characters for clues on the whereabouts of Carmen Sandiego and her criminal associates (who in this version are all called VILE henchmen and pictured during animated in-game sequences as the same white male burglar character, although four of the nine of them are women) regardless of the country in which they visit. The information the user reads from these white characters is used to determine which city to visit next in pursuit of the thief.

In the 2001 rendition, the protagonists who are used to represent the user are ACME agents Julia Argent (Jules), who appears to be an Asian American woman with brown eyes and a short, black pageboy haircut who used to be Carmen Sandiego’s partner at ACME before Carmen Sandiego became a thief, and Shadow Hawkins (Hawkins), a white American man with short blond hair and blue eyes who is a new ACME agent. Both of them are “top students” who are supervised by ACME’s Chief, an older African American woman with light brown eyes and graying hair. Within the context of this game, all of the game’s characters address her as “Chief”; her actual name is never revealed. Although Chief has a high-status position at ACME, she functions primarily as support staff for Jules, Hawkins, and the game’s users, providing them with information on the case and suggestions on what to do next when users have difficulty progressing in the game. Through neglecting to explicitly name “Chief” by first and last name, as has been done with Jules and Hawkins, the game is constructed in a manner that

discourages users from identifying more directly with Chief, who seldom talks about herself.

Compared with Chief, Jules—and especially Hawkins—are both highly characterized throughout the narrative. Jules took notes throughout the journey, compiling a notebook full of sketches that readers can view. Hawkins is often associated with technology, and between he and Jules, he physically carries most of the high-tech tools that users are supposed to interact with throughout the game. He has encyclopedic knowledge of anything related to machinery, uses a grappling device to catch items, and is the character that searches the databases. Carmen Sandiego occasionally refers to him as “Gadget Man.” There is enough information in the game to suggest that the character users are supposed to most closely identify with is Hawkins. He, unlike Jules, is a “Rookie,” which is the same starting rank for users in the 1990 version of *Carmen Sandiego*. Moreover, there are segments in the game where Carmen Sandiego is directing her video message to Hawkins, which is unusual since both Jules and Hawkins are always together and Jules used to be her ACME partner.

Another striking detail about the 1990 version of this game is its “Dossier” section, which demonstrates how polysemy works within the same text. According to the dossiers, five of the 10 possible villains users can catch in the game are reportedly partial to either “Mexican food” (three associates) or “tacos” (one associate and Carmen Sandiego). The other four enjoy some variant of “seafood,” and the final one “loves spicy foods.” This information can be read in a number of different ways, but to contemplate the ways in which race, social class, and gender are represented in games used in classrooms, I offer two possible clashing interpretations of these profiles. The first

reading is that the presence of Mexican food or tacos in five of the 10 profiles is a celebratory, affirming nod to the cuisine. This perspective is informed by the notion that being seen is a part of having one's existence validated (Epstein & Friedman, 1996). An argument potentially supporting this idea would be that of all the countries in the world, five out of 10 of these well-traveled characters especially enjoy Mexican food and tacos to the point that they are the only specific cuisine and dish worth mentioning in their records.

Because food can be used to indicate or represent culture, highlighting Mexican food in this manner could be understood to function as a code for Mexican cultures. In this sense, it could be used as what Bonilla-Silva (2006, 2014) might recognize to be a way to indirectly reference culture. Although referencing food is one way to make visible and potentially encourage students to further explore its culture of origin, discussing an aspect of a culture without added context introduces a specific set of issues. As Banks (1991) noted:

The study of the foods eaten by Mexican-Americans or of Native American tepees will not help students to develop a sophisticated understanding of Mexican-American culture and of the tremendous cultural diversity among Native Americans. This kind of teaching about ethnic cultures often perpetuates misconceptions and stereotypes about ethnic cultures and leads well-meaning, but misinformed, teachers to believe that they have integrated their curricula with ethnic content and helped their students to understand ethnic groups better. (p. 131)

Including Mexican cuisine and tacos in VILE agents' dossiers in *Carmen Sandiego*, therefore, sends users ambiguous information about Mexican food and tacos. Because it is presented at a superficial level in the context of the game, it is unclear what students are expected to glean from information about half of the VILE agents' favorite foods

being tied to Mexico. This vague nature of representation facilitates multiple readings of the game's inclusion of Mexican cuisine, one possible one being that the reference is positive and encourages goodwill and interest toward Mexican food, which could be considered a proxy for Mexican cultures, in users. In this respect, the representation of Mexican cuisine bears a notable similarity to the representation of Carmen Sandiego herself, who is the game's primary antagonist. Although she is the antagonist, the narrative and the game's characters all discuss her in a way that both idolizes, and to DeVaney's (1998) assertion about her representation, vilifies her and portrays her as a seductress. She regularly taunts users, who always try to apprehend her but never succeed. Carmen Sandiego's character and representation, therefore, is complicated in that she is a respected genius that is a Hispanic woman, yet she is also a wanted criminal.

In contrast, the second reading suggests that in the context of these games, Mexico and Mexican people are simultaneously being associated with criminality and cuisine. This reading is supported by the reality that marginalized ethnic groups have a long history of being characterized by and reduced to the cuisine associated with their group (López-Rodríguez, 2014). With the variety of cities and countries such well-traveled characters, who happen to be wanted thieves, are visiting, it is particularly noticeable that half of them favor Mexican food. As discussed earlier, Banks (1991) noted that from a multicultural lens, educators must be careful about celebrating parts of a culture without addressing the event within a greater context. Because food and culture can serve as proxies for one another, Banks' (1991) perspective can be applied to representing and discussing food within the context of culture. Providing some context can therefore help to ensure any food references are as sensitively portrayed as possible,

which is crucial in games used in classroom contexts. The same argument that was used to support the previous reading can also be given further context and used to advance this second reading. Visibility for the sake of visibility can be harmful to representation because reproducing the same flawed, context-absent image repeatedly just so any image is in the atmosphere results in the birth of new meanings for that image. For innovation in representation, it is necessary to have expectations that are deeper than visibility for the sake of visibility. As Bigelow (1999) asserted in his critique of how African Americans were portrayed in *Oregon Trail II*: “*Oregon Trail*’s treatment of African Americans reflects a very superficial multiculturalism. Black people are present, but their lives aren’t. Attending to matters of race requires more than including lots of Black faces” (p. 357). Therefore, producers looking to portray underrepresented people, ideas, and stories may benefit from considering the representations that already exist in the educational games landscape, and within that context concentrating on crafting the exact images they wish to add. Within the current landscape, this current pattern could be understood to highlight Mexican cuisine, associating it, and by proxy Mexican cultures and people, with thieves in a context where no other nation or ethnic cuisines are named.

Associating Mexico with cuisine is also very common in the 2001 version of the game, which appears to have been updated in a way that ideologically coincides with Bonilla-Silva’s (2006, 2014) findings on colorblind racism only years later. Following colorblind racist logic, Jules characterized Hawkins, whose favorite food is hamburgers, as “always” being hungry, which could be perceived as an “anything but race” (Bonilla-Silva, 2006, p. 63) justification on part of the producers for constantly talking about food in relation to nations, cultures, and people throughout the game.

Although the one who is always hungry is Hawkins, Jules is often used throughout the storyline to make comments and jokes about food. The narrative, though, has been constructed to even offer a rationale for Jules' tendency to do so. At one point in the game, Carmen Sandiego remarked that Jules was "difficult to work with [because she's] very opinionated." Yet the Chief provided a contrasting opinion of Jules: "I trust Jules' intuition. It's not often that she's wrong." In addition to these characterizations of Jules, the narrative appears to be using Jules' status as a woman of color to dismiss the cultural insensitivity of the comments she is assigned to speak. On their way to Mexico, Jules' first comment on Mexico was about tortillas. As Jules and Hawkins travel from location to location, the user is able to listen to audio shorts that include trivia and characterizing information for Jules, Hawkins, Carmen Sandiego, and the Chief. On the way back from Mexico, Jules made a comment about Hawkins eating hot sauce. As the story progresses, Mexican food is again referred to out of context when the two are in Egypt. As they talked about their mission, Hawkins said, "I smell a rat" in relation to new information. Jules replied to Hawkins' statement by saying, "I think you smell the remains of that taco you put into your pocket back in Mexico." Her comment, although intended to be a joke, is surprisingly insensitive given its placement in a multicultural educational game. Finally, when the two returned to Mexico once more, the user is exposed to more trivia about tortillas, tacos, avocados, and chocolate, as well as the piñata, in relation to Mexico. When considering the patterns in both the 1990 and 2001 versions of *Carmen Sandiego*, the series appears to habitually devote a considerable portion of its time using food to characterize Mexico and its people. Context is a large component of sensitive representation. As this discussion demonstrates, although food

can and does signify culture, there are both sensitive and insensitive ways of referencing it within discussions of culture.

When there are multiple possible readings for any given media message, examining representational patterns can help to either affirm or refute them. The second reading of Mexican food in the *Carmen Sandiego* series would be supported by the observation that in addition to Mexican cuisine, both the 1990 and 2001 versions of *Carmen Sandiego* habitually reference the cuisines of certain cultures to the exclusion of others. Early in the game, the user is tasked with giving their Kenyan male tour guide a bowl of ugali as a requirement for taking them to Fort Jesus. In order to fulfill the requirement, Jules and Hawkins must buy it for the tour guide, who would say, “I am still very hungry for some ugali” every time the user clicks on him. Hawkins handed the tour guide the small wooden bowl of ugali that he and Jules purchased from a nearby restaurant, creating an international, intersectional visual reminiscent of stereotypes of impoverished Black people being fed by wealthier white people. Any time users want to visit the Fort, they must buy and give the tour guide ugali. In contrast, when Jules and Hawkins visited Russia, Russian cuisines and restaurants were never mentioned. When they visited Italy and Hawkins spoke about pizza, Jules commented, “There’s more to Italian food than just pizza.” Altogether, these exchanges tied ugali into the Kenyan storyline in a way that reinforced stereotypical, reductive imagery of African people, repeatedly referred to Mexican cuisines, and neglected to mention any Russian cuisines but instead discussed Russia’s time zones and cold weather. Thus, they are indicative of both the Eurocentric multiculturalism discussed by Shohat and Stam (2004) and the colorblind racism addressed by Bonilla-Silva (2006, 2014). Eurocentric cultures are

discussed with more complexity than those that are not, and the justifications offered for these practices are purported to not be racial or ethnic, but are presented as logical choices made on the basis of how humankind is supposedly predisposed.

In addition to the Eurocentric multiculturalism and colorblind racism present in the 2001 rendition of *Carmen Sandiego*, it also includes messages that encourage English-speaking US students, the game's primary market, to not learn certain languages because the people in said countries either study English or also speak English. When they visited Kenya, Hawkins told Jules, "Most Kenyans speak both Swahili and English." Jules replied, "Well, that'll be helpful!" This notion can be interpreted to communicate two ideas; first, that Kenyan people are expected to assure the comfort of English speakers by speaking English instead of Swahili; and second, that if someone with whom an English-speaker communicates speaks English, there is no need for the English-speaking party to learn other languages. Similarly, when Jules and Hawkins visited Japan, they discussed how "English is taught in many Japanese schools," using it as a rationale for not needing to be able to translate Japanese. The same messages about assuring the comfort of English speakers also apply here: that because Japanese schools teach English, Japanese people are expected to communicate in English rather than Japanese when encountering English speakers. In both settings, these messages connote a strong sense of entitlement on part of English speakers. To complicate matters, when Jules and Hawkins went to Germany, Jules makes the effort to thank a German man for his help in German. When they visited Québec, the two have a conversation that encourages people who visit to practice their French-speaking skills in advance because many people of French descent live there. Before visiting Cuba, Hawkins discusses brushing up on his Spanish-

speaking skills, and Jules responds that she can help him, or that he “could use that handy-dandy translator” on his person. When all five scenarios are compared with one another, these comments could be construed to discourage learning in a game designed to motivate learning. When considered together, these messages convey the belief that people in Kenya and Japan should accommodate English speakers, but English speakers need to learn German and French when visiting Germany and Canada. They also communicate the idea that it is ideal for English speakers to study Spanish when visiting Cuba, but that it is also all right to rely on a computerized translator for help. This message conflicts with the game’s inclusion of the “ACME Talking Dictionary,” which provides audio translations of 37 English words and phrases in 13 different languages. Five of these languages are French, German, Japanese, Spanish, and Swahili, suggesting that the game’s creators intend to encourage its users to be interested in learning new languages.

In looking at these games within a theoretical framework that references cultural studies, social constructionism, and intersectionality, as well as multiculturalism and racial colorblindness, these findings indicate that the socially powerful, at least with respect to race, social class, and gender, continue to be centered and normalized through in-game stories, characters, and ideas. These findings suggest that media practitioners must be mindful about how these two ideologies work together to thwart educational efforts at being inclusive. Moreover, if teachers wish to use or recommend this software to students, they may benefit from preparing a means to discuss or have students think critically about their representations. In addition to being embedded in the stories and scenarios presented within these games, such ideologies are also present in the range of

choices users are provided in games that allow or require them to create avatars. Theme #4 extends this discussion by addressing how socially privileged groups are not only the focus of in-game narratives, but also of avatar creation options.

Theme #4: Avatar Creation Options Center Socially Privileged Groups

Similar to Dietrich's (2013) finding that avatars with light skin tones are the status quo across the majority of video games, this dissertation finds that in the games participants used, when the option to select a skin tone is made available, avatar creation systems still favor the condition of creating characters with light skin tones. Although many games still do not offer any skin tone options, in games that do, the range of different color choices available for skin tones is very limited. Options for eye and hair color tend to be more diverse than skin tones, and users can modify other parts of their appearance, such as hair color, eye shape and color, lipstick shade, and so forth.³⁹ Users who wish to create characters with lighter skin tones tend to have a broader range of options to choose from than those who wish to create characters with darker skin tones. In these designs, there is a quiet assumption that players will only attempt or desire to create characters with light skin tones. Moreover, there is a noticeable lack of variety with brown skin tones. Naomi noted this disparity when asked about her thoughts on representations of race in the video games she had used in the classroom. In particular, she observed that traditional video games targeted toward girls, such as "cooking games, games where you play the mom, [and even] dolls in general" did not offer her skin tone

³⁹ *Ener-G Gym Rockets* is an example of one traditional video game that follows this format.

as an option.⁴⁰ Naomi also commented on the large gap between brown skin tones, which transition directly from very light brown to dark brown in traditional video games and ones used in education alike. A few examples of traditional video games like these, which offer the user a semblance of skin color options but either: 1) with substantial differences between color options or, 2) within a small, bounded range of light skin tones, are *Style Lab Makeover*, *Style Savvy*, and various versions of *The Sims*, namely console versions and default options for *The Sims 1* and *The Sims 2*. Wide disparities between skin tone options are also seen in the avatar creation systems of two games participants used: ABCmouse.com and *Math Blaster*.

When users register for ABCmouse.com, which is owned by Age of Learning, Inc., they must create an avatar to represent them in the game. There are nine skin tone options available for users to choose from. Users who wish to create avatars with skin tones 1-4 or 9, the five lightest skin tones, will be able to color match the contours of the lines delineating their avatar's nose and mouth so that they are darker than their skin. However, users who wish to create avatars with skin tones 5-8, which are the game's darkest skin tones, will quickly find that the hues of the lines delineating the contours of their noses and mouths are lighter than their avatar's skin tone. In *Math Blaster*, which is owned by JumpStart Games, the hues of the avatar's lips are tailored to the hue of the lightest two skin tones (1-2) as opposed to the darker skin tones (3-4). Similar to Kafai,

⁴⁰ A number of these video games still offer either one light, unchangeable skin tone as the only option, or allow users to choose between a few avatars that all have the same light, unchangeable skin tone. Several games in Ubisoft's *Imagine*® series, which is designed to promote girls to explore a wide range of careers, have demonstrated these formats. For an example of the former, see *Imagine Fashion Stylist*. For the latter, see *Imagine Figure Skater*, *Imagine Ice Champions*, and *Imagine Ballet Star*.

Cook, and Fields' (2010) study on *Teen Second Life* and *Whyville*, these users will be unable to find any noses that have color contours that are darker than their avatar's skin tone. In ABCmouse.com, only three out of 14 possible mouth options resolve this issue, and in *Math Blaster*, it is circumvented by using two out of four of the starter mouths. Avatar customization cannot resolve the color tone issues for the noses of avatars with skin tones 5-8 in ABCmouse.com. These issues only resolve themselves after the user creates the avatar and begins playing the game. The next time users see their avatar outside of the avatar creation system, its colors have been automatically corrected within the in-game world. This correction, however, occurs too late to be recognized by any users who have since quit using the game. Moreover, this color tone error could feel especially hostile to racially marginalized audiences, many of whom are accustomed to having their skin tones misrepresented and disregarded through not only artistic renderings, but also throughout other areas of life. It could leave an unpleasant first impression that alienates users who wish to create characters with brown skin tones, affecting their decision on whether to use the program. This aspect of the program was disappointing to Isabella, an elementary and middle school Special Education teacher who briefly used ABCmouse.com. When she noticed that it was also a program that was impractical to devote to use in her own classroom because of the time and attention it required in lieu of instruction, she stopped using it altogether.

In addition to the time it takes students to create avatars, the program also demands students' full attention once their avatars are completed, as the mini-games include engaging and colorful audio, text, and images. In Isabella's case, the avatar creation system's omission of dark contours for the noses and mouths of characters with

dark skin tones only worked to highlight ABCmouse.com's greater incompatibility with her student's needs. Although avatar creation can serve as an important learning opportunity for students, it is noteworthy for game creators to note that time students spend creating an avatar is time lost on more traditional in-game instruction or even traditional classroom instruction. Responding to these issues by removing all avatars or making it impossible for users to create avatars with human skin tones would amount to a racially colorblind approach to avatar representation. Only allowing users to create avatars with green, blue, or purple skin is not going to extinguish racial inequities in everyday US life. Because polycentric multiculturalism, which takes everyone into account, is often perceived as an ideal (Shohat & Stam, 2003), it is important for producers to consider how to reduce the time it takes for users to create an avatar while also ensuring that there are enough options for a broad range of users.

Representations of skin color are not the only ones compromised in newer video games for educational use. Although the option to be either female or male is a diversity improvement over past customizable video games where users could often only be male, newer video games for educational use remain limited in that they only allow users to specify gender on a binary scale. Zahira, Rina, and Fayola found these gender representations in the games they used to seem fairly equal. Dawn, Isabella, and Mrs. Cordova felt, however, that males were more widely represented than females and that males were overrepresented in games used in classrooms. In particular, Lila reported that gender representation in the games she has seen "varies," but she only uses technologies where women are represented "at the center and at the core of the experience." Gwen hinted at the sexism inherent in how both Carmen Sandiego and Polly Spark, who she

described as a “tiny blond scientist girl” character in *JumpStart 3rd Grade*, were both intelligent female characters who “had to be antagonists. You couldn’t actually play as them themselves in order for them to be seen as full characters.” Both Asha and Gwen noted the majority of cisgender representations in the games they used. Asha specifically mentioned the lack of transgender characters in games. All of the games participants used appear to have been created within a context that views gender as binary rather than along a spectrum. In other words, a number of games represent both females and males, but none of the games in the study overtly included gender representation for people who identify as transgender or do not identify as female or male.

Because of the image-based nature of avatars, visibility is especially crucial within the context of games that allow users to create avatars. As Kafai, Cook, and Fields (2010) found in their analyses of *Teen Second Life* and *Whyville*, the lack of skin tone options for the body parts of characters with brown skin created an unwelcome and hostile environment for users with brown-skinned avatars. In this vein, these games’ structural shortcomings facilitated and provided those who wanted to use racism as a basis for harassing people online a platform to do so. The findings discussed within this theme suggest that when games present users the opportunity to create their own avatars but significantly limit that process by providing more diverse options for members of socially privileged groups with respect to race and gender, the games also communicate, via their absence, that marginalized groups need not be included within their conception of diversity. The US is a diverse society that uses a significant amount of multicultural policies (Rattansi, 2011). Not including a broad range of options, especially when today’s

games have the technological capacity to do so, runs counter to the objectives of such games in the greater US culture.

As addressed in Theme #5, social class is also represented via in-game options. Unlike race and gender, however, several games represent social class through the presence of purchasable items. Although the US considers itself to be diverse with respect to race, it does not consider itself to be diverse with respect to social class, as the majority of US people identify with the middle class social identity (Cookson, 2013). Allen (2011) conceptualized social class as a performance that is indicated through “our (conscious and unconscious) choices of clothing, accessories, speech style, manners, food preferences, home décor, mode of transportation, and so forth” (p. 105). As covered in Theme #5, in the games participants used, social class is conveyed through many of these coded items.

Theme #5: Social Class is Represented through Purchases, Possessions, Settings, and Hobbies

Social class is frequently manifested in the purchasing of in-game commodities, which is perhaps unsurprising in a capitalist cultural context. Although children generally do not have the spending power that adults do, a plethora of media have, within the last 20 years, been designed to target and entice child audiences to spend money (Hill, 2011). Multiplayer online games targeted toward children in which “players [earn] currency for completing mini-games or particular tasks” are fairly prevalent today (Grimes, 2015, p. 140). This practice is a key component in both ABCmouse.com and *Math Blaster*, where players must create their own avatars. Although the majority of the websites in this study, like ABCmouse.com, are not multiplayer online games, *Math Blaster* would be

considered one (JumpStart Games, 2014a), as users can interact and play the game with people they do not know.

For many participants, social class representation was either missing or not diverse in the games they used. Brittany, Fayola, Rina, and Asha all reported that they were not able to elaborate on representations of social class because they felt it was absent from many games. To this point, Asha commented that “it’s harder to determine class than race or gender.” Zahira noted that she had not been aware of social class in the games she used in classrooms, but that she recalled it being present in the *American Girl*® games because Addy was a slave and Samantha was wealthy and the game shows images of their houses. For Zahira, the lack of any memorable representations of social class in the games she used in classrooms meant that the quality of representations was “poor.” Other participants, like Lila, Isabella, and Mrs. Cordova felt that not seeing a range of social class representations in the games they used negatively affected the quality of these representations. Both Isabella and Mrs. Cordova placed their discussions about the lack of diverse social class representations within the context of general media representations. Isabella commented that representations were primarily of middle class characters, and that in media in general, audiences “never see a poor neighborhood unless there’s something nefarious going on.” Mrs. Cordova shared that media tend to show social class in terms of what she referred to as “extremes,” whereby characters are either “living in a palace” or “living in the projects.”

To Mrs. Cordova’s assertion, Gwen spoke about game-related representations of the wealthy and the oppressed in the original, non-multiplayer version of *Math Blaster*, with the presence of the “hero” characters. She described how they landed on a planet

where “the locals, of course, are hostile” toward them, and that they were “starting trouble and attacking people just so they can extract many minerals from [the] planet to go and power their ship.” Gwen felt that this version of *Math Blaster* perpetuated the assumption that “people in authority are always good.” On the other hand, Gwen also raised the case of *JumpStart 3rd Grade* (2007),⁴¹ a game featuring a lower-status protagonist and a wealthy, high-status antagonist. Here, the user plays the role of Botley, who introduces himself in the game’s introductory animation as a robot created by Professor Spark, a famous white male robotics expert. Botley’s primary responsibility is to ensure the game’s antagonist and Professor Spark’s daughter, Polly Spark, stays “out of trouble,” which Botley himself noted is a difficult task. During her interviews, Gwen described Botley as the antagonist’s “servant.” Gwen also noted that Polly was regularly rude to Botley and recalled that in the game, characters described Polly as “spoiled” and “a brat,” which she acknowledges may also “have gender implications.” Conversely, Naomi described representations of social class as “pretty good” in the games she used. Her perspective was that although she never noticed there being different social classes, she approved of the idea that because “everybody was just the same,” in-game characters, narratives, and the students using the games did not seem focused on materialistic issues, which could detract from instructional content.

This textual analysis finds that many games represent protagonists who read to most US audiences as middle class. Some characters may even appear to be upper middle class due to their living in spacious homes. Allen (2011) noted that in popular media,

⁴¹ The version referenced in the textual analysis is the one published in 2007, which is likely a later version of the one that Gwen played many years ago.

politicians tend to “tout the fact that they grew up poor, or in working-class families, implying that they understand the plight of the poor, or they admit that they are reach, invoking proof of the American dream” (p. 99). This same narrative is present in a number of video games participants used, including ABCmouse.com and *Math Blaster*. If the characters are not wealthy from the start of the game, in-game messages reminiscent of the American Dream suggest that they may be able to increase their wealth should they perform all of the tasks assigned to them in the game world.

In *Math Blaster*, which Fayola, Gwen, and Zahira used, the game quickly creates an environment with consumerism at its foundations. At the start of the game, users who do not have a paid member account are able to create a protagonist using a very limited number of available features. They can choose from four human skin tones, six out of 140 eye templates, three out of approximately 40 mouth shapes, and five out of approximately 60 basic hairstyles. The remaining features, as well as other accessories, are locked until they pay membership fees. After users finish their avatar, they are assigned a pet larva that they must feed, bathe, and play with routinely. They also receive “credits,” a form of in-game currency points that go onto an item looks like a blue credit card. Credits are earned by completing tasks and games. Users are encouraged to spend the credits on decorating two spacious bedrooms: theirs and their pet larva’s. Once completing *Math Blaster*’s first math-related mini-game, users see a pop-up window that tells them what membership would provide. This window is decorated with colorful graphics, and each instance of the word “member” is capitalized: “Only MEMBERS can rank up higher! As a MEMBER you can also: Cruise in your own ride! Shop for more furniture! Raise rare Monster Mutts! Morph more monsters! Run faster and jump higher!”

As can be inferred from these in-game advertisements, the in-game quality of life differs considerably for paying members, who are able to develop and perform a greater variety of skills, versus non-members. These added skills are resources, or in-game advantages, which users' parents must purchase.

Being a non-member on *Math Blaster* means users are frequently reminded in-game about their non-member status. Users are also prohibited from increasing their in-game levels until they become site members. Becoming a monthly member costs \$9.99 US dollars, whereas three-month membership is \$24.99, annual membership is \$84.99, and lifetime membership is \$129.99 (JumpStart Games, 2014b). *Math Blaster* sends several in-game reminders in the form of adverts to children about this caveat. When users click on an option with a lock icon on it, a pop-up screen appears with the following text: "To unlock this feature, ask your parent to become a blaster member today!" When non-member users see load screens, a selection of them will say, "Members earn higher ranks" or "Do you think you can tame a wild alien? Become a member and find out!" The game interface also includes a constant reminder about membership in an icon on the upper left-hand corner of the screen that says in capital letters, "BECOME A MEMBER." Similarly, information about the benefits of purchasing membership are seen throughout the entire JumpStart.com website, which is owned by JumpStart Games, who also owns *Math Blaster*.

Much like it is in *Math Blaster*, in ABCmouse.com, social class is embedded in the game's basic structure. Users are required to create an avatar of a child who lives in a home where s/he is not asked or required to share anything with anyone. S/he has her/his own room and two pets. When users create their avatar for the first time, they must also

select a hamster and a fish. Naming the hamster is optional. They are not asked to name the fish. Everyone does not have the financial resources to own one pet, yet ABCmouse.com requires that users select both a pet hamster and a pet fish. After creating their avatar and playing the educational mini-games, users can then spend their “T” tickets. “T” tickets are a form of currency they earn from finishing lessons. Users can spend them to purchase any of several rooms and items to place inside of them. The items they buy function like 2D stickers. Their own “bedroom,” which they do not have to share with siblings or pets, is free, but the other rooms they can buy are: Palace (100T), Den (50T), Backyard (60T), Beach (150T), Fantasy Garden (150T), Space (100T), Racetrack (100T), Underwater (100T), Volcano (125T), Winter Wonderland (125T), Wilderness (50T), Fall (150T), Gymnasium (125T), and Field (No price is listed). Adults managing the account have the capability of changing settings that limit the amount of time per day child users can spend purchasing items for their avatars.

It is also noteworthy to address how social class cues can emerge when characters visit settings previously unknown to them. In the 2001 version of *Carmen Sandiego*, when the user clicks on someone selling fruit in a marketplace in Peru, it triggers the following audio exchange between Jules and Hawkins:

Hawkins: I thought I had it tough growing up on the ranch, but these people really have a hard life. You know, I think it shows their tremendous character that they make such beautiful blankets and clothes, even in the midst of hardship.

Jules: You know, Hawkins, there may be hope for you yet! (Where in the World is Carmen Sandiego?, 2001)

This exchange includes code words indicating social class differences. Hawkins appears to use “hard life” and “hardship” as code phrases to indicate living in poverty. Users

know little about the ranch on which he grew up, but it is used as a point of comparison between his own social class and the social class of the people he is talking about in Peru. Further complicating matters, it is unclear from the audio whether Hawkins is speaking about the people in the entire marketplace, the specific person the user clicked on, or another person or group entirely. Amidst the ambiguity in this exchange, the idea that impoverished people are to be admired for working although they are poor is clearly communicated. This idea is subtly reminiscent of the widespread US notion that people in poverty are somehow flawed and to blame for their social status (Gans, 1995; Goode & Maskovsky, 2001). Hawkins' statement could be understood to imply that the fact that they are working when they are poor is evidence of their morality. His perspective coincides with the US cultural notions of the "deserving poor" and "undeserving poor," as addressed in work by Allen (2011), Gans (1995), and Goode and Maskovsky (2001), aligning the people in the Peruvian marketplace as part of the "deserving poor." In turn, Jules' statement suggests that being able to see the good in poor people who work hard indicates the noble character of those who are not poor.

Another game that perpetuates a link between the "deserving poor," "undeserving poor," and the notion of a difficult life is *Oregon Trail*. The game portrays pioneers as people with limited resources who are traveling to Oregon to start a new life. When Gwen discussed representations of social class and noted that she could not think of any games she used in the classroom that represented working class characters, she spoke about the missing details in how social class was portrayed in *Oregon Trail*:

I mean, even in the *Oregon Trail* game, they're more like pioneers looking for land. They don't really deal with how they got that land in the first place. That's never talked about in the game. Which is odd, because the implications of that make it sound like, oh, they were just people making this innocent journey and facing the elements, which is a common myth of American Exceptionalism and [...] Manifest Destiny. Yeah, that game is really built on a lot of that. Because how do you have a cast of your mom, dad...[and] all the other travelers, right? And they've been promised land out West if they can get there. How did they get the land? I mean, it wasn't just there for anyone to take it. There must've been people living on that land. Were they run off the land, too? It would be interesting to see a game from the perspective of those who previously lived there. But once again, how do you do it without it being offensive?

Gwen raised important questions about how race and social class are rendered invisible within the *Oregon Trail* series. For these questions to be unanswerable after having played the game suggests that significant historical background information pertaining to social class and race has been omitted from the in-game narrative. Moreover, Gwen's observations about social class in *Oregon Trail* align with how a number of characters that are not wealthy are portrayed in games used in classrooms. The game's narrative is orchestrated so that users are helping them to attain wealth in some form, be it land (as in *Oregon Trail* and *Zoombinis*), or money (as in *Math Blaster*). Much like this theme's earlier-mentioned example from *Carmen Sandiego*, characters that are portrayed to have little or no wealth at the beginning of the game are more closely associated with the "deserving poor" than the "undeserving poor."

To further address Gwen's observations, in obscuring the details surrounding land rights as they applied to the history of the Oregon Trail, the game is designed so that social class is chiefly represented through the profession of the user's wagon train leader. At the start of *Oregon Trail*, users were required to choose one of 25 possible professions for their in-game wagon train leader. In the game, these 25 professions are listed in the

following order, which is according to how much money each profession has at the start of the journey, from highest (\$1925) to lowest (\$425) salary: banker, doctor, merchant, pharmacist, wainwright, gunsmith, mason, blacksmith, wheelwright, carpenter, saddlemaker, brickmaker, prospector, trapper, surveyor, shoemaker, journalist, printer, butcher, baker, tailor, farmer, pastor, artist, and teacher. The profession users select from this list affects how much money and the skill sets they will have during their journey. The game predetermines the money and skill sets assigned to each profession. For example, according to *Oregon Trail*'s 2006 edition, tailors and shoemakers have "sewing skills"; doctors have "medical skills"; blacksmiths, wheelwrights, and wainwrights have "blacksmithing skills"; gunsmiths have "sharpshooting skills"; pharmacists, farmers, and trappers have "various skills"; bankers and merchants have "commerce/trade skills"; carpenters have "carpentry skills"; and butchers and bakers have "cooking skills." The following, remaining professions have "no special skills": masons, saddlemakers, brickmakers, prospectors, surveyors, journalists, printers, pastors, artists, and teachers. In other words, the game establishes a social class hierarchy in the form of financial resources and social capital needed to navigate the Oregon Trail, whereby professions listed toward the top of the drop-down menu occupy the highest social classes and those toward the bottom occupy the lowest.

According to the list of professions, in the world of *Oregon Trail*, teachers are the most socially disadvantaged population, with artists being the second-most disadvantaged. They set off on the Trail with no special skills and only \$425. Artists begin the game with \$475. Bankers, by comparison, begin with \$1925 and commerce/trade skills, which help them to barter with other wagon parties for supplies. By this system, navigating the

events users must encounter in the game, which are capriciously determined by in-game algorithms, is even more difficult for users who opt to play as a teacher. They have only a fraction of the financial resources that bankers do, which puts them at a disadvantage when purchasing a wagon, food, and supplies. In addition, any users who elect to be a teacher are accepting that teachers' supposed lack of special skills metaphorically places them in the space of workers who are not only poor in comparison to all others on the journey, but are unequipped with knowledge valuable for traveling and surviving the Oregon Trail. Since succeeding in *Oregon Trail* is largely about having enough resources to cope with the random onset of illnesses and loss of supplies that can occur throughout the journey, these users are playing an already difficult game on its hardest level.

In addition to being manifested in an in-game character's settings, purchases, and pets, social class can also be represented through a character's hobbies. One particular hobby that connotes social class privilege is traveling. As observed from *Carmen Sandiego*, a number of the conversations that transpire between Jules and Hawkins are strongly evocative of social class. As mentioned in Theme #3, users hear audio shorts containing characterizing details and international and cultural information. In one of these shorts, Jules and Hawkins talk about their high school trips. Hawkins, who grew up on a horse ranch, shares that he went to Greece and Jules went to "a water facility." To be able to travel abroad is a privilege linked directly to social class. For US high school students to be able to travel abroad for a school trip, they would likely have to attend a school with bountiful resources. In order to travel from the US to Greece, in particular, they must have a passport and the money to pay for transportation and lodging. Later in the game, Hawkins also mentioned that his family would vacation in France when he was

a child. This exchange between the two associates Hawkins with a higher social class than Jules, who did not travel abroad for her senior trip. In US sociocultural contexts, poverty tends to be associated with marginalized social groups (Goode & Maskovsky, 2001). Conversely, members of the most privileged social groups are presumed to occupy higher social classes (Allen, 2001). Because Hawkins presents as a white male and Jules presents as a woman of color, this anecdote from *Carmen Sandiego* stereotypically coincides with how race and social class are often expected to indicate one another in US contexts.

Ideas surrounding social class, therefore, emerge through a variety of avenues in video games the participants used in classrooms. Given multiple findings on the lack of representations centering marginalized groups, both in this study and others (for example, Banks, 1991; Bigelow, 1999; Shohat & Stam, 1994, 2003; Yenika-Agbaw, Lowery, & Henderson, 2013), this chapter's final theme addresses how teachers for whom diversity was a goal had to be proactive in crafting diverse learning environments.

Theme #6: Users May Need to Create Diverse Representation in Classrooms

Although representations of social class in the games participants used are not very diverse with respect to in-game protagonists, as noted in Theme #1, a greater number of the games include diverse representations of race and gender. Much like the “burden of representation” on video game players that expects them to actively create a sense of diversity in their own games with the tools the game provides them (Shaw, 2014, p. 35), the teachers in this study who wanted to ensure inclusivity often had to purposefully search for the games that achieved those ends. Lila spoke of her efforts in doing so within the context of teaching computer programming to predominantly “black

and brown children” in middle school and high school who live in “underserved communities” throughout her state:

[...] [E]very single experience we have [in the classroom] is going to be shaped by the people in the group, and so I think that we owe it to ourselves to make sure that each of those experiences is tailor-made. I think also, it speaks to the role and the part we have in terms of media, and sometimes we miss the step of really interpreting and understanding [...] some of the conscious and unconscious messages. We have to be thinking critically about putting those pieces together. And so when we spend the time to think about how to put those pieces together, we have to be really intentional about the experiences we offer. And it’s going to look different from group to group. If I had an all-male group, it would look different. Now, I’m not saying that if I had an all-male group that the piece around gender identity wouldn’t be there, because I think it’s important for that group, as well, but I think that we owe it to ourselves, really, to think more strategically about how we [make sure we] don’t fall into the trap of reproducing social constructs. Push the margins and challenge what we offer.

By thinking about the status quo with respect to how computer scientists are typically represented as boys and men, Lila actively tried to create a classroom environment that dispelled any ideas that girls and women could not be computer programmers. Moreover, it is important to her to send that message to all students, not only girls and women.

Lila’s approach to thinking about the messages potentially coming through the media she is using while teaching programming to girls and boys of color speaks to the unique historical exclusion, as a consequence of slavery, from educational institutions and the struggles that Black people in the US have often had to endure to pursue an education in this country (Franklin, 1979). As a Black woman who first learned computer programming in college, Lila advocated the importance of speaking with students about the stereotypes surrounding what programming is and who can be a programmer. Thus, organizing learning environments in which games could be used collaboratively and not

only individually aligns with Bigelow's (1999) suggestion that educational software ought to be accompanied by outside sources. He correspondingly advocated including exchanges between students and teachers in order to mediate any issues with racism and sexism that may be communicated if a game were to be played in isolation (Bigelow, 1999).

Within a binary gender context, representations of females and males were highly gendered according to cisgender stereotypes. Programs like ABCmouse.com and *Imagine Learning* ask teachers and parents to input children's gender information. In using *Imagine Learning*, Heather reported that in teaching elementary school English Language Learners (ELLs), this information is used to determine which in-game rewards the students will earn for completing an activity. She explained that it is optional to add this information, but that she usually included it because she felt "the game's rewards are usually gender-based." When gender options tie into the fabric of the game in this manner, it promotes the idea that not only is gender a strong and reliable defining characteristic for children, but that teachers need to identify their students' genders in order to create a tailored atmosphere for them. Heather noted the difference she saw in rewards for female students versus male students, having observed that both female and male students are able to decorate a sports car as a reward, but "one of my [female] students got to decorate a vehicle, but her designs were feminine." These feminine designs Heather described were "paisley and floral stickers." In contrast, Heather also noted that the male students had "race car flags" to choose from, as well as "gray, steel colors," and what she considered to be stereotypically masculine designs.

ABCmouse.com also exhibited the trend of associating certain colors with particular genders. In this game world, children are required to create an avatar before beginning the game. Checking off either the “male” or “female” box for gender is required in ABCmouse.com. The parent or teacher owning the account is granted the ability to go into the Account Settings to make male and female clothing options available for the children regardless of gender. This option, however, does not affect the avatar creation process; it only allows the child to use their tickets to buy clothing in both the Girls’ and Boys’ Clothing Stores after they have already created an avatar. The clothing colors for girls and boys were significantly different. Girls had pastel colors and clothing with floral or heart patterns to choose from, whereas boys had no pastel color options, but a greater variety of dark or neutral colors like gray, brown, and dark green. Associating such colors with girls and boys has been naturalized in the US context, and these trends are being reflected in educational software for child audiences. Recognizing the naturalized status of the color options for girls and boys, which has been decided irrespective of the colors that the children may actually prefer and wish to select for their avatar’s clothing, highlights what Carey (2009) and Croteau, Hoynes, and Milan (2012) have noted is the unnatural, malleable state of social constructs. Within the context of ABCmouse.com, to question these choices and want to dress a girl avatar in dark green or a boy avatar in purple would place users outside of “the ‘dominant’ or ‘preferred’ code” (Hall, 1980a, p. 135).

Conclusion

Overall, this chapter’s findings demonstrate that although some games used in classrooms showcase diversity on a visual level, when representations center perspectives

associated with socially privileged groups while sparsely, if ever, representing and centering marginalized groups, they promote ideological confusion about what diversity means along with perpetuating the idea that such practices are supposedly normal and acceptable. For example, there were multiple cases of both Eurocentric multiculturalism and colorblind racism in the games representing race, social class, and gender, although multiculturalism and racial colorblindness are two concepts that Richeson and Nussbaum (2004) perceived to be incompatible with one another. It is important for educators and media practitioners to identify multiculturalism's various forms, as Shohat and Stam (1994, 2003) have done, when considering how to determine the characters whose viewpoints drive the game. Multiculturalism is problematic when it primarily spotlights members of socially normalized groups' perspectives because in such cases, it does little to communicate that members of marginalized groups are equally important and valuable in a US cultural environment unaccustomed to hearing and seeing these messages. These findings suggest that although visibility is important in games used in classroom contexts, it is an insufficient end goal. Rather, it may be more productive to conceptualize visibility as a first step that indeed can "do more harm than good" (Banks, 1991, p. 132) should images of underrepresented groups be either reductive or stripped of their deeper context. This idea, however, should not be taken to mean that as educators, media makers, and media distributors, who have the socially-sanctioned authority to select, create, and showcase media to people in the greater culture, ought to look for or create media that focus exclusively on socially powerful groups. Rather, it may be easier to give voice to complex representations of marginalized groups when practitioners consider the game's *perspective* as a point of departure. For example, Lila suggested that underrepresented

groups be “overrepresented” performing socially-beneficial tasks (for example, creating something to help rather than harm people) to compensate for the lack of representation currently available. By doing so, she asserted, games can help underrepresented populations to connect with the subject matter being taught. With respect to representations of men and women in materials for computer science education, Lila felt that because men are frequently represented and women generally tend to be represented in a sexualized manner across media, women ought to be “overrepresented” in the games used to teach students computer programming. As demonstrated through Lila’s accounts, searching for and using video games with diverse representation is potentially one way to motivate students. Having greater expectations is the first step in ensuring representation that is as complex as it is diverse.

To Provenzo’s (2000) assertion, games that focus on only one perspective should not be the only authority used on an educational topic. Based on the findings in this chapter, I would further assert that teachers and learners can still use games with only one perspective, but that teachers might consider assigning a reflective exercise or in-class discussion requiring students to contemplate their game-playing experiences or the perspectives the game offers. Doing so would present the opportunity to attend to a range of possible readings of representations in video games in a manner that gives students a sense of reflective agency. It could also dispel the potential concerns that De Vaney (1998) raised about a teacher’s endorsement of problematic ideologies based on the games they have chosen for use in classrooms.

In the context of the broader US culture, the findings from all six themes suggest that media practitioners, teachers, and learners still have much to consider about

navigating representations of race, social class, and gender in video games used in classrooms. A number of the games participants used include discriminatory content that excludes and ignores many people within the US population. In terms of race, this content privileges racially colorblind and Eurocentric multicultural worldviews. Representations of gender are exclusively binary, and do not acknowledge that there are more than two genders. Social class is focused on the perspectives of those who identify as middle class and subscribe to notions of the American Dream, and when they do focus on people who are poor, they characterize them within the frame of the “deserving poor.”

Some of the finer details discussed in this chapter, with respect to character interactions and traits, may seem minor in the scheme of representation. When considered as parts of a larger whole, however, these details form a tone and images evocative of the same exclusionary and oppressive ideologies that continue to center privileged social groups and perpetuate discriminatory ideas, stories, and character creation systems. When messages are frequently repeated through media, they can become naturalized codes (Hall, 1980a). These findings suggest that people who create or use video games in classrooms may benefit from considering how the material they create or select can be either presented within a context that encourages users to think about, discuss, and acknowledge multiple possible readings of the same text, including those that are negotiated and oppositional.

The findings in this chapter are not meant to discourage media practitioners, teachers, or learners from using video games with thorny representational issues in classrooms. Rather, these findings are meant to encourage everyone to find ways to work with the representations that are present while thinking about how to create ones that can

be better tailored to broader audiences. These findings are important because identifying the representational patterns present in video games this study's participants used in classrooms is the first step to diversifying and adding complexity to representations in games used in classrooms. In observing that these representations replicate ideological issues that remain unresolved within the greater US society and are therefore challenging to address, these findings can be used in ways that allow teachers and media practitioners to continue using and creating games that better meet the needs of diverse audiences.

As will be covered in Chapter Five, the representational patterns in the video games participants used are quite different from their perceptions of what makes for an ideal video game for classroom use. In doing so, the next chapter will discuss how these representational patterns in race, social class, and gender relate to teachers' and learners' conceptions of an ideal educational game for classroom use.

CHAPTER 5

IDEAL REPRESENTATIONS COMPARED WITH THOSE IN GAMES USED

Chapter Five delves into the second research question for this study (RQ 2): How do the participants' expectations about ideal representations in video games used in the classroom compare with the representational patterns in video games that have actually been selected for classroom use? To answer this question, no participant had exactly the same ideas about ideal and less-than-ideal representations, although some common themes emerged. The themes highlight commonalities between participants, and the information in each section discusses the nuances and differences between their perspectives. Overall, in games for classroom use, participants wanted to see representations that were diverse, relatable and practical, sensitive to individual users, engaging, and appealed to users' sense of fantasy and creativity. They did not want to see violence or stereotypes. Moreover, participants' perceptions of ideal and less-than-ideal representations varied in significant ways from those appearing within the games they used in classrooms.

Teachers' and Learners' Ideal Representations

The upcoming sections will further elaborate on five themes regarding ideal representations and two themes on less-than-ideal ones, in the order of their popularity among participants. The most popular theme was that participants wanted to see a broad range of representations across several social categories. This theme answers RQ 2 through first identifying that participants wanted to see diversity with respect to humans, roles, narratives, and customizable options. Within these categories, it addresses how

although some sample games demonstrated the diversity participants considered ideal, many did not. Second, a number of participants wanted the stories included in games to be “relatable”—a term used by both Brittany and Fayola—to users. This theme contributes to answering RQ 2 by identifying a second key representation for participants and then underscoring that when games met this criterion, it was often largely through teachers’ efforts. Third, participants also wanted to see games that were developed while being sensitive to the absence of representation and its implications. I use the term *absence of representation* to describe ideas participants expressed in their interviews and questionnaires concerning whether games are available for students and teachers to use regardless of ability and social class, setting, languages used, hardware, software, and situation. When participants raised this important issue, they expressed a wish to see as many people as possible using and learning from the games, along with an awareness that not being sensitive to these concerns has exclusive implications. To answer RQ 2, this theme elaborates on the relationship between users and their situations, discussing how game world representations indicate producers’ ability to see and understand the diversity of their audiences. Fourth, participants considered the ideal game to be one that engaged multiple senses. This theme answers RQ 2 by detailing that engagement emphasizes the cultural studies shift away from media effects research, promoting the idea that producers need to appeal to audiences as thinking individuals. Furthermore, it demonstrates the importance of aural, visual, and textual elements used to engage learners, addressing whether they were successful. Fifth, although a number of participants thought that the ideal game would be relatable on a realistic level, there were some participants who conceptualized the ideal game as one that included some fantasy elements. To answer RQ

2, this theme underscores that the connection between representation, fantasy, and creativity lies in their separateness from reality. As noted in participants' responses, research examples, and games participants used, these lines, however, are temporarily blurred when users visit game worlds in the classroom.

The section on less-than-ideal representations is organized into two parts based on the themes emerging from two participant-identified themes. The first theme that most participants reported was that they did not want to see violence in games used in classrooms. To answer RQ 2, this theme discusses how participants conceptualized violence as something that could surface via visuals and language. It notes that many games did not include violence, and mentions how violence is conveyed in some that did. The second theme was that a quarter of participants did not want to see games featuring stereotypes, social -isms, or racial jokes. This theme answers RQ 2 by elaborating on how such representations could contribute to uncomfortable or hostile learning environments and discusses examples of such content in some sample games.

The next section further elaborates on the most common notion among participants, that ideal games feature diversity in representation.

Feature Diversity in Representation

With respect to games featuring diverse representations, the majority of participants expressed more of an alignment with multicultural conceptions of representation than with racially colorblind ones. Many participants, like Mrs. Cordova, Dawn, Fayola, Heather, and Naomi, supported more polycentric (as addressed in Shohat & Stam, 2003) forms of representation with respect to race and ethnicity. Asha and Lila supported a focus on underrepresented groups. No participants expressed support for

racially colorblind representations. Participants who valued diversity in representation noted that they would ideally like to see it with respect to the following: race, social class, gender, sexual orientation, age, ability, religion, job titles, languages, plotlines, academic subject matter, and family structures. The majority of participants thought that race, in particular, should be represented with care, followed by gender and social class, respectively. As mentioned in Chapter Four, a few participants felt that gender and social class were fairly represented. In contrast, although some participants felt that race was represented fairly in the games they used, no one reported that they felt race was fairly represented in the majority of games designed for classroom use. Several participants also mentioned ability (Dawn, Gwen, and Maeve), sexual orientation (Asha, Gwen, and Maeve), age (Fayola, Lila), and religion (Fayola, Maeve, and Zahira). Speaking to the cultural studies connection between representations in media products and their audiences, the majority of participants perceived and wished to see greater diversity with respect to people, ideas, and stories in video games for classroom use. These various forms of representation participants discussed were manifested in multiple forms of representation. For example, in this study, representations of ideas and stories were often related to the game's overall structure, uniting ongoing game studies discussions on structure (for example, Dickey, 2006; Gee, 2005; Squire, 2011) with those on representation (for example, Gray, 2014; Nakamura, 2009; Šisler, 2008). As conveyed in the following subsections, there are many representational constructs through which people, ideas, and stories can be diversely portrayed.

Human Diversity

Of all the themes in this section, Asha, Brittany, Mrs. Cordova, Dawn, Fayola, Gwen, Heather, Isabella, Lila, Maeve, Naomi, and Zahira all thought that an ideal video game for educational use would portray a diverse range of people, making it the theme that was important to the greatest number of participants. Although the particulars of “diverse representation” differed depending on the specific participant in question, all 12 of the abovementioned participants agreed that it entailed including images of people embodying several social constructs.

Some games that had diverse representations of certain social constructs completely excluded others. For example, Rina thought that *Dance Dance Revolution*, which she used in her sixth and seventh grade physical education classes while also using pacers to learn about how dancing affects the body, featured balanced representations of gender in relation to song choices. Maeve, by contrast, thought that the game offered users “a fun workout” but noted that it “excludes people in wheelchairs.” Maeve wanted this game, and similar others, to “find ways to balance” gaming experiences so that they make it possible for all people to participate in the game. In speaking about ableism in particular, Maeve thought that “when [games] include humans, [they need to] show characters that are in wheelchairs.” Maeve’s observation about ableism, which she considers to be “the last frontier” of representation, aligns with the vast majority of the games used in classrooms, which do not represent characters in wheelchairs.

Increasing the visibility of racial and ethnic groups within media contexts facilitates the process of portraying their members in more complex ways. As Mrs. Cordova wrote in her questionnaire, the ideal game for use in classrooms would present

characters of “a variety of [...] ethnicities in roles of great importance such as doctors, judges, scientist[s], architects[,] etc.” From a social constructionist viewpoint, portraying characters across ethnicities and races as having a broad range of possible areas of expertise can affect representation on a far-reaching scale. Those with social power, be it through any combination of social constructs, are able to routinely and carefully fashion and organize views and images of reality that are imposed on the greater society (Croteau, Hoynes, & Milan, 2012). Although the messages are constructed by those with social power, individuals within the society are able to accept, be resigned to, or enforce any of these messages, just as they can opt to reject or resist them. As members of the societies in which they educate and are educated, teachers and learners are not immune to these messages. For these reasons, the more frequently teachers and learners alike are able to see a diversity of images and worldviews, the more likely their imaginations are to be broadened with respect to learners’ capabilities (Brandes, 1996; Fulmore, 2015).

An integral reason why participants wished to see diverse representation was that they thought that it was necessary for learners to be able to see images of themselves in conjunction with a variety of job titles and skill sets. This logic was also consistent with Brandes’ (1996) research, which discussed how images of scientists often portray this population as white, male, obsessed with academic pursuits, and skirting the line between insanity and brilliance. These images, Brandes (1996) asserted, make it more difficult for teachers and learners alike to see students who are not white or male, or judged to embody these personality traits or proclivities, as being capable of being scientists.

Role Diversity

Role assignments are another component of diverse representation and being able to envision oneself and others in complex ways. Asha, Dawn, and Isabella also discussed the importance of this aspect of diversity as it relates to representations in video games used in classrooms. To these three participants, representing characters from a range of social constructs was not an end goal; it was equally important to ensure that underrepresented characters be protagonists. Dawn used games when she was in elementary school, and was also aware of current games because she had other family members who used them. On the topic of roles and representation, she said:

The ideal game would be able to provide children from diverse backgrounds with an opportunity to see themselves as a lead character in the world. I think this is incredibly important because it provides children with the belief that their futures are full of possibilities.

Dawn's interest in ensuring that children see themselves as capable of pursuing a vast scope of career goals both echoes and extends upon Mrs. Cordova's assertion that ideal games would showcase characters embodying members of multiple ethnic groups.

Dawn's statement ties the act of children feeling they could occupy particular roles in the future to them seeing these roles enacted by characters who resemble them appearance-wise. As mentioned in Chapter Two, Shaw's (2014) research similarly found that traditional video game players wanted other players, especially younger ones, to be exposed to a variety of characters representing different identity markers as well as ones with which players themselves identified. Participants and researchers alike expressed the belief that such exposure was thought to be pro-social and have positive developmental

implications for children (Shaw, 2014). In this respect, in-game characters could be used to diversify players' sense of their capabilities and those of others (Shaw, 2014).

Furthermore, roles that in-game playable and non-playable characters occupy can also be invoked to encourage learners to look to the people in their own lives for inspiration. In this respect, Isabella also thought that it would be important for an ideal game for classroom use to have important roles occupied by community role models. For Isabella, a game with ideal representations would have a narrative that conveys to students the idea that a role model does not have to be a celebrity the student saw on television or read about in a textbook or a magazine; they often live in students' home communities. Isabella wanted the ideal game to suggest that a role model could be the "director of a center, a minister, [or] a graduate of [their] school who came back and worked in the community." From Isabella's perspective, they could be mothers, fathers, sisters, brothers, and grandparents. To achieve these ends, she communicated that a game could represent these role models by "giving [characters in the protagonist's community] parts in the game that a kid could look up to and maybe want to emulate." By having what she described as "people doing regular jobs being role models," Isabella felt that games could begin to put forth the idea that there are "heroes" much closer to home than the far-away celebrities children do not know personally.

Isabella's concern about learners valuing the people in their home communities is linked to the notion of celebration in cultural studies research. In the US context, people who are not rich or middle class are typically stigmatized or marginalized (Gans, 1995). Moreover, many people in these groups perceive themselves to be middle class. Isabella's comment speaks to the reality that in the US culture, where capitalism influences the

minds and hearts of many, people living in communities in which they and many of their neighbors are not rich or middle class are often not considered role models as readily as the rich celebrities in mainstream media. Although criticisms of American cultural studies research were steeped in the idea that the act of celebrating a cultural group continues a legacy of regarding the celebrated as atypical and the not-celebrated as normal⁴² (Murdock, 1997), Isabella's stance suggests the opposite idea. Here, the atypical, as embodied by images of rich celebrities, are being celebrated more frequently than the normal, as embodied by community members in a country where most people are not nearly as rich as celebrities. It supports the notion that celebrating everyday people is exalting them in the eyes of their community members, many of whom may be poor, working class, and lower middle class. Her idea, therefore, is consistent with a fusion of American and British cultural studies traditions. Its consistency with American cultural studies traditions coincides with the US cultural context in which this study is based. Isabella's perspective emphasizes the appropriateness of American cultural studies traditions in said context while also demonstrating how further considerations of social class illuminated the reasons behind her logic. The presence of a cultural studies that is uniquely tailored to the US context is essential to cultural studies' proper functioning (Carey, 1997). However, so is applying British cultural studies traditions, which adeptly address social class, to better contemplating it in the US context, where it remains largely oversimplified even in academia.

⁴² I use the term "normal" here while being aware that in reality, it is a relative and elusive term. However, the notion of "normal" applies to this discussion, as representations are images constructed with consideration to social norms and stereotypes, many of which are understood to be "normal" by members of US society.

In contrast, although the majority of participants wanted to see diverse representations in an ideal video game for classroom use, not everyone shared the same perspective on how to approach racial representations, in particular, in games used in classrooms. Rina was one of the few participants who approved of the current representational patterns in the video games she had used in classrooms. The games she used, *Dance Dance Revolution* and *Just Dance*, and the games she knew of, such as *Reader Rabbit*, did not include overt, human racial representation. Rina ideally did not want race, social class, or gender to be portrayed in video games used in education because of concerns that such information could be used to communicate the idea that one group is superior to others, sending “a subliminal message to the user [about] which race can do what.” Rina thought in particular that if games included raced human characters, creators would need to take special care to ensure that these representations did not perpetuate inequalities and imply supposed notions of what users could interpret to be a portrayal of what she termed the “superiority” of any particular group. In this respect, Rina preferred that games for classroom use focus on portraying either animal characters, like in *Reader Rabbit*, or silhouettes, like in *Dance Dance Revolution* and *Just Dance*. She thought that it was acceptable for games in the classroom to represent gender, but that again, they must focus on eliminating patterns that associate one gender with the game’s most enjoyable content. An example she gave in her third interview was that she “didn’t want to see there being a dominance of males doing the fun songs” in *Dance Dance Revolution* and *Just Dance*. In this vein, Rina was one of the few participants who approved of the current representational patterns in the video games she had used in classrooms. She reported that the aforementioned games she used and knew of did not

include overt human racial representation. From Rina's perspective, creators would need to be wary of assigning one gender to the songs marked "best," "popular," or "hardest." Although Rina's perspective on how to navigate representation differed from the earlier-mentioned 12 participants, if race was represented, she still wanted to see that people were being portrayed as equally skilled and valuable as one another. She thought, however, that this objective could be most readily achieved through omitting racial categories in representation. In short, Rina thought it best to avoid representing race in games for classroom use because she was concerned that they would convey racist ideas. She asserted that if race were to be represented, it should be done equitably to avoid racist portrayals.

The aspect of Rina's perspective that suggests that racial representations be excluded from games used in classrooms arguably mirrors elements of Banks' (1991) perspective that to not be represented is preferable to being poorly represented or represented absent of context. As noted in Chapter Four's thematic discussion on diversity's many forms, many games participants used featured anthropomorphic characters.

Although it is important to cover history from various perspectives, another concept recurring within this theme for participants was the notion of characters from all groups being represented as what Asha described as "just being people." Gwen, like Asha, also wanted to see games that portray marginalized groups in humanizing ways. Gwen especially wanted to see these games targeted toward younger people because she felt that people tend to become less open to new perspectives as they age. Gwen gave two examples of how more humanizing portrayals could appear in terms of storytelling. For

her, these games would depict “Black people doing a wide variety of things. [...] [And] if you have two gay characters, it’s no big deal. It’s not treated like they don’t exist, or if they do exist, they’re some sort of joke.” Being portrayed as subhuman and lacking desirable traits has historically occurred in animated media representations for members of marginalized groups (Lehman, 2007), including video games (Everett, 2005). Additionally, cultural studies scholars have found that this tradition similarly applies to how said groups are perceived in their real-world society. In his research on the relationship between style and resistance, Hebdige (1983) discussed how many facets of punk style comprised a performance that necessitated certain ways of dressing, behaving, and speaking. In making this observation, he also advocated that scholars take special care to scrutinize group representations that appear to be taken for granted by the society at large (Hebdige, 1983). As media and persistent social ideologies inform and support one another (Cortese, 2008), this reality is intimately connected with how members of these groups are perceived within the greater society. Once in-game characters are portrayed in ways that users can easily conceptualize them as being like people they know, respect, and acknowledge as complex human beings rather than templates, creators have moved past visibility, the first checkpoint. They can then begin to diversify representations in other areas.

Narrative Diversity

Stories are a major aspect of portraying a diversity of characters performing various roles and activities, but these objectives can be achieved through any number of narrative topics. Regardless of whether they take place within the context of quotidian life or a science-fiction or adventure setting, Gwen wanted to see the stories in games for

classroom use feature “a wider variety of situations so that you can draw people into the story or whatever they’re doing and to teach them that there are many different cultures and ideas around the world.” In this respect, different genres can be used to facilitate narrative diversity, which is linked to Asha’s comments regarding the intersection between diverse representations of narratives, humans, and roles. She advocated having games with marginalized protagonists, in particular, that are just “doing the cool stuff that all these other characters in video games are doing.” She followed this statement by saying that “I want to play the Black educational *Zelda*. That’s what I want. Black Link.⁴³ But a girl.” Asha’s statement about the Black educational *Zelda* combines several of this chapter’s themes about diverse, intersectional representation with the qualities of engaging games for classroom use, which will be addressed later in this chapter.

Context and repetition are both important to consider when messages become naturalized through being continuously shown to audiences (Hall, 1980a). Rina’s concern about race being represented in a way that suggests inequalities can be applied to representations of race, as well as other social constructs, in many if not all contexts of media use and production. This logic also applies when deciding on the subject matter of focus in games to be used in classroom contexts. In this respect, certain subjects, narratives, and viewpoints are centered and represented as being more valuable than others. Those that are centered tend to subscribe to dominant, normalized cultural ideologies, resulting in the recursive relationship between people, ideas, and stories as conveyed through media. For these reasons, when addressing representation, this

⁴³ Link is the protagonist who players guide through the game world in *Zelda*.

dissertation focuses not only on those of people, but also on how ideas and stories are communicated and centered.

Customizable Options

Participants who wanted to see customizable options tended to play games outside of the classroom that offered customizable features and had in-game rewards systems allowing users to obtain in-game commodities. As addressed in Chapter Four, social class is often perpetuated through games with these built-in systems, but so are customizable options. Both Naomi and Asha shared that they wanted to play games that allowed them to customize their avatars. Fayola said that “[i]t would have been nice to create your own person or species [in] these games” because games she used “either didn’t have real human characters (aliens, robots), had no characters, or the characters were white.” Games allowing “player-produced content” by way of avatar or character options are one specific strategy through which diversity can be implemented at a user’s discretion (Shaw, 2014, p. 35). In a similar vein, Naomi wanted to see clothing options for her avatar. Such options are common in several of the games she has played outside of the classroom, which comprise *The Sims* and games targeted toward girls, such as fashion-centered games and some *Barbie* games. Asha wanted to see a rewards system that allowed her to purchase items for her characters using Experience Points, much like in the PlayStation basketball games she plays outside of the classroom. Both Naomi and Asha brought up *The Sims*, which they both played, as having some of the abovementioned tenets of an ideal game for classroom use with respect to customization.

On a superficial level, games such as ABCmouse.com and the online version of *Math Blaster*, as discussed in Chapter Four, included customizable options and

environments much like the ones Asha and Naomi wanted to see. As also addressed in Chapter Four, however, these games also do not offer diverse player options. Much like games used outside of the classroom, such as *NHL 2K5* that featured a lack of options for skin tones and gender but allowed players the freedom to indicate the circumference of “inches around [the avatar’s] various muscles” (Shaw, 2014, p. 34), *Math Blaster* provided more potential options for hair colors than skin tones.

As one of the few websites that had games catering to a high school audience, BrainPOP.com/games/game-finder includes a number of games with characters of racially marginalized groups. Two of these games include *Run Marco!* and *Quandary*. It is important to note, though, that in many of these games, the protagonists are white or are the characters with the lightest skin tones. For example, *Quandary* features a cast of people with different occupations who are living on a colony and trying to learn how to live together. Users have two options when selecting their user avatar: a woman with black hair and a light skin tone, or a male with brown hair and a light brown skin tone. Although the game includes characters with an array of skin tones, the protagonists having lighter skin tones coincides with Dietrich’s (2013) finding about character skin tones in games as they apply to protagonists. Nevertheless, because three elementary school teachers, Mrs. Cordova, Mrs. Paxton, and Mrs. Walcott, were the only ones who used this website and they were unable to report which specific games on BrainPOP.com/games/game-finder the students played, it is unclear whether the participants played these games. It is especially unlikely that students played a game such as *Quandary* because its target audience encompasses grades nine through 12.

By contrast, these three participants' students are more likely to have encountered a game like *Run Marco!*, a computer programming game targeted toward elementary school students. Featuring 27 different language options, this game has language diversity embedded within it, which Maeve was hoping to see in an ideal game for classroom use. It is important to note, though, that the language options available are largely for the European continent and related cultural contexts. None of the options are for Asian languages. Two of these 27 options comprise both US and UK English offerings, and two others are for Portuguese and Brazilian Portuguese. This model echoes how Eurocentric multiculturalism, as defined by Shohat and Stam (2003), appears in various media.

Additionally, in *Run Marco!*, users have the option of playing two different characters: Marco, a white boy; or Sophia, a Black girl. Marco, the game's eponymous character, is pictured in every portion of the game, including the main page, language options, the notebook tab within the user interface that users must interact with in order to play each in-game level, the introductory comic for the Rainforest level, and in each level should users choose to play as his character. Sophia, on the other hand, is only pictured on the main page and in each level should users choose to play as Sophia. If users choose to play as Sophia and view the introductory comic, she is nowhere to be seen. Her absence is likely to be confusing to users, who may wonder whether they made an incorrect decision in selecting her character. All of the characters in the introductory comic are white, like Marco. Regardless of whether users select Sophia, her face never shows up on the notebook tab: Marco's is the only option. His face on the tab, although it is in a blue and white color scheme, is a constant reminder of his presence for users who

did not select him. Coinciding with white characters, especially those who are male, as the standard option (Dietrich, 2013), this game's structural design and Sophia's illogical absence from the introductory comic, the language options page, the notebook tab, and the very name of the game itself, sends users the message that Marco is the canon, default option that they are expected to select. In contrast, the game sends users the message that Sophia is at best an afterthought and at worst an unwelcome addition to the game.

Although most participants wanted to see a range of representations across multiple social categories, a few participants also expressed specifically wanting to see representations that aligned with their own identities. Brittany specifically wanted the game to represent women of color and African American children, and Asha expressed wanting to see a game with a Black female protagonist. In particular, Asha wanted to see these representations because of a lack of visibility across media and in her own learning environments. Gwen similarly shared during the third interview that she thought it would be interesting to see a game featuring a Ghanaian protagonist. Should diversity with respect to multiple social constructs, narratives, and roles become prioritized in a greater number of video games used in classrooms, the specific representations that Asha, Brittany, and Gwen wished to see in games used in classrooms are more likely to be featured. As the participants' responses have illustrated, diverse representation that only applies to social constructs directly furthers visibility. Representing characters embodying a particular combination of social constructs in the same way, every time, is not what the majority of teachers and learners consider ideal. Such representations, therefore, are not consequentially indicative of substance until they are merged with a variety of roles and perspectives.

Many participants wanted to see diversity in games for classroom use, but for Fayola, representations of diversity would ideally feel natural and not forced. If it seemed inappropriate for the context, she would not want to see it in the games she used in classrooms. Fayola reported that she “would not have wanted a diverse set of characters just for the sake of it if it did not fit the game[']s story.” She preferred that this information be added in a subtle manner, rather than one that was “too blatant.” After all, when representation feels forced, it can seem disingenuous, which can also cause discomfort for some users. It is crucial to note, though, that not including any representation can feel equally disingenuous to other users. Fayola gave the example of having an anatomy textbook in which the images would randomly depict different bodies. With respect to approaching representation in this particular example, she commented, “when things are casually put in there, it’s nice.” In an anatomy textbook representing human bodies, bodies with different appearances is appropriate because human bodies do not all look exactly the same. She gave similar examples of other cases that she thought would not constitute forced diversity, one of which included having Indian people in a game about India, and people representing a range of ethnicities in a game about a “melting pot” country. In this respect, representations for a country such as the US, as well as those about a story involving the world and its human representatives, would dictate including people representing all members of the human race, unless the story’s context suggests otherwise. Regardless, in the past, animated and non-animated media have neglected to include racially or ethnically diverse casts without providing audiences any explanation.

Eight-tenths of the world's people are not of European descent (Holloway, 2003). Thus, not representing eight-tenths of the human race, especially in contexts in which they would normally appear, is a common representational practice that falls within the boundaries of colorblind racism, especially if producers do so through providing an explanation for why they are absent. Doing so could easily be interpreted as Bonilla-Silva's (2014) conception of an "anything but rac[ism]" (p. 63) approach to explaining an absence of racial diversity.

As Mrs. Walcott has observed throughout her teaching career, "Children learn for video games, so implementing games about race, social class, and gender situations, will have a positive impact on children." In addition to race, social class, and gender, participants also wanted to see games that referenced diverse representations of humanity, roles, stories, subject matter, and customizable content. For many participants, these facets of representation were also connected to the next theme, which is that ideal games are relatable to their audiences.

Are Relatable, Tailored to Specific Audiences, and Practical

Although past game-based learning research has addressed customization options (Dai & Wind, 2011; Gee, 2005; Shaw, 2014), a customized game may not be relatable to all users. This distinction, then, invites the question of what makes a game relatable. Brittany, Fayola, Gwen, Heather, Isabella, Lila, Maeve, Naomi, Mrs. Walcott, and Zahira all perceived the ideal game for classroom use to be relatable and practical to the particular population using it. The notion of being relatable, however, does not extend to all areas of life for some participants. For Maeve, "[e]xamples of terrorism although real do not belong in educational games." This caveat, as will be further explained in the

section on which representations participants did not want to include in games for classroom use, was connected with the wish that most participants had to exclude violence from all games for classroom use.

For the participants in this study who valued this feature in the ideal game for classroom use, relatable games were ones that considered the unique audience playing the game. In addition to the inclusion of diverse narratives, plotlines, and academic subjects, a number of participants addressed the importance of selecting in-game themes that are relevant to learners' lives. Because narrative structures are an integral component in the ways users structure their knowledge and make sense of the world (Dickey, 2006), the notion of relatable, customized media is closely tied to the stories and subject matter in each game. Brittany shared her perspective on this point in her questionnaire. For her, a relatable game was one that coincides with race and gender categories with which she identifies:

The ideal educational video game would represent women of color, because that is relatable to my demographic. Sometimes it is hard to be in an environmental setting where no one looks like you, and there doesn't seem to be value for people who look like you. I would hope the stories/plot would also be relatable. For example if it was a book through the Leap Frog Learning Pad, have it be about an African-American child.

In the context of Brittany's statement, these particular representations were meaningful not only because she could connect with them, but because they helped to evoke the sense of an atmosphere in which one feels more visible. One important reason why being represented is crucial, therefore, is "because it is an external acknowledgment of one's existence" (Shaw, 2014, p. 192). This sentiment is especially the case in media used within classroom contexts, where learners expect that they are to glean knowledge from

the materials their teachers require or enable them to use. Any instructional materials, whether they are textbooks (Loewen, 2007) or games (Bigelow, 1999), can make for unwelcoming educational environments for learners. In turn, as can be inferred from Brittany's statement, if they are presented in a way that is relatable to the learner, they can also add comfort to an environment that may otherwise feel uncomfortable because learners may not see reflections of themselves in it. I must preface this statement, however, with Banks' (1991) cautionary note about context. Without the proper context, certain images can feel hostile to learners. Much like Chapter Four's discussion on representing food in *Carmen Sandiego*, it is important to bear in mind that representing certain cultural symbols or social constructs is not only a visible matter. Their contexts of portrayal will affect the ways in which audiences read them. Moreover, what is considered a favorable representation to one audience member may be considered distasteful to another (Wallace, 2004). This concept will be explored in greater detail within this chapter's section on representations games would ideally not include.

Teachers are generally better able to assess their specific population of learners than game creators. First, they are the ones who will be working with each student in the classroom. Second, they know the culture or cultures that apply to their community of learners. Because of these details, teachers are in the position to both select the games they will use with any given set of students and present the games to their students in ways that may help them to be more relatable to them. Teachers, however, are significantly limited when games only include characters associated with socially privileged groups across social constructs. Design approaches that allow for the possibility that many different communities of learners will use the game—on the basis

of social constructs, individual interests, and learning needs—can help to bridge those gaps.

Video games could also potentially assist teachers through ensuring that content relates to individual learners. For Heather, the ideal video game for classroom use is one that would “track student progress weekly,” and be designed for 30 minutes of classroom use per day. The game’s record-keeping system would therefore permit teachers to see both qualitative and quantitative data on how learners performed on various diagnostic components. Such a system would be especially practical for teachers if it aligned with Common Core Standards, which both Isabella and Heather raised as being important. For example, Heather reported that in *Imagine Learning*, teachers can see which mini-games the students played and the scores they earned, including questions they answered incorrectly. By allowing teachers to view this information, the game also allows teachers to monitor learners’ overall academic growth as charted through these records. Heather shared that her perspective on ideal representations was largely informed by her experience using *Imagine Learning*, which included these structural elements.

Users can relate to games whether or not they provide customization options. However, if a game is tailored to a specific audience on the basis of those learners’ objectives and interests, using that game becomes more practical to that audience. This sense of tailoring a game and ensuring it is practical and relatable to users is linked to producers’ sensitivity to the absence of representation. When a game is unable to be played by its audience, it suggests a lack of awareness of the audience’s needs on part of those creating or selecting it for use. As the next section addresses, sensitivity to the

absence of representation, like opinions and the setting in which representations are used, is nuanced and highly contextual.

Are Sensitive to the Absence of Representation and Its Implications

Gwen, Isabella, Lila, Maeve, and Mrs. Paxton expressed wanting to ensure that all audiences could use video games in classrooms. Games that are sensitive to the absence of representation are ones that have been created while keeping in mind users' various social classes, abilities, and any situational factors that may make it difficult or impossible to use the game. Thus, games that exhibit this trait are able to be used by a variety of people in a variety of situations. These participants were largely focused on how the absence of representation relates to technology, the language(s) people use, users with visual or hearing impairments, and hardware compatibility. All of these foundational issues contributed to whether people were able to use the game at all, and could all be prevented if gatekeepers considered and implemented information in their games that suggested an awareness of the various people who could potentially play the game. In this respect, games that were insensitive to users affected by the absence of representation lacked value because if a game cannot be played, its material will never reach audiences. Moreover, games that cannot be played by everyone are exclusive. Thus, they are perpetuating the same problems as games that do not represent their users and the world around them. To summarize this logic, Gwen asserted that a hallmark of "bad design" was when everyone cannot play the game. To participants who mentioned issues surrounding this lack of sensitivity to the absence of representation, ideal games are those that can physically be used by everyone. In cultural studies research, the audience members using media genres or products are instrumental to understanding said media. In

British cultural studies research, for example, Garnham (1997) noted that the revamped definition of culture was inclusive of both people and products associated with all social classes. In addition to the absence of representation being a social class issue, it is also connected with ability. Therefore, the conception that classroom audiences include all US society members is what makes the absence of representation an integral part of cultural theory as it relates to this study. Because classrooms are intended to be used by the majority of people pursuing an education in the US, it is important to discuss being sensitive to the absence of representation within the scope of any classroom content, including media.

Games that are insensitive to the absence of representation can take many forms. Maeve and Gwen both expressed concern about accessibility with respect to learners with impairments or disabilities. If a learner has visual impairments, a game that is especially heavy on visual content that is not compatible with assistive software could bar that student from using the program. Learners with motor impairments may have difficulty using a game that requires learners to be able to move in specific ways to successfully play it. For learners with hearing impairments, it could mean that the audio used in a game presenting most of its information via sound is inaccessible to them. Language, too, can present barriers for people. In this respect, Maeve wanted to see today's games implement a system, if one is not already available, that permits people to use games in the language in which they feel most comfortable. Sensitivity to the absence of representation can also be directly tied to the program's availability to students in different locations. One factor deterring Isabella from using *Imagine Learning* with her students was that she was unable to use the game outside of the school building. In

addition to this setup not being advantageous to student growth, many teachers work from home, so not being able to use the game outside of school grounds makes it difficult to plan lessons, review the game, add students to the game's roster, and adjust any necessary settings so that it is tailored to their students before assigning it to them. The implications of not being able to use a game are that the producer did not have the user in mind when creating it. Sensitivity to the absence of representation is not only about users' potential situations. It is really about producers' awareness and acceptance of user diversity.

As noted in Chapter Two, a student's social class and their access to educational resources are often interrelated (Blustein, Chaves, Diemer, Gallagher, Marshall, Sirin, & Bhati, 2002; Lareau, 2003). It can be more difficult for students with fewer technological resources to be able to use games, both inside and outside of the classroom. For some populations, a playable game is one that is on the Internet and can be used from any location. The variant of *Imagine Learning* that Isabella and Heather used would not meet these criteria, as it was only playable in their school building and could not be used from home, either by teachers or students. By these same criteria, ABCmouse.com, *Math Blaster*, and any of the games on ABCya.com, BrainPOP.com/games/game-finder, Coolmath-games.com, and similar websites would be considered sensitive to students whose electronic devices would allow them to use Adobe Flash Player-compatible games. Nevertheless, a game that is sensitive to populations where all learners do not have reliable Internet access may look like one on a CD-rom, if they can access a computer with a compatible operating system. Games that meet these criteria are *Carmen Sandiego*,

Oregon Trail, *Mavis Beacon Teaches Typing*, *Type to Learn*, and the *JumpStart* games on CD-rom.

If learners do not have a computer at home, which remains an issue for some students in the community in which Mrs. Paxton teaches and as she noted during her interviews is intrinsically tied to social class, a game that is sensitive to the absence of representation would be one that is completely analog and would therefore not be considered a video game in any capacity. Because she teaches in a community where there are massive differences in people's access to resources, she is keenly aware of how social class and the digital divide affects her students. Mrs. Paxton shared that she "would like to see the playing field [...] leveled even more [...] so that all children, girls and boys, African American[s], Latinos and others, can truly begin to fit into the world around them as far as computer technology is concerned." Lila similarly teaches many students who do not have access to technology at home. As a result, she has her students use games that do not require a computer at home. Her games instead require her students to have plastic cups or a similar equivalent, which she is aware they are able to use to practice their computer programming skills at home. In Lila's words:

[T]hey get a stack of 17 cups, and then [...] I give them six symbols, where six symbols are six separate sets of directions, like move 90 degrees, move left, move right, move up, move down...and then they have to stack the series of cups using those six symbols, and then they have to build the algorithm and they're writing code.

Lila's cup game is one of many ways that online learning can be moved offline. In this case, Lila needed to consider what activities students could do to continue working on the skills they were building using *Scratch*. To do so, she thought about what most of her students would be able to use or acquire at home or from a neighbor. She also explored

the prospect that some students may meet to work together on this game. To this point, Lila commented, “I never want to set kids up for failure...where they might be going home and they don’t have access to a tablet, or they don’t have access to a smartphone. I want them to use the resources that they have that are accessible to them.” In such a scenario, she noted, if one student does not have the 10 cups needed for this exercise, they can bring what they do have and the other participating student or students can contribute by bringing the difference to their meeting.

A major limitation of video games as a media form is that if people do not have access to the technology, they cannot use them. When video games are used in classrooms in particular, teachers and producers benefit from being sensitive to the absence of representation and its implications. This sensitivity demands that they consider the people and situations, in full, in which their games are intended to be used. These considerations are manifested in the game’s applicability to various situations. In cases where producers are not able to visualize their audiences in full, using video games in the classroom can rapidly become a luxury, if not impossible. This key detail applies to all of the video games participants used in the classroom. If not being able to use games because of software or hardware limitations is a primary concern for teachers and learners, then producers and teachers alike will need to consider how to find ways to take game-based learning offline for times and environments in which technology is unavailable. Once a game is able to be used, teachers can consider how to use it to best engage learners.

Are Engaging

In addition to sensitivity to the absence of representation, another key theme that Asha, Brittany, Dawn, Fayola, Gwen, Heather, Karen, Maeve, and Mrs. Paxton all saw as an element of an ideal game was that it would represent content in an engaging manner. Overall, the concept of engagement is linked to the establishment of cultural studies through its ties to media audiences and consumption. Cultural studies facilitated a paradigm shift from viewing media audiences as thoughtless masses to vaguely definable categories of people as imagined by media producers (Ang, 1991). When media scholars research audiences with the understanding that they are individual people with free will who are not completely controlled by the media they consume, it becomes apparent that audience members are critically engaged with the media they consume (for example, Fiske, 1987; Hall, 1980a; Jenkins, 2013; Morley, 1992).

Each participant valuing engagement discussed different facets of it, linking it with a game's visual, aural, or tactile elements. This theme coincides with findings in game-based research that the most effective educational games are ones that are aesthetically appealing (Gee, 2005; Squire, 2011). For Heather and Mrs. Paxton, visuals were a key component of engaging learners, with ideal games including bright colors and being aesthetically pleasing. Fayola discussed how the ideal game would include "human sounding" voices as opposed to "robotic sounding" ones, which tended to "make [her] feel tired." Fayola did, however, note that while she wanted games to feature human voices, she also did not want them to "overdo it" with the audio by including "loud music," which "would definitely distract [her] learning." She had memories of playing *Math Blaster* without sound "because it [the sound] was annoying." Maeve, by

comparison, saw ideal games as having “interactive text and imagery,” which corresponds with how users respond to the game on a tactile level. Both Asha and Karen wanted ideal games to include levels of varying difficulty, which would help sustain user interest.

Bearing these tenets in mind, many of the games participants used were designed to be engaging. *Super Munchers* includes multiple levels of difficulty that users can select, as well as a diverse range of topics. *Zoombinis* incrementally increases in difficulty as users successfully shepherd Zoombinis to Zoombiniville in a manner that keeps the game challenging and rewarding as users complete more puzzles. *Oregon Trail* appears to haphazardly vary in difficulty, with users inexplicably being able to caulk their wagons or have their party members avoid getting bitten by a snake with success at some times but not others. The unpredictability of these events coincides with the game’s learning objective to convey how difficult it was to travel the Oregon Trail.

Include Fantasy Elements and Encourage Creativity

Although a greater number of participants wanted to see games that were relatable in terms of realistic occurrences, Gwen, Karen, Naomi, Maeve, Mrs. Paxton, and Zahira discussed the importance of games catering to users’ imaginations and creativity. Overall, participants suggested that a game’s user interface design, settings, and characters could all contribute to fostering games that encourage learners to expand their imaginations.

The cultural studies implications of this fantasy theme are that educational milieus may not typically be associated with fantasy, but participants’ discussions about fantasy are directly related to diverse representations. Cultural studies research has traditionally contemplated the link between representations and reality when studying media texts (for

example, hooks, 1992), audiences (for example, Fiske, 1987), and texts and audiences (for example, Jenkins, 2013; Radway, 1991). Game studies research articulates this connection between reality and representation even more clearly, illustrating that discriminatory cultural attitudes toward social constructs such as race have even led to players experiencing racism in game worlds on the basis of the bodies that represent them⁴⁴ in those spaces (Gray, 2014; Kafai, Cook, & Fields, 2010; Nakamura, 2009; Richard, 2013). Within the context of game spaces, fantasy *is* reality, if even for those moments.

Moreover, past games for classroom use that foster creativity have tended to be constructionist games (for example, Kafai, 1995, 1996; Kelleher & Pausch, 2007; Maloney, Peppler, Kafai, Resnick, & Rusk, 2008). All of these game initiatives—the Game Design Project, *Storytelling Alice*, and *Scratch*—required users to create games based their own stories. As an outgrowth of crafting their own games and stories, users were expanding their creativity.

Of the four participants who envisioned fantasy to be implemented in an ideal game for classroom use, Gwen and Naomi wanted games to also be relatable to participants. To this perspective, Naomi thought that the ideal game would include “stories or backgrounds similar to the [game’s] target market,” but that in addition to being relatable on a personal level, such games would ideally simultaneously present users with “platforms for creativity.” She wanted these platforms to require that users “color, draw, or speak rather than type, write, or click” to input their responses.

⁴⁴ This also applies to cases in which players are assumed to have certain identities on the basis of their avatars or actual voices (Richard, 2013).

Another component of the fantasy element that participants wanted to see in games related to settings and characters. The inclusion of fantasy did not diminish from the realism they wanted to see with respect to human diversity in games for classroom use. Gwen did not see “fantasy locales” as a representational problem in many of the educational games she played, but she was concerned that fantasy locations could grow “repetitive” and boring for users. She wanted to see innovation regarding fantasy locations, such as having games take place “in the far future [or] maybe cyberpunk” settings or having games adapt material that did not have Western European origins. For Naomi, the fantasy element entailed her wanting to see games that included “fictional/mythical creatures,” which also bears similarities with Fayola’s earlier-expressed interest in wanting games to allow her to design a “person or species” within the game world. Maeve correspondingly thought giving learners the ability to create an avatar embodying whichever form they choose was a logical component of fantasy in games used in classrooms, regardless of whether learners choose to create an avatar that resembles their real-world appearance. Zahira also wanted to see fantasy represented in games, but with a differential focus on the basis of learners’ ages: “For younger children I think the stories should be more whimsical and creative such as using talking animals, or animated characters to explain concepts, and for older children I think the stories should be more realistic.” In other words, Zahira wanted creativity to be manifested differently in games for younger versus older learners, who she thought would prefer realism over talking animals. Thus, a game that could strike a balance between fantasy and reality while also allowing users to exercise a semblance of creative freedom would be ideal to this group of participants.

In summary, for this study's participants, the ideal game for use in classrooms would include diversity in representation (encompassing human beings, roles, narratives, subjects, and customizable options); be "relatable," tailored to specific audiences, and practical; be sensitive to the absence of representation and its implications; be engaging; and include fantasy elements and encourage creativity. Overall, teachers and learners both wanted to see games acknowledge and address multiple worldviews while also challenging learners' imaginations and exposing them to new information. Within the scope of cultural studies research, when considered together, these five overarching themes suggest that this study's participants saw US classroom audiences as having the propensity to be diverse on the basis of social constructs, even if the educational settings in which individual participants used said games was not. Seeing classroom audiences in this manner meant that for this study's participants, ideal representations were centered around a game's ability to foster a culture of inclusiveness as it relates to any given learner population. This culture is ultimately created through producers constructing a game that provides space for complex, diverse representations of people, ideas, and stories.

Mrs. Paxton, a newly retired elementary school teacher who at the time of the study was teaching "in a program taught by retired teachers who teach students one-on-one," wrote the following of the current state of today's video games: "I think that so many video games today are so violent and 'dark'. I feel that I would like to see a real return to a more peaceful creative game that is much more friendly." Among the teachers and learners participating in this study, Mrs. Paxton is not alone in this sentiment, which reverberates throughout the section to follow.

Representations Games Would Ideally Not Include

Two key themes emerged when participants were asked which qualities would ideally be excluded from video games used in classrooms.⁴⁵ First, the majority of participants considered violence to be incompatible with such games. Second, some participants cited stereotypes or racial jokes as also being an unwelcome addition to games for classroom use. The abovementioned themes will be explored in further detail in the upcoming subsections.

Violence

Over half of the study's participants—Asha, Gwen, Isabella, Karen, Lila, Maeve, Naomi, Mrs. Paxton, Mrs. Walcott, and Zahira—all noted, either during the third interview or in their questionnaires, that they would prefer no violence in any video games for classroom use. In particular, participants did not want to see “killing” (Mrs. Walcott), war (Gwen, Maeve, Naomi), “physical abuse/harm” or “verbal abuse” (Maeve), or profanity (Isabella and Karen) in games used in classrooms. Karen was concerned that having violence or “bad behavior” in games might “encourage this type of behavior amongst [her] students.” Zahira was similarly worried about the idea that showing violence in these games would endorse it because “people mimic what they see, and they mimic the things that they’re doing [in video games]. So if there’s violence in video games for someone who’s little [a child] they might think that behavior is acceptable in certain circumstances, when it is *not*” (emphasis in original). She also reported thinking that learning happens even in the absence of violent representations. Lila and Mrs.

⁴⁵ Because Mrs. Cordova stated that she would “prefer not to answer this question” both in the third interview and questionnaire, the responses in this section are based on the perspectives of the 15 other participants.

Walcott reported not wanting to see violence because of its prevalence across US media, including video games. To this point, Lila, in particular, asserted that, “I would not want to reproduce or represent violence in any way. There are enough games that illuminate those experiences in addition to real life circumstances.” Taking context into account, Asha noted that blood was something she would prefer not to see in video games for classroom use, unless it was context-appropriate: “I’m not interested in seeing blood unless it’s a game where you’re learning how to do surgery.”

Although the majority of participants would not want to see violence in video games for classroom use, and many of the games used by teachers did not include violence, certain games included or hinted at representations of mild to moderate cartoon violence. In a number of these games, the mild to moderate cartoon violence is superficial and its exclusion from the game would not be directly related to educational outcomes. Two significant patterns in many of these games featuring violence are that the violence is animated and not gory, and most of these games were created in the 1980s or 1990s, before graphics became more highly advanced than they were in games created during the 2000s. Within this context, one of the more violent games used by the study’s participants is *Super Munchers*. When a normal Muncher is eaten in *Super Munchers*, users see the Muncher disappear before seeing and hearing the Troggle swallow and chew it. Although users never see any blood or gore, violence is clearly implied here. Users also see Super Muncher fly into and destroy Troggles face-first as a “POW!” icon reminiscent of American comic books briefly flashes where Super Muncher flies into the Troggle. When the icon disappears, only Super Muncher is left standing where the Troggle used to be. Users could avoid flying into Troggles when they are Super Muncher,

but for users trying to do well enough to be listed in the game's Hall of Fame section, doing so would result in a smaller number of points gained for eating the correct answers. In addition to the violence that occurs in each level, after users play through the normal levels, *Super Munchers* included animated cut-scene sequences where users had to avoid being hit by the falling anvils a Troggle dropped off a cliff to stop Super Muncher from successfully flying to Dr. Frankentroggle's castle. As discussed in Chapter Four, *Zoombinis* featured mild, slapstick cartoon violence. *Kid Pix*, which had a user interface resembling current-day programs such as Microsoft Paint or Adobe Photoshop, allowed users to use a bomb icon, which included sound effects when activated, to delete the art on their canvases. *JackSmith* included battle sequences during which warriors fought monsters in various locales, using the weapons JackSmith forged for them. The 1990 version of *Carmen Sandiego* included animated gunshot and knife-throwing sequences, which also were accompanied by weapon sound effects and foreboding music, which played automatically as users drew closer to finding a VILE agent. *OutNumbered!* required users to shoot television screens, electric snakes, and the Master of Mischief with a zapper that looks like a remote control with an antenna protruding from it. In the online version of *Math Blaster*, users need to shoot robots while flying through a tunnel and answering math questions. An open-ended program such as *Scratch*, as Lila discussed in one of her interviews, permits users to recreate and program violent sequences, such as bomb explosions, and locate online information on how to implement it if doing so appeals to them.

Although the violence in the aforementioned games was not integral to the narrative, violence is historically contextual in *Oregon Trail* and *Mission US: A*

Cheyenne Odyssey, which is on the BrainPOP.com/games/game-finder website. Both games take place around the same period in history, but their approaches to depicting violence share significant similarities and differences. Both games include violence in the form of shooting animals for food, but in *Oregon Trail*, users must use their mouse to operate a gun and shoot moving deer, buffalo, and rabbits for food, whereas users are not put in the position of aiming, shooting, and seeing a cartoon animal die as a consequence of these actions in *Mission US: A Cheyenne Odyssey*. Although violence was a major part of this historical period, much like with *Oregon Trail*, the violence depicted in *Mission US: A Cheyenne Odyssey* also occurs between humans. Such violence also occurred during the history of the Oregon Trail, but was omitted from the game, resulting in a sanitized portrayal of said history and white settlers. One of the downfalls of *Mission US: A Cheyenne Odyssey* with respect to the participants in this study's ideal representations is that despite its inclusion of complex representations of Cheyenne people, and its narrative is centered around violence between humans. Moreover, although Cheyenne people are portrayed in complex ways, the game does not offer sympathetic portrayals of the Crow people, who are largely represented as male horse thieves. Narratives can be told in many ways, and these are choices that the game's producers made, much like the producers of *Oregon Trail* chose to portray its characters and history in ways that deemphasized said violence. In contrast, *Mission US: A Cheyenne Odyssey*'s in-game raids, most of which were enacted because the enactors needed food or resources, involve fictional characters who are committing and being subjected to violent acts. The Cheyenne characters engage in raids for food and resources, whereas the majority of the game's white characters are portrayed as untrustworthy people who commit violence

against Cheyenne and Lakota men, women, and children for reasons undisclosed through the game's narrative. These portrayals starkly contrast to the ones in many US history books, which are largely written to center and portray white historical figures in a positive manner (Loewen, 2007).

Nevertheless, in *Mission US: A Cheyenne Odyssey*, users are in various scenarios in which they could potentially fight or shoot a person if they select one of the text options to do so. This game focuses on the history surrounding Manifest Destiny and the Trail of Tears, which is predominantly from the perspective of the fictitious character "Little Fox, a Northern Cheyenne boy who grows into adulthood over the course of the game" (Mission US Team, 2015, p. 1), and the characters around him, who are mostly Northern and Southern Cheyenne men and women. Blood is seldom shown in the game's depictions of violent scenarios. One exception is in images of buffalo that have been killed for survival. These images depict some blood on or near the buffalos. A number of the game's violent scenarios rely on text, sound effects, and images to communicate that violence has occurred. Text is primarily used to discuss violence in scenarios in which Little Fox does not participate. There are several discussions throughout the game in which Little Fox, who as a child was not involved in many battles, would learn about what happened through asking the person in the battle about how it transpired. There are also two instances in the game in which Little Fox is rewarded for demonstrating his bravery and for winning a horse race by being gifted a knife of his choosing and a gun, respectively. With respect to images, the game more frequently shows images of people falling after they have been struck or shot, rather than as it happens. In one of the game's more violent scenarios, Little Fox, who is not yet an adult, could potentially shoot a white

man who is running away as Little Fox and the characters with him raid the train. Before he is able to do so, an adult character steps in and shoots the man before Little Fox can do it himself. Although this action takes the responsibility for killing the man out of the user's hands, the violence in this game is substantial in its ties to the historical context, which is something teachers must consider in deciding whether or how to use the game in classroom contexts. Later on in the game, when Little Fox is an adult, if users advance his rifle skills enough through the interactions they select before that point, he can kill a character without having another character do it in his place.

Violence is not only represented through images, text, and audio describing the act of people being physically harmed. As Bonilla-Silva (2014) attested to through his description of the act of doing “verbal pirouettes” (p. 212) to perpetuate colorblind racism through contorting one's language so that it obscures aggressive emotions by not directly addressing race, violence also happens through innuendo and veiled language. An example of a game that demonstrates Maeve's conception of violence, which could involve “guns, weapons, words, [or] imagery,” is *Ghost Typing* on ABCya.com. In *Ghost Typing*, a Halloween-themed typing game on ABCya.com, users must finish typing the words that appear as ghosts emerge from them, before the ghost grows to its full size and takes life points away from the user. Violent imagery is evoked when the ghost reaches its full size. The screen briefly flickers red and red slash marks appear before the user's life points are decreased. In addition to visually representing violence, this game also arguably perpetuates violence through words. The words users must type are intended to be fear-inducing or evocative of Halloween. Including the word “black” as one of these words in a game on an educational website alongside words such as “frighten”, “creepy”,

“scary”, “goblin”, “monster”, “vampire”, and the like, and with ominous music, is less than ideal with respect to cultural sensitivity. Many people in the US primarily self-identify as “black” people in a racial sense, and for many people, there is a strong sense of identity attached to the word “black,” which is not always capitalized in contemporary usage. To be thorough, *Ghost Typing* does include other Halloween-themed words without fear-inducing connotations, such as “orange”, “pumpkins”, “October”, and “wigs”, but these words are not associated with a racial identity. As noted in Chapter Three, a microaggression occurs when senders appear to be indirectly disparaging receivers on the basis of their gender, sexual orientation, religion, or race, regardless of the sender’s intent (Sue, 2010). Thus, to reference the word “black” in this context could be understood to be a microaggression. Microaggressions are but one element that could create a hostile educational environment for learners.

Cultural studies research started out of a scholarly desire to demonstrate the importance of and legitimize within academia both media and cultural groups that fell outside of the boundaries of the highest social classes (Garnham, 1997; Hebdige, 1983). As an institutional practice, education similarly legitimizes and perpetuates cultural knowledge. If such information promotes prejudice, it amounts to violence in educational arenas. Thus, the violence of discrimination, as it applies to race, social class, and gender, can be represented through words in video games for classroom use. Words, in fact, can more easily conceal violence and cut just as deeply, if at times not more so, than the violence in images. When the two are combined in educational settings, where learners are not always encouraged to voice perspectives and questions that diverge from information typically promoted implicitly and explicitly (Collins, 2009), they form a

particularly virulent form of discriminatory messages that can then be used to fuel an equally discriminatory reality outside of classrooms. The next section addresses how stereotypes, social -isms, and racial jokes, the second theme that several participants identified in this category, could further contribute to creating less-than-ideal representations in video games used in classrooms.

Stereotypes, Social -isms, and Racial Jokes

The last section illustrates how problematic statements such as microaggressions can surface in video games used in classrooms, but they are not the only form of discriminatory information that can be communicated through educational game worlds. To this point, several teachers and learners correspondingly expressed not wanting to see any content that disparaged learners on the basis of their identities, whether they were packaged as jokes, stereotypes, supremacy claims, or discriminatory statements. Brittany, Isabella, Maeve, and Rina raised such forms of discrimination and mistreatment as problematic representations to include in video games used in classrooms.

Each participant identified the specific kinds of discriminatory content they did not want to see. Isabella stated that she “would not want drug usage, profanity, racism, sexism, or homophobic stereotypes to be promoted in any form in the making of any educational video game.” To Isabella, these elements both fostered racism, sexism, and homophobia and amounted to propagating stereotypes about all groups involved. For example, Isabella highlighted that with respect to representation, drug usage is only portrayed as happening in poor communities, when in reality, it happens “in all communities, not just one.” Stereotypes are also the bridge that links Isabella’s perspective with Brittany’s. Compared with Isabella, Brittany did not want to see racial

jokes in games for classroom use. Because racial jokes are largely influenced by stereotypes, they can be as alienating as they are unsettling, especially within educational environments. Brittany thought that such jokes create “an awkward and uncomfortable environment” when they take place in television programs, and did not want to see them in games used in classrooms.

When discussions about representations focus too heavily on whether a representation is “progressive or regressive” (Wallace, 2004, p. 264), it can have the effect of derailing more complex discussions about the process of portraying characters and people (Shaw, 2014; Wallace, 2004). Nevertheless, thinking in terms of stereotypes, which have specific narrative and social purposes (Shaw, 2014), can be a meaningful way to advance such discussions. Although researchers do not typically regard producers’ intentions as an important factor in judging representations, I would assert that it is important to meet media creators, teachers, and others with similar social power where they are in order to make necessary changes, especially within a social structure where media messages are polysemic and there are many well-meaning producers whose messages may not be being read as they intended. Being well-meaning is an invaluable asset to creating complex representations, especially of groups who are not often represented in media. Having had screenwriting, storyboarding, character design, and 2D animation experience, I know that constructing representations is challenging work. Moreover, although representational issues still need rectifying, it is important to bear in mind that because of the challenging nature of representation, well-meaning people may also make mistakes in attempting to improve representation. Given the specific set of stereotypes associated with particular groups and not others, effective representational

approaches for one character, for example, are often inappropriate for another. Communicating with producers who are interested in making more complex representations and are able to recover from past missteps and implement new approaches is arguably more productive than trying to convince producers who do not intend to consider new approaches or are stilled by criticism their past works may have received to re-shift how perspectives are centered in future games for classroom use.

In addition to being able to meet producers who want to add complexity to representations where they are, another benefit to considering producers' intentions is that this information can potentially thwart or prevent certain problematic representations from ever coming to life. When speaking with Asha about what would constitute an "offensive" portrayal of Black women, she responded, "I would play as Cookie from *Empire*...I'd play that character. And some people consider that to be an offensive portrayal of a Black woman. [...] But...we come all kinds of ways." Asha's observation that her perspective about representations differed from others is accurate within the context of this study's participants. During her interview, Isabella discussed how she disliked shows like *Empire* because she considers their representations to be offensive stereotypes. Unlike Asha, Isabella preferred not to see representations that appeared to be stereotypical. On the contrary, for Asha, an "offensive" portrayal was mostly about the intention behind it. With respect to Black female representation, she posed the question to creators: "Is that the personality of your character, or are you making fun of Black women with your character?" Considering the answer to this question is not an absolute way to determine whether a representation is problematic, but it is one way to broaden producers' perspectives on role and a character's greater purpose in the project.

Just as food was at times represented insensitively in the *Carmen Sandiego* series, as noted in Chapter Four, food was also tied to problematic stereotyping that occurred in some of the games on two of the larger websites participants used. Although it is unclear whether participants or the students of the teachers in this study who used these sites played either of these games, *Sushi Slicer* on ABCya.com and *Ninja Kitchen* on BrainPOP.com/games/game-finder similarly conflate Japanese cultures with cuisine and ninja. In *Ninja Kitchen*, a waitress dressed as a ninja in a dojo-themed restaurant, served racially diverse patrons what appeared to be American food such as hamburgers and soft drinks. Throughout the game, she received advice from an elderly man who called himself “the Sensei,” and was also dressed like a ninja, on how to navigate the kitchen and serve customers. In this game, although the food is not Japanese food, the ninja-themed restaurant and imagery result in equating ninja with culture and, indirectly, food. A different game, *Sushi Slicer*, features a *mélange* of both stereotypes and violence by requiring users to slash flying Japanese dishes, such as onigiri, takoyaki, and sake, against a backdrop resembling a bamboo cutting board. Users must slash these foods with an unseen sharp object while avoiding slashing the occasional bombs that are thrown in lieu of the dishes. An unseen sharp object used to slash food could be either a knife or a blade used for sparring or fighting. Since most of the dishes are already cooked, users destroy the food by cutting it. The notion of destruction is also linked to violence, which connects with US cultural images of ninja. If users slash a bomb instead, the cutting board portion of the screen lights up before the bomb explodes, leaving black soot on the bamboo-style cutting board. In addition to both of these games using Japanese-influenced soundtracks that play in the background unless users mute them, the uses of imagery in

both of these games are evocative of stereotypes and could ultimately read as racial jokes disguised as games, constituting insensitive portrayals within the context of culture. The larger implications of this theme relate to the highly contextual nature of representation in video games for classroom use and how the same game may showcase more than one less-than-ideal representational theme with respect to race, social class, and gender. In each case discussed here, considering the game within a different context might have provided information making its representations more ideal according to the themes participants identified.

Conclusion

Much like game-based learning research has shown, teachers in the field remain highly optimistic about the potential of learning with video games in classrooms (Gee, 2005; Hsu & Wang, 2010; Richard, 2013; Squire, 2011). Even in the face of lingering doubts from some parents, teachers, and administrators in an increasingly Common Core-influenced academic arena, many teachers in this study expressed that they still want to use games in classroom contexts. Optimism aside, participants expressed that the games they would ideally want to use would include representations of diversity across social constructs, roles, stories, customization options, and subject matter; be “relatable” and specific to audiences while also being practical; be sensitive to the absence of representation and its implications; be engaging; and include fantasy elements or encourage creativity. For a significant number of participants, these same games would ideally not include violence or stereotypes and social -isms. Overall, as a consequence of their classroom location and use by the entire nation, an expectation emerged that video games used in classrooms would model socially acceptable, ideal behavior by often-

proclaimed US social and cultural standards of equality, individuality, diversity, and acceptance.

The games participants used shared notable similarities with participants' notions of ideal and less-than-ideal representations. Given the specific criteria this chapter explored, it is difficult, yet possible, for one game to include elements from each desirable theme while excluding those from the undesirable ones. Independent games met particular criteria, but missed others. Two ideal themes, concerning whether the game was "relatable" and communicated producer sensitivity to the absence of representation, are context-dependent and cannot be gauged with respect to looking at the game as an isolated product independent of any learners. This chapter's themes offer the practical value of helping teachers and media practitioners to decide which games they might consider using in classrooms or creating for classroom use, depending on the specific needs of their learning population.

As noted in Chapter Four, Lila's perspective on diverse representation was that underrepresented groups would need to be overrepresented in order to remedy current overrepresentations. The approach Lila suggested, which would be to saturate an already oversaturated representational market with representations that are seldom shown, is still not the status quo for representation in many popular games, whether used inside or outside of the classroom. It is, however, an approach that demands further exploration because it employs a means of centering and perspective that defies representational norms (Fulmore, 2016).

This chapter discussed what the study's participants consider to be ideal representations in video games for classroom use. However, it is important to bear in

mind that each participant had different notions of the appearance, scope, function, and audience of a video game for classroom use. They also had experiences and individual-centered characteristics, which comprised a combination of identifiers that were unique to how they perceived themselves. The next chapter will further explore how participants' conceptions of these ideas, and their classroom and life experiences, influenced their responses to this study's questions.

CHAPTER 6

EXPERIENCES AND INDIVIDUAL-CENTERED CHARACTERISTICS

Chapter Five thematically discussed how overall, participants wanted to see that representations in video games for classroom use were diverse, relatable, and ultimately sensitive to the needs and humanity of their diverse, complex audiences while also omitting violence, stereotypes, and discriminatory messages from the games. Chapter Six advances this discussion by using Chapter Five's themes to address the study's third research question (RQ 3): How do teachers' and learners' self-reported experiences and individual-centered characteristics relate to how they identify their ideal representations in video games used in the classroom? The answer to this question is abstract, complex, and multilayered in that individual-centered characteristics and experiences combined to tell a richer story of the uniquely contextual relationship between each participant and her perceptions of ideal representations. Identity and experience shaped the ways participants talked about representation by emphasizing the importance of how each participant's minds factor into their perspectives: they are piecing together and making meaning of their experiences and specific facets of their identities in ways that are unique to them. It also highlights how a person's use of terms, whether social constructs or personality traits, is not indicative of the meaning they are making of them, demonstrating the abstract nature of how polysemy also applies to language. More specifically, no two participants: 1) reported finding every ideal or less-than-ideal representational theme from Chapter Five important, and 2) agreed on every facet of each representational theme that they did find important, even when naming the same individual-centered characteristics and

describing similar experiences. Maeve is the only participant whose interviews and questionnaires addressed all of these themes, but there were also representations she thought were important that were not included in the study because other participants did not agree with their importance. The same applies to other participants, who raised ideal and less-than-ideal themes that were unique to them within the context of the study.

After the introductory paragraphs, Figure 1 summarizes which participants agreed with particular ideal and less-than-ideal representational themes discussed in Chapter Five. The bulk of this chapter is then organized into two general parts. The first contributes to answering RQ 3 by identifying participants' individual-centered characteristics, which are sorted by roles, social constructs, and personality traits, and then contextualizing them regarding specific participants' ideal and less-than-ideal representations. The second part answers RQ 3 by mirroring the first part's structure. It identifies participants' experiences, which are sorted by classroom experiences and life experiences, and then contextualizes them with respect to specific participants' ideal and less-than-ideal representations. In doing so, this chapter illustrates that participants expressed ideas specific to the nexus between their individual-centered characteristics and experiences.

The previous chapter demonstrated that participants also did not always agree on even the details surrounding an ideal representational theme or how to best implement it. This chapter further shows that being a Black woman does not guarantee participants will share the same perspectives on representational issues. This finding coincides with Harris-Perry's (2011) observation about US social tendencies to see Black women as a group lacking depth and complexity.

Figure 1. Ideal Representations versus Less-than-ideal Representations (as discussed in Chapter Five)

<p><u>Ideal Representations</u></p> <ol style="list-style-type: none">1. Diverse representations: Asha, Brittany, Mrs. Cordova, Dawn, Fayola, Gwen, Heather, Isabella, Lila, Maeve, Naomi, Mrs. Walcott, Zahira2. “Relatable,” tailored to specific audiences, and practical: Brittany, Fayola, Gwen, Heather, Isabella, Lila, Maeve, Naomi, Mrs. Walcott, Zahira3. Sensitive to the absence of representation and its implications: Gwen, Isabella, Lila, Maeve, Mrs. Paxton4. Engaging: Asha, Brittany, Dawn, Fayola, Gwen, Heather, Karen, Maeve, Mrs. Paxton5. Include fantasy elements and encourage creativity: Gwen, Karen, Naomi, Maeve, Mrs. Paxton, Zahira <p><u>Less-than-ideal Representations</u></p> <ol style="list-style-type: none">1. Violence: Asha, Gwen, Isabella, Karen, Lila, Maeve, Naomi, Mrs. Paxton, Mrs. Walcott, Zahira2. Stereotypes, social -isms, and racial jokes: Brittany, Isabella, Maeve, Rina

Individual-centered Characteristics and Ideal Representations

This section begins with a brief reminder of the definition of individual-centered characteristics before elaborating on these connections. As first addressed in Chapter One and then again addressed in Chapter Three, individual-centered characteristics serve to extend upon intersectionality as defined and conceptualized by Crenshaw (1991) and through Black feminist thought (Collins, 2000). They comprise the defining features that participants used to describe who they are as people as operationalized through the combination of roles (for example, job titles or interpersonal relationships), social constructs, and personality traits that participants discussed within the context of this dissertation. Given the nature of identity salience, individual-centered characteristics are indeed contextual. Interviewing the same participant years from now could result in

different characteristics being identified. In this sense, individual-centered characteristics convey but a snapshot in time as they relate to each participant's way of seeing herself. In identifying these characteristics for each participant, I referred to their responses to questions relating to RQ 3 on the interview script (see Appendix B: Interview Script). This section is organized according to the three aforementioned facets of individual-centered characteristics: roles, social constructs, and personality traits.

Participants' Roles

As the first component of individual-centered characteristics, participants mentioned several different roles during their interviews. Thematically, participants occupied roles surrounding their education and personal lives. Because this study focuses on video games in classroom contexts, one of the three following roles applied to all participants: teacher, learner, or "teacher and learner." This section is organized to convey the similarities and differences within each category, and the possible ways in which they offered insights about participants' views on ideal representations. This chapter's subsequent sections are also organized in the same manner.

As noted in earlier chapters, in social sciences research, the identity concept is broad and vague (Brubaker & Cooper, 2000). When used as a complete term in and of itself, identity, like agency (Barker, 2012), obscures the specificity and nuance of many ideas associated with it. I propose that examining roles⁴⁶ is one way to explore various cultural constructs, with greater specificity, through an identity marker encompassing a series of common behaviors. For example, people in the "teacher" role are expected to

⁴⁶ I have also proposed the importance of considering roles in relation to character development in US animation (Fulmore, 2016).

carry out a particular set of behaviors in order to satisfy their work responsibilities. Individual teachers, however, will go about performing these roles in different ways based on information unique to them, such as but not limited to the grade level(s) they teach, their skill sets, their personalities, and the intersectional interplay between the social constructs with which they identify or are identified. These same ideas also apply to other educational roles participants named, such as “learners” or family-oriented roles such as “mother.” As they apply to this study, such roles can shed some light on how roles, as one of several cultural constructs, reflect participants’ views on ideal representations.

Teachers

In this study, teachers shared significant similarities on the basis of that role. Two major similarities between participants in the “teachers” only group were that everyone was beyond their 30s, and had been teaching for over ten years. Mrs. Cordova, Heather, Isabella, Mrs. Paxton, and Mrs. Walcott all reported having taught for over ten years, with Isabella having taught over 20 years. Maeve, who was a “teacher and learner,” also taught for over ten years. All of the teachers who taught for over ten years, Maeve being the only exception, did not have any experiences playing video games in classroom settings. In particular, Heather and Mrs. Walcott both cited their ages as being a possible reason why they never encountered video games as learners. Even with the aforementioned similarities between them, this study’s teachers taught a diversity of grade levels and subject matter. At the time of the study, Mrs. Cordova, Mrs. Paxton, and Mrs. Walcott all taught elementary school-aged children, whereas Heather and Isabella taught children across grades K-8. Overall, this study’s teachers were more likely to

agree on areas concerning the logistics of game use in classrooms than they were to agree on ideal representations.

In addition to their years of teaching experience, and despite Zyda's (2007) hope for the distant future that video games will become a more integral part of classroom learning, most of the teachers in this study who used games in the classroom did not use them as a centerpiece of their instructional practices. Rather, they thought it was ideal to use them as supplemental materials or ways for students to continue learning during mini-breaks from regularly-scheduled activities. Many teachers' discussions about using games in instruction bore similarities to the high art-low art schism that influenced the beginnings of British cultural studies research (Garnham, 1997). This schism indicated the importance of studying and normalizing media and people associated with supposed low art as being a part of the wider culture (Garnham, 1997; Hebdige, 1983). In this study, this divide frequently played out in teachers' discussions about how they used games to facilitate learning within various classroom cultures. In a number of these discussions, games appeared to represent "low art" versus the "high art" of traditional classroom instructional methods such as lecture and written activities. Games were often used primarily as reinforcement and motivational tools, but teachers did not heavily rely on them for teaching students educational material. Several teachers, for example, reported directing students to websites with many Flash games that they could potentially choose from to play for a brief time. This use of games suggests their often marginal role within learning environments. During her interviews, Mrs. Cordova noted that she would allow students to use Coolmath-games.com "sometimes as a reward when they finish [their] lessons." This finding paralleled with how learners judged their teachers to be using

games. As a learner, Brittany recalled that when she played video games in the classroom, her computer teachers would direct students to a particular website. Once they were on that site, she and other students would be allowed to use the games of their choice. Moreover, Asha, Fayola, and Zahira all reported that their teachers used video games in the classroom not as a primary instructional tool, but to encourage students to complete their work and to reward the ones who had.

The aforementioned high-art low-art dichotomy between using video games and traditional instructional methods in classrooms was also indicated through two teachers' use of terminology. Terminology is an important representation-related issue to mention when discussing ideal representations within games used in classrooms because the terms used to describe these media reflect how they are labeled, understood by, and presented to audiences. Chapter Four briefly addressed what some teachers identified as the widespread cultural discomfort that many teachers, parents, and some students have with using video games in classroom contexts. This discomfort may be related to the cultural stereotypes circulating around the term "video games." Such cultural discomfort could also result in a lack of clarity about the existence of such games in academic spaces. In this respect, some teachers identified software and programs that were not video games, such as Khan Academy, during the course of the study. In contrast, learners did not express the same levels of discomfort with either "educational video games" or "video games in the classroom," but some would occasionally ask whether a product would be considered an "educational video game" or a "video game for classroom use."

Both Heather and Mrs. Paxton addressed terminology during their interviews, offering their perspectives on how to ideally refer to said games. Heather expressed

discomfort with using the term “video games” in tandem with educational materials. She preferred “educational technology,” “educational software,” or “educational software programs” over even the term “educational video games.” For Mrs. Paxton, this topic surfaced in a primarily contemplative manner. I noticed that Mrs. Paxton would interchangeably refer to video games as “games” and “tools.” When I asked her about her use of said terminology, Mrs. Paxton shared that although she thought the games are closer to tools than video games, calling them “games” is a strategy she speculated may make them more attractive to learners who are children.

Most teachers did not raise concerns about my terminology with respect to “video games for classroom use” or “educational video games,” but the comments made by those who did spoke to a deeper issue: many educators, parents, and even some students are skeptical and even opposed to using video games in classrooms. In this respect, some teachers identified software products that were not video games, such as Khan Academy, during the course of the study. In contrast, learners did not express the same discomfort with either “educational video games” or “video games in the classroom,” and some would occasionally ask whether a product would be considered an “educational video game” or a “video game for classroom use.” As mentioned in Chapter Two, researchers were met with these concerns from college students when creating Belcher’s TEAL program at MIT (Squire, 2011). However, in the context of this study, teachers and learners alike expressed that they enjoyed using video games in classrooms. Teachers were interested in continuing to use video games in conjunction with their teaching. One important issue to consider beyond this study will be how terminology is an aspect of representation that often functions as a marketing component that labels and is expected

to at least partially reflect and communicate the game's content to audiences-of-interest. As such, it affects teacher's perceptions of and openness toward using video games in classrooms.

Occupying the teacher role grounded participants' perspectives on ideal representations within a professional context. With respect to ideal representations, and in keeping with the idea that relying on the "gamers" label to identify people who play video games can result in some players not being perceived as video game players (Shaw, 2011, p. 29), teachers often seemed to agree with one another not on the basis of being teachers, but on the basis of how they used games in the classroom. As seasoned teachers who were or had used games at the time of the study, the participants were, much like game-based learning researchers, simultaneously aware of issues surrounding the use of games in classrooms while also being hopeful about using them in the future. The tendency for teachers to use games in this manner was also consistent with how both Mrs. Walcott and Maeve described educational stakeholders as being resistant to a more widespread use of video games in classrooms. Using games sparingly in a way that was not integral to instruction appears to be a safer way to do so, especially in an increasingly Common Core-driven era where K-12 teachers have less freedom than ever before to go off-script when constructing their lesson plans. The next section explores how the learner role influenced participants' perspectives on ideal representations.

Learners

Although some of the learners were attending school and others worked full-time, all of the learners had used games in classrooms in the past, and were no longer using them at the time of the study. Participants who were in college at the time of the study

majored in a range of subjects, including anthropology, Asian studies, biology, kinesiology, law, and pre-med. Asha and Gwen, the two learners who had full-time jobs and already completed their Master's and Bachelor's degree programs, respectively, did not mention their job titles during the interviews. Dawn was taking college courses as she worked as a staff member at a US university.

Unlike teachers, who focused on information tied to learning objectives and the notion of there being a high-art low-art dichotomy between video games and traditional teaching approaches, learners focused on visual or aural details. Their tendency to notice such information ties to the notion that audience members' interpretations of media are the product of their having lived in the world (Bobo, 1995). Moreover, audience members have historically used "interpretive strategies that are based upon their past viewing experiences as well as upon their personal histories, whether social, racial, sexual, or economic" (Bobo, 1995, p. 87). Learners, therefore, shared some significant similarities that were particular to their role. First, most learners were more likely to recall isolated images and general information than specific details, except for Dawn, Gwen, and Rina, who provided more detailed descriptions of the games they played. Compared with teachers, it seemed to be more difficult for learners to discuss the content in the games they used. If a teacher played a game she assigned, she could often recall its details. For example, Maeve, who played all of the games she assigned, extensively described the mechanics surrounding a number of the games she used, including *Atom Builder* and *Outbreak at WatersEdge*. Isabella, who previewed the games she assigned, talked about the various reasons why she liked and did not like ABCmouse.com and why she disliked *Oregon Trail*. In contrast, several learners reported not recalling how the games related to

their learning. Asha, for example, could not remember the premise of *Oregon Trail*, but recalled the names of illnesses that could befall its characters. She similarly could not remember the learning objectives associated with *Super Munchers*, but was able to recall Super Muncher's visual appearance and one of the game's most memorable mini-games, which involved Super Muncher flying to eat numbers falling from the sky while dodging rocks and anvils. There are at least two possible explanations for this finding. First, many learners played these games ten or more years ago. It is, therefore, understandable that people might not remember games they played in the distant past. Second, unlike teachers, learners are often not required to think about learning objectives as they relate to the games they use. Not remembering details about the games they used in classrooms may have an influence on learners' perceptions of ideal representations in that it may be more difficult for them to recall in-game practices that were helpful to their learning and those that were not.

Nevertheless, not being able to recall game-specific information does not preclude learners from being able to provide insights into what elements games would ideally include. Just as producers of the past have been able to create successful media products by thinking reductively about audiences (Ang, 1991) and without knowing everything about them (for example, Gitlin, 1993), learners can learn from, enjoy, or be critical of media without remembering or playing all available video games for classroom use and understanding exactly how these processes occur. Because learning is not limited to gaming contexts, learners can recall what general learning elements may be helpful to them should they be included in a game. For example, several learners noted the ways that they learn: Brittany reported being a visual learner, and Fayola reported being

strongest at “memorization” and that she learns best in class sizes under 30 and when teachers present information in an organized manner. In particular, Brittany shared that if she did not find a game to be visually “appealing,” she would not be inclined to play it. Two participants in the “teacher and learner” category also noted their learning styles. Karen reported being an organized, visual learner who prefers to use lists, graphs, and repetition when approaching new material. Lila reported being a visual and kinesthetic learner. Having this knowledge equipped Brittany, Fayola, Karen, and Lila with information that they could ostensibly use to make recommendations about which elements their ideal game might include. All three of these participants agreed that an ideal game would include diverse representation to some degree, and that such a game would be “relatable” to the audiences using it. In fact, both Brittany and Fayola were the two participants who specifically used the word “relatable” with respect to identifying this second theme.

Although learners often had difficulty remembering the details of these games they used, they also reportedly enjoyed them. Zahira reported that for her, the games helped her “to have an appreciation for different subject matter” the games represented. She found that math concepts she struggled with the most, for example, became more enjoyable to her via the game. Regardless, not everyone found the ones used in classrooms to be “helpful” to their learning. For example, Fayola, who felt that *Oregon Trail* was “boring” still saw it as “a good break [from traditional classroom learning]. It was boring, but a good break.” Asha thought they were fun to use, but that they were not the best instructional tools: “They were used for distraction and reward...like an incentive, maybe.”

One key difference between this study's learners was in their perceptions of how an ideal game would physically be structured. Between learners, there was a divide in perspective that mirrored that of game-based learning researchers. Both Asha and Naomi wanted to see a game that looked similar to *The Sims*. Asha thought that either a simulation or an RPG [role-playing game] would be ideal for educational use. In addition to *The Sims*, which Naomi observed presented a broad range of opportunities to customize several key areas of representation including bodies, hairstyles, character outfits, and home spaces, she also thought that *Barbie* games she used to play during her leisure presented opportunities for users to engage in "problem solving and critical thinking." Some of the elements showcased in various versions of *The Sims* are also manifested in the elements that Squire (2011) identified as being present in promising educational games. Some of these qualities are that such games are visually appealing, can accommodate and support "social interaction of different forms" amongst players (Squire, 2011, p. 36), encourage player ingenuity, and would allow players to approach them using different styles of play (Squire, 2011). Like Asha and Naomi, Brittany, who did not specifically talk about *The Sims*, also expressed the idea that "when you're interested I feel like your mind is more open to learning the stuff [in the game]." The notion that ideal games were ones that have a format that draws learners in was a common theme with a number of participants.

Conversely, Dawn specifically singled out *The Sims* as having a structure that she saw as not being conducive to learning. She thought that educational games should not be so fun that they impede students' learning. In her interviews, Dawn expressed the idea that games such as *The Sims* would ideally not be used in educational settings because

they are “too immersive.” During the third interview, Dawn discussed having played *The Sims* and finding it and similar games to be ones that “people get way too sucked into” to the detriment of learning. Players must, she asserted, expend so much “attention” and effort to taking care of their sim characters that it does not allow room for them to learn new content. Dawn’s perspective contrasts with Squire’s (2011) and with Gee’s (2005). Gee (2005) recommended that games encourage students to feel invested in learning and mastering their worlds. Dawn’s perspective specifically aligns with cognitive load theory (Sweller, 1988) and the theory of multimedia learning (Mayer, 2001), which both suggest that having too much information available to users that does not directly align with learning objectives complicates learning by overloading the brain with content unnecessary to the task at hand. These theories also coincide with the notion that educational materials would ideally only include material necessary for learning and would therefore avoid *seductive details* (Garner, Gillingham, & White, 1989), which constitute “interesting, but unimportant, information” that is tangential to the material being learned (p. 43). This difference of opinion as represented through the perspectives of Asha, Brittany, and Naomi, who largely agree, and Dawn, who expressed an alternative and viable viewpoint, demonstrate how different participants who all would like to see diverse representations can philosophically disagree on such a game’s ideal format.

Much like the researchers who consider the ways to use multimedia technologies in education, the difference in participants’ perspectives also highlight that when there are numerous ways to go about achieving the same ends, deciding on one can become especially complicated. Moreover, the participants’ unique perspectives, as well as those

of the researchers mentioned above, connect with cultural studies traditions through emphasizing how differences between individuals influence the ways they think about media. For example, Fiske (1987) extended Hall's (1980a) work by drawing a link between polysemy and positionality, arguing that a viewer's social categories or ways of seeing oneself could affect the ways said viewer reads a media product. Thus, a particular intersection of roles with other salient social constructs can facilitate seeing vantage points unique to particular individuals.

“Teachers and learners”

The remaining participants, Karen, Lila, Maeve, and Naomi, used video games in the classroom as both teachers and learners. By virtue of having used games in classrooms in these opposite positions, these participants had been exposed to a particularly holistic view of how games could potentially be used in classroom environments. From a cultural studies standpoint, being at this intersection of both roles placed them in a positional context to see in qualitatively different ways than either the teachers or the learners. Although participants within this category used video games in both capacities, all spoke more extensively of using them as teachers. Like Heather and Mrs. Walcott, Lila (in her mid 30s) and Maeve (in her 40s) also cited their ages as a potential reason for not having encountered games in the classroom.

Whereas several teachers wanted to use video games because they thought the games motivated their students, Karen, who was in her mid 20s and had used video games as both a teacher and a learner, also discussed wanting to use them with her students because she thought games could encourage healthy competition. Her perspective, she shared, was informed by her own learning experiences and her

competitiveness, the latter of which she also noted was tied to having participated in sports. When she used video games in her sports management class during college, she recalled finding the experience enjoyable “because I’m competitive. I always wanted my team to win.” Although she was unable to recall the names of these games, she remembered playing them to be a pleasant and “helpful” experience. Her experience using these games as a learner, combined with her self-identified personality trait (competitiveness), informed her decision to use online *Jeopardy!* when teaching high school English classes for test preparation and review. Karen’s case emphasizes how individual-centered characteristics and experiences can merge to inform people’s perceptions of ideal representations.

As can be gleaned from the above examples, participants’ viewpoints were affected by their educational roles, whether they were teachers, learners, or “teachers and learners.” The ways in which these roles influenced each individual participant, however, varied. This logic also holds for other roles participants occupied in conjunction with their educational ones. The next subsection will address how educational roles and family roles connected for some participants.

Family-oriented Roles

Several participants mentioned their families within the context of this study. Such roles are important to discuss here not only because participants mentioned them in relation to their own self-descriptions, but because they support the notion that each participant has roles outside of the educational sphere of being a teacher, a learner, or a “teacher and learner.” Considering these roles, therefore, supports the seeing of participants as complex people. As a key aim of this dissertation, it is also supported by

scholars who have referenced the tenets of Black feminist thought (for example, Collins, 2000, 2009; Harris-Perry, 2011; hooks, 1992; Perry, 2011), which also incorporates themes essential to cultural studies research, such as intersectionality, life experiences, and how media can relate to people's lives. Of the participants who discussed their family relationships in greater detail, two family-related roles emerged with the highest frequency: mother and spouses/significant others. Six people (Heather, Isabella, Mrs. Cordova, Maeve, Mrs. Paxton, and Mrs. Walcott) mentioned having children. Mrs. Cordova and Mrs. Paxton both mentioned their spouses. Brittany mentioned her cousins and her younger sister, and Dawn mentioned her sisters, nephew, and boyfriend. One participant, Asha, mentioned her love for her family, but never specified which roles she occupied within said context.

Of all the categories of ideal and less-than-ideal representations, one similarity between participants who identified family-related roles in addition to their education-based ones was that they all valued diverse representations. This was also the only ideal or less-than-ideal representational theme in this study that the majority of the mothers identified, the only exception being Mrs. Paxton. In particular, Mrs. Walcott reported that teaching transcends both her home and school life. She considered herself a teacher to both the students in her classes and her own children, and asserted the following: "How I teach my kids in the classroom is how I teach my kids at home." She wanted "to be a good teacher at home and at school," which she aims to approach through "modeling respect" in these environments. In considering how representations might appear in their own children's lives, Heather spoke about how diverse representation related to her own daughter's media exposure. The example Heather gave, however, was within the context

of television commercials for hair products. Having the understanding that “there are other forms of beauty” than those often shown on television, Heather expressed that she would prefer that her daughter be exposed to images that “look like her” and reflect various types of hair, from “kinky hair [to] straight hair.” Mrs. Cordova, who similarly valued diverse representations, reported using ABCmouse.com with her daughter at home, noting that her daughter seems to enjoy seeing the in-game characters.

Participants’ differing perspectives with relation to representation and the family roles they shared during the interviews were not always attributed to the nature of their roles. Two key components of identity salience include both the value that a person attributes to a particular descriptor and the likelihood that they will relate it to a particular context (Thoits, 2013). In this respect, participants’ perspectives were tied to how salient the roles they listed were to their identities within the frame of this study. Mrs. Cordova, for example, reported wanting to see more representations of Black middle class households with a mother and father present. She specifically observed that many media representations of Black families portray single-parent households, but her own family, both growing up and the family she now has with her husband and children, share this two-parent structure. Mrs. Cordova was not the only participant who reported growing up in a family with this structure. Dawn also mentioned having been raised in a two-parent home, and Mrs. Paxton mentioned her husband several times throughout the interviews, even more frequently than Mrs. Cordova. Regardless, Mrs. Cordova was the only participant who reported wanting to see more of this particular representation. Furthermore, although Mrs. Cordova’s family unit involved a two-parent structure, which would ideally be represented especially due to the plethora of televised media that have

offered portrayals of dysfunctional—as opposed to functional—single-parent families headed by single mothers in relation to representations of Blackness (Smith, 2008), across US racial groups, there is an increasing number of single-parent households as the amount of two-parent households decreases (Pew Research Center, 2015). With respect to this study’s participants, Heather specifically described herself as being a “divorced mother,” but did not reference this role in relation to any ideal representations. Although it is impossible to make definitive claims about the reasons why Dawn and Mrs. Paxton did not report wanting to see the same representation Mrs. Cordova did (and conversely why Heather did not report wanting to see more balanced representations of families headed by divorced mothers) it is significant to note that sharing the same roles does not automatically result in sharing the same perspectives. Rather, these observations may be better explained by noting that although other participants mentioned their family structure and roles within it, Mrs. Cordova’s conception of this role was more salient to her within the context of this study.

Overall, in this study, roles address components of individuals’ perspectives that relate to the societal positions they occupy as they move through the world. Teachers and learners are key roles that make up the very foundation of all classroom contexts. Although some classrooms also include other roles (such as teaching assistant, paraprofessional, and so forth), all classrooms are expected to have teachers and learners by definition. Much like discussions on people who play video games have analyzed players through their identifications with the terms “hardcore players” and “casual players” (Juul, 2010, p. 51) and with the act of playing video games over the “gamers” designation (Shaw, 2011, p. 29), this study conceptually merged the two by inquiring

about and considering roles that were salient to participants in the context of using games in classrooms. In addition to being teachers, learners, and “teachers and learners,” this study’s participants were also people with lives outside of the classroom. Along with distinguishing each participant from one another and working intersectionally with their roles in classroom contexts, the family roles they mentioned also colored and provided context on how they identified ideal representations.

In this study, examining participants’ educational and family roles, which they identified at the time of the study, helped me as a researcher to understand how their roles informed their conclusions about ideal representations. It also demonstrated aspects of how each participant preferred to move through classroom spaces—which indicated their values with respect to learning and representation—and the variety between the classroom environments in which they used games while teaching and learning. In keeping with cultural studies traditions, these approaches helped to explain and illustrate the polysemy inherent in participants’ perspectives on ideal representation, which many past research has also found in audiences’ media readings (for example, Jenkins, 2013; Morley, 1992; Radway, 1991; Shaw, 2014). Overall, examining roles permits researchers to investigate the context-specific nuances in what people do in addition to the role category with which they identify and are often identified by others. Thus, in doing so, researchers can gain a deeper, more nuanced understanding of participants’ perspectives. The next section continues to broaden this understanding with those of participants’ salient social constructs.

Participants' Social Constructs

Much like with the teacher and learner roles, self-identifying as a Black woman 18 years of age or older was a prerequisite for participating in this study. Although race, gender, and age were the social constructs participants most frequently raised with respect to themselves and their video game use in classrooms, the variability within participants' responses supports considering the interplay between these and other social constructs they addressed during the study. At the time of the study, all participants were college-educated women, whether they were in the process of pursuing their undergraduate degrees or had already completed a graduate degree. Due to the high degrees of intersectional racism and sexism that occur in academia and are regularly perpetuated toward Black women (Williams & Nichols, 2012; Wilson, 2012), this study has operated within the vein of Williams and Nichols' (2012) observations by approaching social constructs from an intersectional frame acknowledging the "Black woman" identity apart from "Black person" and "woman" identities (p. 79). It is also cognizant of the notion that for some Black women, the "Black person" identity can feel more salient than the "woman" identity (Williams & Nichols, 2012, p. 79).

When asked to discuss social class, the majority of participants did not overtly identify their own social class. The three participants who mentioned their specific social class were Mrs. Cordova, Asha, and Gwen. Mrs. Cordova self-identified as "middle class," whereas Asha self-identified as "working class" and Gwen self-identified as "upper middle class" while growing up. In particular, Gwen acknowledged that her social class privilege may have made it possible for her to play so many games during her childhood. On the surface, Mrs. Cordova's self-identification could appear to coincide with research

suggesting that Americans tend to self-identify as middle class (Cookson, 2010). Upon closer examination, however, Mrs. Cordova's descriptions of both the neighborhood in which she lives and the one in which she teaches were nuanced. She categorized the school in which she teaches to be in a lower-income, predominantly African American neighborhood with a population that was 25% Hispanic, a "growing" white population, and "a small" Asian population. She also categorized her own neighborhood as "more of a middle class community" that was a predominantly African American, with a "huge Caribbean community, as well." She also added that it was 25% white, and "maybe 10% Hispanic." In other words, although both communities were predominantly African American, she lived in a middle class community and worked in a lower-income community. Heather, Lila, Mrs. Walcott, and Mrs. Paxton similarly reported living in higher-income communities or ones where "there were more working people," as Mrs. Walcott phrased it, than the ones in which they taught, meaning that relative to their students, they were more privileged with respect to social class. In contrast, Isabella worked in the same community in which she taught. Because she is part of a highly-educated population in part to her being a teacher, Isabella does have greater social class privileges with respect to its educational component and the earning power associated with it.

Overall, relative to learners, teachers tended to be especially descriptive about the social classes related to the neighborhoods in which they taught. The majority of the teachers in this study reported working in low-income communities. The only exception was Maeve, who had experienced working in a lower-income community and a higher-income community. She estimated that the lower-income community had "a median

income” that was \$20,000 lower than that of the higher-income community, which she estimated at \$70,000 per year. Between the two, she reported that the “average education” level was an Associate’s degree and a Bachelor’s degree, respectively. On average, teachers were also older than the learners, with most learners being in their 20s, most teachers being beyond their 30s, and most “teachers and learners” being in between the two. This category incidentally included the study’s youngest teachers, Karen and Naomi, who were in their 20s. It also included the oldest learner, Maeve, who was in her 40s. In general, the older participants also tended to be teaching longer than those who were younger, which could potentially have resulted in their increased understanding of the neighborhoods in which they taught.

In identifying their ideal representations, some participants, like Asha, Brittany, Isabella, and Maeve, referred to their status as Black people or Black women. In reply to the question about how her life experiences influenced her thoughts on ideal representations, Isabella opened with, “Being born a Black person, I’m very sensitive about [representation].” Regarding the various nuances in ways that people of color are portrayed in media, she also commented that she recalled “how it felt to always be given a certain image and left out [as though you’re] a second thought, like you don’t matter.” Maeve also spoke about how her conceptualization of her Black female identity factored into her thoughts on representation:

I’m a Black female. So I care and I proudly identify that way and so I pay attention to representations of people in games and in media...just because that’s who I am and when I was born. I mean, I was born at a time when, you know, James Brown saying ‘Say it loud, I’m Black and I’m proud’ was blasting on the radio, so I’ve grown up comfortable and conscious.

Both Isabella's and Maeve's perspectives synchronized with findings from Essed's (2000) "everyday racism" (p. 177) research, which highlights how Black people are keenly aware of race throughout quotidian life. Collins' (2000) Black feminist research similarly asserted that living as a Black woman can facilitate unique depths of social understanding. Akin to Essed's (2000) research, Isabella attributed her own awareness of representation with the fact that she is a Black person. By contrast, Maeve placed her own identity as a Black woman within the context of the Black Power movement. Although both participants had these understandings of how Blackness related to their conceptions of ideal representations, as the previous chapters have illustrated, their perspectives on ideal representations were neither identical to one another's nor those of any other participant.

For years, in cultural studies research and audience studies alike, being able to identify and understand audiences has remained an issue for researchers and media practitioners alike. In this vein, cultural identity has often been considered an integral component of how audiences interpret media. Ang (1991) observed that producers created the artificial concept of audiences in pursuit of understanding specific people who bought their media products, for the better they could understand them, the better they could control them (Ang, 1991). From a social constructionist standpoint, the construct of audiences shares similarities with but is not equivalent to social constructions such as race, social class, or gender, which Mosco (2009) asserted are "more than demographic groupings. They are lived experiences" (p. 224). A person can choose to identify as a member of a particular media audience (Ang, 1991), but unlike race, social class, and gender, which are categories that are applied to people's social experiences regardless of

what they do, people can exercise more agency when it concerns being identified and treated as an audience member (Mosco, 2009; Mosco & Kaye, 2000). This study's data suggest, therefore, that focusing on social constructs as variables packed with information about audiences and participants alike only tells a partial story, one that can contribute to the idea that members of any given cultural group, especially marginalized ones, are all the same.

There was also a connection between social constructs, negotiated or oppositional readings of video game texts, and the representations they wanted to see in video games used in classrooms. As hooks (1992) asserted, and as I have also practiced when reading various media as a Black girl and now as a Black woman very rarely seeing images of Black women that resonate with me, if people consume enough media in which they seldom, if ever, see affirming reflections of their own image, they may be even more likely to cultivate this ability: "Not only would I not be hurt by the absence of black female presence, or the insertion of violating representation, I interrogated the work, [and] cultivated a way to look past race and gender for aspect of content, form, [and] language" (hooks, 1992, p. 122). Doing so facilitates the process of audience members creating such readings on their own terms. Asha, who self-identified as "a Black woman, working class...[and] queer," gathered that in the game *Super Muncher*, its eponymous character "Super Muncher could've been queer [...] But he was not trans[gender]." The text in *Super Muncher*, as mentioned in Chapter Four, does not use gender pronouns, but Asha read *Super Muncher* as a male character and considered the possibility that *Super Muncher* could be a transgender character. Her perception of *Super Muncher*'s gender aligns with the ways many people who play said games tend to read characters' genders

(Bradshaw, Clegg, & Trayhurn, 1995). In the case of sexual orientation, Asha's reading of *Super Muncher* constitutes what Hall (1980a) would call a negotiated reading of the text. Although the game also does not make in-text references to the sexual orientations of its characters, in the absence of such text there is room for Asha's interpretations to exist within the game's context. Moreover, Asha's reading aligns with how she conceptualized ideal representations. When asked about representations she would specifically want to see more of in games for classroom use, in addition to mentioning that she would want to see a diversity of body types represented, Asha said, "It would be awesome to see gay kids up in there [in video games for classroom use]. To see gay folks and queer folk, like Super Muncher." For Asha, *Super Muncher* represented an example and possibility in representation that could also exist in future games.

Within the context of this study, such an understanding of social constructs illustrates that they cannot always be suggested to carry the same meanings to those who identify with any given group. In the past, researchers have similarly found that in researching and writing about members of groups with which they identify on the basis of two or more socially constructed categories, they have had to be mindful about the restrictive ideologies, images, and stereotypes associated with said people in mainstream culture and media (for example, Abu-Lughod, 2013; Jacobs-Huey, 2006). In this study, I have also attempted to do so years later through using specific units of analysis to construct a greater whole. By analyzing social constructs independently from role and personality, this study illustrates the importance of considering what specific social constructs mean to individual participants and how they relate to their worldviews.

Participants' Personality Traits

Participants used a diversity of terms to describe their own personalities. Most terms were unique to a particular participant, but there were a few that several participants used to describe themselves. For example, Fayola and Naomi both described themselves as “introverted.” One detail made evident through examining participants’ personality traits in relation to their perspectives on ideal representations is that participants seldom agreed with one another on the basis of self-reported personality traits. Even participants who used the same trait in describing their personalities did not have the same perspectives on ideal representations. For example, Dawn, Karen, Rina, and Zahira all self-identified as “outgoing,” although to varying degrees. Nevertheless, all four of them did not agree on all, or even any, of the themes within ideal representations.

Although the purpose of this study is not to predict teachers’ and learners’ perceptions on representation, this observation is important because of pervasive cultural assumptions about Black women’s supposed sameness. This chapter suggests that identifying with the same roles, social constructs, and experiences do not always indicate that the people in question share precise worldviews. The same applies for language. Much like when Isabella and Maeve both expressed that their “Black person” identities informed their thoughts on representation, Brittany and Lila both identifying as introverted in some situations and extroverted in others did not mean that they or their thoughts about representation were the same. This observation is further supported by the logic they provided behind their personality descriptions. Brittany specifically attributed this aspect of her personality to depend “on my mood,” whereas Lila noted that it “depends on who I’m around.” Because assumptions of sameness can also affect how

Black women's personalities are perceived, there are powerful implications to noting that even Black women who describe their personalities using the same language do not have the same ideas about what makes for ideal representations in video games used in classrooms. They show it is important to further investigate the meanings participants apply to terms they use to describe themselves, and that these terms should be considered alongside other information participants provided during the study. Such implications speak to the significance of Crenshaw's (1991) intersectionality across more than social constructs.

Participants did not agree on ideal representations based on their self-identification with a particular personality trait, but within the context of the individual, participants' personality traits correlated with their conceptualizations of ideal representations. Such parallels were at times most evident when a participant described themselves using a term that no other participant used. For example, Asha is the only participant who specifically expressed wanting to see humor in video games for classroom use. This sentiment coincides with how she identified herself early in the study as someone who tries "to find the humor in situations." Consequently, her interviews, questionnaire, and conceptions of ideal representations were also peppered with her unique sense of humor. Asha expressed favoring puns and riddles, and ideally wanted to see them both represented in video games for classroom use. When sharing that her ideal video game for classroom use would include humor, she also reported wanting to see humor much like the style appearing "in RPGs, when they do obnoxious stuff. You know, stuff to keep me engaged. I don't just want to be talked at. I want weird stuff to happen. Like a...talking peacock or something, I don't know. That's my definition of humor...it's

a talking peacock.” After sharing her observation that teachers use video games in classrooms “as a distraction and a reward,” she quipped about the phenomenon in a way that directly referenced *Oregon Trail*, a game that she and Fayola largely remembered through its references to illnesses and death, by adding, “You do your work so you can die of dysentery.” Within the context of this study, Asha’s case illustrates how a combination of self-reported personality traits can be linked to a participant’s ideal representations.

As a more concrete and selective method for gauging the cultural studies concept of agency, individual-centered characteristics focused on three areas of identity that I considered to hold valuable information that distinguished one person from another: roles, social constructs, and personality traits. By exploring how these three areas applied to each participant and how they related to their perceptions of ideal representations, this previous section aims to provide a potential framework for future research exploring connections between identity and audience member’s perspectives. This framework was designed bearing in mind the difficulty Black women face in being fully seen within US culture and society (Harris-Perry, 2011; Lorde, 1984). Nevertheless, it is a framework that could also potentially be used to see any person.

The next section continues to expand on the act of seeing this study’s participants and making connections between their self-reported ideal representations by connecting them with their experiences. It will begin with a brief reminder of how this study conceptualizes experience before exploring how participants’ experiences are connected with their perspectives on ideal representations.

Experiences and Ideal Representations

Much like the previous section, this section will be organized according to similarities and differences between how participants identified ideal and less-than-ideal representations. This study's notion of experience, as defined by Pickering (2008), was conceptualized in response to the cultural studies concept of agency. Barker (2012) noted that a shortcoming of agency is that it often serves as an ambiguous placeholder for phenomena that cannot be explained through social constructs. Following Pickering's (2008) logic, experience encompasses events that the participants regarded as significant to their perspectives on video game use in classrooms. This section will be organized according to the context of the experience: classroom experiences and life experiences.

Classroom Experiences

The differences between a black person and a white person in the United States are deeply rooted in their distinct and separate racial histories, histories encapsulating a host of material and cultural distinctions that render the experience of being black quite different from the experience of being white. (Jhally & Lewis, 2005, p. 76)

History is not inseparable from the classroom. The above quote from Jhally and Lewis (2005) underscores how race and history intertwine to affect people's experiences. Regardless of whether individuals are aware of history as it applies to social constructions such as race, gender, social class, and so forth, it influences people's life journeys through dictating the ideologies to which institutions and the individuals who operate them subscribe. Being unaware of historical details does not protect anyone from the social and cultural ramifications of them in many areas of daily life, including the educational arena. Earlier chapters discussed how accessibility is tied to the history of education in the US, especially for US Black people, who have historically faced

difficulty in obtaining an education since before the US was founded as a nation (Woodson, 1968). Having been historically barred from pursuing an education resulted in a number of Black people finding and forging new paths to education (Franklin, 1979), one of which was public schooling (Woodson, 1968). Here, and within the context of this dissertation, Blackness and the nuances of social class converge. All of the teachers in this study had experience working with schools with limited resources, and they all used video games in the classroom and spoke to their potential. Although public schooling and government mandates require that all US children attend school, access is a significant issue within the context of this study, especially with respect to social class and the digital divide. Technological access also tends to be more limited in lower-income communities than in higher-income ones (Buckingham, 2007). These limitations, as also noted in Chapter Five, force teachers to consider other potential instructional approaches in the event they were unable to use their preferred method.

As evidenced by the five participants who listed access as an issue (Gwen, Isabella, Lila, Maeve, and Mrs. Paxton), teachers and learners who had the experience of using games in more than one setting were more likely to report accessibility as a key component of ideal representation. Isabella, who expressed wanting to be able to use games in a variety of locations but not being able to do so, was the exception to this rule. Among them, Gwen, Maeve, and Mrs. Paxton described having used them in computer labs, whereas Mrs. Paxton used them in regular classrooms. Some participants, like Gwen, Lila, and Maeve, occasionally visited either a school library or one in their respective communities to use these games. In particular, Maeve would have her students use the games in the library when a computer lab was not available. Lila, who taught in several

regions, had experience in holding her class in one community library. Participants who used games in regular classrooms often did so via laptops. Naomi and Mrs. Paxton both explained that in these scenarios, teachers and learners used laptops that were rolled into the classroom on laptop carts. This setup was an alternative means to using computers when a computer lab was unavailable or impossible. These laptop carts were sometimes available in schools that participants like Naomi and Mrs. Paxton reported lacked resources, but they were also available in the suburban school where Maeve taught that had bountiful resources.

Some participants, like Asha and Naomi, also had the experience of having been raised in culturally diverse communities. Because of these experiences, they expected to see diverse representations in media. By the time she reached adolescence, Naomi was accustomed to seeing people of a variety of ethnic and racial groups. Asha, who grew up in a racially diverse neighborhood and attended a predominantly Black elementary school, began to think more deeply about representation once she started attending a predominantly white middle school. For both Asha and Naomi, who as children had grown up in diverse neighborhoods, not seeing diversity in media was surprising to them.

Asha also elaborated extensively on the connection between visibility and acknowledgment during her third interview. She discussed how when she played *Super Munchers* and *Oregon Trail* as a child, she did not question their lack of diverse representation because of the widespread perpetuation of the notion that “white was the default,” but that after starting middle school, she started questioning representation and came to a different realization. During this interview, she read aloud a quote by Junot

Díaz that came to mind for her when she discussed representations in video games for educational use.

Well, I think that once I got out of elementary school and I realized that there...were not people who look like me present in every classroom, or environment, that I started to...want to see that, to see myself in other places. Like that's why I want to see a Black girl in a video game because I'm *not* everywhere. Right? [Asha laughs] Not...validated as existing. There's this quote...I think it's by Junot Díaz. And it's really good: it's about representation. [...] [Díaz's quote starts on the next line] 'You guys know about vampires? You know, vampires have no reflections in a mirror? There's this idea that monsters don't have reflections in a mirror. And what I've always thought isn't that monsters don't have reflections in a mirror. It's that if you want to make a human being into a monster, deny them, at the cultural level, any reflection of themselves. And growing up, I felt like a monster in some ways. I didn't see myself reflected at all. I was like, 'Yo, is something wrong with me?' That the whole society seems to think that people like me don't exist? And part of what inspired me, was this deep desire that before I died, I would make a couple of mirrors. That I would make some mirrors so that kids like me might see themselves reflected back and might not feel so monstrous for it.' [the end of Díaz's quote] That's what I think. Like, why do I want to see myself in a video game? Because I don't see myself anywhere else. It *does* make you feel like a monster. Like there's something wrong with you. So that's why that stuff has become important to me. And I didn't realize it until I wasn't seeing myself anywhere. You know, I went to a predominantly Black elementary school. I saw myself, and [I had my mother], and there were Black books all over the apartment [where I grew up]. But once you get out of that and start looking around...you realize that you're not really represented anywhere.

Asha's perspective coincides with Hall's (1980a) conception of what it takes to create a naturalized code through media. Both her example and her citing of Díaz illustrates a key point in cultural studies research: naturalized codes are established through repetition (Hall, 1980a). Furthermore, their repetition is what gives them social validity and power, regardless of whether said codes are credible, steeped in factual data, or steeped in the hopeful fantasies of those creating and perpetuating them. Audiences, who become

accustomed to seeing these codes, begin to accept what is seen and what is not seen. They both become part of the cultural narrative. Additionally, to both Asha's and Díaz's assertion, when people see representations of themselves less frequently than they see fictional races such as vampires, monsters, and aliens, it suggests that these creatures are more naturalized within the imaginations of mainstream US culture than humans from underrepresented groups. Being underrepresented in these cases is being made invisible. Being made invisible is one of many cues that a group is socially, culturally, and institutionally marginalized, as all of these systems are interconnected. Asha observed this absence in representation through having moved between environments where Black people were predominantly represented to an environment with significantly fewer Black people. Noticing the absence of these representations in her classroom environments during adolescence, Asha considered portrayals of Black girls and women to be a part of her conception of ideal representations.

While Asha and Naomi came to expect diverse representations, Fayola grew up having a different experience. She attended schools in two predominantly white communities, one being a Catholic school in the suburbs and one being in a rural location “with cornfields and lots of cows,” and felt as though the games she played in classrooms did accurately represent the population at her school. Because of this point, Fayola did not question the diversity of the representations she saw in the games she played in classrooms. It was as she became older that she began to consider that she may have found the games more personally relatable, and in turn “fun,” if she had seen characters that visually resembled her:

I just think it would've been more fun if I was that age...seeing people on the screen that looked like me, or looked like a family member or friend. I think that would've been just relatable. I, it was fine for me at the time because, like, I was surrounded by people at all times that *did* look like that. But I guess it just would've been, like, 'Oh, that character reminds me of me'...that's never happened with any of the games I played. [...] I think it would've just made it more relatable in general, and that relatability makes...things...fun, so.

Fayola's comment suggests that had she been in a different environment, she might have questioned the diversity of representations that she saw in school. Despite not seeing representations that visually resembled her, Fayola did not report feeling as though she could not learn from them. Rather, they seemed to lack a personalized element that she thought could have helped her to better enjoy and relate to the material she was learning. Brittany expressed a similar sentiment in her own interviews. She, too, did not think that she could not learn from examples that did not feature women of color, or from people who were not women of color. Instead, she thought that having diverse representation would potentially contribute to creating a more comfortable learning environment for her.

Although there are cases when audience members do identify with characters on the basis of appearance, past research has addressed the idea that this may not be the case for all audiences. Such studies have found that audience members do not always identify with a video game character on the basis of said character's appearance (Shaw, 2014). This finding also coincided with what some of this study's participants stated during their interviews. Gwen, who played many games growing up, said that although representation was important to her and she "was always excited" whenever she saw a Black character that she liked in a video game, it was not necessary for her "to have Black characters in a game to enjoy it." She shared that she often did not identify with the characters in the

educational games she played growing up, and that although the games had “their own share of mascots and everything, they [the characters] were just like ciphers to me. They were just a means to an end. With the exception of a character like, say, Carmen Sandiego. But she was more like the exception rather than the norm.” As someone who played many games inside and outside of the classroom, Gwen was accustomed to seeing many games without protagonists or non-playable characters that she felt resembled her on the basis of social constructs. In another example, Heather felt that she would personally prefer seeing characters that reflect her image back to her, but realized that it is not the same for all of her students, the majority of whom spoke Spanish or Arabic at the time of this study: “Research shows that [...] we’re multicultural, and our students like seeing that. So when they see someone who looks like them, they like that. [...] Even in other media, I want to see something that looks like me. [...] It should be based on the audience that’s playing the game.” Although Heather felt this way, she reported that she never had an experience where her students told her that they find a game “boring” because of a lack of racially diverse images.

Classroom experiences also entail participants’ interactions with specific games in these settings. This logic is evident when comparing Heather’s perception of *Imagine Learning* with Isabella’s. Heather was very happy with *Imagine Learning*, and saw the program as being very close to an ideal game. She shared during her third interview that she had based many of her answers to the ideal game question on her own experiences using *Imagine Learning*. Heather’s image of an ideal video game for classroom use is a language program that “would be used for 30 minutes daily in the classroom” and can also be used to “customize student learning and track student progress weekly.” From

Heather's descriptions, an ideal game would be one that played a significant role in a student's instruction. With a system that allowed teachers to observe and check each student's performance on in-game tasks, *Imagine Learning* did have the capacity to meet Heather's expectations with respect to these elements. For a teacher who values the ability to gauge student progress, tailor the learning experience to the individual student, and is permitted to let the student to use the program 30 minutes each day, *Imagine Learning* could be an appropriate instructional choice.

By contrast, Isabella, who also used *Imagine Learning*, saw the program as significantly flawed, which is logical based on Isabella's criteria for an ideal game. Isabella, who regularly teaches groups of fewer than 10 students for under an hour at a time, felt strongly that an ideal game would be accessible outside of the school's campus, which *Imagine Learning* was not. From her perspective, *Imagine Learning* was a program that took the place of instructional time that teachers could use otherwise. She felt that "With all the other stuff you've got to teach [students], who has time to do that [use *Imagine Learning*]?" In this respect, what concerned Isabella about *Imagine Learning* was the same as what concerned her about ABCmouse.com: both programs were lengthy and demanded so much of their students' attention that it was difficult for teachers to merge them with traditional instruction during class time. Although Isabella liked that ABCmouse.com offered images of characters representing a range of different races, which was something she wanted an ideal game to include, the logistical issues present in this game and *Imagine Learning*, along with the inconsistent color hues of the avatars within ABCmouse.com's avatar design system (as discussed in Chapter Four), kept her from continuing to use it. Based on both Heather's and Isabella's different

perspectives on ideal representations, each teacher had viable reasons for their evaluations of *Imagine Learning*. Such evaluations will naturally vary from teacher to teacher, making a game that is appropriate to one teacher inappropriate to another.

Lila described the importance of having a dialogue with video games and other materials for classroom use. As a teacher who actively searched for opportunities to reflect on classroom materials, Lila discussed how she approaches resources that may contain problematic representations. She leads individual and group conversations about these materials, encouraging students to mull over several questions and the implications of such representations:

‘If I could redo this, what would it look like? Who would be the main characters? What would be their names? How would we name them? How would we dress them? What environment would they be in?’ [I pose these questions] [s]o that it’s not just about what they saw, because they might think that I’m sending them the message that, ‘you don’t fit this typecast or mold, and so you can’t possibly be doing these things or thinking about these things.’ So instead, [it is] saying that one of the shortcomings of this particular segment is that it didn’t have teens that look like anybody in this group. It didn’t have women being represented, and the message that it might send to other young people or even to adults is that kids aren’t being valued in the same ways. So where are some other places in your life experiences where you would have seen that happening? And a lot of times, the kids would say, ‘In school. I’m not being treated the same way as someone sitting next to me, or someone that might be more affluent than my family is.’ So those are the ways in which [the material or video game] has to be paired with dialogue and in the context of relationships.

As can be gleaned from the above quote, having these conversations does not only address media representations: it also attends to the connection between media and the students’ lives. In recent years, numerous areas of US daily life are becoming inseparably intertwined with media (Fernback, 2015). Much like Heather, Isabella, and Mrs. Walcott, the teachers who felt that video games for classroom use should be directly relevant to

their students, Lila has found that when engaging with students on this level about the materials they use, the students are able to make connections between the two. They too can see discrepancies in their everyday lives with respect to representation, which is closely related with daily issues such as differential treatment in the classroom context. Discussions about differential treatment also relate back to Rina's observation, as mentioned in Chapter Four, about the unjust intellectual expectations her teachers and classmates communicated having held for her as a student taking AP classes versus students who were not Black girls. If done with a compassionate teacher who is able to regulate the environment to prevent it from becoming hostile to students expressing marginalized perspectives, combining discussions about representation with student's everyday lives can have the effect of empowering students within affirming and validating safe spaces.

Lila and Mrs. Paxton both worked in similar regions where their population of students often did not have access to computer technologies. A key theme throughout all three of Mrs. Paxton's interviews was the digital divide and the concept of what she described as "the haves and the have-nots." Because of the difficulty of technological access, teachers in settings without such materials would at times have to consider ways to approach classroom instruction that did not rely on the newest hardware, software, or even textbooks. Participants who either taught in areas with fewer resources or learned in one setting with many resources and then in one with fewer identified access as an issue integral to ideal representation. As briefly mentioned in this chapter's section on social constructs, Maeve, who had taught in both settings, discussed a neighborhood and school with many resources versus one without. In her experience in the suburban setting where

she worked, “resources are abundant, which means I have access to various platforms: Chromebooks, PCs, as well as Macs...iPads, tablets, anything at all.” By contrast, in the urban setting, “we have to use shareware or free software, which is fine. It’s just...challenging. Generally, we don’t have laptop or tablet carts, so instead we have to go to a computer lab. If [...] you only have one computer lab, there’s another limitation.” In other words, through teaching in a setting with greater resources, Maeve experienced being able to request and receive materials, whereas in the other setting, Maeve had to find alternatives should her access to technology become limited. Overall, Isabella, Lila, and Mrs. Paxton, who reported having taught in areas where students had fewer resources were most likely to cite accessibility as an important factor in ideal representations for video games for classroom use. Gwen, who attended a school with bountiful resources and then attended one with significantly fewer, and Maeve, who had experience teaching in areas with resources either lacking or abundant, were both sensitive to issues surrounding access in ideal games for educational use.

Mrs. Paxton, who graduated from an Ivy League institution and taught in a town in which resources were scarce for some students but plentiful for others, was especially conscious of how race and social class manifested in the classroom for the Black children in her city. In particular, she discussed how in schools, Black History Month is sometimes framed in a way that can be shaming for children. In observing that there are teachers who “talk about slavery” but not “the greatness” of Black people in Africa and the US, she noted that there are many contributions Black people have made to the world that are not taught in schools: “There are so many things that we as a people have [...] developed and thought through. [...] We have so many patents. Our kids don’t know this.”

Her mother, who was also a teacher, would often say, “Open a book.” Mrs. Paxton wanted students to know that Black people created “such amazing, unbelievable things that help *every person* on this Earth today. [...] I’m going to try to encourage kids and push them to open the books and read” (emphasis in original). Mrs. Paxton also considered the possibility that using video games in classrooms may be a means to encourage children to read and learn more about the world. When classrooms foster learning environments that devalue Black people to Black children, they are perpetuating prevailing ideologies in ways similar to Hall’s (1980a) observation that media communicate said ideologies about social constructs and the ideas and people who embody them. In terms of cultural theory, therefore, this finding means that classrooms—and the video games used within them—can and often serve as vehicles of the same social information being circulated through media.

Life Experiences

Several participants noted their life experiences as informing their perspectives on ideal representations, especially with respect to including diverse representations. One notable reason participants listed for diverse portrayals was that representation is the first step to being seen and having one’s existence acknowledged. For these participants, their life experiences provided them with information that they used to think holistically and intersectionally about various social constructs and how they connected with representations in video games used in classrooms.

When asked why the representations she identified were ideal to her, Fayola said that through her life experiences, she came to understand that representation affects the “different states of knowledge people are in about different people.” The example she

gave during the interview was one in which non-Black people have asked her questions about Black people's hair. To her, the answers to their questions were obvious, which made some of the questions seem peculiar to her. Fayola observed, however, that white people's hair is "shown on TV," whereas intricacies surrounding Black people's hair are not. Moreover, she added, "a lot of times, I might be approached about my hair and I can't...get mad. They [the people asking] don't know because a lot of times, that's not really shown on TV." From Fayola's perspective, she was being asked such questions because of a lack of widespread representation. Fayola observed that not showing these images can create uncomfortable situations and environments in which she felt she could not "get mad" because the people asking questions about her hair had little to no previous knowledge about it. Members of marginalized groups are often put in the position of having to "be explained or [they] must always explain themselves" to the society at large (Shaw, 2014, p. 223). This practice often takes the appearance of creating comfortable atmospheres for more socially privileged people, often at the expense of the marginalized. Fayola's understanding was that these systemic implications of limited representation resulted in individuals having limited knowledge, and in noticing this connection, her "different experiences have shown [her] that anything helps, really. Just a little exposure always helps." Because she believed that said exposure would create more comfortable environments for everyone, she wanted games to feature "casually" inserted content "too blatant, and you'll just get that they're trying too hard to make it inclusive in a way."

Having come of age in low-income communities similar to the ones in which their students lived, both Karen and Isabella reported identifying with their students on the basis of social class. In working with an "inner-city population," Karen did not want to

use “a video game with violence, [or] drugs...because they go home to that.” Karen thought that it was important for students to enter a learning “environment that’s safe and promotes positivity” and tried her best to facilitate that through selecting games that “promot[e] positivity and teamwork.” Like Asha and Fayola observed in the ways their teachers used games in classrooms, Karen expressed wanting to use video games “to distract [students] from the outside world, [and] what they have going on in their daily lives outside of school.” To this point, Karen shared that she saw video games as “a way for [students] to engage in some type of fun. Because I know when they leave school, it’s reality.” For cultural studies scholars, media reflect the relationship between society, the producers, and the product itself (Tuchman, 1978). This vantage point sees a recursive relationship between media as creations of their producers, who as social products of their societies also, as a rule, can function in ways that maintain it (Cortese, 2008). This viewpoint contrasts, however, with how many people in the society often view media. Many people understand the daily news, for example, to reflect reality. It only shows, however, a snapshot of it through the lens of a particular person or organization (Croteau, Hoynes, & Milan, 2012; Tuchman, 1978). Video games, however, are not often afforded the same degree of legitimacy, even when they are used in classrooms: even when they represent serious subject matter such as race, social class, and gender, they are still seen as a diversion in an otherwise serious world. In this case, Karen seeing video games as a form of escapism that were in some ways separate from the reality that her students experienced outside of the classroom aligns with this perspective.

Although many people believe what they see in reality-based media such as news and in education, some people question these messages because they conflict with their

own experiences and knowledge. For example, although Isabella, like Karen, had the experience of growing up in a community very similar to the one in which she teaches, she pointed out that drug use was “in all communities, not just one,” noting that it and other social problems were often erroneously attributed to poor communities alone. As noted in the earlier chapters, Isabella did not want to see representations that suggested that problems like drug use are exclusive to poor neighborhoods. Having come of age in an environment nearly identical to the one in which her students live, she reported having experienced “racial prejudice when [she] was going through the public school system and even today.” To Isabella, stereotypes could also be ones that some people may not consider harmful at first glance. Examples of non-stereotypical portrayals Isabella wanted to see in games for classroom use were “Black and Hispanic characters from different social classes who have interests other than singing and dancing or Asian characters who are always being depicted as super smart.” This logic is consistent with Isabella’s conception of stereotypes. If characters are continually being represented as having a particular skill, a stereotype of said group emerges. As Harris-Perry (2011) demonstrated through her examples of how mythologies surrounding Black women result in others distorting individual Black women in their mind’s eyes so that they can force Black women into these mythological frames to more easily understand Black women, stereotypes, regardless of their intent, are confining shortcuts to understanding that are not truly understanding. Thus, they are ultimately often violently applied to people, especially those from marginalized groups. Rather than stereotypes, Isabella wanted children to see images that resembled real people rather than ideas about people that are based on social myths.

Lila framed her life experiences within the context of “interrupting systems.” Her parents taught her that education was what she termed “a political act” in which people can either be thoughtful about whether the information they are learning applies to their own experiences, or uncritically accept what they are taught. She specifically saw video games in classrooms as one, but not the only, potential medium for her and her students to critically engage with prevalent social ideologies: “I see that there are opportunities for us to really think strategically, and to *think*, and not just accept the status quo” (emphasis in original). To this point, Lila added, “for me, the same thing is true whether it be a virtual space or real life. It’s really about interrupting systems, and especially systems that perpetuate what I consider to be nonsense.” An example of a system that Lila understood in such a way was race as a social construction, and as researchers like Ehlers (2008) and Omi and Winant (2002) asserted, a practice: “And so why do we have the social construct of race? It’s only meant to elevate a select few and to really bring down others. And so why do we continue to operate within that realm? We don’t have to.” Lila’s life experiences resulted in her thinking critically about representations from a young age. Moreover, teaching in an environment in which she did not always have access to technologies influenced her perspective that although video games for classroom use can be helpful to her practice, they are not essential to it. Other media, such as the cup game Lila used that was mentioned in Chapter Five, can also fill that void.

Conclusion

Overall, participants’ individual-centered characteristics and experiences related to their perspectives by providing context to their conceptualizations of ideal representations. The information provided was primarily intersectional within the context

of the individual. In other words, using the role of “learner” was not a sufficient explanation for why a participant identified a particular representation because all learners within the context of this study never agreed on one particular theme with respect to ideal or less-than-ideal representations.

Using individual-centered characteristics in tandem with experiences made it possible for me to do two things as a researcher. First, it allowed me to consider each participant’s unique perspective as an outgrowth of who they are as a person and the experiences they have had over time. Solidifying roles, social constructs, and personality traits encouraged me to examine multiple facets of what each participant shared during their interviews and in the questionnaire. Second, inquiring about and analyzing this information made evident the nuances present within each of these categories. This analysis demonstrates that the same role can have different meanings for different people.

Finally, the findings from this chapter demonstrate that in addition to being related to Black women’s experiences, a number of which come about because of widespread assumptions of Black women’s purported sameness (Collins, 2000), Black women’s perspectives can be connected with the general public when Black women are perceived holistically. To this point, although multicultural initiatives, especially ones striving toward polycentrism, often aim to showcase diversity between groups, if people are not careful, “multiculturalism can suppress differences within a group” (Collins, 2009, p. 15). As Collins (2000) and Harris-Perry (2011) have discussed, one of the primary mythologies circulated throughout US society is that Black women are not individuals with different ways of thinking, seeing, and being. Once the smoke surrounding this myth clears, it is apparent that any individual within US society could ostensibly serve as a

sample group for the entire US population, which is increasingly diverse in a multitude of ways. The larger significance of this conclusion is that focusing research on the perspectives of members of marginalized groups—as opposed to the widespread practice of viewing members of any given marginalized group through the eyes of the non-marginalized, portraying the marginalized as a monolith incapable of being able to offer commentary on US people and US culture as a whole—has always been and continues to be a viable possibility for researchers, teachers, and media practitioners alike. The next chapter will discuss this dissertation’s greater social and cultural implications, and how teachers, learners, and media practitioners can move forward given its results.

CHAPTER 7

SUMMARY AND DISCUSSION: “WE COME ALL KINDS OF WAYS”

A key finding across this dissertation’s previous chapters is that each participant’s opinions about and readings of representation were context-dependent when discussing video games used in classrooms. Therefore, this finding reflects and applies what Moores (1993) asserted about the link between setting and interpretation when gauging media audiences’ perceptions of content to video games used in classrooms. It also indicates the teachers’ and learners’ importance in this dynamic in that what they bring to the classroom space, and what they expect out of it and the video games used there, are influenced by who they are as individuals and the meanings they make of their experiences. Based on this finding, I propose that to effectively address representation in these contexts, when selecting, creating, and using video games, it would benefit teachers and media practitioners to carefully consider that the identities of their audiences are diverse, along with the educational objectives of specific learner populations. To this end, this dissertation provides a potential framework for researching diverse representation as it relates to video games and audiences. Audience diversity means that it is important to center more than just the socially privileged and powerful groups; centering marginalized groups is essential to representing audiences in full. The majority of this study’s participants recognized the diversity of the educational audience and perceived diverse representations to be ideal in video games used in classrooms, but their ideals do not represent the status quo for how many producers approach media representation.

This chapter begins by overtly stating this dissertation's thesis. It then summarizes the overarching themes and findings, relating them and the thesis to the three Results chapters before discussing the study's greater theoretical, classroom, and practical implications. Next, the chapter addresses the study's limitations and possible future research endeavors. Finally, the Conclusion unites all of these ideas and reemphasizes the study's key contributions to researchers, teachers, and media practitioners.

This Dissertation's Thesis

Chapters One, Two, and Three addressed how this interdisciplinary dissertation was aligned with cultural studies communication research. This interdisciplinary focus was partially an outgrowth of my own research interests in representations of race, social class, and gender; wide-scale representations of Black women in the US context; educational media production; and all forms of animated media.

In this study, participants who shared commonalities with respect to experience, or any of the identities encompassed through individual-centered characteristics (roles, social constructs, and personality traits), did not have the same perspectives on ideal and less-than-ideal representations. These findings emphasize that the concept of intersectionality (Collins, 1998; Crenshaw, 1991) is essential not only with respect to social constructs, but also through considering social constructs alongside other elements. This study focused specifically on roles, social constructs, and personality traits, as represented through individual-centered characteristics, but other elements could also ostensibly provide information about audience members' salient identities at the time of the study. In the context of this dissertation, through focusing on teachers' and learners'

perspectives, individual-centered characteristics and experiences are most effective in independently contextualizing a participant's perspective.

Although it is important to note recurring themes among participants, such as wanting to see diversity and not wanting to see violence, participants' perspectives were independently contextual, even within the same representational themes. Karen's self-identification as "competitive" and that she had experiences using video games in classrooms as a teacher and a learner in what she described as an "inner-city" neighborhood is information that most aptly applies to understanding *Karen's* ideas about ideal and less-than-ideal representations, and not necessarily Dawn's, Heather's, or Zahira's, for example. Said disparities also translate into how participants were perceiving video games as critical, reflective audience members. Many participants agreed that representations of race, social class, and gender are lacking in video games for classroom use, but they had varying ideas about the ideal forms they would take in such contexts. These findings, then, underscore and add further complexity to the connections between polysemic media readings and the individual within the context of cultural studies research. Thus, it is logical that audience members—as well as researchers and media practitioners—will have unique interpretations of media messages, regardless of social constructs, roles, personality traits, and experiences they have in common with one another. The possibility of one media product having multiple viable readings also enables producers to market the same media product to a variety of audiences (Fiske, 1987), which is especially valuable with regard to ideal representations in video games for classroom use.

In conjunction with cultural studies traditions, this dissertation has been greatly influenced by Black feminist thought. Nearly two decades ago, Collins (2000) made this compelling observation about Black women's treatment in the US context:

Despite differences of age, sexual orientation, social class, region and religion, U.S. Black women encounter societal practices that restrict us to inferior housing, neighborhoods, schools, jobs, and public treatment and hide this differential consideration behind an array of common beliefs about Black women's intelligence, work habits, and sexuality. These common challenges in turn result in recurring patterns of experiences for individual group members. (p. 29)

As Collins (2000) conveyed in the above quote, limited ways of seeing Black women are greatly supported by social and cultural institutions, routines, and policies. These systems restrict Black women's movement and result in the increased likelihood that a Black woman will face adversity, due to external forces, in communicating and having her uniqueness as an individual and separateness from Black women as a collective group properly heard, acknowledged, and appreciated. Therefore, the reason why Black women continue to be treated the same in US social contexts is because Black women are commonly *seen* as the same in the imaginations of many US people. The reality that participants having similar classroom or life experiences came to different conclusions about representations and about using video games in classrooms is furthermore unsurprising when linked with Pickering's (2008) assertion about experience. Even when two people share the same or a similar encounter, they may not agree on how it unfolded or on its significance in their lives (Pickering, 2008). The underlying insinuation in this assertion is that because they are individuals, their outlooks will not be identical.

Given the aforementioned observations and this dissertation's results, I pose the following question to readers: how could anyone see this study's 16 very different

participants as inherently the same? Yet there are many social and US cultural images constructed that suggest this information about members of marginalized groups—and in this study’s case, Black women—that force and validate such a myth so strongly that it appears to be a reality. In addition to their implementation via the wide-scale systems noted in Collins’ (2000) above quote, such pervasive stereotypes often take the form of distorted images (Harris-Perry, 2011) and Internet search results (Noble, 2013), all of which affect US policies that perpetuate the oppression and widespread misunderstandings of Black women (Collins, 2001; Harris-Perry, 2011). These observations inform how educational games need to be approached in that they too are a part of this loop when they perpetuate the same representational information from game to game for any marginalized group. Educational games need to provide more diverse representations not just visually, but ideologically and sensitively, without focusing on often-chosen topics that are associated with pain for marginalized groups. Histories are more intricate than just the stories of suffering that seem to be so eagerly peddled, to the exclusion of others, by many producers, researchers, educators, and members of US society. These stories are not repeatedly told for the sake of helping marginalized people to feel like accepted US society members. They appear to be done to “Other” and cause discomfort within the marginalized while sustaining positive feelings toward the mainstream, socially privileged groups. This practice only centers the socially privileged by adding to widespread messages that suggest such groups are “normal” yet superior to others. This dissertation’s framework and its focus on Black women’s perspectives on video games used in classrooms gives researchers an in-depth pool of data to draw from, compelling them and audiences to think of a range of possibilities, apart from social

constructs and experiences, to holistically understand and see participants. In other words, attributing participants' perspectives solely to their race, gender, or other constructs becomes much more difficult to justify with complex information, emphasizing personhoods over associations with collective social groups.

In making the above statements, I do not mean to suggest that there are no connections between Black women as a collective. Rather, I assert that different people have different notions about what being part of this collective and others entails, both on global and personal levels. Moreover, although it is important to acknowledge how social constructs affect a person's life, they are not the only parts of a person's identity and worldview. In order to privilege a holistic consideration of all these elements, this study's interviews and questionnaire were designed to additively incorporate finer details to construct a deeper understanding of each participant's perspective on representations in video games used in classrooms.

Summarizing and Interconnecting the Results

As mentioned earlier, although some participants raised similar representational themes as being ideal or less-than-ideal, everyone's perspectives were contextual to their use of video games in classrooms, the meanings they attributed to aspects of their social identities as expressed during the interviews, and their classroom and life experiences. Chapters Four, Five, and Six all contribute to this thesis by answering one research question. Each research question then builds upon the previous one (RQ 2 extends RQ 1, and RQ 3 extends RQ 2). The research questions collaboratively build upon past cultural studies research that explored connections between audiences and the media they enjoy and consume, like Jenkins' (2013) work on fan cultures and responses to media and

Radway's (1991) work on romance novel readers and their perspectives on the genre. Although several participants agreed on the common themes identified in Chapter Five, all of the connections between the perspectives they expressed during their interviews and the questionnaire were contextual to the participant of focus. In other words, as mentioned in Chapter Six, participants had unique understandings of the terms they used to identify themselves and their experiences, as well as those experiences themselves.

RQ 1 examined how race, social class, and gender were portrayed in video games participants used in classrooms. The answer to this question demonstrated the complexity and differences of opinion that cultural studies scholars like Hall (1980a) suggested were inherent in the process of interpreting media. In video games that did represent these social constructs, they appeared via anthropomorphic characters, human characters, and through users selecting race, gender, and social class options through avatar systems and purchasing in-game merchandise. They were also represented in ways that centered socially privileged groups in terms of the narratives associated with them and avatar creation systems. Moreover, because of the lack of diverse representations in many games, teachers often had to be highly intentional about selecting diverse video games for classroom use. This dissertation finds that longer video games using the same characters generally provided more opportunities for complex representations than did shorter ones. Shorter video games meant to be played after many hours of instruction on a vast game, program, or website were less likely to be seen in their entirety, especially if learners did not have access to them outside of the classroom, as is the case with *Imagine Learning*. Based on these findings, I recommend that future video games strategically place complex representation in sections that are most likely to be seen by a learner. Given that

Heather and Isabella both raised the issue of longer games being difficult to incorporate during class time, such representations may be most likely to be seen within the first few minutes of use. Additionally, the findings about the lack of diversity in games used in classrooms is related to game studies research that notes that marginalized players regularly play games that have problematic representations of groups with which they identify (Carr, 2006; Shaw, 2014; Taylor, 2005). Although such groups have historically been able to do so, I urge media practitioners and educators to consider the implications of placing audiences who want to use diverse games in classrooms and beyond in the position where they are forced to find ways to work around exclusive representations. Having to do so is a major problem that reflects the systemic cultural practice of marginalized groups being asked or compelled to do extra work to increase the odds of being seen, heard, and centered. No one should be asked to settle for substandard conditions in any area of US society, yet marginalized groups are asked to do so repeatedly.

RQ 2 explored how participants perceived ideal representations in relation to video games for classroom use. Teachers and learners who used the same video games in different classroom contexts had contrasting ideas about ideal and less-than-ideal representations. Among the recurring themes emerging from these data, the largest numbers of participants wanted to see representations that were diversified and that depicted many different stories, ways of being, and so forth. Fundamentally, participants wanted video games used in classrooms to reflect a broad range of worldviews consistent with the world's population. These themes build upon those in RQ 1 by focusing more extensively on aspects of representation participants wanted to see other than race, social

class, and gender, demonstrating that participants wanted several other social constructs, specifically ability, age, body diversity, ethnicity, nationality, religion, and sexual orientation, to be represented, as well.

Other key themes were also important to participants. One was that games were “relatable,” practical, and specific to the learner audience because of the idea that people learn best when they can personally connect with information. In addition to making games that were relevant to particular populations, participants wanted to see games with content that engaged participants’ senses, using eye-catching visuals and sound in ways that helped maintain interest but did not overwhelm or distract from the learning experience. Similarly, they wanted games for classroom use to include fantasy elements and encourage creativity in learners. To these points, it was also important to participants that producers create games that are sensitive to the absence of representation and its implications, meaning that they think about who may be playing a game and design and add representations to it accordingly, with their accessibility, language, hardware, and software needs in mind. Thus, this theme is strongly related to concerns about access with respect to the digital divide, which is also a critical issue for media outside of video games. At the time this study was conducted, several participants reported that some schools and students still lacked technological resources at school and at home. To Mrs. Paxton’s assertion, before discussing the use of games in classrooms, it is essential to make it possible for all students to have access to the technologies necessary for growth in an increasingly industrialized world. Having this access is also integral to them as they acquire academic and career skills moving forward.

With respect to less-than-ideal representations, participants did not want to see games including violence, stereotypes, social -isms, or racial jokes. Participants did not want to see violence because they thought it was overwhelmingly present not just in video games, but across media. They did not want to see stereotypes, social -isms, or racial jokes because they thought that discriminatory messages had no place in games for classroom use.

Whereas RQ 2 focused on notions of ideal and less-than-ideal representations, RQ 3 highlighted how participants' individual-centered characteristics and experiences related to their ideal representations. This chapter found that the above information primarily correlated with participants' own perspectives, as each person applied different meanings and interpretations to their own individual-centered characteristics and experiences. In other words, although looking at the intersections of only the identifiers associated with each participant provided some contextual information that put participants' ideal representations into perspective, it failed to provide information about what those identifiers meant to the participant. Knowing this information broadens the definitions of each identifier and also helps researchers to see each participant in more complex ways.

The aforementioned findings for RQ 3 coincide with cultural studies research on polysemic media readings in two ways. First, just as Morley (1992) found that family members who watch a television program in the same space can interpret its messages differently, it follows that in this dissertation, participants using the same video games in different classroom contexts did not always read them the same way. Second, much like Radway (1991) found that romance novel readers expressed both similarities and

differences in the plots and character types present in romance novels they considered the best and the worst of the genre, this study finds that although there were some common themes in how teachers and learners perceived ideal and less-than-ideal representations, their specific ideas about such representational practices were dissimilar. To extend Radway's (1991) work, although some participants referred to the same terms and similar experiences in relation to their perspectives on such representations, no two participants had identical thematic views on what tenets would be included in an ideal game for classroom use. Game studies research has also found that audiences have different contextual ways of interpreting in-game representations, and these ways of interpreting representation relate to various aspects of players' socially-constructed identities (Carr, 2005; Shaw, 2013, 2014; Taylor, 2005). In addition to coinciding with audience members' polysemic readings of media within cultural studies research, through exploring the individual diversity of each participant, this dissertation also extends cultural studies research and Black feminist scholarship by providing a framework that communicates the diversity of Black women as individuals while also preserving each person's anonymity as a research participant.

What These Findings Collaboratively Suggest

When considered in tandem with one another, the above findings have a number of theoretical, classroom, and practical implications. These implications influence researchers in communication, as well as in the social sciences and humanities; teachers who use video games in classrooms; and educational media practitioners.

Theoretical Implications

The theoretical implications of this dissertation are that more groups, in addition to Black women, can be participants of focus in qualitative research. As noted in earlier chapters, in specifically focusing on the perspectives of Black women as teachers and learners, this study does not essentialize Black women. On the contrary, this study was designed in response to the everyday essentialism that Black women often face as members of US society, much like people of color must contend with “everyday racism” (Essed, 2000, p. 177). Collins (2000) explained that “[a]n essentialist understanding of a Black woman’s standpoint suppresses differences among Black women in search of an elusive group unity” (p. 32). Black women “are more than the sum of their relative disadvantages: they are active agents who craft meaning out of their circumstances and do so in complicated and diverse ways” (Harris-Perry, 2011, p. 46). Focusing exclusively on identifying and seeing similarities perpetuates the “misrecognition of African American women” (Harris-Perry, 2011, p. 21), an aggressive and prevalent social process that happens when African American women, in particular, are understood according to popular cultural stereotypes (Harris-Perry, 2011).

Extending the above research, this study’s findings have significant implications not only for cultural studies researchers in communication, but also for researchers in the social sciences and humanities who study socially marginalized populations. The results of this study’s close analysis of the nuances and differences between 16 participants’ perspectives suggest that in many cases, when individual Black women are treated the same regardless of location, identity, and manner, it may be because everyone in the group is *perceived* as the same on a cultural level. In other words, these evaluations often

have little, if anything, to do with the Black woman herself, but are tied to how images of Black women are routinely constructed in the imaginations of many people in the US. These images then interfere with how real-life Black women are imagined, preventing individuals from being seen as such. Such theoretical implications also apply to other populations. It therefore follows that variants of this problematic phenomenon may also occur with people at the intersections of other marginalized groups. The precise images associated with each intersection would then vary based on the images stereotypically associated with said groups.

In addition to its concentration on an essentialized group, this dissertation also addresses race, social class, and gender in media texts that can be used to perpetuate cultural ideologies that normalize the act of essentializing many people in daily life. Several of the study's sampled video games illustrate how this process plays out in games used in classrooms. In particular, with respect to race and US history, *Oregon Trail*, an immensely popular video game for classroom use that has been in classrooms for decades, normalizes whiteness and privileges romanticized portrayals of white settlers and the history of the Oregon Trail. Such portrayals in *Oregon Trail* correlated with the cultural values of the media product's era of origin and new versions were accordingly redesigned, a practice that also coincides with the ways history is presented in educational animated series made for children (see Fulmore, 2016; King, 1994; Schocket, 2011). The history detailed in *Oregon Trail* coincides with that of the Trail of Tears, which many students may not realize because the game puts the history within the context of, as Gwen observed, "people making this innocent journey and facing the elements, which is a common myth of American Exceptionalism and [...] Manifest Destiny." In this sense, it

is unsurprising that *Oregon Trail* has been regarded as a staple in the educational games genre that tends to evoke feelings of nostalgia in many former students across the US.

As Bigelow (1999) also found, *Oregon Trail* deletes the historical perspectives of Native American groups, African Americans, and Hispanic Americans to preserve and perpetuate warm feelings toward people of European descent, whose perspectives have been normalized in US culture. Although its 2006 iteration attempts to convey this information through animated cut scenes, because viewers can skip these but not the gaming experience of traveling the Oregon Trail, which still centers European American perspectives, the game still marginalizes the perspectives of non-white people. Initially, Fayola, who played the game as a child, had thought that the reason why people of color were not represented in *Oregon Trail* was because they were not involved in its history. If an educational game perpetuates misinformation about a key detail like this, it is indeed in the process of perpetuating what Bigelow (1999) called “wrong history” (p. 356). In the case of *Oregon Trail*, racially insensitive cultural norms take the form of historical erasure. To combat these practices, Gwen gave an example of a hypothetical game set in a similar time period that would center Black and Mexican male perspectives: the user plays a Black or Mexican cowboy who needs to protect their town from being usurped by “a land baron” but has difficulty getting cooperation from the townspeople because of their two marginalized statuses: being a cowboy and being Black or Mexican.

Where in the World is Carmen Sandiego? similarly appeared to perpetuate conflicting ideas about gender and social class for two participants. As mentioned in Chapter Four, Carmen Sandiego, the series’ major antagonist, is a Hispanic woman that is a multi-talented genius and world-renowned thief. Both Dawn and Gwen saw Carmen

Sandiego as a likeable and interesting character. Dawn specifically spoke to the novelty of portraying a woman as a traveler in games, and that although Carmen Sandiego “was probably a spy or a thief or something, [. . .] she was traveling the world, and that was fantastic.” In this respect, Carmen Sandiego’s ability to travel around the world to steal and elude the protagonists required her to have substantial financial resources. In contrast, Gwen noticed and challenged the idea that intelligent female characters like Carmen Sandiego and the similarly-affluent Polly Spark—who in *JumpStart 3rd Grade* is a white girl that is the daughter of a white male robotics professor—in educational games were often non-playable antagonists. This designation of female characters, which as Gwen noted denies users the opportunity to play as them, could also ostensibly send a larger cultural message that covertly dehumanizes such characters by portraying them as flawless antagonists to be admired or reviled from afar, implicitly discouraging users from trusting or empathizing with intelligent women and girls on a deeper level. Additionally, social class, as represented through Carmen Sandiego’s ability to travel the world freely while causing international disturbances, and in Polly Spark’s father’s job title and ability and desire to create a robot to babysit and befriend her, both contribute to a greater US cultural narrative that conflates social class and intelligence in representations of women and girls in games used in classroom learning.

As a result of this study, the implications for understanding race, social class, and gender are that an intersectional examination of various social constructs and identifiers, as operationalized here through individual-centered characteristics and experiences, yields contextual information that helps researchers form more complex insights about these social constructs in relation to media and their audiences. This information was

made evident by the study's concentration on Black women as teachers and learners and on video games for classroom use. In both cases, the audiences and media of focus are marginalized within the context of their greater discussions. Classrooms have not historically been associated with video game use, just as Black women have not historically been viewed as people who could be representative of the greater US population in a research study.

Moreover, the deeper theoretical implications of Black women and girls not being represented in many games used in classrooms become even more evident when focusing this study on Black women. It is clear that theory and practice are not in alignment with publicly proclaimed US cultural ideals that promote and champion diversity, when representations of Black women and other marginalized populations on the basis of race, gender, and more must actively be sought when teachers select games for classroom use. To the majority of participants, diversity was of the utmost importance in video games. In this sense, participants approached representation from the lens that even if audiences were not diverse, it would still be important for them to learn about a broad range of people and topics because we all share the same world. Strikingly, regardless of many of the study's sample games not reflecting such diversity, the majority of this study's teachers and learners alike spoke highly about the potential of using video games in classrooms because they saw their potential to personally invest learners in academic subject matter.

When discussing marginalized people in non-reductive ways, a common research approach employed by scholars in the social sciences and humanities who identify with said populations has been to consider ways to do what Abu-Lughod (2013) termed

“writing against culture” (p. 6) to convey the distinctive qualities and diversity of their participants and focal points of study in the face of widespread cultural understandings lacking complexity (Abu-Lughod, 2013; Jacobs-Huey, 2006). For example, the depth of social movements such as Chicago’s Black Arts Movement tends to be oversimplified when its contributors are primarily understood to have occupied competing factions (Phelps, 2012). In this spirit, therefore, my approach aligns with those of researchers across communication, the social sciences, and the humanities (for example, Abu-Lughod, 2013; Collins, 2000; Jacobs-Huey, 2006; Harris-Perry, 2011; Jones & Shorter-Gooden, 2003; Phelps, 2012). My approach differs in that in order to do so, I specifically decided to intersectionally examine social constructs, roles, and personality traits—as encapsulated in individual-centered characteristics—along with experiences using and coexisting with video games as media texts in classrooms. As a result, this dissertation conveys the importance of including more than intersectional examinations of social constructs and experiences when analyzing participant data, as well as supporting the importance of using textual analyses in conjunction with participant data to analyze media products and speak to their greater connection to US society. To build on other communication research findings, which made the same case, as Shaw (2014) noted, for romance novels (Radway, 1988) and video games (Shaw, 2014), I assert that an effective way to approach conducting holistic analyses of media products and participants in educational games research would be to start on an individual-centric scale rather than a group-centric one. By building this information from the ground up, researchers can form a clearer image of how participants are thinking about the connection between themselves and their media use.

Classroom Implications

As Banks (1991) and Bigelow (1999) have discussed in their work on representing racially marginalized groups in the classroom context, providing appropriate contextual information in classroom lessons about culture, society, or history is especially necessary. When video games are used in educational environments, as classroom authorities, teachers are largely tasked with this responsibility. Teachers and learners, however, are both equal parties in the teaching-learning dynamic in that learning often occurs effectively when both put effort toward the process. From a cultural studies standpoint, as the audience for video games in these environments, both groups figure into the classroom culture, interpretations of the video games, and the quality of learning that occurs for each student within these spaces.

A side effect of asking this study's research questions is that it became clear that even though a number of games for classroom use do not feature diverse representation, teachers are still able to find ways to make them fit with their learning objectives. This finding underscores the importance of not dismissing outright the video games that are lacking attention to diverse representation. Regardless of the work that still needs to be done to implement diverse representations, this study's teachers see and use the games to suit their learning objectives and their students' interests. In doing so, they are selecting and packaging games in a way that appears to work for them and their students. This study's learners, by contrast, also reported having enjoyed the games at least marginally when they used them. However, in retrospect, they were not sure how much they actually learned from them. Brittany and Fayola both discussed relatability as the missing piece of this puzzle. This information suggests a slight potential disconnect between teachers and

learners that could at least partially be remedied through adding representations that are not only diverse, but complex enough to convey information students can find personally meaningful.

Based on this study's results, I make the following suggestions for using video games in classrooms. First, video games for classroom use would ideally always consider the specific classroom contexts in which they are being used. Coinciding with participants' concerns about violence, stereotypes, social -isms, and racial jokes, I agree that maintaining a non-hostile classroom environment would be ideal whether a teacher uses video games or traditional methods of instruction. This may especially be the case for younger students, who are more likely to be less equipped to critically engage with this material, and for socially marginalized students, who may feel alienated by seeing topics or approaches in the classroom that take the form of insensitively-broached reminders of the daily discrimination they likely encounter. Thus, there are indeed classroom situations in which using video games may not be preferable. I recognize, however, that there may be classroom situations that call for such video games to be used, especially within the context of critique. Should teachers elect to use these video games, there should also be safeguards in place that properly contextualize the game with the academic content being taught and allow students to engage reflectively with it on a social level. As addressed in Chapters Four and Five, these safeguards would ideally require students to combine information they learned from a game with those from more traditional methods and their own life experiences and observations. Regardless of how video games are used in classrooms, teachers who elect to use these video games would need to facilitate ways for teachers and learners to work together and engage with the

game. This approach may make it easier for learners to glean academic and social knowledge from the video games they use, and to see non-essentializing images of characters that look like themselves and other people.

One potential way for this engagement to occur is through assignments requiring students to analyze the media product of focus. For example, Fernback (2015) suggested that in constructing assignments for media and communication college courses, instructors might invite students to reflect on a media product's cultural sensitivity by having them classify or even potentially redesign how it approaches these topics. This example, which was initially given with respect to how an assignment for college students could take different forms depending on which Bloom's taxonomy component teachers aim to address (Fernback, 2015), can be similarly adapted to suit students in grades K-12. This suggestion also shares similarities with Lila's practice of leading a group discussion with her students on representations in media she used when teaching coding. Because teachers have used video games with child and adult learners, being able to modify assignments for a range of learner audiences may help teachers as they encourage students to reflect on the representations in video games they use in classrooms.

Practical Implications

In addition to its classroom implications, this research also provides media practitioners with representation-related details that teachers and learners consider to be important when creating video games for classroom use. Prior to this dissertation, cultural studies researchers had not investigated the teacher-learner audience and video games used in classrooms. Moreover, researchers had not explored teachers' and learners'

thoughts on representation in connection with video games used specifically in classroom contexts. Similarly, because research on the structure of video games tends to focus on design and usability concerns to the detriment of user-specific details (De Vaney, 1998) and representational concerns (Provenzo, 2000), there are still unanswered questions about how representation could best be addressed in these scenarios.

With regard to representation, many researchers and video game players thought it was important for young people to see a range of representations (Shaw, 2014). A number of this study's participants concurred with this notion, although everyone had different ideas about how representations ideally would or would not appear. Furthermore, in sharing their ideal representations, most teachers and learners in this study proposed potential ways for media practitioners to approach designing video games for classroom contexts that include representations of people, ideas, or stories. For example, Lila wanted to see members of traditionally underrepresented groups being represented in larger numbers than traditionally overrepresented groups. In contrast, Rina preferred that if people were to be represented that they would be portrayed as equals, whereas Isabella wanted to see greater numbers of "positive" representations that were not typically associated with characters representing the groups in question. These few examples from the earlier chapters are not mutually exclusive, and they could all potentially appear within the same game.

It would be challenging, however, to include each ideal and less-than-ideal representational theme identified in Chapter Five in any single title for classroom use. Context would be needed to determine which themes would be appropriate for any potential new game. To help with this determination, I would suggest that first and

foremost, teachers and media practitioners must acknowledge that their audiences are diverse. This observation, along with the teachers and learners in this study having prioritized diversity as a representational ideal, is intrinsically linked to the value of recognizing and portraying the diversity of humanity, our ideas, and our stories in all classrooms, even—and perhaps especially—in those with more homogenous populations. Then, teachers and media practitioners can gather as much information as possible to target a video game's *diverse audience* and its, or the affiliated lesson's, *learning objectives*. Focusing on the diverse audience would demand that both parties recognize that their audience includes people across a broad range of socially constructed categories and approach information gathering about them as specifically as possible. In this respect, media practitioners would need to consider information particular to the demographics and socially-constructed statuses of the learner population in general. Some of this work is already being done with regard to visibility, but much of it continues to center the socially privileged, and many groups are still not being represented. Additionally, teachers and media practitioners working with smaller groups may be able to operate in terms of specific students' experiences and individual-centered characteristics. Knowing this information may determine whether a game is appropriate for the learner population, especially in relation to sensitively representing people. Second, teachers and media practitioners would need to identify, as clearly as possible, the learning objectives at hand. Media practitioners would need to ask themselves this question in relation to the game's own content, but as Maeve discussed with her own use of video games in classrooms, teachers would pose the same question in relation to how the game intersects with their lessons. Furthermore, understanding the connections between audience and learning

objectives can guide both populations to creating video games that are more likely to be better received by teachers and learners within the same classroom context. This information will be especially valuable to teachers as they craft assignments tailored to using such video games.

Limitations

Although this study is the first to investigate teachers' and learners' perspectives on representations in video games used in classroom contexts, it was not without its limitations. First, some participants played the video games in question years ago. Because of this detail, some participants did not have access to or remember the specific versions of the video games they used in classrooms, especially when used over a decade ago. As noted in earlier chapters, some participants shared that they could not recall certain game details. A second limitation of the study was that the breadth of video games and websites participants used in classrooms did not allow for deeper analyses of these games. In addition, the games of focus were those used in classrooms as opposed to those used for learning in other contexts. For this reason, video games used outside of the classroom context and without a teacher's recommendation, even ones with educational content, fell outside of the scope of this study. Third, in seeking and finding depth over breadth, this dissertation only focuses on the perspectives of 16 adult teachers and learners at one intersection of race and gender. It is therefore possible that other groups of participants, even within the same intersections, may have different opinions about representations in video games used in classrooms. Future studies might take any or all of these factors into consideration when designing cultural studies projects focusing on both audiences and texts.

Future Research

This study focused specifically on Black women who are teachers and learners, but as mentioned earlier, future research could potentially explore how other populations of teachers and learners, on the basis of social constructs, are perceiving representations in video games. For example, future research could explore how these configurations may differ on the basis of two or more social constructions, or could focus on non-marginalized groups or groups with a combination status in a similar way. Moreover, although the focus of this study was on how video games were used in classroom contexts, a few learners, specifically Asha, Brittany, Gwen, and Naomi, reported using some educational video games independently without a teacher's guidance. As the details surrounding this way of using video games fell outside of the scope of this study, future studies could specifically devote more attention to the ways in which learners use video games in independent learning.

Conclusion

There is information for researchers, teachers, and media practitioners alike to take into account before moving forward with exploring or creating video games for use in classroom settings. The issue of centering is integral to implementing diverse and complex representations in all aspects of life. Therefore, this dissertation models the centering approach to research and educational game production that it suggests. Following this logic, it centers the perspectives of Black women who are teachers and learners. It is my hope that future studies are able to do the same by focusing formerly-unexplored topics on US marginalized groups. Making marginalized groups in a US context visible, after all, is merely a first step: to normalize said groups, researchers and

society members must also regard marginalized people as complex, a process facilitated by centering their perspectives.

As a researcher and multimedia artist who has created educational media, I originally set out to conduct a study that could potentially help researchers across the social sciences and humanities, educators, and educational media practitioners. From a social constructionist vantage point, which acknowledges that people's knowledge about the world is composed through using information they accumulate from their environments and from others (Allen, 2011; Denzin & Lincoln, 2011; Jensen, 1991; Pickering, 1997, 2008; Saukko, 2003), this dissertation provides each of these three populations with potential methods to address representational issues in video games for classroom contexts. For researchers, potential applications extend to any research topic concerning representation, especially for research including human participants. After all, researchers are required to regularly construct representations of participants, who cannot appear in the paper directly, when reporting and interpreting research data. Different approaches will be appropriate depending on the specific subject matter and environment, but the most common theme that participants expressed with respect to representation was that video games for classroom use would ideally portray a range of people, ideas, and stories. To this point, during her third interview, Asha succinctly summarized this idea as it applies to Black women: "we come all kinds of ways." Asha's quote, which is at the heart of this dissertation's findings, also has global implications that are applicable to the human condition. This study demonstrates how members of socially and culturally marginalized groups—who are often erroneously understood to share one mind—can be the focus of research without having their individual perspectives subsumed by myths

surrounding group sameness. In another sense, this study's findings indicate that representations that do not convey a range of people, ideas, and stories communicate to audiences that those not portrayed do not exist. Visibility without context breeds stereotypes, but showing a range of nuanced representations with respect to people, ideas, and stories would imply that such subjects have been normalized within said social context, especially if done with regularity.

In closing, this study takes one small step toward approaching representation in ways that verge from the status quo of centering and portraying only socially privileged groups as complex. It methodologically demonstrates at least one way to ensure that the complexity of individuals is communicated and acknowledged, whether it happens through representations of people, ideas, and stories in video games for classroom use, or via teachers' and learners' voices being heard in a study about these video games. As Hall (1980a) observed, it is impossible for a representation, as a proxy, to embody the original on which it is based. This observation, however, does not mean that stereotypes are acceptable representations in contexts where they can be damaging, such as classrooms. Although more complex representations can never replace actual human beings, they give the appearance of better resembling humans than do stereotypes, which are marked by predictability. By seeing, understanding, and considering the many parts that make up each and every one of us, researchers, teachers, and media practitioners alike will be better able to convey the world's complexities through the representations they construct.

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APPENDIX A

INFORMED CONSENT AND PERMISSION TO AUDIO RECORD FORM

Title of research study: United States (US) Teachers' and Learners' Perspectives on Representations of Race, Social Class, and Gender in Educational Video Games

Investigator and Department:

Principal Investigator: Dr. Jan Fernback, Media and Communication

Student Investigator (Dissertation Research): Yvonne Fulmore, Media and Communication

Why you are being invited to take part in a research study

You are invited to take part in this research study because you:

- Identify as an African American or Black woman.
- Are 18 years of age or older.
- Are or have been a teacher or learner in a college/university, high school, middle school, or elementary school in the US.
- Have used educational video games as either a teacher or learner.

What you should know about a research study

- Someone will explain this research study to you.
- You volunteer to be in a research study: whether you take part is up to you.
- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide, it will not affect your relationship with the researcher.
- Feel free to ask all the questions you want before and after you decide.

Why are we doing this research?

The purpose of this research is to find out about teachers' and learners' opinions about using video games in classroom settings. This research is being done in an attempt to learn about how teachers and learners are thinking about how people, ideas, and stories are being portrayed in video games used in the classroom. The goal of this research is to explore what teachers and learners expect and want to see in video games used in the classroom.

How long will the research last?

We expect that you will be in this research study until the end of 2015 at the latest.

How many people will be in the research study?

We expect a minimum of 16 people to be involved in this study.

What happens if I say, “Yes, I want to be in this research”?

After you agree to participate in the research, you will be interviewed three times. Each interview is expected to last a minimum of one hour, and will be audio recorded.

What are my responsibilities if I take part in this research?

If you take part in this research, you will be responsible for attending all three interviews. During the third interview, you will be asked to complete a questionnaire. You are under no obligation to answer any questions that you do not feel comfortable answering.

What happens if I say, “No, I do not want to be in this research”?

You may decide not to take part in the research. Your decision will in no way affect your relationship with the researcher or Temple University, and will not be held against you.

What happens if I say “Yes,” but I change my mind later?

You can agree to take part in the research now and if you stop at any time, it will not be held against you. Again, it will in no way affect your relationship with the researcher. If you choose to no longer participate, please inform the researcher of your decision.

Is there any way being in this study could be bad for me?

As with any series of social interactions, it is possible that you may encounter slight emotional discomfort during the interviews. Emotional discomfort may come either from deciding how to answer interview questions, or talking about social issues. If it happens, such emotional discomfort is expected to be temporary. The researcher will try her best to prevent any financial costs to you, but transportation might present costs that she will be unable to reimburse. To minimize financial costs, the researcher will try to schedule all interviews for times that you are on campus or in another public place. In the event that you cannot meet in person, the researcher can hold interviews over the telephone or via an online service like Skype.

Will being in this study help me in any way?

Possible benefits from being in this study include being able to speak about and reflect on how you feel about using video games in educational settings. Additionally, research that examines Black women's perspectives on video games is rarely pursued. Therefore, you will be adding your perspective to the research on this topic. Your participation in this research might also enable you to become slightly more comfortable with the interviewing process. It will also give you the chance to witness how research interviews are conducted, and if you wish, you can also see how the interviews have been analyzed and included in a PhD dissertation.

What happens to the information we collect?

Efforts will be made to limit your personal information, including research study records, to people who have a need to review this information. We cannot promise complete secrecy. For example, although the researcher has put in safeguards to protect your information, there is always a potential risk of loss of confidentiality. Organizations that may inspect and copy your information include the IRB, Temple University, and other representatives of these organizations.

The researcher may publish the results of this research, including your questionnaire responses. However, if she does, she will keep your name and other identifying information confidential.

What else do I need to know?

At any time during the study, please feel free to ask the researcher about any questions or concerns that you might have that relate to the study.

Stipend/Reimbursement

For participating in the study, you will receive a \$25 gift card. You will receive the card at the end of the third interview.

Who can I talk to?

If you have questions, concerns, or complaints, contact Yvonne Fulmore at 2020 N. 13th Street, Philadelphia, PA 19122, yfulmore@temple.edu.

This research has been reviewed and approved by an Institutional Review Board. You may talk to them at (215) 707-3390 or e-mail them at: irb@temple.edu if you have questions or concerns that the researcher cannot address.

Participating in Future Research Studies

The researcher may want to contact you in the future to see if you would be interested in participating in another research study or to obtain additional information related to your participation in this study. Please indicate whether you are willing to be contacted by initialing on the line in the next paragraph below. Please know that you can change your answer below at any time without prejudice to you or your relationship with the study, Temple University, or the researcher of the study.

Yes, I agree to be contacted about future research studies. _____

No, I do not want to be contacted about future research studies. _____

Yes, I agree to be contacted to obtain additional information related to my participation in this study. _____

No, I do not want to be contacted to obtain additional information related to my participation in this study. _____

Consent to be Audio Recorded

I agree to have all three interviews audio recorded. I give my permission for these audio recordings to be stored for up to three (3) years after completion of the study. I understand that I will not be paid for being audio recorded or for the use of the audio recordings. I understand that I can withdraw my permission at any time. Upon my request, the audio recordings will no longer be used. This will not affect my relationship with Yvonne Fulmore in any way. If I want more information about the audio recordings and how they will be used, or if I have questions or concerns about the research study, I can contact Yvonne Fulmore at Temple University's Media and Communication Doctoral Program, at yfulmore@temple.edu.

Yes, I agree to be audio recorded. _____

No, I do not want to be audio recorded. _____

Thank you for time and assistance with this research project.

Signature Block for Adults

Your signature documents your consent to take part in this research.

Signature of participant

Date

Printed name of participant

Signature of person obtaining consent

Date

Printed name of person obtaining consent

APPENDIX B
INTERVIEW SCRIPT

Important notes about the Interview Script:

The bolded questions in each section (“About You,” “Teachers,” “Learners”, etc.) will be asked to every participant. The others will be asked if the participant does not address them in answering the first question.

The format of the interview script (in terms of it posing questions about social class that were both direct and descriptive) are based on Bonilla-Silva’s (2006) interview script for his study on color-blind racism.

First Semi-structured Interview

Before starting the interview, remind the participants that there are no wrong or right answers to these questions, and encourage them to respond however they feel comfortable. They can always decline to answer questions that they do not wish to answer.

About You (To answer RQ 3, personality traits, social constructs, and role descriptors)

- 1. Please tell me about yourself.**
2. How would you describe your personality?
- 3. Have you used educational video games in the classroom as a teacher, or as a student?**
- 4. What specific educational video games did you use in the classroom?**

Teaching (RQ 3, personality traits, social constructs, role descriptors, and experiences)

- 5. Please tell me about your experiences as a teacher.**
6. How long have you been a teacher?
7. What grade levels do you teach?
- 8. Please describe the community in which you used educational video games while teaching.**
- 9. How is it different from the community in which you live?**
- 10. How are both communities alike?**

Learning (RQ 3, personality traits, social constructs, role descriptors, and experiences)

- 11. Please tell me about your experiences as a learner.**
12. How long have you been a learner?
13. (If still in school) What is your current level of education?
14. (If no longer in school) What is your highest level of education?
- 15. Please describe the community in which you used educational video games while learning.**
- 16. How is it different from the community in which you grew up?**
- 17. How are both communities alike?**

Ending the Interview

- 18. Please let me know if you have anything that was not mentioned over the course of this interview that you would like to add, or otherwise clarify.**

Second Semi-structured Interview

Before starting the interview, remind the participants that there are no wrong or right answers to these questions, and encourage them to respond however they feel comfortable. They can always decline to answer questions that they do not wish to answer.

Video Games Used Outside of the Classroom (RQ 3, experiences)

1. **Do you play video games outside of the classroom?**
2. (If they do play video games) How often?
3. (If they do play video games) What kinds of video games do you play?
4. (If they do not play video games) What specifically led to your use of educational video games in the classroom (as a teacher, a learner, or both)?

Video Game Use in Teaching (RQ 1 + RQ 2, thoughts on representational patterns; RQ 3, experiences)

5. **Please tell me about your experiences using educational video games in your teaching.**
6. What educational video games did you use?
7. **Please describe what you remember about the educational video game(s).**
8. **Please describe the characters (human or not?) in the educational video game(s).**
9. **What subject matter did the educational video game(s) address?**
10. How did the educational video game(s) relate to what you were teaching (what was the learning objective)?
11. Please describe your thoughts on how helpful it was/they were to your lesson.
12. **Please tell me your thoughts on educational video games that you think could be useful in your teaching.**
13. How do you think these educational video games would be received by your students?
14. Do you want to continue using educational video games with your teaching in the future?
15. Why or why not?
16. If you were to think of using an educational video game with your teaching, what issues would be important in deciding whether it would be appropriate for your students and what you teach?

Video Game Use in Learning (RQ 1 + RQ 2, thoughts on representational patterns; RQ 3, experiences)

17. **Please tell me about your experiences playing an educational video game for a class that you were taking.**
18. What video games were you asked to play?
19. **Please describe what you remember about the educational video game(s).**
20. **Please describe the characters (human or not?) addressed in the educational video game(s).**
21. **What subject matter did the educational video game(s) address?**

22. Please tell me your thoughts on using educational video games as a part of your learning.

23. Could you explain how the educational video game(s) related to what you were learning in class?

24. What were your thoughts on how helpful it was/they were to your learning of the material?

25. Please tell me about the quality of your experience (was it enjoyable, helpful/informative, or not?)

Ending the Interview

26. Please let me know if you have anything that was not mentioned over the course of these interviews that you would like to add, or otherwise clarify.

Third Semi-structured Interview

I will first look over their completed questionnaire before proceeding with the third interview. The objective of this interview is to discuss the questionnaire and ask more questions about representations in video games. Before starting the interview, remind the participants that there are no wrong or right answers to these questions, and encourage them to respond however they feel comfortable. They can always decline to answer questions that they do not wish to answer.

Representations in Educational Video Games (RQ 2, ideal representations)

- 1. Let's briefly talk through what you've written in the questionnaire.**
- 2. Have you ever seen a game that included any of the "ideal educational video game" elements that you mentioned in your questionnaire?**
3. (If yes) Which ones?
4. (If no) Why do you think this might be the case?
- 5. What makes these representations ideal to you?**
- 6. Thinking of representations you know of in educational video games, do they differ from your ideal representations?**

Race (RQ 1, thoughts on representational patterns; RQ 2, ideal representations)

Definition based on the works of Allen (2011), Ehlers (2008), Omi and Winant (2002), and Rex (2009): A concept that, in practice, separates human beings into different groups that are considered to be physically distinct from one another. These groups are created and sustained on the basis of ongoing political, historical, and social encounters occurring within and between varying cultures.

- 7. Please tell me your thoughts on representations of race in the educational video games you have used (give the definition of race if asked for one.)**
8. How would you describe the quality of racial representations in the educational video games you have used in your class(es)?
9. Do you have any specific expectations about how an educational video game "should" represent race?
10. Why or why not?
11. (If yes) What are they?

Gender (RQ 1, thoughts on representational patterns; RQ 2, ideal representations)

Definition collaboratively based on the works of Allen (2011), Butler (1993), Ehlers (2008), and Gender Spectrum (2014): A concept that combines biological sex with cultural behaviors and characteristics, it separates people into different groups along a continuum where femininities and masculinities are considered to be polar opposites. Like the concept of race, it is practiced both socially and institutionally.

- 12. Please tell me your thoughts on representations of gender in the educational video games you have used (give the definition of gender if asked for one.)**
13. How would you describe the quality of gender representations in the educational video games you have used in your class(es)?
14. Do you have any specific expectations about how an educational video game "should" represent gender?
15. Why or why not?

16. (If yes) What are they?

Social Class (RQ 1, thoughts on representational patterns; RQ 2, ideal representations)
Definition of social class, based on the definition by Gilbert (2011) and research studies by Lareau (2003) and Davidson (2011): A concept that distinguishes between groups of people on the basis of their access to material, societal, and cultural resources that facilitate financial attainment, prosperity, and high prestige.

17. Please tell me your thoughts on representations of social class in the educational video games you have used (give the definition of social class if asked for one.)

18. How would you describe the quality of social class representations in the educational video games you have used in your class(es)?

19. Do you have any specific expectations about how an educational video game “should” represent social class?

20. Why or why not?

21. (If yes) What are they?

Additional Questions about Representations in Educational Video Games (RQ 1 and RQ 2)

22. Other than the ones I asked about earlier (race, social class, and gender), are there any other kinds of representations that you specifically would like to see more of?

23. How would you describe the quality of these representations in the educational video games you have used in your class(es)?

24. Do you have any specific expectations about how an educational video game “should” represent them?

25. Why or why not?

26. (If yes) What are they?

Reflecting on Interview Responses (RQ 3, ideal representations and experiences)

27. How would you say your life experiences have influenced your opinions on representations in educational video games?

28. (If participant indicates misperceptions/misrepresentations/stereotypes/etc. in her answer) Please tell me some ways in which you have been misperceived.

Ending the Interviews

29. Please summarize your overall thoughts on what would be represented in an ideal video game designed for classroom use. (RQ 2, ideal representations)

30. Do you have any further questions about this study?

31. (If yes) What are they?

32. Please let me know if you have anything that was not mentioned over the course of these interviews that you would like to add, or otherwise clarify.

33. Is there anyone who you think would be a good candidate for this study?

34. Is it all right for me to contact them and tell them that you recommended them?

Thank you so much for your time and commitment to these interviews.

APPENDIX C

QUESTIONNAIRE FOR THE THIRD INTERVIEW

Please feel free to share your thoughts on this page in the way you feel most comfortable (using as much writing, drawings, charts, etc. as you like). You may also use the back of these pages. Keep in mind that there are no wrong answers. Thank you for your time.

1. Describe how the ideal educational video game would represent people, stories, and ideas. How would these people, stories, and ideas be portrayed with respect to race, social class, and gender?

2. What other things would you definitely want to be represented or included in this ideal educational video game?

3. Is there anything that you would absolutely not want to be represented or otherwise included in this ideal educational video game? Why?

APPENDIX D

PARTICIPANTS, ROLES, AND THE GAMES THEY USED

Participant	Classroom Role	Video Games Used in Classroom Contexts
Karen	Teacher, Learner	Online <i>Jeopardy!</i> game, WWE Wrestling game (L)
Heather	Teacher	<i>Imagine Learning</i> , Achieve3000.com, BrainPOP.com/games/game-finder, Mathisfun.com, Starfall.com
Lila	Teacher, Learner	<i>Scratch</i> (scratch.mit.edu) (L, T), Code.org
Asha	Learner	<i>Kid Pix</i> , <i>Mavis Beacon Teaches Typing</i> , <i>Oregon Trail</i> , <i>Super Munchers</i> , <i>Where in the World is Carmen Sandiego?</i>
Isabella	Teacher	<i>Imagine Learning</i> , <i>Number Munchers</i> , <i>Oregon Trail</i> , <i>OutNumbered!</i> , <i>Where in the World is Carmen Sandiego?</i> , ABCmouse.com, LearnZillion.com
Fayola	Learner	<i>Blastoff</i> , <i>Cluefinders</i> , <i>Math Blaster</i> , <i>Math Path</i> , <i>Oregon Trail</i> , <i>Type to Learn</i>
Maeve	Teacher, Learner	<i>Amoeboid</i> , <i>Atom Builder</i> , <i>Build the Bridge</i> on Coolmath-games.com, <i>Build a Coaster</i> on discoverykids.com, <i>Cyberchase games</i> on PBSkids.org/cyberchase/math-games, ExploreLearning.com, <i>Nova Science</i> , <i>Outbreak at WatersEdge</i> , <i>Scratch</i> (scratch.mit.edu) (L), <i>Tetris</i> , <i>WHOAhler Coaster</i> on PBSkids.org/games
Mrs. Walcott	Teacher	<i>Blastoff</i> , AdaptedMind.com, KhanAcademy.com, Flocabulary.com, LearnZillion.com, Coolmath-games.com, FunBrain.com, PBSkids.org/games
Naomi	Teacher, Learner	<i>First in Math</i> program (L, T), <i>Oregon Trail</i> (L), ABCya.com, <i>i-Ready</i> program
Brittany	Learner	<i>Big Brain Academy</i> , <i>Cooking Mama</i> , <i>JumpStart 1st Grade</i> , <i>Learn Smart</i> program, <i>MasteringChemistry</i> program, <i>MyMathTest</i> program, <i>Mavis Beacon Teaches Typing</i> , <i>Oregon Trail</i> , <i>The Sims</i> , <i>Type to Learn</i>

Appendix D (continued)

Gwen	Learner	<i>Africa Trail, Amazon Trail, Bumptz Science Carnival, DinoPark Tycoon, Gizmos & Gadgets!, I SPY, JumpStart 3rd Grade, Kid Pix, Math Blaster, Number Munchers, Oregon Trail, OutNumbered!, The Living Books, Treasure Mountain, Where in the World is Carmen Sandiego?, Zoombinis</i>
Mrs. Cordova	Teacher	ABCmouse.com, Achieve3000.com, BrainPOP.com/games/game-finder, Coolmath-games.com, Starfall.com
Dawn	Learner	<i>Oregon Trail, Typing Hero, Where in the World is Carmen Sandiego?</i>
Mrs. Paxton	Teacher	ABCya.com, BrainPOP.com/games/game-finder, BrainPOP Jr. (jr.brainpop.com), Coolmath-games.com, ExtraMath.org, KhanAcademy.com, kids.nationalgeographic.com/games, Raz-kids.com, Sumdog.com/en/games, http://MathsZone.co.uk
Zahira	Learner	<i>Freddi Fish, JumpStart.com, Math Blaster (online), Reading Rabbit, Where in the World is Carmen Sandiego?</i>
Rina	Learner	<i>Dance Dance Revolution, Just Dance</i>