Young Children’s Digital Game Culture in Everyday Life:

An Ethnographic Case Study

by

Youn Jung Huh

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Graduate Supervisory Committee:

Joseph Tobin, Co-Chair
Kathryn Nakagawa, Co-Chair
Angela Arzubiaga
Kyunghwa Lee

ARIZONA STATE UNIVERSITY

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ABSTRACT

This dissertation examines how young children engage with digital games at home and how parents think and talk about their children's digital gaming. This is an ethnographic case study of the digital game playing of six three-year-old children in six families. This study combines ethnographic methods and critical perspectives to construct analyses that have the potential to rethink young children's digital game play. The focus of this study is on understanding how digital gaming functions in children's everyday lives. This study shows that young children's digital game play takes place in the interstices of their everyday family life. Digital games do not entirely change or displace other practices in early childhood, but they are integrated into existing young children's everyday practices in their family life. Digital games as a source of young children's imagination enrich young children's play rather than substitute for young children's spontaneous non-digital play. Young children and their parents tactically use young children's mobile game play to cope with their modern life. Negotiating over game selections, time, and space between young children and their parents is an everyday practice of families and digital games are a site not only for family power struggles but also of shared activity. Digital games reflect the dominant culture in which they are produced. However, this study shows that young children do not passively receive the messages in the games but rather make sense of the game contents according to their everyday local experiences. Digital games are now a part of everyday practices for both adults and young children, and young children's digital game play reflects contemporary society.
DEDICATION

To my beloved mother, Hyunsook Yoo
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A young child sits on a chair in a doctor’s waiting room, playing with her Nintendo DS while she waits for her mom. I am staring at her, but she seems not to notice or not to care about me at all, as if she is gone to another world, leaving her physical body and the space we share. This child seems strange to me, unfamiliar. What makes me feel this way? What prevents me from connecting this child and her play to my nostalgic memories of my own play as a little girl? This dissertation will be my attempt to understand this new kind of video-game playing child, a kind of child who can be easily found in waiting rooms, on public transportation, in shopping malls, and at home.

Today’s children are growing up with handheld digital devices, mobile phones, and computers, machines that hail them as digital natives (Barlow, 1996). Children testing new digital game devices with their parents in electronic stores have become a familiar site. The term ‘Edutainment’ is widely used in both education and in digital industries. In response to this rise of machines in children’s lives, research on children and digital technology has been accelerated, and various approaches to the use of digital technology for early childhood education have been applied. However, digital gaming is still treated like the troubled child of a bickering married couple. One view of children’s digital gaming extols its power to scaffold and stimulate their learning; the other view warns of how such gaming leads to distractedness and even violence. We need to get beyond such extreme views of children’s gaming, and prior to or instead of making
claims about the positive or negative effects of gaming on children, focus instead on understanding how digital gaming functions in children’s lives.

Much of the research conducted by both opponents and advocates of young children’s use of digital game devices has been focused mostly on the devices themselves, offering positive or negative depictions of the devices’ contents (e.g. storylines) and intended functions (e.g. teaching math concepts) (Aarsand & Aronsson, 2009a; Berg Marklund, 2014; Buckingham, 2007), or relying on parental interviews rather than including young children playing digital games (Björk-Willén & Aronsson, 2014). In contrast, the study I propose is focused on the uses of digital gaming devices by children who play the games, rather than on content analysis of the game devices or game industries. This type of microscopic analysis allows us to capture deeper meanings in young children’s digital lives, and provide insight into young children’s digital cultures.

This study examines how young children engage with digital games at home and how parents think and talk about their children’s digital gaming. Young children’s digital gaming cannot be understood without considering their parents, who are the actual consumers of digital game devices and who have power if not control over their children’s digital game play. Young children and their parents are engaged in a complex give and take over video gaming. Inevitably, there is conflict and negotiation between young children and their parents about when, where and how long the children get to play. Therefore, it is only by looking at both the game-playing children and their parents that we can get a clear picture of children’s digital game culture in the home.
This study includes young children’s various types of play with digital games include both stationary (personal computers, consoles, and video cabinets) and mobile (hand-held game players, mobile phones, and tablet PCs) games. I use the terms ‘digital games’, and ‘game play’ rather than ‘video games’ and ‘gaming’ to avoid the traditional, narrow-minded images of a video gaming child who intensively engages in a certain game for a long period of time in an arranged space. Instead, I hope to bring attention to the value of examining all kinds of young children’s engagement with current digital technology.

This is an ethnographic case study of children’s digital game playing in six families. I select families from various socio-cultural backgrounds (e.g., race, socio-economic status, religion, and issues of immigrant). Research on digital issues in the US increasingly is concerned with how bilingualism impacts digital use in new immigrant families (e.g. Noguerón, 2011). Research on the digital activities of Asian American children has been fueled by the high Internet access rates and digital equipment in the homes of Asian Americans and the fact that many digital games and devices are produced in Asian countries, which allows Asian American children to be early adapters of digital games. By looking at families from various socio-cultural backgrounds this study can explore cultural factors in children’s digital game culture.

This type of case study can deepen understanding of children’s digital game culture in various family contexts by considering different family factors that might not only affect young children’s digital gaming, but also their entire lives. According to Henward (2010), by looking at young children from different socioeconomic and cultural
backgrounds, we can understand how economic, cultural, and ideological factors interact and intersect within the digital activities of young children. These factors may impact children’s gaming in terms of the money available in a family for buying games; cultural capital; beliefs about learning; ideological beliefs about mass culture; religious beliefs, etc.

My focus is on the home, rather than on children’s video gaming at school. The use of video games in preschool settings, while a related topic, raises different concerns. I focus in this study on children’s use of digital games when they are in the care of their parents or other family members. I define the home environment for young children as including not only the inside of the house, but also digital game play in the back seats of cars and in waiting rooms and grocery carts and other settings where they are under family (as opposed to school) care.

**Organization of the Dissertation**

This dissertation consists of six chapters. Chapter two provides a literature review on current digital games studies and young children’s use of digital technology to paint a picture of very young children’s digital game play. In Chapter three, young children’s digital game play is examined as a type of contemporary play, as a family practice, and as an important piece of culture, taking into account various critical theories. Chapter four includes the methodology for the ethnographic case study, case selections, research procedures, and methods of analysis.
In Chapter five, the children’s digital game play in their everyday family lives is described and analyzed. In the beginning of this chapter, the six three-year-old children in the study are described, including their family backgrounds, to show how their family dynamics and everyday routines are related to the children’s digital game play. Chapter five deals with six specific issues: digital games as play, young children’s learning with digital games, digital games and family relations, digital games as cultural capital, digital gaming as a means of coping with modern society, and digital game media as heteroglossic texts. Each of these parts includes a description of young children’s digital game play, parent interviews, and conversations on young children’s digital game play. To discuss these issues, young children and their parents’ utterances and bodily gestures are analyzed through Bakhtinian interpretative analysis in order to reveal the ambiguity, redundancies, and inconsistencies of each child’s digital game play.

Chapter six includes the conclusion, which discusses how digital games should be viewed in both educational and gaming studies. I suggest that digital games cannot replace young children’s authentic play, but they can be integrated into their lives as one type of meaningful play. I also address the possibilities of digital game play by means of engaging in various informal learning processes, observing modern life, and bringing about family connections and communications. I cautiously warn against digital game media interpellation, but argue that young children are not merely passive media victims, but rather they are active meaning makers who make sense of media messages by using their everyday life experiences.
CHAPTER 2

BACKGROUND LITERATURE

Because there have been few studies of very young children’s video-game playing, my literature review focuses on studies of older children (and even adults) playing portable video games and of young children’s engagement with other digital devices and technologies.

**Young Children Playing with Digital Technology**

According to the 2006 survey of the Kaiser Family Foundation, 83% of the children in the U.S between 6 months and 6 years old use digital devices including television, DVDs, computers, and console or hand-held video games on a daily basis (Funk, Brouwer, Curtiss, & McBroom, 2009). In accordance with this situation, new paradigms for thinking about young children and digital media are emerging. Increasingly, young children are conceived by both educators and game producers as active rather than passive digital learners and consumers. Rideout, Vanderwater, and Wartella (2003, p. 4) argue that “many of these toddlers and preschoolers are not just passively consuming media chosen by other members of their homes--they are actively asking for and helping themselves to what they want”.

From these new perspectives, researchers are exploring the impact of new media on young children’s lives. For example, working in Scotland, Plowman, Stephen, and McPake (2010) look at young children’s lives at home to see what 3 and 4 years olds do and can do with digital media. Their study shows that “the competences, knowledge and
understanding that children develop at home by playing with technology and by being part of a family in which using technologies for domestic tasks, leisure, and work or study are just everyday activities” (p. 13).

Björk-Willén and Aronsson (2014) in their study with Swedish preschool aged children reveal that young children’s computer game play is beyond the game mechanism; it is a cultural site in which young children engage in various social activities. Primavera, Wiederlight, and DiGiacomo in their study of computer use of 2-4 year old African American, White, and Hispanic children from low-income, found that young children are able to “take charge of their learning environment” (2001, p. 20). Their focus is not on the media itself, but on how children interact with others while they play with new media. This approach is consistent with the notion that young children are active participants in their engagement with digital media (Bruckman & Bandlow, 2003; Zaman, 2011). Children’s digital experiences cannot be understood without their direct involvement in the study. Children should become active participants in the research, as they can explore, test, and interpret digital media.

Despite such efforts to understand young children’s digital media use, researchers tend to undervalue children’s engagement with non-educational digital activities and to give too much attention to digital media activities that are explicitly educational (Sefton-Green, 2004; Verenikina & Kervin, 2011). According to Buckingham, “In relation to digital technology, there is now a significant-and perhaps widening-gap between what children do in school and what they do in their leisure time” (2007, p. 37). This suggests that researchers need to study various informal digital environments and children’s
spontaneous digital play grounded in everyday life to understand today’s “media-saturated childhoods” (Buckingham, 2007, p. 37).

**Young Children and Digital Games**

Studies of young children’s digital game playing can be categorized according to the purpose and the devices required for the play. Many studies conducted in the 1980s and 1990s tried to show the effects of violent video games on young children (e.g., Dominick, 1984; Loftus & Loftus, 1983; Provenzo, 1991). During this period, researchers analyzed game contents to find the relation between violent scene in the games and children’s aggression and violent behaviors. These studies focused on entertainment rather than educational software.

From the late 1990s, as the field of game-based learning expanded, researches started to design game-based learning models and educational software (Gros, 2007). For example, in *Digital Game-Based Learning*, Prensky (2001) writes about the benefits of digital game-based learning and shows how it can be used and created. During this period such educational gaming software titles as *Oregon Trail* (Minnesota Educational Computing Corporation, 2001) and the *Zoombinis* series were released by Broderbund; these titles share characteristics with popular games, but the content is non-violent.

Studies of children and digital gaming have been faulted for failing to account for the complexity of the cultural and historical aspects that affect young children’s digital game play. Sefton-Green (2004), in his study of a 6-year old boy playing *Pokémon* on a Nintendo *GameBoy*, describes how a young boy gains entry into the digital game world
and what experiences he has with the games. This study shows that even though informal knowledge gained from video-game play may or may not be educational, in the sense of being formally educational, it is nevertheless an authentic and meaningful experience children employ not just for fun but also to understand the world. According to Sefton-Green (2004, p. 141), children’s digital game play “as part of their leisure culture” should be considered a significant feature of contemporary life. Also, Buckingham (2007) explains the success of the Pokémon game by connecting it to globalization and corporate capital, which gives a new insight about young children’s game culture.

These studies share with Mizuki Ito’s ethnographic studies of children’s use of computers the aim of “describing the systemic and historical contexts in which children’s software have been embedded in order to understand sites of conservatism and change” (Ito, 2008, p. 89). To understand the history of children’s software, Ito includes the analysis of advertisements, game contents, children and their parents. According to Ito:

Kids are political actors mobilizing cultural, technical, and social resources in pursuing status negotiations and claiming agency, momentarily resisting the progress goals of adults, smuggling in forbidden idioms of action, entertainment, and spectacle, and using adults to support public knowledge and status display. (Ito, 2008, p. 115)

There has also recently been research on family interactions in children’s digital game play. For example, Voida and Greenberg (2009, p. 1560) conducted a “collocated group console gaming” study. In this method, children play a console game with friends or family who usually are involved in the game with their children. Their game play is
observed by researchers, and focus-group interviews among the participants are conducted to understand the dynamic social interaction during the play. The study shows that group console gaming was more motivated by the social interactions that accompany the game playing, more than by the game itself. Parents “held dual roles as gamer and as parent” (Voida & Greenberg, 2009, p. 1565). These authors conclude that console games do not interfere with family life, but instead provide a context for the expression of family tensions and roles.

Verenikina and Kervin (2011) focused on a single portable digital device, the ‘iPad’, in their case study of 3 and 4 years old preschoolers. They describe parents’ points of view toward children’s recreational digital game play. The research shows that parents and older siblings have an important role in young children’s digital game play, and suggest studies focusing on the spontaneous, emergent qualities of mobile game play.

Compared to console gaming and games played on a desktop computer, which demand attention, mobile games lend themselves to be played within the flow of everyday life. In their empirical study, Tamminen, Oulasvirta, Toiskallio, and Kankainen (2004) describe four main characteristics of these mobile game play contexts. First, mobile play is situational and occurs within the context of planned actions. Second, a mobile space requires the user to create both personal and group spaces in various ways. Third, a mobile phone enables users to solve their immediate problems. Also, the use of mobile devices is affected by temporal tensions, which are fluctuations in the importance of time and space. Finally, people tend to multitask while using mobile devices. These characteristics of mobile devices indicate the important role of social context on mobile
play. Therefore, in order to fully understand mobile game play, researchers need to look at not only the game play but also at the greater context of the children’s everyday lives.

In his study, Samuel Tobin (2013) focuses on young adults’ mobile gaming on the Nintendo DS. By exploring when, where, and how people play mobile games, he looks at how video game play in public places is connected to changing notions of time and space in modern life. This study is focused on the time and spaces of game playing, and on how young people use mobile game playing devices in order to cope with issues of boredom and lack of control of their own time and space in modern life.

In her multi-site study of children’s iPad reading, Rowsell (2014) pointed out that with the development of haptic technology, children’s ways of interacting with digital technology have expanded. Haptic technology requires that children engage in various types of sensory reactions such as tilting, taping, flinging, dragging, and shaking; their sensory reaction directly affects virtual images without the need of an intermedium such as a joy stick or a computer mouse. This means that mobile and haptic technology opens up various possibilities for game players to apply various strategies and ways of play depending on their own decisions and movements. According to Rowsell (2014), “meaning making on iPads calls on ludically driven logic as opposed to narrative-driven logic” (p. 122), and this nature of action-oriented or ludic-based digital interface requires us to redefine the meaning of digital game play or game space.
CHAPTER 3

CONCEPTUAL FRAMEWORK

Different from current studies of very young children’s play, which mostly employ theories in education and human development, my study draws on sociology, game studies, and quotidian studies as well as developmental psychology, allowing me to explore young children’s digital game play in various parts of their lives.

Digital Game and Play Discourses

My study attempts to understand children’s digital game play as a form of contemporary play. For conceptualizing this research question, I find helpful Ailwood’s (2003) three categories of discourse on the relationship of digital gaming to play. They are romantic/nostalgic discourses of play, approaches that attempt to define the characteristics of play, and a developmental discourse of play.

    Romantic/nostalgic discourses of play.

This point of view is associated with a nostalgic view of childhood. From this perspective, childhood is always seen positively, and children’s play is considered as natural gift, (Froebel, 1897; Rousseau, 1979). Sutton-Smith explains how this romantic perspective dominates childhood and play with the “rhetoric of progress”.

    The children’s rhetoric is by and large similar to that adopted by adults in the rhetoric of the self, which are about play as some kind of valued personal
experience, so the children are probably echoing those modern public adult scripts (Sutton-Smith, 1997, p.49-50).

This type of discourse can be found in many educational researchers’ approaches to children’s play. For example:

The local children, my siblings and I were always outdoors, whether in sunshine, rain (all too common in Bergen), sleet or snow, building dens, climbing trees, playing on building sites (against the express instruction of adults), as well as having all kinds of adventures in the woods or by the fjord. As long as we were back for our evening meal we could stay out as long as we wished. One of the reasons I decided to write this book was that I felt children today were losing out on many childhood experiences that I took for granted. (Guldberg, 2009, p.1)

Such romantic, nostalgic tropes play an important role in the idealization of children’s play and in definitions of what counts as play. In this discourse, children’s digital game play tends to be undervalued, dismissed, and disparaged and seen as a debased form of play, in contrast to the authentic play of the researcher’s childhood. From the sociocultural perspective, to understand today’s children’s game play, which is different from the children’s play in the past, we need to examine the play of “the historical child” rather than that of the “eternal child” (Vygotsky, 1934/1987, p. 91). This suggests that the concept of play may vary in time and space, and therefore, it should be understood within the moment that the play is constructed.
Approaches that attempt to define the characteristics of play.

Even though the characteristics of different forms of play are highly variable and inconsistent, the discourse is useful for understanding digital game play as play. Johan Huizinga’s definition of play is one of the most important and oldest concepts in digital game studies. Huizinga (1949, p. 4-9) defines play by using the words: “freedom,” “not ordinary or real life”, “a voluntary activity”, “seriousness”, “social construction”, “imagination”, “cultural factor”, and “a non-material activity”. Among the characteristics, Huizinga, especially emphasize on the time and space generated during play. For Huizinga (1949, p. 77), play can be explained with the term “magic circle”, which is a sacred space and outside of ordinary life. It has its own time and space. If someone once gets into the circle, the player is obligated to follow rules in the magic circle. The player can still enter the circle voluntarily, but he/she cannot resist following the rules in the space.

However, Huizinga’s definition of play has revealed its limitations to explain digital game play, especially targeted young children. First, children do not have much freedom on digital game playing because their game play requires their parents’ permission. While they are playing, they seem to be free, but in fact their playing is under their parents’ watch. Also, comparing to other traditional toys which have a room to be transformed and used with multi-purposes, digital games force players to follow the rules of the games and maintain them within the system. The word ‘freedom’ or ‘voluntary’ itself needs to be redefined to understand children’s digital game playing.
Second, mobile game tends to be played in the interstices of our ordinary life; sometimes it is difficult to distinguish mobile game play from everyday life. Following Huizinga, this is not considered as play because the game players fail to get into the magic circle. Magic circle is not limited to physical spaces, which can be mental spaces (Consalvo, 2009). However, still the mental spaces cannot be separated from our life. For example, if I am in a doctor’s waiting room and playing *Angry Birds* (Rovio Entertainment, 2009) on my I-phone, I have to be aware of the game situation and a nurse calling at the same time. This can be at a mall, on a bus, and in a restaurant.

Third, digital gaming is often described by players as a way to kill time (Tobin, 2013), which suggests that it is an activity that is trivial and non-serious. Finally, it is a very materialistic activity; we need to buy games before we can play them and even when we play a free game on the internet, we have to watch the advertisements provided by the game website. To play, or continue to play games, we have to pay for it in any way.

However, despite the limitations, Huizinga’s definition of play is meaningful to discuss because while other traditional play theorists have seen play as human instinct and a “gift” for child (e.g., Froebel, 1897), Huizinga considers play as a serious cultural activity which becomes “source of civilization” (Kuecklich, 2004, P. 15). Also, Huizinga defines play very broadly. His analysis allows for the possibility that a digital game can quickly create its own place within ordinary life, that is the place of the imagination, and then it just as quickly disappears again. In terms of its playfulness, Joyfulness, and fun, young children’s digital game play maintains an aura of freedom. “Freedom must be understood here in the wider sense that leaves untouched the philosophical problem of
determinism . . . Children and animals play because they enjoy playing, and therein precisely lays their freedom” (Huizinga, 1949, p.7-8).

Caillois in his book ‘Man, Play, and Games’ defines play as “free”, “separate”, “uncertain”, “unproductive”, “regulated”, and “fictive” activity (Caillois, 1961, p.43). While his definition shares some similar characteristics of play with Huizinga, his concept of play is quite different from Huizinga in terms of the way to understand rules of play. For him, the ways of playing including game rules are subjects to be changed depends on players’ decision. According to him, games can “be placed on a continuum between two opposite poles”; one is ‘paidia’ which is “diversion, turbulence, free improvisation, and care free gaiety dominant play” and the other is ‘ludus’ which is play requiring “effort, patience, skill, or ingenuity” (Caillois, 1961, p. 13). Depends on the players’ decision, the ways of playing can be replaced anywhere between paidia and ludus.

Contrary to Huizinga, Caillois sees material activities such as games of change as play and explains how it maintains playfulness by comparing it to work or make art. Even when people play games to gain money or goods, their engagement is different from working or making art. “This exchange affects only the players, and only to the degree that they accept, through a free decision remade at each game” (Caillois, 1961, p. 5). This maintains play as an unproductive activity comparing to work or art. However, his explanation is still problematic to understand digital game plays which produce material goods in real life. In these days, people make real money while they are playing digital games. From Caillois point of view, this is not a play but work. However, since work and
play are not clearly distinct in modern society, with his definition, it is not enough to explain this phenomenon.

Huizinga’s and Caillois’ attempts to define the core characteristics of play are necessary, but incomplete to explain young children’s digital game play if we only define young children’s game play with their characteristics of play. According to Sutton-Smith (2011), the characteristics of play can be differ depends on what importantly we look at. For example, if I am a sociologist, I will focus more on sociological factors (social roles, relations to others) of play, and it might be not enough for a biologist looking at the relations between our brain and behaviors during our play.

To explain the meaning of play, Sutton-Smith attempts to focus on the players’ emotional changes during their play rather than defining play with its characteristics. For him, our feelings, emotions presented during a play are much closed to our reality. Play is not just a happy and fun activity, but also a serious exercise of our reality.

They are the realities with which we live at all times and give us feelings that we are more truly alive. Being at play is generally being more alive than usual in the world in which we all live. Play, as such, is a kind of personal emotional survival. All of which is to show that these emotions mediate the struggles for survival that they represent. (Sutton-Smith, 2011, p. 114)

Therefore, to understand the true meaning of play, it is inevitable to include the study of the lives of individual players who actually involve in the moment of the play and who present all of struggles, emotions, and feelings during the play. Also, to
understand the very complex and changeable characteristics of play, we have to observe how play changes in form and character over the life cycle as we are actually being with the players in the scene.

**A developmental discourse of play.**

Developmental discourses of play are powerful in early childhood education. Developmental psychologists, including Piaget and Vygotsky, see play as a vehicle for young children’s development. This discourse has played an important role in the emphasis on young children’s play in early childhood education. It is also at the core of the notion of developmentally appropriate practice (DAP) that is a core belief of many early childhood educators (Bredekamp, 1987).

Piaget, one of the most famous theories in education explains young children’s play. According to him, “the prevalence of play among children is therefore to be explained by the fact that the characteristics of all behaviours and all thought are less in equilibrium in the early stage of mental development than in the adult stage” (Piaget, 1962, p.1). For Piaget, play is very important process for mental development in early childhood. Play is a process of equilibrium through assimilation and accommodation, and children develop their knowledge through play.

Piaget argues that there are certain developmental stages and children’s play are differing in the stages. Especially, games with rules are observed in children aged 6-7. Children at this age can understand rules of game and follow the game direction. Piaget’s explanation of games in children’s play is meaningful because while common views have
seen children’s play as “being unconstrained by rules”, Piaget includes games with rules children’s major play in their early year (Smith, 1986, p. 5). This leads developments of children’s game, and the term ‘developmentally appropriate’ has started to be used in education and game industries. For example, Lieberman, Fisk, and Biely use the term to point out the importance of developmentally appropriate game for children as follows:

Many digital games for young children do not fall into the first category. They are not developmentally appropriate or evidence based in design; and they are not tested with children to assure that game play is fun and beneficial. (as cited in Liberman, Fisk, & Biely, 2009, p. 301)

Although Piaget has an important role in development of games for children, his developmental theory has several problems to explain children’s digital game playing. As he only focuses on children’s cognitive process, he tends to ignore environmental factors that might affect children’s play. The children’s play described in the discourse occurs in “a social and contextual vacuum” (Ailwood, 2003, p. 290). Also, the play discourse generalizes young children’s play development only by focusing on Western children, and therefore, it cannot explain contemporary young children’s digital game play in various cultural settings. For example, following Piaget’s stages of cognitive development, games with rules evolve during Piaget’s concrete operational stage at the ages of 6 or 7 years (Saracho & Spodek, 2003), but children these days start to play digital games from aged 2 or 3 years. Piaget’s developmental stages are universal term so that it is difficult to explain current situation in which children start playing digital games at a very young age, and the game with rules described in his developmental stages has
played a role in considering various types of digital games as a certain play, which cannot be integrated to another plays.

Vygotsky, a cultural historical psychologist, also sees play “as a form of the development of a child of preschool age” (Vygotsky, 1966, p. 62). However, while Piaget focuses on individual children’s unidirectional developmental changes with age, Vygotsky has more interest in contextual changes in young children’s life within the social structure. For Vygotsky, play is a leading activity for preschool aged children to be prepared “for the transition to school, the next leading activity” (p. 273). During play, objects and a young child’s actions toward objects mediated by the material environment function together in shaping the child’s cognitive development.

According to Squire (2002), Vygotsky’s discussion of the role of the material environment as a means of mediating cognitive development has become a theoretical lens through which game researchers are able to understand how digital games “mediate players’ understandings of other phenomena while acknowledging the social and cultural contexts in which game play is situated” (para. 34). This means that neither the game itself nor the direct interaction between a game and a player are sufficient to explain the player’s cognitive process; “learning is seen as transformations that occur through the dynamic relations between subjects, artifacts, and mediating social structures.” (Squire, 2002, para. 34). This suggests that we need to look at game players, digital games, and the socio-cultural environments mediating their game play in order to understand young children’s digital game play.
Also, Vygotsky emphasizes the role of rules in play. He argues that “the notion that a child can behave in an imaginary situation without rules is simply inaccurate.” (Vygotsky, 1978, p. 95). Following Vygotsky, play is highly rule-governed, which is far from a free and creative activity. Young children develop creativity and imagination through their play, but “play is more nearly a recollection of something that has actually happened than imagination. It is more memory in action than a novel imaginary situation” Vygotsky, 1978, p.103; as cited in Duncan & Tarulli, 2003, p.278) Although Vygotsky also sees games with rules as an advanced level of play which cannot occur in early childhood, his argument supports the idea that both the matter of freedom and creativity are unable to define young children’s play. In this respect, digital games with a certain degree of rules may be understood as young children’s play.

Likewise, play theories limit definitions of young children’s digital game play. My approach here is not to pass judgment on these theories and discourses, but instead to show the implications of these frameworks for exploring young children’s digital game play and to open a new discussion about young children’s digital game play as play.

**Children’s Digital Games and Learning**

A central concern of this study is the connections, real and imagined, between video game playing and learning. Clearly, children’s digital game play involves learning, and children learn things through game play. However, many early childhood classrooms ban children’s digital games in school, while educational software is having a growing presence in the curriculum. Some parents do not want their children to play their favorite video game at home even though they bought the game for their children. Some parents
want to give digital devices to their children to prepare them to be future citizens, some to keep their children occupied, and others think that digital games destroy family relationships.

Video gaming for young children is a topic that combines a variety of hopes and fears. There are tensions between children represented as digital natives and parents as digital immigrants; between learning effects of edutainment and of concerns about the commodification of childhood; and between video gaming as a source of skills needed for participation in the future economy and video gaming as a cause of anomie and lethargy. An assumption here is that different perspectives toward children’s digital gaming in our society affect the use of young children’s digital game as a learning and parent’s belief about value of digital game. Therefore, by looking at the children and parents who are affected by the society, I can show how the tensions are presented in children’s everyday life.

To explore these tensions, this study attends to two different voices-one is of children, and the other of their parents. For children, especially preschoolers, play is a major part of life and of learning. They learn through play, and parents and educators therefore have a responsibility to encourage children’s play. According to Zevenbergen (2007, p. 26), parents and children have different perspectives on digital game play, reflecting different worldviews:

For the boys, their digital worlds have enabled their habitus to be one where the notion of play is embedded in a digital world whereas, for their parents, the
construct of play is very different. Different assumptions about what constitutes play come to the foreground in these two worlds.

The term *edutainment* is a hybrid term that combines the words education and entertainment. It sounds very effective because it kills two birds with one stone. Edutainment is educational, but still playful for children. However, these claims for edutainment in reality often fall short for both children and educators. Children tend to lack interest in games designed to be educational, or even though they play these games, they just spit out the bitter medicine (the education) after swallowing the sugar coating. “Children can easily see through it; they know the difference between a real computer game and an educational game, and they know which they prefer—and they also become very adept at taking the sugar while leaving the pill behind” (Buckingham, 2007, p. 40).

Also, Resnick (2004) points out that people who use the term ‘Entertainment’ tend to think that education and entertainment are functions that can be controlled by game producers. This underestimates children’s power of learning and playing, and oversimplifies what children learn from games. My study will attempt to show what children experience from digital games of both the educational and play varieties.

Children learn through their game playing whether the game being played is purportedly educational or not, but it is difficult to simply say that game knowledge affects children’s life either positively or negatively. Both Gee (2003) and Sefton-Green (2006) criticize the traditional negative attitude toward digital gaming as supporting a propensity to violence and as disrupting creative play.
However, while Gee sees digital game as the future of learning, Sefton-Green is skeptical of Gee’s claims for the educational power of games. According to Sefton-Green (2006, p. 284), “the orientation of such research and the methods of research are all indicative of the ways in which studies of media and technology carry with them the burden of ‘overrepresentation’ (i.e., overdetermination of meaning in relation to debates about education)”. In other words, both traditional media studies that describe digital gaming as negative factors in children’s life and educational studies that see digital gaming as powerful pedagogical tool tend to oversimplify the meaning of digital game in young children’s life and fail to describe game knowledge produced by the actual children who engage in digital games.

To understand children’s knowledge from digital games, it is necessary to see the variety of productions that occur when children engage with digital games. The production does not need to be verbal or visible products; it can be their facial expression, body language, and imaginary play that accompany their playing of the games. My study aims to develop an in depth understanding of children’s knowledge from digital games as it plays out among real children who have been defined by theorist as imagery children.

**Digital Game as Cultural Capital**

Children’s experiences vary while they play digital games, not just because they play different games, but because their experiences are affected by other entangled and overlapping experiences in their life. Therefore, it is impossible to understand children’s game experiences without thinking about their other life experiences. Family can be one of the major impacts that affect children’s digital experiences; it is the primary social
base that affects children’s actions and beliefs, including their digital experiences. To understand children’s digital game phenomena, we need to explore the family conditions around them.

Bourdieu (1984) argues that one’s cultural tastes reflect the characteristic of their social classes, which he refers to as their cultural capital. Every cultural act, taste, and disposition is related to people’s educational background and their social class. In other words, when people use a computer, watch television, or buy a hand-held game device for their children’s birthday, their social class and educational background will be all around them, affecting their actions, taste, and disposition. Following Bourdieu, the ways people using digital technologies are very social.

Bourdieu points out the importance of the effect of family background on children’s educational experiences. Bourdieu (1984, p 28) writes

The fact that educational qualifications function as a condition of entry to the universe of legitimate culture cannot be fully explained without taking into account another, still more hidden effect which the educational system, again reinforcing the work of the bourgeois family, exerts through the very conditions within which it inculcates. Through the educational qualification certain conditions of existence are designated-those which constitute the precondition for obtaining the qualification and also the aesthetic disposition, the most rigorously demanded of all the terms of entry which the world of legitimate culture (always tacitly) imposes.
Bourdieu focuses on cultural capital as a tool to reproduce power for maintenance of the existing social system. Everybody has expected roles in a society, and their role is performed inevitably. Bourgeois parents know their role as parents; they have significant control over their children’s television program selections, Internet use, and game contents. Their children learn how to play in the digital world just by living in a particular family. This way of doing will be different in families of different class, cultural, and ideological backgrounds.

Bourdieu (1984, p. 33) in his book *Distinction*, uses the term ‘cultural divide’ to explain the difficulty of working class to be a member of bourgeois. According to Bourdieu, money alone does not provide class membership. The high cultural tastes of the bourgeois are not easily accessible to the working class. And similarly, the tastes of the working class are not easily accessible to the bourgeois, who find working class activities to be literally beneath them. We can find a similar divide between how different classes view video games and also in how children and parents view videogames.

Clark (2009) points out that digital inclusion and exclusion in families are more the result of a lack of knowledge about digital media, than of the absence of digital equipment. Van Dijk (1999; Van Dijk & Hacker, 2003) offers four categories of access to digital media:

1) Psychological access; interest, fear about new technology,

2) Material access; possession of digital technology;

3) Skills access; digital skill caused by education or social support,
4) Usage access; opportunities for usage

Policy makers, focused mostly on the problem of material access to technology, have attempted to narrow the digital divide mostly by providing poor people with computers (Van Dijk & Hacker, 2003). However, the results of this approach have proved to be inadequate to help people enter the digital world. Having a computer is not enough if you don’t know how to use it or lack motivation to do so. Even though a child has material access to digital technology, if he lacks psychological, skills, and usage access, he will be unable to function effectively in digital culture. Van Dijk and Hacker define psychological access as interest in technology, skills access as help from others to learn how to use technology effectively, and usage access as opportunity that leads to habitual usage.

All four categories of access to digital technology are connected to family sociocultural backgrounds and cultural as well as financial capital. Many researchers of children’s digital use have looked to family conditions to explain children’s digital practices. However, they have tended to present an oversimplified picture of the situation because they look mostly at material differences, such as presenting statistics on the number of digital devices in a home. This results not only in a failure to understand children’s digital practices as a cultural activity, but also to the tendency to jump to the conclusion that young children’s digital use is only affected by their external environments.

To challenge the perspective, this study explores the digital game practices of children from various sociocultural backgrounds. To understand children’s digital game
practices, researchers need to study children’s everyday lives. In other words, researchers need to conduct ethnographic explorations into the cultures of children’s digital game play. My assumption here is that an ethnographic approach can help us to understand children’s authentic digital game experiences, and eventually to understand children’s digital culture.

**Digital Game Play as a Battlefield Between The Weak and The Powerful**

Michel de Certeau introduced the distinction between strategies and tactics. According to de Certeau (1984, p. 36), a strategy is used by the powerful; it seeks its own place, “that is, the place of its own power and will, from an environment”. On the other hand, a tactic is used by the weak; “The space of a tactic is the space of the other. Thus, it must play on and with a terrain imposed on it and organized by the law of a foreign power” (de Certeau, 1984, p. 37). Following de Certeau, digital game play can be seen as a battle contested between the weak (children) and the powerful (their parents).

Parents are able to “produce, tabulate, and impose these spaces, when those operations take place” (de Certeau, 1984, p. 30). For example, parents create the gaming opportunity in the first place by buying game devices for their children. They also determine the time and the space of children’s gaming (Aarsand & Aronsson, 2009a). They have the power to do so. Children must operate within the spatial, temporal, and material environment their parents create for them.

On the other hand, for children digital game space is given by their parents; at best they can use and play in it. They cannot take charge of the battlefield. What they can
do against the power of their parents is to use tricks, such as ignoring their parents’
commands, playing surreptitiously, and begging, whining, and starting to cry when
parents stop their play.

Also, this can be applied to the relationships between industries and consumers in
digital market. Digital game industries know what they have to do to sell their products.
They have specific marketing strategies and power to provide new products. However,
“what is counted is what is used, not the ways of using” for them (de Certeau, 1984, p.
35). The consumption practices circulate invisibly in our society and they have
multiform. This invisibility and variations make individual keep surviving in the foreign
land.

The strategies by the more powerful produce the context for the everyday
practices of the weak. However, the everyday practices of ordinary people are creative
and resistant. In the case of media, we can saw that children and other media consumers
do not just consume, but also produce, by making media products their own (Silverstone,
1989; Jenkins, 2012). For de Certeau, even young children have tactical power to resist.
Even young children have tactical power to resist parental strategies. Their digital game
environments are provided by their parents, but it does not mean that they do not have
any power over their game play.

Rideout, Foechr, Roberts, and Brodie (1999) point out that even toddlers and
preschoolers are able to find ways to use digital technology themselves. In their study
with 8-year-old children, Aarsand and Aronsson (2009b, p. 1573) shows that children can
form and sustain their games “as a collaborative activity” by using their response cries,
which are vocalized sound invoking one’s emotions (e.g., ‘wow’, ‘opps’, and ‘ouch’) while they take charge of the game controller.

Children play digital games their own ways, and not always as the game designers intended. Children as consumers have their own ways of resisting the plans of game marketers. As Joseph Tobin writes in his introduction to the book *Pikachu’s Global Adventure*:

Children (like adults) are vulnerable to media manipulation and to clever marketing plans. But for each carefully orchestrated product launch that succeeds, many others fail. Children may be prone to consumer crazes, but they choose which crazes and they decide when a craze is over. (Tobin, 2004, p. 10)

Following de Certeau, Henward (2015) points out that children create their own spaces for pleasure although they are surrounded by consumerism constantly constraining them with rules, strategies and practices.

My attempt in this study is to find the tactics used by children as game users and consumers and the strategies used by parents to control this play. By looking at strategies and tactics in family life, I can understand how family groups engage with digital technologies and produce their own lived experiences in the digital world.

**Translocality and Heteroglossia**

As digital technologies develop in modern society, globalization seems to be accelerating; ideas, languages and cultures increasingly are circulating globally.
Especially, in terms of the connectivity of media, the term ‘translocality’ is often used to explain the situation. According to Hepp (2009), translocality itself holds two meanings; “trans” indicates media globalization, and “locality” means that local meaning always exists in spite of media globalization. The discourses generated from digital games, therefore, include both local and translocal meanings. Joseph Tobin (2000) in his book *Good Guys Don’t Wear Hats*, talks about local children surrounded by globally circulating media products. According to Tobin (2000, p. 149):

> Children draw on their local experiences, discourses, and knowledge to make sense of the global culture that comes to them not only through books, but more importantly these days, through television, movies, music, video games and the Internet. The global media culture, as cultural critics point out, is powerful and potentially homogenizing. But this global culture is consumed and given meaning locally.

The translocal media discourse can also be explained using Bakhtin’s notion of heteroglossia. For Baktin (1981, p. 291), heteroglossia is the double voiced discourse that represent “the coexistence of socio-ideological contradictions between the present and the past, between differing epochs of past, between different socio-ideological groups in the present . . . and so forth.” Digital game culture, therefore, can be understood as a place that meanings meet and become hybrid.

Digital games not only can leave their media and transform themselves into various genres such as films, advertisements, and magazines but also represent double
meanings that are co-created by the game maker and the player. In heteroglossic digital game culture, the players are not passive consumers but meaning makers.

The word does not exist in a neutral and impersonal language (it is not, after all, out of a dictionary that the speaker gets his words!) but rather it exists in other people’s mouths, other people’s contexts, serving other peoples intentions: it is from there that one must take the word, and make it one’s own. (Bakhtin 1986, p. 293-294)

Following Bakhtinian perspectives, this study attempts to find global discourses in young children’s digital game play and to analyze how young children analyze the words and images from digital games with their own terms and recreate meanings.

**Digital Game Play as Popular Culture**

Imagine the bird that always gets angry in *Angry Birds* (Rovio Entertainment, 2009), one of the most successful mobile phone games. It is funny and engaging without being aesthetically sophisticated, as if often the case with breakout phenomena of popular culture. Mobile games recently have joined films and television and music as hot commodities of digital culture.
Games like *Angry Birds* (Rovio Entertainment, 2009) are sensational, but not permanent. Such products quickly spread, but also disappear quickly after losing their power. For example, Joseph Tobin (2004) in his book, *Pikachu’s Global Adventure* talks about the rise and fall of Pokémon to explain the characteristics of popular game culture. In terms of its mass production, non-aesthetic and momentary character, digital game play is a typical form of popular culture that, in the words of Stuart Hall, “treats the domain of cultural forms and activities as a constantly changing field” (Hall, 1998, p. 449).

Digital games not only create popular culture, but also are affected by the popular culture produced through mass media. For example, when Nintendo released the *Pokémon* DS game cartridges in the U.S., the game quickly became popular with children in the U.S. After it gained popularity, Nintendo advertised other *Pokémon* game series through television commercials, game magazines, and animations (Tobin, 2004). Digital games are similar to other forms of popular culture in terms of processes of creation and
dissemination. Therefore, to understand children’s digital game, it is necessary to look at
digital games as popular culture.

In the education field, the popular culture dimensions of digital game play tend to
be either underestimated or overly celebrated. To critics, digital game play is a form of
mass-market consumption, with children and other naïve consumers as victims
(Provenzo, 1991; Schor, 2004). Many critics view video games for children as having
negative effects on education and leading to violent and addictive behaviors (Anderson,

However, such negative views fail to account for digital game players’ being
productive in their play, and not just consumptive. Tobin and Henward (2011, p. 2) argue
that “a growing area of media research is on how young people not only consume
commercially produced media, but also creatively use the content and genres of mass
media texts to re-mix and in other ways produce their own media products”. For example,
Sefton-Green (2004), in Pikachu’s Global Adventure describes how children recreate
Pokémon characters and use them for their imaginary play. According to Joseph Tobin
(2004), children are not passive consumers; rather, they recreate and play with what they
consume.

Sontag (1966) praises the power of popular culture for the weak. By explaining
camp as a style of popular culture, Sontag argues that compared to high culture, popular
culture allows people to play with, make fun of, and exaggerate it. Young girl can
perform masculine characters in a video game by performing exaggerated forms of
masculinity. A shy boy can give commands and act bravely in a war game. Digital games
as a type of popular culture are a place of play, not of confinement. As many game
studies and educational discourses only focus on children’s consumptions or imitations of
violent video game scenes, they do not see how the games can be used in other ways or
have other meanings for children.

There are also limitations to the research that celebrates digital games without
questioning the inherent power of market capitalism and noxious forms of popular culture
in the games. Leonard (2003) argues that game and educational researchers only focus on
external factors in games and tend to ignore cultural phenomena influenced by digital
games.

Joseph Tobin (2000) argues that educators should be cautious not of mass media
itself, but of particular children who in particular situations are affected negatively by the
hidden messages in particular media texts. He points out that what is needed are not
ideologically based arguments for or against popular media, but instead empirical studies
of how children in different contexts and of different backgrounds engage with specific
media texts. We cannot know before doing such empirical research what the effects of a
media text, including a digital game, will be on particular child.

This study aims to understand how very young children who are
consumers/users/players of digital games make sense of the games’ messages and how
these games function in the children’s everyday lives. To do so, I will look in on children
as they play these games and interview them and their parents about their game playing.
Young children’s experiences of digital game play may best be communicated not
through answering my interview questions, but instead indirectly, through a record of the
epi-phenomena and artifacts produced by and alongside this play: the imaginary play, drawings, chats with their peers, and gestures. In doing so, I hope to provide insight into how digital games as popular culture live in young children’s life.

**The Meaning of Digital Games in Ordinary Life**

This study aims to explore young children’s digital game play in their everyday life. Therefore, it is necessary to understand something of the ordinary lives in which young children’s game play is situated. What I am proposing is a form of research some sociologists call “quotidian studies.” In his study of the Nintendo DS, Samuel Tobin argues that quotidian studies are meaningful to understand mobile game practices because this approach draws our attention to the ordinariness and mundane quality of our everyday lives that is overlooked in most research (Tobin, 2013). Tobin’s study showed that many people play games while on public transportation, in a doctor’s waiting room, and even in a restroom, as they tend to give little attention or significance to this play because of its feeling of triviality and mundaneness. To traditional Marxists, such tactics used to cope with modern, urban life are seen as symptoms of the effects of capitalism. For example, in the book, *Condition of the Working-Class in England*, Frederick Engels describes modern urban life as follows;

> The hundreds of thousands of all classes and ranks crowing past each other, are they not all human beings with the same qualities and powers, and with the same interest in being happy? And have they not, in the end, to seek happiness in the same way, by the same means? And still they crow by one another . . . The brutal indifference, the unfeeling isolation of each in his private interest becomes
the more repellent and offensive, the more these individuals are crowded together, within a limited space. And, however much one may be aware that this isolation of the individual, this narrow self-seeking is the fundamental principle of our society everywhere, it is nowhere so shamelessly barefaced, so self-conscious as just here in the crowding of the great city. (Engels, 1986, p. 24)

But even while seeing such activities of the masses as pathetic, Engels anticipates the quotidian turn in sociology by acknowledging the importance of an awareness of mundane life to understand deeper structure in our society. Therefore, even things that seem trivial must be analyzed to understand our life.

Samuel Tobin, following Caillois, and Benjamin, views game play as a way to deal with boredom in modern life. According to Tobin (2013), modern quotidian life is so inherently alienating and boring that it brings about new types of play. Just as the rise of train travel produced the pulp novel and subway commuting the tabloid newspaper, riding in the back seats of family cars is spurring the development of handheld video games for young children. Each of these media, to Caillois, is a form of the vacation. For Caillois, the vacation is the way to get out of boring modern life and it is all about one's personal experiences, which are varied and cannot be reducible to a stereotypical model. Digital games create new spaces and experiences which users employ as tactics to live in modern societies.

Ito, Okabe, and Matsuda in *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life*, explains the mundanity of new technologies in our everyday life with the three terms “personal, portable, and pedestrian.” They use the term *keitai*, which means
“portable” in Japanese, to emphasize the use of new technologies as an everyday practice. It is “not so much about a new technical capability or freedom of motion but about a snug and intimate techno-social tethering, a personal device supporting communications that are a constant, lightweight, and mundane presence in everyday life” (Ito, Okabe, & Matsuda, 2006, p. 1).

According to Ito et al. (2006), after new technologies go through a period of interpretive flexibility as different groups of people play with or against the technology, it is moved into a period of closure and stabilization in our life. This means that even very new technology cannot remain the same or stay within its own space. Rather, new technologies are integrated by users into existing social structures and cultures as a way of coping with contemporary life.

e Silva (2006) focuses on digital spaces created in public spaces in modern society. With the development of mobile technology, mobile digital game spaces become hybrid spaces blurring boundaries between physical and digital spaces. While people are moving and spending time in public spaces, their mobile devices are always on, waiting for the people to play with. This hybrid space should be distinguished from virtual space which game players are immersed in and entering to because it is “the mix of social practices that occur simultaneously in digital and in physical spaces, together with mobility” (e Silva, 2006, p. 265). In terms of understanding mobile game practices, it is inevitable to look at the social space around the mobile game players.

According to McNAMEE (2000), game spaces allow children to resist the modern spaces functioned as the means of controlling children’s life. In modern society, there
have been fewer spaces for children. Children get losing their own space to play so that they tend to find it from the game spaces, which do not exist in reality. McNAMEEE defines the game spaces with the term ‘heterotopia’ used by Michel Foucault. Comparing to Utopia, which is an ideal and unreal space,

There are also, probably in every culture, in every civilization, real places-places that counter-sites, a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted. Places of this kind are outside of all places, even though it may be possible to indicate their location in reality (Foucault, 1986, p. 24).

In heterotopias, the places represent utopias, and yet, they are physical and real spaces. For McNAMEEE, game spaces are the mixed spaces between utopias and heterotopias. They are still located in and surrounded by reality, but the virtual spaces and the images from the spaces are unreal. This duality of reality and unreality, she argues, enables us to contest “the space in which we live” (Foucault, 1986, p. 24). In other words, the digital game spaces are not just for children’s imagination and play, but also the places that reveal the contradictions of childhood. By studying young children’s digital game spaces occurred in their real life, we can understand how the modern spaces affect early childhood.

To understand the meaning of young children’s digital game play in modern society, this study defines the time and space and forms in which digital game play occurs in young children’s lives.
CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

Ethnographic Case Study

This study mainly focuses on understanding young children’s engagement with video games in home (as opposed to school) settings. My approach is ethnographic, but not a traditional ethnography. In typical ethnography a researcher studies a single site to understand a culture. I call my method an ethnographic case study because I will focus on six young children, in six families. Stake (1988, p. 401) suggests that the special value of a case study is “You learn the intricate complexity of one case. And sometimes you find that what is true of that one case is true about other cases too, things that you hadn’t noticed before”.

I employ some ethnographic methods because my central concern is to understand young children’s digital game play as a cultural activity. Digital game play by young children should be understood as a piece of a larger contemporary culture. Following Tobin and Henward (2011, p. 2), ethnographic studies targeted young children and digital media are “a site for the intersection of several levels and meanings of culture, including national cultures, subcultures, popular culture, online cultures, the cultures of children and of childhood, and school/classroom cultures”. Therefore, to understand young children’s digital game as a part of contemporary culture, I need to apply ethnographic method. As Willis and Trondman write of ethnography:
First are the symbolic forms, patterns, discourses, and practices that help to form it and give it shape so that the ethnographic enterprise is about presenting, explaining, and analyzing the culture(s) that locate(s) experience. Second, and more widely, for us the best ethnography also recognizes and records how experience is entrained in the flow of contemporary history, large, and small, partly caught up in its movement, partly itself creatively helping to maintain it, enacting the uncertainty of the eddies and gathering flows dryly recorded from the outside as ‘structures’ and ‘trends’. (Willis & Trondman, 2002, p. 395)

To understand young children’s digital game play in cultural context, this study seeks to identify the symbolic forms and patterns in the children’s and parents’ discourses and practices in relation to digital games. Because young children’s digital game play is embedded within a family context, it is “not a self-contained culture, but rather one local site in a complex larger society” (Tobin, 2000, p. 12).

Therefore, by presenting the interplay between game production and game consumption by individual young children, this study allows us to conceptualize young children’s game culture as a part of contemporary culture. Also, as this study focuses on young children’s game culture in six different family cultures created within different sociocultural backgrounds, it shows how young children’s culture within the six groups “reflect and pass on cultural values while at the same time responding to changing social pressures and expectations for what young children should learn, do, and be” (Tobin, Hsueh, & Karasawa, 2009, p. 1).
This study will attempt to locate young children’s digital game play within the context of their family life and within the larger contexts of contemporary popular culture.

Case Selection

Case selection is very important for a case study because a researcher wants to find both uniqueness and commonalities among cases as well as select cases that are reflective of a larger culture of which they are a part. This study focuses on three-year-old children and their parents. I chose three–year-old children for this study because most previous research on children’s video game playing and use of computers has been on children older than three years old (Liberman, Fisk, & Biely, 2009; Ostrov, Gentile, & Crick, 2006; Verenikina & Kervin, 2011). Gaming and edutainment companies now market a variety of digital games targeted at preschoolers (e.g., LeapPad and Leapster Explore games). By studying children who are in the first stage of digital game play, I can show not only how children enter digital game culture, but also how they grow up as digital natives.

However, finding a three-year-old child playing games regularly was very challenging for me. There were three main reasons; first, three-year-old children do not belong to many social groups, and secondly, their game play tends to be ignored or not considered as a regular activity by their parents, and many parents do not want someone to come into their home and observe their family’s life. I visited local preschools, children’s libraries, and a kids’ club to find three-year-old game players, but I could not find many children under age three. Also, the mothers of the three-year-old children
whom I met in those places were not sure about their children’s game play, often saying things like: “Well, I am unsure if my son play games. He plays with my phone, but I don’t think he can play games,” or “She has played Angry Birds, but she doesn’t play everyday.” Despite the fact that the directors of the local preschools whom I met with distributed my parental consent form to the parents of three-year-old children in the school, I did not receive any responses from the parents.

Therefore, I had to rely on my personal contacts to find participants for my study. I asked my local acquaintances to arrange meetings with mothers having a three-year-old child if they knew of anyone that might fit the study. Then, I met these mothers and asked them if their child had any experience playing any kind of digital games. There was only one mother who never allowed her child to play games; she prohibited any type of digital activity, including watching television. Some of the mothers answered that their child had gaming experience, but still most of the mothers were unsure about their children’s game play in the beginning of these conversations. For example, Lin’s mother asked to clarify by asking, “What games do you mean? I have some Apps for her on my iPad, but I am not sure if they are games.” Amy’s mother told me that Amy plays Angry Birds with her iPhone, but she said that Amy hadn’t played with it for a long time.

However, after I gave them specific examples of young children’s game play such as mobile game play in public places, testing games in an electronic shop, and playing games with older children during visitation to a friend’s house, they admitted that their child played games regularly. After our conversations, they showed a positive attitude toward my research by telling me about their concerns regarding their children’s digital
activities, and helped me to find other three-year-old children that played games regularly. As a result, I was able to recruit six families for my study.

I chose six families for the case studies to allow for “a comparative dimension” (Marcus, 1995, p. 102). My goal is not to use the case studies to arrive at generalization about how children and families from different sociocultural backgrounds engage with digital game play, but instead to show how sociocultural backgrounds must be taken into account to understand young children’s digital game play.

I select six families, living in the same larger community, but coming from different mixtures of sociocultural backgrounds—ethnicities, family socioeconomic level, the demographics of the household, religions, and educational backgrounds. I make no claim that the six families are typical or representative of certain groups. I select families of different sociocultural backgrounds to allow me not to assert ethnic or economic generalities but to explore more of the range of family practices and attitudes toward children’s digital game play and to introduce questions about how this digital game play reflects and is impacted by ethnicity, income, class, parents’ education level, and other factors.
Table 1

Summary of Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Race</th>
<th>Socio-economic Status (SES)</th>
<th>Religion</th>
<th>Family Members (Age/yr.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amy</td>
<td>Female</td>
<td>European American</td>
<td>Upper-Middle</td>
<td>Christian</td>
<td>Father, Carlo (34)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mother, Mary (30)</td>
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<td>Brother, Derick (10)</td>
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<td></td>
<td>Sister, Allison (6)</td>
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<tr>
<td>Mike</td>
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<td>Upper-Middle</td>
<td>Lutheran</td>
<td>Father, Steve (47)</td>
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<td>Mother, Lisa (44)</td>
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<td>Sister, Julie (12)</td>
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<td></td>
<td>Brother, Kevin (9)</td>
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<tr>
<td>Lin</td>
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<td>Brother, Danny (0.6)</td>
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<tr>
<td>Chan</td>
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<td>Upper-Middle</td>
<td>Buddhist</td>
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<td>Mother, Eunsook (87)</td>
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<td>Sister, Jun (7)</td>
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<td>Mia</td>
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<td>Christian</td>
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<td>Mother, Christine (26)</td>
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<td>Sister, Candace (6)</td>
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<td></td>
<td>Brother, Chris (5)</td>
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<td>David</td>
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<td>Mother, Lucia (35)</td>
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<td></td>
<td></td>
<td></td>
<td>Sister, Maria (6)</td>
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<td></td>
<td></td>
<td></td>
<td>Brother, Jose (0.7)</td>
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Willis and Trondman (2002, p. 397) argue that individual differences or individualization should be understood “as a result of social processes of differentiation and diversification producing individualized feelings and forms”. The characteristics of differences or unrepresentativeness of the families can be evidences of the role different ideologies and cultural factors play in children’s lived game experiences within a family context.

**Methods**

To understand young children’s digital game play culture, this study employs multiple methods: parent interviews, observations of children, interviews using the “draw (show) and tell approach” (Clark & Moss, 2001) and “a cultural inventory method” (Collier & Collier, 1986). The six subjects of the study are all three-year-old children with various family backgrounds.

**Parent interviews.**

In this study, interviewing the parents was the very first step to entering the six children’s homes. Getting into someone’s home means more than just physically entering the front door; it also requires that you gain permission to enter these people’s lives and see the ways in which they live and operate on a daily basis. As an outsider, studying children in their homes is challenging because there is the possibility that the details of other people’s lives might be observed and disclosed unintentionally in the process. It is also possible that an outsider might misinterpret or misjudge a particular behavior within the home.
To deal with these issues, I decided to do interviews with each parent in each child’s home. Interviewing the parents in their own home allowed the parents to talk about their children and family life in a relaxed atmosphere. Also, being in their own home gave the parents power to actively lead the conversation. Following de Certeau (1984), there are always unequal power relations between people. As I was the researcher who designed this research, I had more power over the informants, including the parents. According to Joseph Tobin (2000), “we researchers have strategies (research designs) for figuring out what is going on in our informants’ head; informants have tactics they can use to resist our knowing them” (p. 11). Therefore, as I interviewed these parents in their own homes, where I become powerless, I was able to reduce this resistance and establish a sense of trust and permission to study their interactions and thoughts.

During the preliminary interviews, I asked questions regarding each child’s family background, family life, daily routines, and play, including their game play. We also set a research schedule. The questions were as follows:

1. Could you tell me about your family background (age, religion, family relations, race, income, and source of income)?

2. Could you tell me about your daily routines with your child?

3. What kinds of digital games and gaming devices does your child have?

4. Why did you buy these games and/or devices for your child?
5. When do you allow your child to play digital games and for how long at a time?

6. Where do you allow your child to play digital games?

7. Who does your child play with when he or she plays digital games?

8. Do you have any rules that your child has to follow when he or she plays digital games?

9. If you were to buy a new game for your child, what would you want to buy? Who makes the decisions about this?

10. How do you (the decision maker) choose games to buy (e.g. visiting a local game store, watching television commercials, listening to others’ opinions, searching on the internet, etc.)?

11. What is a good game for your child?

12. What is a bad game for your child?

13. If I were to provide a new game for your child, what would you want your child to play?

14. When is good time to observe your child’s digital game play?

I asked these questions of all of the parents, but I changed the order of the questions and added various additional questions throughout in order to not disrupt the flow of the conversation with each parent. The interviews were open-ended, making
them more conversational than interrogative. As a researcher, I did not express my opinions about the parents’ answers; rather, I actively listened to their voices as I nodded my head and repeated their words. I also probed for additional information whenever I was not able to fully understand their answers by asking, “Can you tell me about that again?” or, “I would like to hear more about that story.” This helped me to make sense of both the parents’ and the children’s thoughts and reasoning, which was important for understanding their children’s digital gameplay and its relation to their family life.

**Child observations and interviews.**

This study focuses on children’s ways of interacting with digital games. Therefore, it is essential to observe children while they play and listen to children’s voices. Following Bakhtin (1990), every discourse should be studied in its situated reality. Therefore, for this study, participant observations and conversational interviews between the researcher and the children were used for co-creating meaning. Observations with each child consisted of six individual home visits, each visit had different activities and objectives:

*First visit (about 20-30 minutes).*

After interviewing the parents, I observed each child’s play space and the available gaming systems that they had. I asked each child to show me his or her room and favorite toys rather than relying on the parents. This allowed me to get closer to the children before actually videotaping and recording their game play. It also allowed me to see what each child views as important within the context of the home.
To communicate with the children, I utilized a “show and tell” approach to learn more about their thoughts. It is often difficult for young children to express their thoughts verbally because their language abilities are limited. Or perhaps it is more accurate to say that the utterances of young children are often difficult for adults, including researchers, to fully understand. Unlike interacting with the parents of each child, I found it difficult to understand the meanings of the children’s facial expressions since I did not have much in the way of previous knowledge about or experience with the children. With this in mind, the “show and tell” approach seemed to be the most suitable option for communicating with these subjects.

These approaches also helped to keep the interviews focused by introducing visual aids. I asked each child to show me something on a particular topic using prompts such as, “What is your favorite game? Can you show it to me?” or, “Do you want to show it to me? Can you show it to me how to play with it?” Then, I asked them to explain the objects that they showed me by asking questions such as, “What is this? Why do you like playing it?”

When the children displayed difficulty with talking to a stranger (in this case, me), or they resisted showing their room or objects, I would offer to show them my smartphone or iPad and allowed them to play games with it. As we played together, even for short times (usually about five minutes), the children would open their minds and begin to talk to me.
Second visit (up to four hours): Participant observation of children’s natural game play.

During the second visit to each child’s home, I stayed with the child for up to four hours. The length of the observation time was determined based on the children’s daytime activities, excluding their nap time, and the observation schedule was made based on the each child’s daily routine, as explained by their parents during the parent interviews. During these observation hours, the children were expected to play digital games at home, in a car, or somewhere the family routinely visits. I observed their game play, natural play, and their everyday routine during these observation hours. If the children went outside, I shadowed them as an observer.

I videotaped the children during these observations, and I also used my field notes and digital camera to take pictures when it was difficult to videotape them outside. When the children played digital games, I videotaped their play and made field notes to record both the children’s habits and the content of the game. All of the observations, records, and interviews captured during this study have been documented.

There were unusual occasions (e.g. one child resisted playing games when I appeared, another had an unexpected guest visit) that prevented me from gathering the amount of observations that I would have liked. However, with the exception of these cases, I was able to observe the children’s various styles of game play with their game players in my second visit. For example, Mike introduced all of his game players to me and showed me how to play with them. He also wanted to play some games with my smartphone as he recalled that I had shown him my phone during my first visit.
Third to sixth visits (up to 4 hours each time): Participant observations of children playing a new game.

To understand how these three-year-old children got into the digital gaming world, I decided to introduce a new game to the children in the beginning of my research design. However, I expected several dangers with this plan. First, this would not be a natural situation for the children, meaning that my observations might not reflect their natural behavior. Secondly, because the game was selected by a researcher, it would necessarily include the researcher’s intentions and biases, which might affect the children’s game behavior, their lives, and their parents’ thoughts about game selections for their children.

To reduce these dangers, I decided to include the children’s parents in the discussion of selecting a new game for their children. As can be seen in my interview questions, during the parent interviews I asked them what they would buy if they were to buy a new game, and I informed them that I would provide this game to their child on my third visit. Based on the parents’ decisions, the six children were given different games, which they played using their own game players, while I observed during my third visit. The new games that were purchased were for existing hand-held devices or gaming boxes that the children have often played with. Depends on the nature of the gaming devices, the new games were provided through CD-ROMs or downloaded online.
To understand the children’s digital game play, I participated in their game play as both an onlooker and as a co-player. As an onlooker, my role was to participate in their game without interrupting it. Like a gallery member at a golf tournament, I became a participant in the activity while also respecting the boundaries that protected the play from interruption. I cheered them on and asked questions about the strategies they were using and how they felt during the game play, being careful to respect their desire to not let my presence inhibit their play.

Table 2

*Table 2:* Game Platforms and Selected Games

<table>
<thead>
<tr>
<th>Participant</th>
<th>Game Platforms</th>
<th>Selected Games</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amy</td>
<td>Nintendo DS I-Phone</td>
<td>Sprinkle Jr. (Mediocre, 2011)</td>
</tr>
<tr>
<td>Mike</td>
<td>Nintendo Wii, Nintendo DS, LeapFrog, Vtech InnoTab, Fisher-Price Smart Cycle I-Phone</td>
<td>Reader Rabbit Preschool (Graffiti Entertainment, 2010)</td>
</tr>
<tr>
<td>Lin</td>
<td>Ipad</td>
<td>Cooking Dash (PlayFirst, 2010)</td>
</tr>
<tr>
<td>Chan</td>
<td>PC</td>
<td>Blue’s Clues: Meet Blue’s Baby Brother (Nova Development, 2010)</td>
</tr>
<tr>
<td>David</td>
<td>PlayStation Portable (PSP)</td>
<td>Cars 2 (Sony Computer Entertainment, 2011)</td>
</tr>
</tbody>
</table>
I also played the role of co-player, by inviting the children to join me in playing a game that I introduced to them. This allowed me to observe how the children would enter a new digital game world. During this co-play, I helped them to play the game if they asked for help. If their family and friends wanted to be involved, I allowed it with the hope that it would help to maintain the atmosphere of everyday life and practice in the study. This was very helpful for me in my attempt to capture how the children learn to play new games in their everyday life. During their play with a new game, the three-year-old players tended to get help from their family members, especially from their parents and their older siblings, rather than from me.

There were many variations among the children as they played the new games. Some of them did not like the new games, saying, “This is boring,” while others started to have an interest in not only the game, but also the game characters. Since my focus in this study was to capture their natural game play, if they did not want to play the new game, I let them stop playing it and encouraged them to play their favorite games instead. Thus, for some of the children, I was unable to watch them playing the new game for very long, but this helped me to understand the differences in game preference between the children and the parents.

**Cultural inventory.**

A cultural inventory method was used for understanding the children’s game space. According to Collier and Collier (1986):
The photographic inventory can record not only the ranges of artifacts in a home but also their relationship to each other, the style of their placement in space, all the aspects that define and express the way in which people use and order their space and possessions. Such information not only provides an insight into the present character people’s lives but can also describe acculturation and track cultural continuity and change (p. 45).

By analyzing the placement of items in a particular space and focusing on every detail of a photograph, we can better understand people’s lives and their culture.

To apply this method in the context of my study, I took pictures of the children’s game spaces and then analyzed the arrangement items and types of possessions in the space. I analyzed three main spaces in this study. First, I examined the settings where the digital games were played, such as the backseats of cars, grocery carts, and dining room tables. I also considered the bodily orientation of the player with the game as a related space—how the game was held, touched, and watched during play. The third kind of game space that I looked at was the space within the game—the way that each child experienced and described the virtual game space.

**Online resources.**

To allow me to place the families in my study in the context of national debates about young children’s digital game playing, I reviewed online video game sites and news articles related to young children’s game play. This will provide background on contemporary debates and discourses on young children’s digital game play.
**Bakhtinian interpretative analysis.**

The transcripts produced through participant observation, and individual interviews, and field notes are coded and then analyzed using Bakhtinian interpretative method that identifies multivocal and double-voiced meanings. To analyze the transcripts by using interpretative analysis, I applied the coding development process used the Child Crossing Boarder study, which is multi-sited ethnography (Tobin, Arzubiaga & Adair, 2013). I first developed my initial codes based on my literature review on early childhood education and digital game, and then I recreated the codes and developed subcodes based on my reflections on my observations and interviews. According to Adair and Pastori (2011, p. 46), this will help us balancing emic/insider and etic/outsider perspectives and it will allow “the resulting framework to be flexible enough for cultural meanings.”

In my coding, there are five themes - play, learning, family relations, modern spaces, and digital game media-, and they are analyzed by using Bakhtinian interpretative analysis. Joseph Tobin, in his book *Good Guys Don’t Wear Hats: Children’s Talk about the Media* (2000), introduces four key Bakhtinian principles for interpretation of utterances. The principles are very practical and meaningful for this study because they allow me to analyze not only what is being said but also to reveal what is not being said. Therefore, I use the four key principles to reveal meanings that lead to answer the research question in this study.
The meaning of an utterance is always contextual.

According to Volosinov (who is assumed by many scholars to be expressing the thoughts of Bakhtin), “Whatever kind it be, the behavioral utterance always joins the participants in the situation together as co-participants who know, understand, and evaluate the situation in like manner.” (1976, p. 100) To understand the meaning of an utterance, researchers need to understand the situation that the utterance is made. For example, when I have a conversation with children about their new video game in their room, I need to understand the mood of the room, the room setting, and even the sound heard from outside and the events and experiences of their lives (for example, if they recently visited Disneyland, or went to the movies, or just got a new baby brother, or a dog).

Also, the children who made the utterance should be understood in the context of the families’ sociocultural and socioeconomic background. Therefore, this study approaches the task of interpreting the meanings of utterances by including the external situation around speakers as well as the identity of the speakers.

The word is only half ours.

All words have been used before, and yet speech, the combination of words, is “creative and original because although we necessarily must cite the words and ideas of others, we continuously cobble them together in new and unique ways” (Tobin, 2000, p. 20). This means that we directly or indirectly cite others’ words to speak, but our utterances are nevertheless new because they include combine the meanings of the other
with our own intentionality. This is what Bakhtin calls double-voiced or hybrid discourse. Therefore, instead of focusing on the dictionary definitions of the words that are spoken, I focus on looking at how the words are combined and recreated by speakers.

I bring this Bakhtinian approach to finding the meaning of words to my analysis of images. I analyze children’s drawings as Bakhtin analyzes utterances, looking for double-voicedness, authoritative and internally persuasive discourses, and indications of irony and sincerity and other markers of Bakhtin calls inflections speakers (and artists) put on their text. For example, there is the cartoon I included above in which angry birds are waiting at an anger management office. The characters in the cartoon are the birds from the game. However, what the cartoonist is trying to say is different from the game creator’s intention; perhaps the meaning here is that the cartoonist is trying to comment on the anger of people in modern society, or perhaps to satirize the field of psychological counseling, or perhaps to comment on the popularity of the video game, or a combination of all three. The cartoon is full of double-voiced, polysemic images and messages.

*The content of psychic life is thoroughly ideological.*

By looking at the conflicts and tensions experienced and expressed by individuals, we can gain insight into the conflicts and tensions of the larger society. Individuals internalize ideologies and discourses and struggle with them. Because the tensions and conflicts lead to contradictory feelings and discourses, the utterances of individuals are full of contractions, or what Derrida calls *aporia.*
Jacques Derrida defines an aporia as a moment in a text of perplexity, that reveals the tension and contradictions that are inherent in all texts. Even when words in a text or utterance seem perfectly matched and harmonious, if we dig deeper we can find inconsistencies and tensions where the apparent coherence of the text can be unraveled. To find deeper meanings in a text it is essential to attend not only to what is said but also to what is left unsaid, what French literary theorists (Macherey, 1978) refer to as the *non-dit*.

*We have an ethical imperative to answer.*

According to Bakhtin (1990), we can see ourselves only through how we are reflected in the reactions to us of others. Therefore, to help others see themselves we have an obligation to answer. Although the words or gestures I use to answer the utterance of another can never be completely adequate, because the meaning of their utterance is double-voiced, and contradictory and unfixed, my attempt to understand and then answer is nevertheless meaningful if it is sincere (Tobin, 2000, p. 22). This study tries to answer the young children who spend much of their lives with digital games, to their parents who struggle as digital immigrants; to the educators who see children’s digital gaming both negatively and positively, and to the game industries that market digital games for children.
CHAPTER 5

FINDINGS

Family Life

David.

David is a shy, Mexican American boy. Although he tends to be reticent, he seems to enjoy meeting new people. He is more comfortable “showing” than talking about what he is doing. David’s parents are Mexican immigrants and would be considered to be of low socioeconomic status. He has two siblings: Maria, age 6, and Jose, who is 7 months old. David’s father, Rodrigo, is a construction worker and his mother, Lucia, is a cook at a local restaurant. The family shares a house with another family in a largely Mexican neighborhood; David’s family’s section of the house includes one bedroom and a living room.

During the week, David attends preschool in the morning. After school, he spends most of his time at home with his siblings. The children spend their time riding a child-size electronic car in the front yard, watching television, and playing computer and mobile games. David plays a racing game with his PlayStation Portable (PSP), and mobile games on his mother’s phone. Before she goes to work, Lucia often plays with him. David has very little time to himself; when he plays his games, there is always someone there to watch, help, or disturb him.

David is very interested in cars, and his favorite car is a police car. Lucia thinks this is because, everyday, he sees the police cars patrolling his neighborhood. Whenever
David chooses a car for a racing game, this is the car he picks. He likes to listen to the sirens and see the flashing lights. When his mother takes him out, he likes to watch the other cars on the road.

When Lucia goes to work, he and his siblings stay with one of their neighbors until their father picks them up. On Saturdays, which is Lucia’s day off, she takes the children to a fast food restaurant for breakfast, followed by a trip to a shopping mall or park. Sometimes they send time with one of Lucia’s friends.

Lucia told me that, of all of her children, she worries about David the most. David has chronic pneumonia and, while most of the time he plays like other children his age, it is difficult for him to run fast. He often needs to rest and sometimes uses an oxygen inhalator (respirator), in order to stop coughing. While he is resting, he often plays with his PSP.

Amy.

Amy is a European-American female from a middle-class family. Her father, Carlo, is a mixed martial arts (MMA) fighter and martial arts master. He teaches at his father’s (Amy’s grandfather’s) school (or dojo) for martial arts training. Amy’s mother, Mary, is a personal trainer. Her parents own their house and two cars. All the children in Amy’s family have their own bedrooms with their own television sets. Although Amy’s parents do not have much interest in digital game playing, the children all have their own Nintendo DS sets (Amy plays hers only on long car trips).
Amy has one brother, Derick, who is ten, and one sister, Allison, who is six. Amy spends most of her time with Allison playing “make pretend” and watching Disney movies. Derick joins them occasionally to watch movies and to play with Mary’s iPhone. Amy plays often with her toy cooking set and also likes to help Mary prepare healthy food for the family.

In the family’s living room, there is a picture of the children in karate uniforms. They like to have pretend karate fights and sometimes watch Carlo’s MMA matches on YouTube. Mary told me that the family also enjoys the outdoors and likes to go to the beach on weekends.

The children go with Mary to the dojo twice a week; while she works out, Allison and Derick take karate lessons and Amy goes to the kids club, where she plays with her friends, watches movies, and plays Angry Birds (Rovio Entertainment, 2009) on Mary’s iPhone.

Chan.

Chan is an Asian American boy. His parents, Eunsook and Minsoo, are Korean immigrants. Eunsook had Chan and Jun, Chan’s sister, who is seven, after she and her husband moved to the United States. Chan’s family is upper-middle class; they own their own house and their annual income is over $100,000. Chan’s father, Minsoo, is a chemist and Eunsook is a housewife.

Chan has his own room, but it is only used for sleeping. In the family room, there are Chan’s toys and a television. Chan can watch the television and play computer
games with Eunsook’s laptop in this room. This place is connected to the kitchen, making it easy for Eunsook to watch what Chan is doing while she prepares meals. While Jun is at school, Chan spends time with his mother, playing computer games, watching television, and playing in the backyard at their house. While Chan plays games or watches television, Eunsook cleans the house, prepares food, and writes in her diary.

After Jun comes home from school, the three go to a local library to read a book or to play at the playground next to the library. Jun has strict time restrictions on her game play. She is only allowed to play games on Friday nights (so-called “family game night”) from 7:30 to 9:00 P.M. and on Saturday nights from 7:30 to 9:00 P.M. This is because Eunsook thinks that Jun’s game play affects her school performance. It prevents her from sleeping at night and focusing on her classes. On the other hand, Chan does not have any strict time restrictions on his game play. He can play games after Jun goes to bed, but this is a secret between Chan and Eunsook. Jun does not know about Chan playing games after she goes to school or falls asleep at night.

Minsoo likes to play digital games. When he was single, he was a member of a StarCraft game community. He still likes to play games and wants to buy games for his children, but Eunsook dislikes it.

Lin.

Lin is an Asian American girl. Her mother, Hwa, is Vietnamese, but she was born in Hong Kong. Han, her father, is Chinese. Hwa and Han met and got married in the United States. Lin also has a younger brother, Danny, who is six months old. Lin’s
family is middle class; they own their own house and their annual income is over $100,000. Han is a physical therapist at a local community hospital and Hwa is a housewife.

After Hwa had Danny, it was not easy for Lin to go outside, so she now spends most of her time inside the house during the week. Raising a baby requires great effort and time, meaning that Hwa cannot play with Lin like she did before. This makes Lin stressed. As a result, she hangs on more tightly to the attachment she has with her mother.

Lin usually plays digital games or watches media with Hwa’s iPad during the day. Recently, she has enjoyed watching YouTube videos while she eats. This worries Hwa, but at the same time she does not want to stop Lin from watching the videos this because it gives Hwa time to do other things around the house.

Lin has her own room, but she also does not play in her room. Hwa has made their living room into Lin’s playroom, and Lin often refers to this room as ‘my house.’ For Lin, the kitchen and family room are considered to be Hwa’s house. Lin imitates what her mother’s doing in the playroom.

Mike.

Mike is an European-American boy. He has two siblings; Julie, age twelve, and Kevin, age nine. They are a middle class family; they own a house and the parents’ income is around $160,000 annually. Steve, his father, is an athletic trainer who works for a local community college football team, and Lisa, his mother, is a physical
therapist. The parents are very busy so they hire a babysitter for the daytime when they are at work. Until Lisa comes back from work, Mike spends his time with the babysitter. According to Lisa, the babysitter and Mike are allowed to watch television in the morning and then in the afternoon they have some music time, do educational activities, play card games with alphabet letters and numbers, and then Mike usually has a bath.

When Julie and Kevin are with Mike, they play together. Mike often calls Julie ‘mom’ when his mother is not home. Julie helps him to get started playing games and helps to find toys for him.

Lisa has a very busy schedule. She has to take Julie to her ballet class three times per week and Kevin to his soccer or baseball practices, depending on the season. Julie and Kevin both play piano and Julie is also a girl scout.

Mike and his siblings have a lot of game playing platforms including the Fisher Price Smart Cycle, V-tech game players, a Leapfrog, a Nintendo Wii, and two Nintendo DS handheld systems. Most of the games for Mike are educational or learning games focusing on numbers, counting, and learning the alphabet. Mike plays games with the V-tech players (handheld ones), the Fisher Price Smart Cycle (recently purchased), and his mother’s iPhone. He has never played with his siblings’ Nintendo DS systems or the Nintendo Wii.

After Lisa comes home, she will often take Julie and Kevin somewhere together or go grocery shopping. While they are driving, Mike is allowed to play games with the handheld game players or his mother’s iPhone. However, when they are outside, Mike has to take turns with his siblings with the iPhone.
Mia.

Mia has two siblings; Candace, age six, and Chris, age five. Jay, her father, is African American, and Christine, her mother, is Caucasian. Mia lives with her siblings and her mother in an apartment. Recently, they are living separately from Jay. Since Christine does not have a job, she is on government aid. Jay works at a local game shop, but, according to Christine, he does not make enough to support their children.

In their home, there are three bedrooms. Mia shares a room with Candace. In their room, there is a television and a bunk bed. Mia does not have her own game player, but she does share a Leapster Explore with her siblings. There is also a PlayStation in the home that was used by Jay and is now used primarily by Chris. Mia has never played with the PlayStation because she does not know how to play any of the games. Unlike Chris, Mia does not have much interest in playing games. Instead, she likes to watch television, play with her sister, and draw. However, this does not necessarily mean that Mia does not play digital games. She likes games that are related to princesses and taking care of pets.

Mia’s family, including Jay, is very religious. All of them are Christian. Mia and her siblings are actively engaged in religious activities at a local church. For Christine, it is very important to raise a child by the Bible. When she chooses television programs and games for her children, it affects her decisions. For example, things related to Darwin’s theory of evolution might be inappropriate for her children because they do not align with her religious beliefs. Before eating a meal or going to sleep, Mia’s family prays together.
Jay is a Christian singer. According to Christine, this has encouraged his children to enjoy dancing, singing, and listening to music. During my observations, I often saw Mia singing songs and dancing to music.

On weekdays, Mia goes to her preschool in the morning, and after school she spends her time with her mother until her siblings get home from their school. While Christine does housework, Mia usually plays games with her Leapster or watches television programs. When Candace is with Mia, Mia likes to play with her, but while Candace does her homework, Mia has to play alone.

**Young Children’s Multi-formed Digital Game Play**

Chan: There are bugs. Come back. Hey! Come back. Come back. Come back… Come back… Come back… Come back… Hey! Come back! Buggy… Come back… Come back. Hey! Come back… Come back Hey… Co--m-e b-a-c-k. Hey! Hey! Hey~! Hey~! I am waiting… He~~~y! He~~~y! I got something. He~~~y! He~~~y! He~~~y! He~~~y! He~~~y! He~~~y! Hey! Come back… Come back… He~~~y! He~~~y! Hey! Come back!

June (Chan’s sister): Oh! There’s a strange thing.

Chan: Hey Come back. . . Hey come back. He~~~y! Hey come back!! Come back come back.

June: You know there’s a yellow one. With a yellow face!
Chan: Hey come back! Stay… Stay… stay… Come here… Come here… Bug…
Come here. I will kill you.

(Conversation on Friday family game night, July 06, 2012)

In this transcript Chan is staring at a screen on a laptop computer, following the progress of a yellow bug. He calls the bug repeatedly and begs it to come back, but the bug never comes back, which makes Chan upset. Chasing butterflies or dragonflies outside is a traditional part of children’s life, and if someone overheard what the boy is doing, he might conclude: ‘Oh! He is playing with bugs’. Such play strikes many people as authentic and valuable. However, when we hear that Chan is catching bugs not in real life but on a computer game, how do our feelings change? Does it still sound like children’s play, as described in early childhood education books? Can we say that Chan is “in the magic circle,” to borrow Huizinga’s phrase?

In my observations with six three-year-old children, I often encountered this kind of young children’s game play, which mirrors their real life experiences, but at the same time requires their immersion in the game. In other words, the children imagine that they are being surrounded by the game world outside of their ordinary life, while at the same time their imagination is being shaped in part by their everyday experiences in digital game play. Chan is in the grass, chasing the bug, flying to the left and right in the game space, as he calls out to the bug, ordering it to hold still. Without his imagination, his commands to the bug are meaningless because the bugs in the game cannot hear his voice (and even real bugs don’t respond to human orders).
It may be the case that children under age three might not know that bugs cannot understand human language. But this explanation cannot adequately explain his behavior, which involves his active imagination in the game space in which he is immersed. Chan needs to imagine that he is with the bug in the same space, and not in front of a computer. He cannot follow the bug by moving out of his chair, but only by moving his finger on the control pad. The bug is programmed to move in predetermined ways, and yet Chan asks the bug to come back to him. Does he know that this voice has no impact on the bug’s movements? Does he care? Or are these the wrong questions?

This involvement of the imagination is what makes young children’s digital game play special. The game space is the place of imagination, which is one of the main characteristics of young children’s play (Vygotsky, 1990). However, some might argue that flights of imagination in the context of a child’s immersion in a video game limit young children’s creativity because the possible moves and outcomes are constrained by the game system (Hughes, 2003). To address this tension between the positive and negative views of young children’s digital game play, I explored young children’s digital game play in their everyday life, and compare this play to their spontaneous play outside the game space.

**Game Play: it’s all about play (Navigating from Paidia to Ludus).**

Rule-breaking or cheating is common in modern digital game play. To attain a game goal, players still need to follow game rules, but there are ways to finish the game without following rules, as by using a “cheat” code. For example, the WoW glider in *World of Warcraft* (Blizzard, 2004) is a way to move a game level up that is considered
as cheating by non-glider using players (Consalvo, 2009). While non-glider users labor
online to gather products, kill animals, and skin them to move a level up in the game
space, glider users let their avatar do their work for them, even when they are offline.

In my study, I found many examples of children as young as three breaking
game boundaries (e.g., rule-breaking, using virtual space as source of their spontaneous
play, navigating between virtual and physical space for their play) in their game playing.
Young children break game rules in different ways than do older children and adults.
Adults cheat and break rules mostly to attain advantage in the game. In contrast, young
children break rules mostly just for the joy of it, and to create another form of play. In
many cases they show no sign of caring about winning the game from the outset of their
play, and they often do not seem to be aware that they are breaking game rules.

In my study, I found four different types of game playing:

1) **Free play on a game system.**

In this type of game playing, children are playing digital games, but they do not
pursue the game goals. Instead, they use the game contents and context for play. I call
this type of game play *free play* because it is played without any bounded rules.
Following Caillois and other game theorists (e.g., Avedon & Sutton Smith, 1971; Salen
& Zimmerman, 2004), I suggest that this is not quite a game, although it is playful. The
young children’s action during their game play is more close to free play than gaming
because they do not follow rules or concern themselves with the formal structure of the
game system. Instead, they use the digital game as a tool to create new types of play. For
example, Lin likes use her mother’s iPad to play *Sprinkle Jr.* (Mediocre, 2011). The goal
of the game is to put out a fire in *Sprinkle* town. However, Lin is more focused on placing fireballs on a woman’s hand in the game than on putting out fires with a hose. This is because she wanted to hear the woman’s screaming when she puts the fireball in the woman’s hand, rather than to finish the game. She ignored the game rules and even broke the rules. In that moment, her purpose in the game play was to make the woman say ‘Ouch!’, rather than to complete a level.

Chan also purposely failed on his game mission to make pirates get into a boat because he wanted to reach the point in the game where he could see the pirates fall into the water. Chan’s older sister tried to give him some advices to complete the mission, but Chan did not listen to her. Chan’s only concern was to make the game scene. Chan’s intention can also be seen in his choice of a hard level instead of an easy one. I know that he did not make this choice mistakenly because I observed that although his sister asked him to change the game mode from “hard” to “easy,” he purposely chose the hard level. He understood that this would make it more difficult for him to finish the game, but he played the hard level because he knew that it would give him more playful experiences.

Amy likes to find a blue bird in *Angry Birds* (Rovio Entertainment, 2009) as she opens game levels randomly from the game list, as can be seen in my conversation with Amy:

Youn: What do you want to play? *Angry Birds*?

Amy: I want something else.

Youn: Not *Angry Birds*?
Amy: My mommy lets me play um… Angry Birds and a blue one. And blue one. A blue bird makes three.

Youn: Oh… a blue bird? Do you want a blue bird?

Amy: Yea.

Youn: Let’s find it. Hum… It’s red [bird]… Go back [to the game list] and red. Yhea! This one… This one is the blue one.

Amy: Do you want to see something?

Youn: Do you like the blue bird?

Amy: [not answering]

Amy: Red… [After Amy found a red bird instead of a blue one]

(Conversation with Amy at the kids club in dojo, September 16, 2012)

When I asked her if she wants to play Angry Birds (Rovio Entertainment, 2009), Amy used the words “something else,” and “blue bird” not to suggest that she wanted to stop playing this game, but to play the game in a way that would allow her to see blue birds. By using the word ‘else’, she expressed that what she wanted to do is not to play the game in a linear way, but to do something else, something different, with the game. For Amy, the game system is only a tool for her play, and the meaning for succeeding in game play is different. During my interview with Amy’s mother, she explained the meaning of winning for Amy: “She is obsessed with Angry Birds. Oh, my gosh! She
will play that things, but it’s funny. She never wins. She insists that just when the bird moves, she wins.”

Some would say that Amy is too young to understand what the word “win” means. However, what I find here is that Amy sees digital game play differently from the way most adults do. From Amy’s point of view, winning a game is achieving her own goal, not completing game levels. During my observation with Amy, she kept finding a blue bird on the list by herself and rejecting my help to navigate the selection screen. Finding a blue bird by herself is her way of playing. She is an active player who creates and directs play. She is not playing the game, but playing with the game, just as she could with a toy.

2) Turning non-game apps into games.

There are a lot of digital applications for young children to play with. In my study I found young children turn non-game apps into games, applying their own rules. For example, with one of the iPad cooking simulation apps, Cake Pop Maker (Bake More Cake Maker, 2012), Amy creates her own game rules. In her version of using the app, if someone beats eggs on the app, someone else has to jump on a bed. This is her rule to go to the next step on the app, and I as a co-player have to follow it until the game ends. Amy used the word “game” to make me follow her rules for play.

The application, Cake Pop Maker does not meet most theorists’ definitions of a game (e.g., Cailliois, 1961; Avedon & Sutton-Smith, 1971). It is very close to real life, and far from a fictive world; and it does not have any quantifiable outcomes or bounded
rules to follow. It requires negotiating several steps, but they are more like instructions for cooking or assembling furniture. However, I see young children’s play with this and other non-game apps as game play in a broad. During their play, they use game terms such as “win the game,” “next level,” and “pass a level.” Moreover, they devise their own game rules. This is different from typical digital game play because young players create the game context rather than entering into an existing game space, with predetermined rules. The application becomes a game only at the point that it is used by Amy, for the moment it is played. The device and app become a game only temporarily and occasionally, depending on the time and the user. If the app is used by others or at another time, it might be not a game, but a cooking simulation program. Therefore, to determine whether such digital applications are games, it is necessary to look at the user and especially at the use.

3) Game/free play hybrids.

For Mia, dancing to music with her older sister is her favorite play in her everyday life. They dance to music hearing on TV shows and that they play on their Leapster Explore. The music heard during game scene transitions and reset periods last long enough for them to change their mode of play from game playing to dancing. This is different from the play of Amy who has made a rule that when someone beats an egg on the cooking app, she must jump on the bed, because dancing to game music is not a rule to follow, but rather a spontaneous outbreak of play, closer to free play than a game. And yet, in the repetition of dancing each time the game music comes on, there is a game-like spirit. I call this type of play hybrid because in this situation the children do
not leave their game playing to play another game, but instead create play within the interstices of their game play. They are playing a game and playing with a game at the same time.

Another example: among the many levels in *Sprinkle Jr.* (Mediocre, 2011), Lin tends to play one level repeatedly. In the game scene, there is a cup for iced tea. To complete the level, she needs to make a cup of iced tea and put out the fire around the area using a hose. However, rather than rush through the game task, Lin takes time to make iced tea in her own way. She attempts to fill the cup about halfway with water from the hose, and then to stir the iced tea with a piece of a lemon. After she makes several cups of iced tea in various ways, by changing the order of putting in the ingredients and changing the amount water, she clicks “next page” to complete another level. This is an unnecessary and unproductive process for the game. Making iced tea is a part of this game intended by the game maker, but there is only one way to make it. Pouring water about 2/3 of a cup (which is set by the game system) and putting a piece of lemon, and Ice cubes, but Lin attempts to reduce the amount of the water or shakes the cup which are not allowed in the game system, and her actions caused the system malfunction because she kept pressing the screen with her fingers so hard to move the cup. Lin attempted to do something by getting out of the game system, and what she did reveals that it is a part of her play, a form of play within the playing of the game.

Mia and Lin play with some game contents while they are playing their games. In the way that the children focus more on the game elements rather than on achieving the game goals, we might say that their games are similar to playing with a toy that does not have quantifiable outcomes or make the child play with the game contents purposely.
Playing with the game elements can also be found in adults’ game play (e.g., intentionally crashing a car or wandering around while playing *Grand Theft Auto*). It is a meaningful activity for both game makers and game players because it helps the game players get to know the game rules, to have some feeling of control over the game system, and to define themselves in the game space.

However, children’s play can be distinguished from adults’ play in which while the primary focus of adult players is to experience or test their limitations in the game system, the children’s focus (i.e. Lin and Mia, in this study) are more likely to create their own play by using a game system as a toy. In other words, adult game players keep monitoring the boundaries of the game system even while they play with the game elements, but Lin and Mia do not care about these elements, sometimes even ignoring them while they are playing. Lin causes the system malfunction to make a cup of iced tea, which is a behavior that we can guess was not anticipated by the game maker and which takes the play beyond the game narrative. Also, in Mia’s case the game music is for players’ amusement, not for dancing. Mia and Lin convert their game to a toy game by their own decision.

4) *Movie like games.*

Many games have a storyline that draws players in. However, a game is not for watching, but for playing. What makes a game different from a movie is that games require a certain degree of interaction between the game and the players. Even though there may be a story line in a digital game, the players need to do something to advance the story. They need to be immersed in the digital game and become a game character,
living in a digital game world. However, I found that the young children in my study very often change their game experience from active playing to watching the game as a movie.

The computer game, *Team Umizoomi: Catch that shape bandit* (Nick Jr. n.d.), has one story line, but multiple missions to be accomplished. The story reminds me of the *James Bond 007* movie series in the way that a main character catches a criminal running away by using various vehicles and devices. To catch the shape bandit, the child players need to complete their mission by building a vehicle using shapes on the game screen. In other words, the child player need to become like Q, who makes devices and special cars for Bond, and then like Bond who drives the cars, to complete their mission, rather than just watch Q and Bond in a movie theater. However, Chan likes to be a spectator, as he asked me to play for him instead of playing the game himself:

Youn: How can I help you?

Chan: Help me. [points out one shape on the screen]

Youn: You can do it.

Chan: You can do it.

Youn: Do you want another game?

Chan: *Immo*!

Youn: Do you want me to do it?

[Chan nods.]
Youn: Why? You can do it.

Chan: You can do it.

Youn: Ok! Do you want to watch what I am playing?

Chan: Yes!

Youn: Ok! Click and go, Click. go… Orange … Go… Click! What does this look like?

Chan: Wow! Helicopter.

[A short movie plays on the screen, Team Umizoomi is chasing the bandit by riding a vehicle made by the game player, but the bandit gets away by transferring from a car to a boat, and then a new mission comes up on the screen]

[Chan pulls my hand over to the keyboard]

Youn: Again? Why don't you do it?

Chan: Immo! Do it!

Youn: Ok. Which one do you want me to move?

(Conversation, July 06, 2012)

When Chan told me “You can do it”, it made me think that he is bored with the game and wants to play another game because he did not even try to touch the computer mouse. It seemed that he does not want to play the game. However, there were verbal and body expressions that allowed me to realize what he really wants. First, he called me
Immo, meaning ‘auntie’ in Korean. When I asked him “Do you want to play another game?”, he called my name to express what he meant. He wanted me to play for him, but not to stop the game. After I completed the mission for him, he placed my hand on the keyboard to make me keep playing the game, instead of him playing. This gives me a clue to understand his action. For Chan, at least at this moment, the game is not something to play, but something to watch. His action should be distinguished from game immersion, because while game immersion is experienced when players freely explore a game world, (Poels, de Kort, & IJsselsteijn, 2007), Chan’s engagement with the game is second hand, and his game actions telling me what to do and moving my hand, occurs outside of the game world.

While the game, Team Umizoomi: Catch that shape bandit, features short movie clips between game levels, other games include movie clips only in the beginning of the games. The purposes of these movies are to introduce the games. Once the players start the game, the game stories are not important to the play. However, when Amy and Lin played games such as Cut the Rope (Chillingo, 2010) and Where’s My Water (Disney, 2011) they tended to show their interest only by watching the short movies rather than playing the games. They repeatedly played only level one, and then restarting the game, so they can watch the movie at the beginning repeatedly. They did not actually break the game rules, but I see this as another rule-breaking game play because their purpose is not leveling-up, but watching the game movies.
Multi-formed game play created by young children.

In this chapter, my focus is on discussing multi-formed game play created or recreated by young children rather than on describing typical game activities expected by game makers or described in game advertisements. My goal is to understand how young children make digital game their own play through their authentic experiences with digital games. Young children’s digital game play has been devalued by adults as it has been compared invidiously to outdoor play, free play, dramatic play, and social play. Many educators and advertisements advise parents to make their children go outside and play. However, as Bauman argues (2010), this kind of discussion views children objects to be operated by parents, based on the advice they receive from experts. It takes away young children’s agency in their play. The young children in my study present a challenge to this argument.

According to Hughes (2003, p. 31), “Interactive toys may encourage children to ask the wrong question when playing with them. Instead of asking, ‘What can I do with this toy?’ The children may ask, ‘What does this toy do?’” This tendency to play with toys and games in conventional ways may become greater as children become older. As young children get older, they become more apprenticed to the valued practices of their community. I observed Chan’s older sister trying to understand what a game asks her to do rather than finding her own way to play with it. However, this cannot be applied to all children. Games, whatever their creators’ intentions, do not have the power to limit how young children will use the game. Rather, young children are able to create multi-formed play by moving in and out of game spaces.
Obviously, digital games are distinct in comparison to traditional toys; they operate based on digital screens and require that players use different types of motor skills for play. While digital games have become a part of people’s everyday practice, they are not like any other everyday objects that exist primarily to facilitate people’s lives. Digital games are not a neutral tool with a meaning that has been determined by its user; they contain certain meanings, requiring players to interpret. However, I found that young children see digital games as toys to play with. They use game contents as tools to play with, and they create new forms of play by mixing their game play and other play in real life. Sometimes, they transform the game space, creating their own play space, which can include not only the digital game, but also dancing and jumping within a physical space (i.e. the bedroom or living room).

These experiences are new types of play that adults have never experienced before even with their old Gameboys. With the development of mobile and haptic technology, digital games allow players to create individualized and various practices during their game play (Rowsell, 2014). Even adult players have their own ways of playing games in different times and places. However, young children’s play with digital games is something that we need to redefine. The game system does not limit young children’s play; rather, the game rules are deconstructed and recreated by young game players.

I am not suggesting that digital games may serve as a substitute for traditional toys or everyday objects or that digital or other games that have rules are not important for young children’s play. Instead, I am arguing that digital games have the potential to
facilitate and enrich young children’s play as they use their imaginations to learn about the world.

**Learning from Games**

To convince their children of the use of learning, fathers and mothers of your used to tell them that ‘what you’ve learned, no one will ever take away’; that might have been an encouraging promise to their children, but the contemporary young would be horrified if their fathers and mothers still deployed such arguments . . . In our volatile world of instant and erratic change, those ultimate objectivities of orthodox education such as settled habits, solid cognitive frames and stable value preferences become handicaps. (Bauman, 2010, p. 92, 95)

Zygmunt Bauman, a famous Polish sociologist, referred to the modern world as a liquid world and today’s learner as a surfer. In this modern liquid world, everything, including knowledge, is unpredictable and has no stable form. The learner must accept new waves of knowledge flexibly, in the flow of modern society, and simultaneously leave behind thought waves from the past, like a surfer (Bauman, 2010). However, modern education forces children to learn and keep the products of the past, which might be meaningless and useless, and may even be handicaps in terms of a child’s capacity to take in and process new knowledge. Thus, there exists a tension between children’s existence in a liquid world and methods of modern education in society.

The next chapter presents the voices of the parents and children from the study speaking about learning and digital technology, illustrating how children actually learn
new knowledge through digital game play. I will also discuss various young children’s
digital game play and learning related issues in modern society.

**Discourses of digital immigrants and digital natives.**

“They pick up stuff so fast now, like with electronics… And back in my day,
there was like barely any electronics. You know they get stuff so much faster…
This world of technology! I am unaware of…” (Interview with Mary, September
16, 2012).

“When he saw my phone, because now he is Mr. Savvy…” (Interview with

When I found these two excerpts in the transcript from two mothers in the study
that spoke to me at different times and in different spaces, I noticed that there were two
different types of people stuck in a similar situation. The first mother is one who is not
aware of things in the world of technology, and the other one calls her son “Mr. Savvy.”
They both express a shared feeling of distance or alienation from their children on the
topic of technological knowledge. I attempted to mix and recreate the two conversations
in one sentence from my point of view as an observer in the two situations with the
statement, “Now, he is Mr. Savvy, and I am unaware of this world of technology.”

In doing this, I intended to bring the two mothers’ ideas together in the same
space to answer how the digital divide is interpreted from the voices of two different
families. According to Aarsand (2007), the digital divide may be defined as “the
differences between those who know and who do not know how to act in a digital
environment” (p. 51). There also seem to be commonalities in views on the digital divide between digital natives and digital immigrants. However, rethinking the two conversations, I would like to add that the digital divide not only encompasses the differences between digital natives and immigrants knowing about digital technology, but also the awareness of the differences of one another in the digital world. Parents of a three-year-old child might have a better knowledge of digital technology and know how to behave in this environment than their young child, who still has a very limited knowledge of the world in which they exist.

However, these mothers have already begun to feel and express fear of disconnection from their young children. Where do these fears come from? How do they know that they are disconnected from their children? This might be related to their self-awareness in that they are able to comprehend how they gain knowledge but they are unaware of the ways in which their children gain knowledge quickly in the modern world. It seems that the fundamental fear of these parents is not that their children will gain new digital knowledge; rather, they fear that as their children learn “so fast,” they will become unfamiliar with and disconnected from them. Eunsook expressed similar feelings in the following portion of the interview:

Youn: I found that Chan already knew of the *Angry Birds* game. So, I was curious of how he got to know the game.

Eunsook: In our home, no one can play the game because I have never bought the program. He has played that game only once. When I went to a Verizon store to get my phone fixed, the the game was displayed in the store. In there, Jun
loudly said, ‘Angry Birds!’ as soon as she found it. This is what happened. Jun played it, and it was my first time to watch the game. At that time, Chan said, ‘I want to play it. I want to play it, too.’ Then, my husband lifted him… and then… what is the thing. You know there are the things like the iPad. My husband said, ‘Chan! Try it. This is a sample so that you can try it,’ and he let him play the game. So, he tried it while I got the service. Since then, he has never played it.

Youn: But, he remembered how to play it [When I showed the game on my phone].

Eunsook: Yes! He remembers it and I think it was only thirty minutes? Less than one hour at best. Because we were just waiting for my cell phone to be fixed, and we let them play games because it was hard to keep them with us for a long time. But then, they were playing well, and after my husband just showed them how to fling the birds by saying, ‘Do like this,’ once, they were eagerly playing it. It was the first time that they saw the game. But then, they are really fast learners. Once they acquired it, they knew how to apply the skill [of flinging the birds] (Interview, May 30, 2012).

Hwa expressed similar sentiments when she said, “They are gonna um how to say. You cannot ban it. They… sooner or later” (Interview, August 23, 2012).

Eunsook and Hwa expressed awareness of how quickly their children are able learn new skills related to digital technology. Eunsook started to tell the story from the
local mobile phone store to explain how Chan got to know Angry Birds (Rovio Entertainment, 2009), but the main idea of her story was that even within a very short time Chan was able to master both game strategies and how to use a smartphone. For Eunsook, it was a shocking experience because she realized that she could not prevent her children from experiencing mobile phone games despite her best efforts. She joked about it, saying that she would delay upgrading her “2G” phone to a smartphone with 3G or 4G capabilities. Hwa, who neither met Eunsook nor heard the story, provided a very similar explanation for how ubiquitous technology is in children’s lives. These mothers seem to agree that their children will learn these skills sooner or later; it cannot be banned.

The two mothers also pointed to the importance of the environment in which their children were born. They both felt that it was inevitable that their children would take in and gain knowledge of digital technology throughout their everyday life experiences, despite the influence of their parents. These everyday experiences include a wide range of interactions with technology; their learning is not inhibited by the dictation of experts with set plans. The environment of modern society itself provides opportunities for children to learn new skills and gain new knowledge. For young children, digital technology serves as a sort of cultural tool, not unlike paper and pencils. These tools fundamentally affect the learning process, but the learner is often unaware of their influence (Lantz-Andersson, Linderoth, & Säljö, 2009). This gap between the mothers’ childhood learning experiences and their children’s everyday learning experiences cannot be reduced and resolved, and thus they expressed frustration and fear.
Barlow (1996) addressed parents in his *Declaration of the Independence of Cyberspace* when he noted, “You are terrified of your own children, since they are native in a world where you will always be immigrants” (p. 12). No matter how hard parents try to learn new skills, they will not be like their children. After reading Barlow’s paper, I imagined what would happen if went back to February 8, 1996, the day that Barlow presented his declaration, with the mothers in my study. In that time and space, the mothers and I would be the children, or digital natives. We were the ones who made our own parents terrified. What is it that shifts our position in life from digital native to digital immigrant?

Likewise, it is impossible for any one person to hold the position of digital native or immigrant. There is no perfect criteria of “us” and “them” in the modern digital world. These dichotomized perspectives, including the distinctions of digital native and digital immigrant, do not account for the fact that there are children with different interests and learning styles, as well as children who still love to read books, play with toys and friends, and connect with their parents. In the dualistic digital world, adults are useless and ignorant, unable to master technology. On the other hand, children are viewed as terrifying when they have a greater ability to connect with and learn through technology, leading to the censorship and control of children’s digital access by adults. In this world parents may also view knowledge as something that should be hidden or be worried about, rather than looking at it as something that may improve their life. This makes Eunsook’s situation ironic, as she is supposed to encourage her children’s learning but she worries about her son learning new things by himself (see Strategies and tactics on young children’s digital game play session).
According to Aarsand (2007), it is clear that knowing digital technology gives children power over their parents, and the maintenance of this power seems to sustain the generation gap as children resist showing what they know about digital technology to their parents. However, in another sense, although children may serve as instructors or teachers for their parents and digital experts in their families, these positions of power may not be allowed by the adults in the family. Children have the power to be solve problems and help their family members. If this is the case, why do older generations worry about children knowing and understanding technology better than them? Is this because the children learn inappropriate knowledge and hide it from their parents or is it because parents feel inferior due to the digital divide panic inherited from the past?

**Discourses of edutainment and commodification.**

In a consumerist society, we can say that all shops and service outlets are first and foremost *pharmacies* . . . Whatever the other, ostensible uses of the goods on sale, most of the goods are (or at least they are suggested and imagined to be) *medicines*. Obtaining such goods and consuming them are acts conjectured and hoped to placate discomforts or pains which would otherwise go on seething and festering; or better still, acts expected to prevent the displeasures which are certain to descend upon the slothful or negligent shopper (Bauman, 2010, p. 69).

Bauman points out that consumption in modern society is more than just the act of buying products— it is a survival kit for life in modern society. Whether this consumption has a real and lasting effect or only provides comfort from pain, consumption is recognized as a fundamental duty in a capitalist society. As a good
consumer is conceived as a good citizen, parents who buy good products for the benefit of their children’s learning feel as though they are being good parents and good citizens. This phenomenon became evident in the following interview with Hwa:

Youn: What kind of digital games and gaming devices does your child have?

Hwa: She plays with an iPad, like we downloaded something like … educational one … We downloaded it from the iPad App Store … she plays with finding a different one … find the differences … a lot of games are like a number thing. She doesn’t like numbers … from the beginning I thought she had a problem with the one. She cannot recognize the numbers.

Youn: Oh.

Hwa: Because I asked her in Chinese, and then … later I found out she counts like one to twenty in English, and then she pretty much recognizes which one is one … two … When I asked her in Chinese, she only counted one to ten or one to seven, and then she didn’t recognize what was two, what was three … She doesn’t know but in Chinese. I don’t know why … but I think she has a little problem with numbers. She doesn’t like it.

Youn: But, she is young … so?

Hwa: Oh. Because I have a friend. Her son was a like three and a half, and she already taught her son like plus and minus, and now he is like a five. He knows
like division and multiplication. He is so good at with numbers. So, that’s why I try to teach her but she doesn’t like it.

(Interview, August 13, 2012)

Hwa tried to solve Lin’s problem not only by teaching her about numbers at home, but also by downloading math games from the App Store on her iPad. She actually seems to believe that if she provides educational games to Lin, Lin will learn numbers from them. Where does this idea come from? What makes her believe in the effect of educational games? According to Buckingham and Scanlon (2001), edutainment marketers urge parents to “invest” in their children’s education by providing additional educational resources at home that they claim “can help your child to get ahead in the educational race” (p. 282). From Hwa’s point of view, Lin is far behind her friend’s son. Hwa feels that Lin needs to catch up to the speed of his learning, but she is unable to pinpoint the exact reason why Lin is unable to count or recognize numbers. Even the optimistic view of a pediatrician with whom Hwa spoke with recently about Lin’s current developmental status did not give any comfort to her.

Hwa’s concerns about Lin’s learning may have many roots. Some of these concerns may be affected by the current competitive educational system, and some might arise from Chinese culture, in which the mother’s involvement in a child’s life is perceived as a very important part of their education. Through this practice, “Chinese children are also given very extensive experiences of what’s expected of their behavior in general” (Chao, 1994, p. 1117). Hwa’s concerns may also stem from her anxiety as an immigrant parent, or other factors that are not as clearly evident. Although I was not
able to determine the exact origins of Hwa’s anxiety about Lin’s learning, but was able to clearly see how it affected her game selection for Lin.

Figure 2. 25-IN-1 Free Educational Games

Figure 2 (above) shows one of the games downloaded to Hwa’s iPad. In the App Store, the game is advertised as follows:

25-IN-1 Free Educational Games HD for iPad offers the perfect opportunity to try out 25 different best-selling games from A&R Entertainment . . . This game is part of our "Learning is fun” educational game collection (Minard, 2011).

This description helps to form people’s initial understanding of the game and mainly functions to encourage them to download it. Han downloaded the game from the App Store as he read the description. It includes several free math games. The words “free,” “perfect opportunity,” and “best-selling” catch consumers’ eyes and make the game look valuable to the consumer. However, a closer look at the words shows some
irony in the situation. The game is advertised as both “free” and “best-selling,” implying that the game company has succeeded in “selling” the game for “free.” This does not align with the goal of most companies, which is to make a profit. This only makes sense if the consumer invests something else that will allow the company to make a profit in the process.

The advertisement also directly quotes the phrase “learning is fun.” According to Buckingham and Scanlon (2005), educational materials targeted toward children’s use at home need to satisfy both the parents, who expect educational outcomes, and the children, who seek pleasure in their leisure time. “The sales pitches for such materials rely on an obsessive insistence that learning is inevitably fun” (p. 46). The advertisement appeals to the idea that the game is capable of satisfying both the adults as smart shoppers and good parents, as well as the children, who are able to have fun while also learning.

Unlike Hwa, Lisa is very confident about Mike’s academic achievement. According to Lisa, he can read the alphabet and count numbers, and he is a fast learner. However, Lisa is also one of the mothers who discreetly select specific games for their power to educate their children. Lisa downloads mobile games from the App Store like Hwa, and she also actively purchases educational game software and devices such as the V-tech game player, and Leapfrog. When she was asked to choose a new game for Mike, she searched for games on Google by using the keywords “educational” and “game,” and among the results she chose one Nintendo Wii game, *Reader Rabbit Preschool* (Graffiti Entertainment, 2010), for Mike.
As seen in Figure 3 above, the words “numbers” and “letters” are presented on the cover page of the game, and it claims to introduce “early-learning concepts” that are directly linked to a current preschool curriculum. Also, the child-friendly and cartoon-like rabbit character seems to draw children’s attention. It clearly succeeded in catching Lisa’s attention because she was looking for something where Mike might “learn with memory, alphabet, shapes, or numbers,” and it seems that this rabbit character is one of Mike’s favorites, based on my observations. If Mike had to pick a game only by looking at the game character, he would choose a game with this rabbit or a train.

However, the games selected by the mothers failed to captivate Lin or Mike. According to Hwa, Lin neither liked the number game nor played it much. Instead, she said, Lin likes games that involve telling stories and coloring things. I also observed that Mike easily got bored with the game that his mother chose and he even resisted playing it. Mike sometimes made me play for him in order to get a reward from the game or to
pretend to blow a blue flower presented at the end of the game. To him, playing the
game did not provide any pleasure. It was like a difficult task he needed to practice to
achieve his goals.

Mike: I want to play *Candy Land* (a board game).

Lisa: *Candy Land*? What about *Reader Rabbit*?

Mike: I don’t want to…

Lisa: You don’t wanna play *Reader Rabbit*?

Mike: It’s so hard.

Lisa: It’s hard? Controllers are hard?

Mike: Mhmmm.

Lisa: That’s why we practice Mike! So… maybe it’s not teaching him reading
skills so much as it is teaching him motor control skills.

(Conversation, July 24, 2012).

Unlike Lisa’s expectations, the games were very hard for Mike to play. It was
even difficult for me, as an adult, to move the controller properly. However, it is hard to
say that Lisa made the wrong choice because, by only looking at the cover page of the
game or looking at the game website, it is not possible for the consumer to recognize all
of the potential problems that might arise during game play. All of the information
provided by the game company was related to the outcome of the game play, not the
actual experience of playing the game. Even parents and adult game players can be easily manipulated by marketing strategies.

However, adult players can search for and refer to game reviews posted by actual players on digital gaming websites. The information presented in these spaces is typically very detailed and specific in terms of incorporating descriptions of the game’s ease of use, economic value, and situational purpose (Tobin, 2013). On the other hand, it is difficult for young children to express their thoughts in detail, thus it is hard to find information like this on the Internet. Usually, the children do not even have any power when it comes to game selection. This was true for both Mike and Lin, whose mothers typically select games for them:

Youn: Is he (Mike) ever a part of the decision to buy a game?

Lisa: He has nothing … not at all … I think it’s all mom say … this and that … controlling, controlling …

Youn: His favorite on your phone?

Lisa: He is bored with it. There is a shape maker game on my phone. I really like that one. But, he is bored with it. Done with that one. (Interview, June 21, 2012).

Lisa, as if were quoting Mike’s words, explained how she exercises her power in selecting games for Mike from Mike’s point of view. “I think it’s all mom say … this and that … controlling, controlling …” These words came from Lisa’s mouth, but they represented her perception of Mike’s thoughts. In the three-year-old boy’s life, it seems
that he does not have any power to purchase game products. What he can do is use the
games that his mother, who is also manipulated by the marketing plans of the digital
gaming companies, provides for him. However, Lisa also revealed one important tactic
that Mike uses to exert his power as a game player – he told his mother that he was
“bored with” the so-called educational game that his mother provided for him. This
shows both a resistance to his mother and also an invisible but powerful resistance to the
gaming company.

This is evidence of the validity of Joseph Tobin’s (2004) arguments about the
power of children as media consumers. By not playing with particular games and
expressing their boredom, young children are able to do battle with digital markets.
Young children do not have enough power to purchase their own games, but they are
smart enough to determine which ones are real games and which ones are educational
tools disguised as games.

On the other hand, Hwa also noted Lin’s affinity for other types of games:

Hwa: She has a stroller for her baby [doll]. Every weekend … she says, ‘I wanna
go to the mall!’ I ask, ‘Why?’ She says that she wants to push her baby. Every
weekend! (Laughing) She says ‘Daddy! I wanna go to the mall! Go to the mall!’

Youn: Does she like to go to the mall?

Hwa: Just like the one near our house. They have a playground, and they have . . .
. the games … and … You know the ones we have to put the money in on the
second floor (a video arcade). She … once played with her father and then now
she knows [what the place is for] … I just … It doesn't have that much … she can play … Which one … a boy has to put a ball in the hole … But she loves [it].
She can do it.

Youn: In the hole …

Hwa: Yea … In the hole … (referring to a pinball game) and now … she said …

Yesterday … It was yesterday … ‘I wanna play games.’ I thought she meant games on the iPad. I said, ‘Ok,’ but I also said, ‘You can play with it but only for thirty minutes,’ and then she said, ‘No! Not the one on the iPad. I want a real one!’ I said, ‘Which one?’ [she said,] ‘The room.’ She wanted the one we have to put the money in (the one at the mall).

Youn: That's real for her.

Hwa: That's the real thing. Just see that stuff (pointing to toys in the living room)

[She says,] ‘I cook the fake one. Mommy cooks the real food’

(Conversation, August 23, 2012)

For Lin, real games are not the educational games downloaded to her mother’s iPad, but rather the games in the video arcade at a shopping mall. In the video arcade, the games are not like her games – they are for all ages and only for pleasure. People spend real money for fun, not for educational purposes. Even from her limited experience, this three-year-old girl was able to identify which games she would consider to be “real.” As if she cooked the fake food, she pretended to play the educational game, but she knew that she was not playing, and she claimed that this game was not real.
I do not mean to imply that Lin’s claim gives her power directly. However, following de Certeau, in everyday life when their actions and tactics become habitual, young children exert their power to survive in a technically developed society. Young children just do what they do in their everyday life. They consume games given to them by others and become bored with them. Their everyday game play experiences might be done without any specific purpose. However, their struggles and battles with others make them powerful players and consumers.

**Exploring young children’s learning with digital games.**

Exploring young children’s learning processes during their game play is not easy; there needs to be a set of specific tools for decoding and uncovering children’s hidden and cryptic behaviors and thoughts, which sometimes appears as nonsense to adult observers (Tobin, 2000). To accomplish this, I focused on the children’s initial behaviors leading their game play during my observations. These behaviors typically revealed their initial intentions, which influenced their physical actions and thus their learning processes. In other words, I was interested in why they learned from the games rather than what they learned or how they learned it.

Young children cannot explain what they are doing due to their limited language abilities. Thus, it is difficult to understand their learning processes by merely observing them without understanding their intentions. Even watching the children playing with so-called educational games or learning games that boast young children’s possible learning outcomes failed to provide a clear picture of their learning processes without understanding each child’s individual intentions when it came to playing the game.
During my study, it seemed that learning did not always occur in predetermined ways, as described by game makers and advertisements.

As Hwa stated, Lin failed to learn numbers from the math games although the game insists that children can learn those concepts naturally by playing with it. This, however, does not prove that Lin is incapable of learning anything from the game nor does it prove that the math games fail to teach any number concepts to any child. Contrary to formal educations, digital game playing itself provides players with an informal learning environment, where the players’ experiences are varied depending on their methods of play, their individual characteristics, and their lifestyle. Therefore, to understand their learning experiences with digital games, it is essential to understand the entire context which affects the children’s game play.

According to Taylor, and Backlund (2011), learning cannot take place in a social and cultural vacuum. Children are able to learn things from the content of a game as well as the game environment, the game players, and the people and objects that appear throughout their game play. Some of these factors are not directly related to the game’s content, but they still affect the children’s thoughts and behaviors during their game play. To explore their learning processes with games, I first attempted to describe the contexts in which their learning processes occur rather than to display the learning outcomes or concepts advertised by the game makers. However, as I reviewed all of my research data, I found that the children’s behavior before, during, and after their game play had the potential to contribute to the overall learning process and the game. Eventually, I realized that it was impossible to describe all of these things in great detail.
Sefton-Green (2000) also admitted that it is “profoundly challenging to prove a chain of events demonstrating a casual relationship between what the learner does (socially or cognitively) and where the learning taking place” (p.142). To explore children’s learning through these games as it occurs in their everyday life, he described the long journey of his own son with a specific game, *Pokémon*, to capture the boy’s various learning experiences with games as they occurred in his everyday life.

However, I could not apply his approach to explaining the children’s learning in my study because I had six children to observe, and I did not believe it would be possible for me to grasp a deeper understanding of the children’s behavior than their parents had. I had to deal with both the huge amount of data that I collected with the children while also seeking to understand their various learning processes. To deal with these issues, I then tried to decide what to watch among the various game experiences of the six children, which became a criterion that helped me to better understand their learning processes and compare and contrast the differences and similarities between each child.

I collected moments of the children’s initial game play from my transcription and I focused on their first movements, including their gestures and verbal expressions. Then, I attempted to understand why they did these things as I reviewed the collected data and compiled relevant resources (e.g., pictures, children’s drawings, and interviews). Understanding these initial behaviors allowed me to better grasp the different ways in which each child learned, failed, and sought to achieve their goals. This also allowed me to set up some criteria for understanding the six children’s learning
processes, leading to my discovery of three main types of learning processes demonstrated by children with digital games.

**Purposive learning: learning itself is the purpose.**

Young children sometimes play digital games purposely to achieve a certain goal. They still focus on their game play, but at the same time they attempt to gain knowledge from their action. During their game play, they set their own goals, and apply various strategies to solve their problems. I found this type of purposive learning very often during my study with the six children.

Amy: [playing *Sprinkle Jr.* (Mediocre, 2011) with an iPad] Now, I will make cupcakes. Can I do it?

Youn: Yes! See. There is a fire. We need to pour water. [demonstrating how to pass the level]

Amy: Now, this one. [moving a mushroom with her fingers on the game screen]

Amy: I did it.

Youn: You did it.

Amy: Then what do we need to do?

Youn: What should we do if we put out the fire?

Amy: [clicking water pipe] Then, yellow button?
Youn: If you want to go to the next level, you have to click this button.

Amy: I did it (Personal communication, September 16, 2012).

This initial conversation, after Amy started to play the Sprinkle Jr. (Mediocre, 2011) game during the second home visit, involved Amy asking questions directly about the game content as soon as she started to play it. She asked, “What do we need to do?” and, “Then yellow button?” She was playing the game, but she was also trying to understand how the game content functioned at the same time. In this moment, learning itself was the purpose of what she was doing, as revealed by her initial conversation and behavior. This type of learning may be referred to as purposive learning because the children’s behavior is driven by their desire to learn something. It is also important to note that, in doing this, the learning process is integrated with playtime. Purposive learning allows children to play an active role in their learning process, finding various ways to learn while also enjoying games.

Amy’s initial intentions, learning the game content and rules, led her to test out various game levels and to keep developing her strategies to solve the various problems throughout the game.

Amy: Which one? [pointing to a ‘retry’ button and a ‘next level’ button]

Youn: Do you want to go to the next level? Or do the same thing?

Amy: Same thing.

Youn: Same thing? This one.
Amy: [pressing retry button and replaying the level] I got the water in it for that animal. He grabbed it. [pressing ‘next level’ button] Oh! Look at this. This is how we put water out.

As this conversation shows, Amy was eventually able to understand how to get the water out of the water pipe by herself. She also was able to understand the functions of the buttons that appeared at the end of each level as she discreetly observed what I did with the buttons. After playing several levels of *Sprinkle Jr.* (Mediocre, 2011), the following interactions occurred:

Amy: I like this. That one, the balloon! What can the balloon do? Can you show me what the balloons do?

Youn: Balloon? You can move it.

Amy: I am gonna do this. [clicking on a different level from the game list] Can I put something in his mouth?? [testing Amy to see if she can put something in the monster on the game screen] I am going to do a different one. How about . . . [clicking on another level, laughing, water balloon pops] It popped! I wanna do . . . [trying to do a new level] How do you do this? [pointing to a television on the game screen] What's this one for? [leave to use the restroom]

This was the last conversation accompanied by game play on the same day that I described above. At this point, Amy was not only able to explore the game’s content by herself, but she was also able to find new ways to play with the game elements. She had already passed the game level involving a monster, but she replayed it to see if she could
put something in the monster’s mouth. Her initial intention was to learn how to play the
game, but from her learning experience she was also able to develop various ways to
enjoy the game. During this time, Amy successfully understood the game’s functions,
content, and rules while also applying her own strategies (i.e., asking questions about the
game, testing, and repeating game levels).

Although Amy played the game for less than 20 minutes, this short time was
sufficient for me to witness Amy applying various learning processes that are also found
in formal education systems. She first set several goals to learn in each game level, as
seen in the following excerpts:

Then what do we need to do?

Which one?

What can the balloon do?

I am gonna do this.

Can I put something in his mouth?

She then found ways to answer the questions by testing the game’s elements
such as moving a mushroom with her fingers on the game screen and asking for help
when she said, “Can you show me what the balloons do?” She also demonstrated her
ability to self-evaluate her knowledge to see if she really understood something it by
repeating the game level and by showing it to me, stating, “This is how we put water
out.”
During Amy’s game play, her initial goal was to understand the game, but this did not mean that she would give up on the fun part of her game play. In addition to achieving her own goals, Amy continued to try to find new ways to enjoy the game. She opened the game list and clicked on different levels to find the parts of the game that made her feel fun and happy. She was able to learn something about the game and enjoy it at the same time.

During my fourth visit to Amy’s home, she opened up *Sprinkle Jr.* (Mediocre, 2011) again, selected three different levels on the game list, and passed them. She exclaimed:

Amy: It's a balloon. Ta-da! It's a balloon. It's a popped balloon. [clicking on the level with the flower in the game list] Remember? Remember?

Youn: Remember what?

Amy: This. [clicking another level] See that? I wanna do this . . .[dragging down a car from the top]... Come on, let's do it down. [moving the car]

Amy: Remember? Remember this? This car one? [choosing the same level again]

Youn: Do you like this?

Amy: Remember? All of them? [choosing another level with a television] Remember?

Youn: Mmhmm.
Amy: This... Oh wow! That was awesome. [popping another water balloon on the screen, then replaying the level] I wanna go this way. [leaving the room]

(Conversation, September 18, 2012)

This was the last time that I observed Amy playing the *Sprinkle Jr.* game in my study. After this time, she chose different games, although I did suggest that she play *Sprinkle Jr.* again. During the last time that she played the game, she proved that she understood all of the game’s rules as she showed me how to play each level, even asking me if I remembered the game’s rules and how the game elements functioned. There was no further potential for questioning and testing in her game play. What she was doing at this point was to master her skills gained through the play, which can be applied for another game play.

Interestingly, after she mastered all of the game levels and learned everything from the game (or at least she thought that she had), she did not play the game anymore. As soon as she achieved her own goals, her game play also ended. This might be one of the idealistic learning processes that occur with digital game play, as described in a great deal of game research – the game effectively engages the player voluntarily, allowing them to learn both the game’s rules and its content by playing it, eventually making it possible for the player to become an expert (e.g., Gee, 2003; Prensky, 2006). This was a very simple children’s game, but her learning process with the game was not so different from adults’ processes as they play more complex games.
However, learning through game play did not always happen in the way that the children intended. The children typically tried to learn about their game and apply their own strategies while enjoying the learning process, but they sometimes failed to acquire what they wanted to learn from their experience. Chan and Eunsook dealt with this in a unique way:

Eunsook: Let's find another game. Chan! Yesterday, we saw *Super Mario*, right? Or, will you play your sister's game?

Chan: *Super Mario*!

Eunsook: There are a lot of *Super Mario* game scenes on *YouTube*. [searching *YouTube for Super Mario videos*] Three!

Chan: Mommy? Can I click it to watch?

Eunsook: Do it!

Chan: Yes!

Eunsook: You are good at controlling the mouse.

Chan: This one!

Eunsook: That one? What is that?

Chan: This is *Choo Choo Choo Super Mario*.(Korean word expression, a mimetic word describing something getting bigger)
Eunsook: [watching as the character enlarges on the screen] That's right!

Chan: [watching another video with the Super Mario theme song] Super Mario, Super fast! Wow! He got it right away. Wow, he is big. [laughing]

(Conversation, July 06, 2012)

These were my initial observations of Chan watching videos of another person’s Super Mario game play on YouTube. Watching others’ play may be one of Chan’s strategies for mastering difficult games. With just this conversation, it is difficult to say that Chan purposely watched the video to learn. He enjoyed watching it, but there was no concrete evidence that he was learning from what he was doing. His behavior, watching the game, did not directly explain what was going on his head. Unlike Amy, Chan did not play the game and ask any question related to the game. The video that he was watching showed someone else’s game play, unrelated to Chan’s game play, and in fact more like a movie to Chan. However, Eunsook explained how this was a part of Chan’s learning process related to his game play in our conversation after I observed Chan watching the video. She explained:

In the beginning, he started to play the game with his daddy, but as soon as he started the game, the game was over. He could not play the game because the game was very hard for him, but he wanted to play it to watch the game scenes. So, his father showed this game video to him on YouTube, and now, he really likes to watch it … Yesterday, he played games with other children at my friend’s house and he was the youngest among them. He wanted to play the
games, but all of the games were for older children so it was difficult for him to play any of them. However, he kept watching the others playing the games. I mean … if he does not know how to play a game, he just watches others’ play carefully and then he gets to know the game rules (Conversation, July 13, 2012).

According to Eunsook, Chan enjoys watching others’ game play rather than playing the game if the game is too difficult for him, and she thinks that Chan can learn the game rules by watching others play it. Connecting the experience of seeing him watch the *YouTube* videos to Eunsook’s explanation of his behaviors, I realized that Chan may have been watching the *Super Mario* video on *YouTube* not only because he wanted to watch the game scenes like a movie, but also because he was curious about the game and wanted to know how to play it. This served as an effective strategy for learning about the game as Chan was able to observe how others played the game and how the game character could move and change in the game space. (Rogoff, learning side by side, intent participation)

After I observed Chan watching the video, I became curious about what he had learned from it, so I asked him about the game character during my next visit:

Chan: Wow! He [Super Mario] is big.

Eunsook: Wow, he became big.

Chan: Wow! He is big.

Youn: How does he get big?
Eunsook: How does the Mario get big?

Chan: [stretching his arms toward the ceiling] Biggggggggggg.

Eunsook: How did that happen? Did he eat something?

Chan: He won.

Eunsook: Chan! When Mario becomes big, show it to her. OK?

Chan: Yes! [nodding] Youn! Big! [pointing out that Mario was bigger on the screen]

Youn: How did he become big?

Chan: He is big (Conversation, July 13, 2012).

Clearly, Chan noticed that Super Mario could transform in size from time to time, but he did not know how the character became big. His mother gave him a clue as she asked a relevant question (i.e., “Did he eat something?”), but he did not notice the fact that if Mario ate a mushroom, he would get bigger, although he watched the scene. This was a very important rule in the game because Chan needed to make Mario eat mushrooms to defeat the enemies easily. Although he watched the game play many times, he could not find the relationship between Mario and the other game characters and objects (e.g., coins, mushrooms, flowers etc.).

He gradually understood the game, but it seemed that watching others’ play was not sufficient for him to gain all of the knowledge he required to play the game.
However, he seemed to not care about the fact that he missed something from the game scene. He still eagerly watched the video, liked to talk about what he saw, and described the game scene to me, but he did not try to find what he had missed. Since then, I did not encounter him watching the video or playing the game, and according to Eunsook, he seemed to have more interest in other games and videos.

Unlike a formal education operating with certain rules and procedures, this informal learning process is fully dependent on the learner’s decisions. If the learner does not want to learn about it anymore, with or without achieving his goal, the learning process ends. Digital games are not always successful in engaging the players in the learning process. In Sefton-Green’s study with his own son, he also found that his son was eager to play the Pokémon game on his Game Boy at first, but then he became more interested in collecting Pokémon Cards, wanting to swap cards with friends and amass a collection rather than developing his gaming skills. Digital games are more like a cultural tools mediating human activities in their everyday lives rather than a school textbook in that they contain certain knowledge for a targeted student (Lantz-Andersson, Linderoth, & Säljö, 2009). This suggests that learning from digital games can be varied with different game players, affected by different times and spaces.

Therefore, the strategies applied by the learners are not always the same, and they are not always adequate for stimulating the game players’ learning process. Much research has pointed to the importance of game players’ failure in their game play. According to Gee (2003), game players can develop their game skills through experiencing failure because this requires that they apply different strategies and find
solutions from their failure. However, like in Chan’s case, some game players do not care about their misunderstanding or failure in their game play, even when they fail to achieve their own goals. It is possible that the players just do nothing to improve their game skills and give up on their game play. Following Gee (2003), this might be because the game was not good enough for Chan’s learning because good games include multiple learning principles and make players actively engage in the game and keep developing their strategies to solve problems. Chan did not even try to play the game, and he ended up watching others’ game play.

However, it is also meaningful that Chan discontinued watching and playing Super Mario. It shows that the concept of good or bad games is fundamentally personal and relative; we cannot define what games are good for young children. Super Mario games might provide good learning experiences for other children. This is not to suggest that there is no such thing as a good or bad game for young children. Rather, without considering the entire context affecting the game player we cannot say the value of the player’s game experiences. Chan’s game watching behavior might be a part of his learning process with digital games in a broad sense.

Buckingham’s book Beyond Technology, brings up the question of good games vs. bad games, as discussed by Gee. Buckingham (2007) argued that the good games described by game researchers also failed to provide clear criteria for the evaluation of game players’ learning. Game playing itself is very informal which can easily differ with the variables of game player, time, and space. Also, Sefton-Green (2004) pointed out that young children’s learning experiences with their games may go beyond simply
playing the game. Although Chan might have failed to learn the game rules from the videos that he watched during my observations, his experiences with the game and its applications could be useful at another time, with or without a different game.

**Procedural learning: learning is a process for achieving other goals.**

With this type of learning process, children also have very specific goals and activities involved in the learning process, but the outcome may not be seen in their play, and it may not even be related to their game play at all. This process also seems to be less enjoyable than when they are presented with something that follows the purposive learning process. They learn to use, not to learn. The learning itself is not their purpose, rather, the process exists for the sake of achieving their final goal. They acquire technical skills for operating their game players, memorize words, and identify icons that aid in the process of beginning to play games. Here is one example of procedural learning.

Chan’s intention here was to find the game website *Yahoo Kids Korea* by himself. He knew that he needed to type some words (i.e., “Yahoo Kyullogy,” the Korean version of *Yahoo Kids*, a service that was discontinued in December of 2012) and then press the “enter” button to go to the website, but he did not know how to type the words. This displayed the part of his learning process that involved the acquisition of technical skills. He had an explicit goal, which was opening the website, and he applied his own strategy by recalling his last experience and reproducing the process based on his memory. He was doing it not because he liked the process; he did it because he needed to accomplish this task in order to play games. The process served as a means of reaching a final goal.

Acquiring some degree of technical skill is inevitably necessary for children to play digital games. However, it is very challenging for young children to learn these skills because their fine motor skills are not fully developed to the point that they can handle the devices properly, and to learn the skills, they have to expend time and effort, which is not fun. They may also have to find someone who can teach them those skills without interrupting their game play, and it may be difficult to explain what they want to learn and why they want to learn those skills. Therefore, to adults, their behaviors as they learn these skills may be easily misunderstood as meaningless and even disruptive in the use of technology. This may be seen in the experience of Eunsook and Chan:

Chan: Game?

Eunsook: Yes!
Chan: Wow! Game … Yoohoo! … [Eunsook begins typing and Chan tries to press the “enter” button]

Eunsook: No! No! No! No … Don't try to press the button. [Chan presses the button anyway, leading them to the wrong page] See? You should not press any buttons. No … No! [Eunsook pauses] Hum... Did you try to press the “enter” button?

Chan: Yes.

Eunsook: I am sorry. Now can you do it right? How do you get to the website?

Chan: There … There … [pointing at “games for kids” on the webpage]

Eunsook: Yes! There is Kyullogy … Right?

Chan: Yes! There …

Eunsook: Kyullogy!

(Conversation, June 28, 2012)

At first, Eunsook also thought that Chan attempted to disrupt her, and she stopped him from pressing the keyboard by saying “no.” However, she realized that what he wanted to do was press the “enter” button after she typed the address of the website. Chan knew that after typing the address, he needed to press some button to complete the process, but he did not know that he needed to press the “enter” button specifically. Eunsook noticed his attempt, but she did not instruct him in how to do this.
Instead, she tried to teach him the word “Kyullogy (꾸러기)” meaning “kids” in Korean as she asked him to find the word from the website.

This shows one parent’s attitude toward children’s learning technology. In my study, the children’s parents tended to be ambivalent about their children’s ability to learn about technology. They admitted that their children need to learn about technology but they tended to delay teaching them the technical skills to operate various technological objects, despite situations in which their children displayed a clear desire to learn. This tendency became even stronger when the children wanted to use the Internet to play games. The parents were willing to teach their children how to operate children’s game players, but they did not like their children using the Internet with their computers and smartphones.

Young children’s older siblings are one of the most important sources that support their procedural learning process. However, young children also tend to dislike learning from their siblings and peers because children do not think these figures a supporter, but rather as intruders. This situation became clear with Amy, Jane, and Derick, at a local kids Club as Amy was searching for Angry Birds (Rovio Entertainment, 2009) on a smartphone:

Derick: Amy … Hey … Amy!! [takes the phone from Amy, Amy takes it back]  
Hey Amy! That's not it. Let me do it. Wait! I am not doing it. Let me try. [Amy’s friend (Jane) comes and grabs the phone to search for the game, Amy takes the phone back]
Jane: Let me see it. Let me show you how to do it. Let me see. Let me see . . .

[Amy gives the phone to Jane, Jane plays with the phone instead, and then Amy takes the phone back]

Youn: Can I help you? Do you want Angry Birds?

Amy: Yea.

Youn: Here. [I clicked the game]

Jane: Amy! Let me see . . . Let me see Amy! Amy! Let me see it. [Amy does not give her the phone] Amy! Let me see it. Let me see it Amy! [Jane takes the phone again, finds the game and then plays it]

Shelly: Did you see the shark teeth? [Shelly comes to Amy]

Amy: Don't bother me. [Amy grabs the phone from Jane but Jane does not let go]

Jane: I am not done Amy. Amy! Stop Stop Stop! Let me see it. I want to play games.

Amy: No . . . [takes phone]

(Conversation, September 16, 2012)

Derick and Jane seemed to be trying to help Amy, but in fact they were only trying to get the game for themselves. Amy once gave the phone to her friend to find *Angry Birds* (Rovio Entertainment, 2009), but she failed either to find the game or to learn how to find the game on the phone. Teaching technology is a boring process for
children’s siblings and peers because, although they invest their time and efforts in teaching, they gain nothing from it. Therefore, as a reward, like in this case, they may try to play the game themselves after they help the younger player. Because of this, the three-year-old children in this study showed a tendency to learn skills from trial and error rather than from others. Lucia explains about David’s self-learning experience with digital games here.

Lucia: He controls this and the buttons very fast.

Youn: When did he start games like this one?

Lucia: Just a month and a half ago! After he had it for the first two hours, he got used to it. He is like … See? He can do it, and he can move everything around … He can work it.

(Interview, September 22, 2012)

According to Lucia, David learned how to play the PSP system by himself. For two hours, which is very long time for the three-year-old child to stay in one place without moving, David kept trying to start the game, change his racing car, and control the joystick without anyone’s help. Procedural learning requires that the learner go through many steps of trial and error, and the learner needs to be patient about their frequent failures. Also, it is usually difficult for a child to find someone willing to teach them how to use the system. However, despite these barriers and challenges, many young children continue to try to gain the skills that they will need, not giving up on their gameplay. This process requires that the child integrate skills that they learn from many
sources, utilize negotiation skills, and form relationships with others. Sefton-Green (2004) argues that learning technology is important, but it may be even more important that children learn the skills of “keeping a cool head” and “persevering” (p. 157).

**Secondary learning: learning is occurred indirectly or accidentally.**

Just as David learned to be patient during his game play, it is possible that children’s actions while playing a game may lead to them learning another skill that might be useful in multiple situations. This type of learning occurs accidentally and naturally. This is very difficult for an observer to notice because sometimes the learner themselves are unaware of the skills that they have learned in the process of playing a game. Buckingham (2007) argues that this is inevitable, always present and affecting young children’s lives. Because of this invisible learning process through digital game play, digital games for young children have been an issue of debate between digital game opponents and supporters.

In Gee’s book, *What Video Games Have to Teach us About Learning and Literacy*, (2003) he explains the bright sides of digital gaming as he discusses thirty-six learning principles that may be found in good games. The games discussed by Gee tend to focus on role-playing games for older children but some of the learning principles can be applied in the context of young children’s digital game play in my study, although they are not presented in the same way.

According to Gee (2003), game players can apply their problem-solving strategies to other situations as they “achieve a routinized, taken-for-granted mastery of
certain skills” (p. 3). Applying this principle to my study, Chan has developed a cycle of mastering a game as he has played various online children’s games. For example, when Chan faced a new game, he explored all of the game elements (e.g., icons, game characters, a game map, etc.) by clicking on them and starting to play without knowing the game rules. He seemed to not worry about the consequences of his actions, leading to the game stopping and ending easily.

When a game stopped, Chan would either restart the game or give up playing it. After he would decide to restart a game, he still would not want to learn the game’s rules, simply doing random things, which did not seem to make sense to others. Then, he found something interesting to do with the games. In the case of the game *Mike the Knight Viking Bounce* (HiT Entertainment, 2010), he was interested in watching the vikings fall into the water. He intentionally bounced them so that they would fall into the water, and he repeated it until he found something else interesting. During this time, he gradually learned the game rules by playing or watching others’ play. After he learned the game rules, he finally attempted to play the games and seemed to care about “leveling up.” This cycle was not always the same, but I was able to see similar patterns as I observed him playing another game. This means that his prior experiences with digital games have allowed him to develop his own ways to approach a new game.

Gee pointed out that a good game teaches the learner how to work with others as a team. Participating in online “affinity group” helps players learn how to communicate with others and how to be a member of a community, which is a very important strategy for living as a citizen in a larger society. The three-year-old children often involve their
peers and siblings while they are playing digital games. However, unlike participating in an affinity group as a way to cooperate with others in achieving their goals, the young children’s communication with others regarding their game play is more like for the purpose of claim their right in their game play or to share their feelings in the moment of their play with others.

In a local hair salon, Mike and Kevin (Mike’s older brother) sat on a chair and waited for their turn while Mike played *Angry Birds* (Rovio Entertainment, 2009) with his mother’s iPhone.

Mike: Look! I am still ok. Mommy! [pauses] I missed …

Kevin: [moves to stand behind Mike, watching him play] I am waiting. [presses replay button for Mike after he fails to level up]

Mike: Oh. [looking at the screen, he makes the first bird fly and Kevin tries to fly a second bird after him] No! [Mike takes his hand away from the phone]

Kevin: You could tap the screen Mike! I said tap the screen Mike! Ok? After you shake the bird, tap the screen. [Mike appears to not understand Kevin’s instructions] Ok! M! [He holds the phone with one hand and shows Mike how to tap the screen to shoot the bird. Then, he returns to his seat, changes his mind, and comes back to Mike] Ok! Next level! (Conversation, July, 24, 2012)

For Mike, playing *Angry Birds* (Rovio Entertainment, 2009) in the hair salon, either to deal with boredom or to master the game, gave him a chance to communicate
with his siblings. Mike allowed Kevin to play his game which helped him to learn how to tap the screen after shaking the bird, working as a team. However, for Mike it seemed that working as a team to play the game was not as important as keeping the game player away from others:

Mike: [selecting another level] Wow … That one is so … I can't go under.

Kevin: Wow … wait… oh man! You are almost flying! You dash it M! Huh … [turns to talk to his mom] He gave the bird a hat …

Kevin: Hey, M! Can I see it for a sec?

Mike: No! [turns his back to Kevin and flies two birds]

Kevin: Ok! M! [stretching hand toward the phone]

Mike: No! [shouting] (Conversation, July 24, 2012)

To these young children, playing a game with others is not as simple as learning how to work with others as a team. It is also the moment of realizing differences among others and displaying power. Mike shouted at Kevin when Kevin intended to help him, and he refused his help that time. This is because, in his prior experiences, Mike noticed that the people around him during his game play were not always supportive, and they might take the phone away or act as an intruder.

This situation seems more realistic in terms of reflecting current society than the situation of an online affinity group as described by Gee. Members of society are not always idealistic or concerned about making the world better. There are always
conflicts, arguments, and disconnections among the people in our society. Sometimes, these conflicts are not resolved; they may provoke other problems. Mike’s behavior toward his game might be misjudged by others as a bad or inapproropirate thing rather than as an instance of him displaying his voice. Digital game play might teach young children how to work as a team, but it also allows them to practice making their voice heard among others as they experience unfairness, different power dynamics, and even conflict during their game play.

Digital games may also serve as a sort of topic or issue that makes it easier for young children to start conversations with others and make new friends. The value is found in its usage as a way to find common ground, rather than in achieving a particular goal. Most children do not care about collaborating with others to pass a level, but they do like to play with others to play together to deal with their boredom and forge connections. Here is an example of how digital games can be the source of peer connections.
Figure 4. Angry Birds Game Scene Represented by Jane

Jane: Amy! Look at this. [points at drawing] Do you want it?

Amy: Is that an angry bird?

Jane: Do you want it? [hands picture to Amy]

Amy: Did you draw it for me?

Jane: Amy! Do you want to put it on your refrigerator? Or have it hanging up in your room?

Amy: I can get it up in my room. (Conversation, September 16, 2012)

While Amy played Angry Birds (Rovio Entertainment, 2009) with her mother’s iPhone in a kids club, many children in the room showed an interest in her game playing. The girl described above also came to Amy, and attempted to take the phone
from Amy to play the game, but she failed to get the phone because Amy shouted at her and pushed her hands away. After the conflict, she came back to Amy with her drawing, and she gave it to Amy as a gift. This was not just drawing; it was another way for the girl to communicate with Amy by showing that the game could serve as a medium for Amy and her friend to practice the ways of communicating with others.

Gee (2003) points out that games teach children how to act as learners as game players while controlling their game character in the game space. According to Gee, game players experience various identities – real, virtual and projectory – as they engage with the game characters in the game. For example, when David played *Cars 2*, there was David, a three-year-old boy, a virtual car racer, and David as the virtual car racer. Game players become immersed in a game as a game character, and “players are projecting an identity onto their virtual character based on their own values and on what the game has taught them about what such a character should or might be and become” (p. 53). Because of this, David should consider how he, as the virtual racer, acts in the virtual space. This allows him to learn about both the game and being a racer.

However, I found that the three-year-old children in this study tended to use their projectory identity to reveal their desires and unsolved problems in real life rather than to make them fit into the game space or a game situation. They often did not follow game rules, and they even attempted to disrupt the game space by using their game character. Following Gee’s point of view, they failed to be good learners who are able to interpret what the game expected from them (i.e., finding problems and solutions) as a virtual character, or learner.
When Lin played *Sprinkle Jr.* (Mediocre, 2011), Lin, the virtual character, lived in the Sprinkle town and her mission was to put out the fires in her town. However, instead of being someone who would take on the mission, she attempted to maintain the fire or to make the water flood. This disruptive behavior seemed to have nothing to do with being a good learner, however I saw it as a very meaningful learning experience for the young child. By not following the game rules and by attempting to disrupt the game space, Lin demonstrated her ability to express her power and thoughts in opposition of authority (i.e., the game system or game maker) instead of simply blindly following instructions,

David projected his desire to win or to drive by himself in real life onto the virtual character. Then, he realized his limitations in real life and the game character’s limitations within the virtual space. As David used his virtual character, he practiced asserting his power in a way that he was not able to do in real life. He drove his virtual car into the wall intentionally and made the car crash. This moment allowed him to be a powerful person in the virtual space although he failed the mission required by the game. Rather than being a virtual character and understanding their role in the game, young children tend to use the character to deal with their real life problems, and we can easily find this situation in young children’s pretend play, too.

Gee often uses the example of a good science class to explain the learning principles with of a good game. For him, a good science class allows learners to act as scientists who in the problem situation, but sometimes ordinary people have better ideas than experts in the field. This is because they think differently from experts – they do
not follow the same processes or procedures that the experts tend to do habitually (Gee, 2003). Similarly, in this study, the young children played with the game characters and even with the game players in ways that adults could not imagine. Amy attempted to press a button with her left foot, and she played a cooking game in a real kitchen and then made the game space a part of a scene for role playing with her sister.

Young children might not be better at playing games than adult players, but they are better at knowing how to survive in their real life by utilizing their virtual identities. Children are able to integrate their gaming experiences into their real life by playing with their imagined friends in their rooms when they cannot find anything interesting in their room. Gee argues that our schools or work places should be more like a game space, where people can enjoy what they are doing. However, in this study, I found that the young children did not seem to need a simulated game space in real life, rather they needed the freedom to turn their space into playful one, usually out of their parents’ sight.

Although I have described young children’s secondary learning experiences by applying and comparing Gee’s learning principles, it is also worth noting that young children’s learning through games is not always positive. It may have a dark side that many people worry about. The violent effects of digital games have become prominent issues in education and the news. Despite the increased awareness of this issue, many families with older children do not consider the hidden effects of their children’s game play, especially when it comes to educational games. I also found the situation in my study. When I asked all of the mothers of the children about what a good game or a bad
game would be for their child, all of them tended to give specific examples of bad games which were not educational and violent, but they did not talk about the possible effects of educational games on their children, citing only the game’s educational features. Here are their explanations about good and bad games.

Lucia: I only allow car games … racing games … like no violent games (Interview, September 07, 2012)

Eunsook: I don’t want my son to play those types of games with shooting and fighting with swords (Interview, May 30, 2012)

Lisa: Bad game? Fighting, bad language, adult language, romance would be bad too … oh … there is one more thing … Scary games … (Interview, June 21, 2012)

Hwa: The bad ones … so far … I don't know … I don't … even the TV … I don't let her watch the language … the wild ones … (Interview, August 13, 2012)

Mary: Bad? Um … I would say … if it were him [gestures toward Amy’s older brother, Derick] … I don't like shooting. Like there is blood … I don't like when there are women … and they have a really short shorts. Boobs are out … I don't think that's good for him and then my daughter … she had this game and the little girls were mean to each other. I didn’t like that either (Interview, August 31, 2012).
When I asked the mothers of the six children about what a good game or a bad game would be for their child, all of them tended to give examples of bad games which were not educational, which were violent, and which had adult content. Also, in addition to defining a bad game for young children, Christine expressed her concern about the danger of her children’s imitative behavior that might be caused by watching violent media:

Christine: SpongeBob … They have … like um … starfish … and hooker boots … you know … like … dressed up … you know … that's confusing … and they just talk like babies … they don't handle conflicts well. You know … they are modeling something I don't want my children to behave like (Interview, October 05, 2012).

The bad games described by the mothers of the young children have the potential to cause negative effects as the children may imitate or model the game characters’ behavior. The mothers thought that the games might indirectly teach inappropriate language and behavior to the children, and if the children were to watch or play the games, they might imitate the bad things. This is not only limited to the mothers in this study; this situation reflects a global discussion about the effects of violent games. In Joseph Tobin’s book *Good Guys Don’t Wear Hats* (2000), he questions the hypothesis that violent media affects children negatively as he points out that most of the assumptions and test results of young children and violent media are faulty in that they do not include actual children affected by this media. However, the problem here is that it powerfully functions to make parents and even the children terrified without any
evidence of solutions. There is no single definition of violent video games. This means that parents and the children have to fight with something that they do not know.

This situation resulted in the parents in my study having different criteria for their children’s game selections. Lucia and Eunsook had the same opinion about prohibiting violent games for their children, but Lucia allowed her son to play adult racing games while Eunsook prohibited any games for older children. Lucia metioned that violent games, in her mind, are related to shooting and physical violence, but they do not include racing games with car crashes and broken windows. What about the game, *Angry Birds* (Rovio Entertainment, 2009) for Chan and David? Why is it ok for them to watch the angry birds characters, which are suicide commandos sacrificing to attack the pigs in the game?

With their parents’ different attitudes and criteria, the young children in this study also tended to display ambivalent thoughts about popular media characters. Chan was more afraid of SpongeBob than Frankenstein although Frankenstein has more scary features. Chan did know that SpongeBob was bad, but he did not know why it should be considered as bad. For him, it seemed that SpongeBob was like the myth of the Boogey Man, who he has never met, but he has heard about him many times, and it scared him every night. Chan seemed to believe that if he did a bad thing or imitated bad words, SpongeBob would come and get him, like the Boogey Man. The confusions and discrepancies among the parents and the children in my study reveal the fact that the ongoing debate regarding the effects of bad or violent games has yet to be resolved.
Strategies and Tactics on Young Children’s Digital Game Play

Strategies of parents as powerful.

In this study, I found that parents apply various strategies to control young children’s game play. However, their strategic controls are not used only for limiting young children’s access to digital games but also for encouraging their children to play games to achieve certain goals in the ways to manage their children’s behavior. For example parents, especially mothers, sometimes use their lack of knowledge of digital games to put off a child’s request for help starting a game, by saying “I don’t know how to do it.” or “Wait until your daddy comes home.” But this lack of familiarity with digital gaming can also be frustrating for mothers who are looking for something diverting for their child to do, as a mother told me: “She is so attached to me. I tell her ‘Mommy doesn’t know about this stuff. Go find Daddy.’ I need a chance to eat, go to the restroom.”

Schlesinger (2000) describes how digital media can occupy a small child, allowing mothers to have time to do housework:

Television has the amazing ability to occupy a small child for just long enough to do a load of laundry or prepare the night’s dinner. Anyone who has witnessed a toddler stops dead in his tracks when he hears the opening strains of his favorite video knows that children are drawn to, and often seem mesmerized by, this particular medium (p. 22).

The strategy of the mother using television is very simple; she needs to turn on the
television and let the child watch it until she finishes her housework. However, Lin’s mother’s motives are complex. If her only goal was to keep her child occupied, she could just turn on the television, like the mother in Schlesinger’s example. But Lin’s mother also wanted to encourage Lin to play more with her father, and his greater familiarity with the iPad than hers serves this goal:

Youn: I think you play with your children a lot.

Hwa: Mothers are always busy. You have to make time to play with your child. It’s not easy. You are just so tired.

Youn: When does your husband come home?

Lin’s mother: After 5:30.

Youn: Does he also play a lot with your children?

Hwa: Yes, when he comes home. Sometimes, she like, says, “I want some games.” Then I say “I don't know how.” Then, she doesn’t bother me. She gets used to play with her father. From my experience, if your child is so attached to you, you can just act like you don't know anything. Lin used to say, “I want Mommy!”, “I don't want Daddy!” Now she only plays games with her daddy. She kind of looks forward to it. She waits for her father to come home. When her father comes home, she screams, "Daddy! Daddy! Open the door!"

Youn: Does he like to play a game, too? Your husband? Lin’s mother: Yea... Interviewer: What kind of game does he play?
Hwa: Now...He doesn't play that much these days. He used to play with his PlayStation, but since we had kids we don't have a time for that. Sometimes he plays with Lin. If you play with her, she can play a long time, but if you let her play alone, she doesn't play that long because she doesn't know how. Sometimes she says, “Daddy, I need help.”(Interview, August 23, 2012).

Frustrated by Lin’s dependence on her and lack of connection to her father, Lin’s mother uses game playing on the iPad as a father-daughter relationship-building tool. She uses her claims of not understanding the iPad (whether true or fabricated) to both prevent Lin from playing during the day and to encourage her to play with her father in the evening.

Another mother, with a three year old, named Mike, relies on her older daughter and son to turn on the Wii so Mike can play. By claiming to not know how to turn on the Wii she gets the older siblings involved in playing with Mike. I see these mothers’ lack of knowledge of digital games as a strategy.

During my observation with the six children I found that contrary to my expectations, their parents do not apply many rules to their children’ game playing. One explanation is that these children are so young that their game playing rarely lasts very long. For example, Mary contrasted the game playing of three-year-old Amy and her older brother, Derick:

We don’t set a time for Amy because she doesn’t really play that long. I think probably the longest she plays is ten minutes. The noises cannot be too loud and
then on this one [holding up her mobile phone] she can’t press the off button because, because it messes up my phone. So that’s basically it. Her older brother has a lot of rules for his game playing. He has a time restriction. He can’t play a game that is inappropriate. He has to take turns with his friends (Interview, August 31, 2012).

The fact that very young children play many of their digital video games on their parents’ mobile phones gives parents a simple excuse to interrupt their children’s play. For example, when Mike resists giving his mother’s phone back to her, his mother can stop Mike from playing instantly by saying “This is my phone!” Several of the three-year-old children in my study begged to have their own game players or phones, which their siblings already possess:

Amy has a DS (Nintendo DS), but she pretends to play, because she doesn’t really read, so she doesn’t know what she is doing. She just really wants what her older brother has. And she will play one game on my phone. It’s called ‘Angry Birds’ (Rovio Entertainment, 2009). But that’s it. She doesn’t have any devices of her own (Interview with Mary, August 31, 2012).

Because three-year-old children are less likely to have their own game playing device than their older siblings, they need to get permission from their siblings or parents to play. As Amy’s mother purchases Nintendo DS for Amy, Amy can claim ownership of her game player. Amy’s mother does not directly involve in the relationship between Amy and her older brother, but she can balance power among the siblings by purchasing game players for her children.
All of the parents in my study allowed their young children to play games if they obeyed certain conditions. For example, a parent can say: “You can play a game if you clean your room”. This is a kind of a negotiation between a parent and a child. Aarsand and Aronsson (2009a) in their video ethnography of children’s game play in home contexts show that parents apply temporal restrictions to their children to control their game time and place. For example, a father might tell a child to move his game play out of the family room, so he can watch a golf tournament in peace, offering the alternative of taking the game to the kitchen or bedroom.

Another strategy that parents use is to provide alternative games to their children to control their game playing. If children want to play games which parents considered inappropriate, parents can suggest they play more educational or age appropriate games. This strategy is noted in many other child game studies. Kerawalla and Crook point out that parents do “endeavor to orchestrate a predominant use of educational material,” but their child tend to find ways to do what they want to do out of the parents’ sight (Kerawalla & Crook, 2002, p. 765). Lin’s mother, in my study says: “I think if you let her play an educational game, I think she learns a lot of things.” This is her strategy for Lin’s learning, not for Lin’s pleasure. Parents exercise power over their children’s game selection. However parents’ power is limited by the difficulty of knowing the content and educational value of the games they purchase.

Parents relax their control over the length and content of children’s game playing when they feel the greatest need to keep their children occupied. In situations where the child has no alternative way of entertaining herself, such as in a grocery store, back seat
of the car, or waiting room, parents often give their child their mobile phone for game playing or let them play whatever is handy on a mobile game playing device. Such transitional times have special characteristics compared to other game playing situations. Parents tend to set firmer rules for play during routine times at home, where parents dictate specific times and game space for their children’s game play. For example, they can place a computer in a family room to make children’s game play visible. Also, they can limit their children’s playtime to a set number of minutes. These parental strategies reported in many studies (e.g, Aarsand & Aronsson, 2009a; Eklund & Bergmark, 2013).

However, in mobile game play of the three-year-old children, while I am not saying that they are completely free from the time and space restrictions at home, the three-year-old children cannot be as easily controlled by a set of fixed rules. Play ends up being determined by the flow of life, by traffic jams, office-waiting times, and unexpected phone calls. During children’s mobile game play, the context is fluid, requiring that parents renegotiate restrictions on their children’s mobile play. In these situations, parents employ relaxed versions of their strategies to control their children’s game play. Or we can say that outside of the home, faced with the challenges of negotiating errands, appointments, and public space, the parents and children together employ video games as a tactic to cope with a situation not of their own making.

**Tactics of children as weak.**

Young children’s play is highly mediated by their parents, and yet young children employ tactical tricks. I have identified seven types of young children’s tactics.
in their digital game play. I call the first tactic “playing surreptitiously.” Chan’s mother
told me a story of such surreptitious play:

One day, I could not find Chan. He was nowhere to be found. I searched his
room first. He was not there. I freaked out. But, fortunately, I found the garage
was closed and the front door was locked. It meant he was somewhere in my
house. I looked around every place again, but I could not find him. Then, I took a
deep breath and started my search over. In the hallway I heard some game
sounds. I thought, “Where is this sound coming from?” It was from his room. He
was playing a computer game with my laptop under his blanket. I was so
shocked. I think he knew what he was doing is wrong. I asked him, “What are
you doing?” He said, “Game” I said, “Who told you that you can play games?”

In this episode, Chan purposely hides from his mother to play games
surreptitiously. This is a trick, not power. Comparing to parents’ strategies, his trick
cannot change or control his mother’s action. It is a deception and a camouflage to make
him invisible. Chan failed because he was found by his mother, and yet it was a half
failure because he succeeded to create his own game space and time getting out of his
mother’s sight. Chan’s mother places her laptop on a dining table to make Chan’s game
play visible, but Chan resists her strategy by hiding by bringing the laptop to his room.

Ignoring parents’ commands is another way for children to resist parents’ power
(Aarsand & Aronsson, 2009a). The children cannot escape from the physical space
monitored by their parents, but they can create their own space as they selectively give
their attention to the game, not to their parent’s voice. Also, by pretending not to hear, children can prolong their play until their parents stop them. Here is another example.

Eunsook: Let’s go get your sister in a minute. Ok? [no answer]

Eunsook: Chan? [no answer]

Eunsook: Chan? Look at me.

Chan: Yes.

Eunsook: After a minute, turn the computer off. You’ve been playing games for almost an hour (Conversation, June 07, 2012).

Chan’s eyes stick to the screen and he does not change his posture when his mother calls his name. His bodily gestures and eye movements indicate that he ignores his mother’s voice or at least pretends not to hear. This is very common tactic I found in my observations. For the children it has a lower risk of being scolded compared to other, more directly insubordinate tactics, and it does not require any special actions or efforts. Children just keep playing without answering their parents.

Young children’s desire to play their games away from the gaze of adults is sometimes undermined by their desire to have others see them play, and approve of their skillfulness. For example, as David wins a race on his PSP game, Cars 2, he shows me his score:
Youn: Wow. You did a great job! High five!

Maria (David’s sister): Mom! David is the top. First place!

Lucia (David’s mother): Oh... Yeah! We've been practicing.

[He turns the screen towards us and points at his racing car on the screen, showing he came in first.] (Conversation, October 06, 2012).

David is very shy, and he does not talk much when he is with someone he doesn’t know well. However, he is willing to show his game score to me. His gesture is one of his ways to communicate with others, and it helps him draw others’ attention to his game play without saying anything. This one gesture makes not only me and his sister but also his mother involved in his game play. This tactical movement creates an emotional engagement, and draws us in to his game space.

When she faced some difficulty on her game play, Lin often slumped her shoulders and looked at whoever was near:

Youn: Ok. We have this one (iPad game, *Where’s My Water* (Disney, 2011)). He wants to take a shower, but the water is here right? So, you have to make the water go.

[Lin makes the water flow to the alligator by making a road.]

Youn: He is here, and the water is there. He needs more water. Water is here. The water is too low. The water needs to go this way but...
[Lin slumps her shoulders, indicating she doesn't know what to do.]

Youn: Go this way. [Lin slumps her shoulders again and again.]

Youn: Do you want to try again? The water needs to go this way. Yes! Yeah!

[Lin starts to dig the road.]

Youn: And we have to go… Here is the water. Yes!

(Conversation, August 20, 2012).

Lin needs help from others in her game play. For Lin, because of her limited language ability, it is difficult to explain her situation and to make requests verbally. She did not explicitly express what she wants, but her gestures communicated that she needed my help. The tactics that the children used to draw others’ attention were not limited to bodily gestures. The children also applied various vocalized emotional expression to achieve their goals. According to the study of Aarsand and Aaronson (2009b), “response cries” also is one of communication tools used in children’s game play. “Response cries” is the term introduced by Goffman (1981) to refer to vocalized modes of displaying one’s emotions in public. It is fundamentally self-talk, but with a social goal. For example, most of the three-year-old children often narrated their game playing by saying, “Yeah!,” “Oh!,” and “No!.” They spoke to themselves, but their words functioned to draw others’ attention to their game play.

*Obeying parents* seems to be diametrically opposed to ignoring parents’ commands in terms of its purpose. If parents say stop, children have to stop
immediately. This is the common rule found in the six families. If they did not stop, the parents often said to their children that there will be no more game in the future. It seems odd to call obeying their parents a tactic, because this ends rather than continues children’s play time. I call it a tactic because it is deployed to guarantee the children will be able to play their game video games, not now, but in the future. I see this as the children’s tactic because it allows them to get game play tickets for future play for being a good boy or a girl.

*Crying* is one of the most powerful and important communication skills of early childhood. Young cannot express their feelings and needs precisely with words. However, this weakness is often used for appealing for what they want. Crying or whining can be a powerful tactic for children in their game playing. For example, when Mike starts to cry as soon as his mother takes her phone from him, his mother suggests that he play games instead on his V-tech game player. Comparing to other tactics, this tactic is an explicit resistance to parents and sometimes to siblings.

This tactic is especially effective when the children are in public or with people who are not immediate family. Mike’s mother often makes Mike promise to behave if they go somewhere in public. Also, Chan’s mother said to her son that “a big boy does not cry,” before she allowed him to play games with a smart phone while she met her friend. In these situations children did not even try to use crying as a tactic.

Sometimes, children take advantage of stressful situations to play video games. I call this “using busy mom.” Like other tactics, children cannot create the situation, but they can take advantage of the situation in which their mother is very busy. Lin’s mother
gives Lin her iPad so she can prepare lunch. This is a tactic for Lin, but this is also a strategy for Lin’s mother at the same time.

Another tactic children use is one I call “over the shoulder learning.” Young children pick up skills they can use to make their game playing less objectionable to others. Eunsook explained to me how Chan picks up technological skills without his parents’ direct help:

I turned down Chan’s game sound once, and said, “Chan! It is too loud.” Then one day I found that he was turning down the game sound like I did. I was so surprised and said “Wow! You know how to turn down the sound by yourself?” It happened like this. My husband asked me “Did you teach him?” and I said “No, I didn’t. But he saw me turning down the sound.” If he needs to know something, he watches me very carefully. So, sometimes, I tell my husband “Honey! Chan is watching you” when my husband is doing something with his computer (Interview, May 30, 2012).

From this conversation, we can see that Chan’s mother and father are ambivalent about their son learning over their shoulder. They are proud of their son who is smart enough to learn something on his own, but at the same time for them it worries them because it means that their son is gaining skills which will allow him to access games and eventually to surf the Internet away from their surveillance. Plowman, Stephen, and McPAKE (2010) of preschool aged children show that some mothers feared their children becoming independent computer users. Parents cannot control their children’s informal learning acquired through their various game experiences. This is directly
related to what de Certeau argues about ordinary people’s everyday practices. What is controlled is not the way of using.

**Table 3**

*Strategies of Parents and Tactics of Young Children*

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<th>Strategies of parents</th>
<th>Tactics of children</th>
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In my study, I found the seven types of young children’s tactics and parents’ strategies for game playing. As young children are actively battling with their parents for
access to game play, parents create and set rules for their children in an attempt to protect their children from what they see as dangers of game play.

**The battle never ends.**

Digital games are part of contemporary family daily life. Even many children under aged three play digital games on a daily basis. They use a variety of tactics to gain access to mobile devices and particular games, and to play as long as possible. I do not mean that either that young children’s tactical tricks are something to celebrate or that parents are wrong to try to control their children’s game play. My point is that even very young children are active and tactical in their game play. Even three-year-old children who have limited language skills and lack of game knowledge attempt to create their own time and space for game play in their politics of everyday life, and they are able to clearly express specific game preference. They seem to have no power to choose what to buy or what to play, and yet they have power to resist playing games produced by others. Many so called educational or learning games seduce young children and their parents to consume them as they are everywhere and transformed in various ways (through advertisements, mouth of others, and other games). Yet, young children can get bored with these games and refuse to play them.

Young children’s digital game play is now a fact of family life. Digital games are a site for family power struggles as well as shared activity. Mobile games help young children and their parents cope with the demands of daily life, as the back seat and the shopping cart become key sites for hand held gaming. Negotiating over what games to play, where, when, and for how long is a never ending battle between children and
parents, but also a form of social connection and power sharing in the family and for both parents and children, evolving practices of everyday life.

Exploring Young Children’s Game Spaces in Modern Family Life

This section explores the time and space given to young children’s digital game play and discusses the meaning of young children’s digital game play as a way of revealing the cultural tastes of families in domestic spaces and their resistance of modern spaces. Before discussing this issue, I will explain young children’s digital game spaces by dividing them into two different categories: domestic and public. All of the places are informal and outside of the school context, which enabled us to explore the time and space that accompany young children’s natural game play.

**Digital game space as the production of cultural capital.**

Home, likewise, is a collection of milieus, and as such is the organization of markers (objects) and the formation of space. But home, more than this, is a territory, an expression . . . The markers of home, however, are not simply inanimate objects (a place with stuff), the presence, habits, and effects of spouses, children, parents, and companions. One can be at home simply in the presence of a significant other. What makes home-territory (a temporalization of the space), and on the other their connection with identity, or rather a process of identification, of articulation of affect. Homes, we feel, are ours (Wise, 2000, p. 299).
Young children under age three tend to spend more time at home compared to older children because they are not yet in school. This means that the home environment is one of the most important areas to explore young children’s play. This is not only because they spend more time at home, but also because the home is the first site for children to practice their cultural habits, including their methods of play.

In terms of the three-year-old children’s game play at home, I found that their game spaces and times varied as they are affected by family factors, including external conditions such as the number of digital gaming platforms, possession of the child’s bedroom, and the type of internet connections. These spaces and times are also influenced by internal factors such as the family’s religious beliefs, educational background, and values when it comes to digital game play. These external and internal factors are interrelated within the home and were represented in this study by artifacts in the spaces and the words of the families.

Therefore, to analyze their game areas in their domestic environments, first, I applied “a cultural inventory method” (Collier & Collier, 1986) which enables an onlooker to understand the relations of the game place and artifacts surrounding the area, eventually giving insight about the people’s living in and using the area. Then, I filled in the blanks, by considering the objects’ importance within Bakhtinian perspectives.
David’s game spaces at home.

Figure 5. David's Gaming Space at Home

Figure five (above) shows David’s computer gaming space, located on one side of the living room, directly connected to the kitchen where Lucia can observe and help his game play while she prepares meals for the family or feeds David’s younger brother. As can be seen in the photograph, there is a soccer ball shaped stool placed in front of the computer table. The stool caught my eye in this photograph especially because it seems unsuitable for David and even for his older sister to sit on it and play computer games.

My original purpose in taking this picture was to capture something about David’s computer gaming space, not the small chair. However, this seating space gave me an important insight into the whole game space in the home, as it seems that the space is arranged not for children, but for adults. According to Collier and Collier (1986, p. 50), one of the questions offered by cultural inventory is, “What are the signs of
hospitality and relaxation?” They argue that, “In evaluating the cultural cues, we have to ask, what does this kind of a chair mean in this particular setting?” (Collier & Collier, 1986, p. 50).

The stool shows that the computer space is not set up for children to play games in it, even though it sometimes lends its territory to young children for play. There is more evidence to support this idea. During my observations with David, I saw that his mother would bring a high chair into the kitchen to substitute for the stool to help him sit and play computer games.

Figure 6. David Playing Games in His Home

As seen in Figure 6 (above), just as David borrowed a high chair from the kitchen area to play his game, David was also temporarily borrowing the space from his mother for his game play. The two photographs do not give an exact answer about why there was no suitable chair within the space for David’s game play, but they do show how his mother values David’s computer game play. In my interviews with Lucia, she
told me that she supports David’s digital game play and prefers to play games with him, but since there is no Internet connection in the house, it hinders David from playing various games with the computer. David is able to play a chess game and a simple learning game, both of which are difficult for David, so he is often bored with this type of play easily. This allows us to infer that technical barriers can affect the placement of the space, making it a space that is more for adults than children.

![David and Lucia in The Computer Gaming Space](image)

*Figure 7. David and Lucia in The Computer Gaming Space*

On the other side of the living room, there is a small couch for sitting and family get togethers. Since David’s house has a very limited area available for members of the family (there is one bedroom and one living room), this couch is itself a very meaningful space for family to meet and talk, and it is often used for children’s play. Looking at the photograph, Lucia was able to sit on the couch and watch David’s game play. At the same time, David’s younger brother sat on the couch next to his mother, pretending to play a game with David’s PSP.
During my observations with David’s family, I often saw Lucia playing mobile games with her phone and David’s PSP as she was sitting on the couch. Her play is not for the sake of teaching David how to play games or co-playing with him to motivate his game play. She played the games because she enjoys them. Her existence with the game players in the space became a very powerful influence for her children to have the motivation to play digital games. A mother playing digital games is a very unusual case that I did not find in the other families in my study. In fact, Lucia demonstrated a strong interest in digital technology and knowledge about computer technology. According to her, she learned various computing skills when she was in Mexico, and because of this, people in her neighborhood often ask her questions about computers when they experience problems with them. She can assemble computer parts by herself, and the computer in the photograph was also assembled by her.

The limited area and Lucia’s interest in digital technology and games are interrelated and affecting her children’s game play. I watched her showing her children how to use a drawing pad on the computer, and she got some advice from David when she was having difficulty with passing a certain game level on the PSP racing game. The racing game that David owns is not for children, and it contains several violent scenes such as crashing cars, broken walls and windows, but Lucia was willing to allow him to play the game if he wants to play it.

According to Eklund and Bergmark (2013), gaming parents tend to have less interest in the PEGI-rating, a video game rating system based on age categories. In other words, parents who have many experiences with video games, do not rely heavily on the
criteria set by others. They mediate their children’s game play, but more with positive involvement, and as they play games with their children, they determine what is good for them. Lucia tended to have less fear about her son’s game play because she knew about the game, and this allowed her to set her own criteria for her child’s game play. David was unable to play various games with the computer, but this did not limit his ability to play digital games. With his mother’s emotional support, he had more encouragement to play digital games than any of the other children in my study.

The couch near the computer space was different from the typical space specially designed to monitor children’s use of computers, as described by many sociologists and game researchers (e.g., Aarsan & Aronsson, 2009a). Many parents in these studies mention concern that their children will do bad things when out of their sight, but in this case, a family member is always with David when he is playing games, and it is a natural situation for the family with the set up of the couch next to the desk. Also, Lucia told me that having time with family members is one of the most important things in her family. This might be explained by the term, “’familismo’ which is a strong value in Latinos/Hispanic family orientations” (González, 2009, p. 23).

Therefore, in describing this space, the words, to “monitor,” “watch,” or “observe” were not necessary in this family because these actions accompanied with these words usually generate a sense of time and effort being required by the adult. However, for this family, being together was a natural habit, it required no additional time or effort for Lucia to sit in the space and share time with David. Rather, this space, to David’s family, functions as a play area, which encourages the family members to
communicate and play. The limited living space and the family’s values are interrelated, both affecting David’s use of digital media.

Lucia noted that there is only one space and time where David is prohibited from game play. According to Lucia, David is not allowed to play games in his bed at night because David often resists sleeping at night in order to play games with his PSP. However, this space, temporally created, is meaningful for David because it provides his own time and space for play without anyone looking at him. David does not have his own bedroom, but he has his own bed. In the bed, there is a blanket with the characters from Disney’s movie and game *Cars* printed on it, and the wall to his bedside is decorated with some baseball stickers (see Figures 8 and 9 below).

![Figure 8. David's Sleeping Space](image)

According to Mitchell and Reid-Walsh (2002), decoration of a child’s bedroom reflects the child’s identity and culture, although it is still ultimately under parental control in terms of the way that it is used and the arrangement of the room. Although it was not possible to determine David’s thoughts or behaviors by looking at his sleeping
space, it was clear that these elements expressed a sense of territory, as occupied and created by David.

![Image](image_url)

*Figure 9. Wall by David's Sleeping Space*

During my fourth visit, I encountered a scene in which David was attaching stickers to the wall placed near his bed. He did not put the stickers on the wall randomly; he took his time to choose and place them on the wall discreetly. All of the stickers were clustered near his bed although the whole wall was empty and had a large room where he could put the stickers. In the moment, I did not realize what putting the stickers on the wall meant to David. However, after I spent over twenty-four hours with him and had a conversation with his mother, I was able to understand that the space was made and determined by David’s own will, and the stickers served as important ways for him to define the space. At night, David transforms his bed to his own game play area against his mother’s wishes. Following de Certeau, this space still belongs to the parents, but David tactically uses the space for his game play and makes it his own.

One of the most interesting spaces in David’s house was the backyard of the house. The family shares their rental house with another family, who shares the rental...
payment. As can be seen in the photograph below, the place with the red wall is for another family to live. The two families also share the backyard so that the children of the families play together almost everyday, according to Lucia. The boy from the other family first introduced a Nintendo DS game to David, eventually leading to Lucia purchasing David a PSP. The red brick wall between two homes does not separate the two homes, rather it is used as a place for the children to sit and play together.

Figure 10. Space between David's Home and Neighboring Family

The backyard is used for the children’s outdoor play, but in the summer season, the outdoor space is often used for the children’s game play since there is only one air conditioner placed in David’s bedroom. Because of the characteristics of the place as a backyard, this space can be easily transformed from a place for outdoor play into a place for game play. I also observed David playing games, sitting on one of the car seats presented in the photograph, while he rested between spurts of outdoor play with his siblings or housemates. Also, the backyard, because of its openness to everyone in the
house serves as an important space for the children and parents of both families to share information related to digital games.

**Amy’s game spaces at home.**

![Amy's Bedroom](image)

*Figure 11. Amy's Bedroom*

While David has to share his room with the entire family, Amy has her own room, and possess her own television and DVD player sets in her room. She has two siblings, and they all have their own bedroom and television set like Amy. They sometimes watch Disney movies and other children’s movies in their own rooms, but sometimes Amy visits her sister’s room to watch movies and play together. For Amy, the bedroom space is not used for playing digital games, but rather for watching television and playing with her toys. She has her own Nintendo DS player, but she only plays with it when she is in the car. At home, Amy spends a lot of time with her sister as they play together all over the house.
While playing digital games with her mother’s iPhone, Amy seemed to prefer to play the games in her room. For Amy, like David, the bedroom space allows Amy to monopolize the game player and play with it out of her parents’ and siblings’ gazes. Her sister and brother came into the room often to watch or participate in Amy’s game play, but whenever they tried to do it, Amy commanded that they get out of her room as she closed the door. In Cunningham’s *Mortal Kombat and Computer Game Girls* (2000), she points out the transformation of the gaming space from arcades to homes with the development of home gaming consoles and computer games. This spatial change allows young girls to actively participate in digital gaming as a player. In her bedroom, Amy was able to play games using her own power and will.

Amy playing games in her room did not seem to be considered a problem to Mary. To Mary, game play is very trivial and is not an important thing which might affect Amy, either in a good way or bad way.

She doesn't really … She will cook with me. We hang out. We play outside. She rides her scooter … She does like skateboard stuff outside, but she doesn't really … play … games … I don't know (Interview with Mary, August 31, 2012).

This short conversation revealed what Mary really values. To understand how she thinks about Amy’s game play, I especially focused on the words “I don’t know.” People use the words “I don’t know” when they do not have any knowledge about the situation. However, in this case, it is not applicable because she already explained how Amy plays and spends her time with her mother and said that Amy doesn’t really play games. However, she added, “I don’t know” at the end of her conversation. These words
seem unnecessary and redundant, but they were said with a certain purpose. She has a lack of knowledge regarding Amy’s game play so that she was not fully confident in what she was saying. Thus, it might be possible to conclude that Mary does not rely heavily on digital games to foster Amy’s play.

Mary only has one game, *Angry Birds*, on her iPhone, but she does not play it. Her husband does not play digital games, and if he did, it would be once a year at best. According to Mary, Amy’s family goes to the beach almost every weekend, and they exercise every day. For Mary, playing a digital game or watching television in Amy’s room is not a subject to worry about because she thinks that Amy “doesn’t really play games”

*Chan’s gaming space.*

![Figure 12. Chan's Gaming Space in a Dinning Area](image)
Chan usually plays digital games with his mother or father’s laptop. This is different from David’s family, since Chan’s family is able to utilize a wireless Internet connection in the house. According to Singh, Kwon, and Pereira (2003), the differences between Hispanic and Asian families in Internet access at home might be due to the correlation between income levels and Internet access.

Chan is able to play games anywhere in the house, but Chan’s computer game play is fixed within a certain area, and Chan has limited access to computer games, similar to David’s case. The table with the laptop on is used as a dining table originally, but Eunsook also allows Chan to use it as a computer table for Chan’s game play. This space is a part of a dining area where Eunsook spends a great deal of time during the day. As she sets the place for Chan and his sister to play games, read books, and do some artwork, she is able to observe what her children do while she does her housework. This space is carefully arranged to allow Eunsook to monitor Chan’s game play. This is different from David’s computer game space and Amy’s bedroom because Eunsook purposely arranges the space mainly for watching Chan’s play. Here is a description of Eunsook checking Chan’s game play.

Eunsook: Are you playing a different game now? What are you doing? What are you doing? Can't you explain it? Is it the robot game again? [moving toward Chan to look at the computer screen] Uh? You are playing a different game. Who is this?

Chan: Goofy …
Eunsook: Oh … Is it Goofy? I see …

Chan: The Mickey Mouse house is there…

Eunsook: Is it there?

Chan: Um hahahaha … Oh OhOhOhOhOhOh … Wow … [playing the game]
Mommy … Apple …

Eunsook: You have one! [Chan picks up a piece of the apple and eats it] Did you forget it? Did you think that mommy ate your apple?

(Conversation, June 07, 2012)

Eunsook kept monitoring Chan’s game play by asking him what he was playing and by checking the computer screen. In this transcription, Eunsook not only watched Chan’s game play, but she also asked him random questions. According to Eunsook, she tries to purposely distract Chan from his game to prevent him from focusing too much on the game play as she keeps her eye on him. The physical space makes Chan’s game play visible and audible, and it functions to limit Chan’s game selections. In this space, there are often tensions between Chan and whoever is watching his game play. This may be seen in the following excerpt when I was watching him play:

Chan: Don't look at it.

Youn: Don't look at it? Why?

Eunsook: Show Immo (auntie) your play.
Youn: Because you are really doing great, I want to watch your play.

Eunsook: Chan! Be nice and say to her “You can watch.” [Chan shakes his head]
You are not supposed to act like this. I guess I need to turn off the computer.

Chan: No! No. [shaking his head]

Eunsook: So, what should you do? Be nice!

Chan: Mommy, you can watch.

Eunsook: How about Immo?

Chan: No!

Eunsook: Say “Immo watch this.”

Chan: No.

Eunsook: Well … Let's turn it off. [Chan shakes his head again] Mommy wants you to be nice. Be nice. How should you talk to Immo? [Chan is silent] Hum …
Mommy has to turn it off …

Chan: No …

Eunsook: So, What should you do? How does a big boy talk to others? What is a big boy?

Chan: Good boy.
Eunsook: So, How does a good boy talk to others? *Immo* … You can watch this … Say it … [Chan shakes head again] Oh. You do not share it. Then, now it is *Immo’s* turn. Well, I will let *Immo* play the game …

Chan: No, No, No …

Eunsook: Then, say “*Immo* you can watch this”.

Chan: *Immo*. watch this …

(Conversation, June 07, 2012).

This was my first time observing Chan’s game play. Chan’s rejection of me as a stranger watching his play was a natural reaction, and this was a special occasion for Chan, so it is important to note that this conversation might not be useful for understanding the tensions that might occur in the space during everyday family life. However, I saw this conversation as meaningful for understanding the ways in which the space can create tension between Chan and others in their everyday lives because Eunsook explained that this situation has often happened between Chan and his sister:

He does this to his sister, too. During his game play if she looks at the screen, he says “Don’t look at it.” I do not know why he does to his sister. After I ask him “Why do you say like that to your sister?” and talk to him, saying, “You should be nice,” then he says “You can watch,” to his sister. I guess that he wants to show that it is his game or to claim his territory. It might be that he thinks she might take the laptop from him? When his sister watches his game play, he says,
“don’t look at it!” and covers the screen with his hands. Then, they fight over it, and I tell them, “If you guys can not share, stop playing the game.” Then, he finally says “You can watch.” He means that she can only watch it without touching it. I guess why he said it to you is because he is afraid of you playing the game. He thinks that when he uses the computer, he owns it (Interview with Eunsook, June 07, 2012).

There are two different onlookers of Chan’s game play in this space; one is his mother who monitors his game play and gives him help, and the other is his sister who has the potential to take the space from him as an intruder. Chan owns the space while he plays computer games there, and it is Chan’s territory, but it is also temporal and the space can easily turn into a battlefield between Chan and his sister in the land of their mother.

For Chan, it is not safe space like Amy’s bedroom. There is no door to lock and no space to hide from the gaze of his mother or sister. Chan tries to block his sister’s sight by rejecting her watching his game play. However, Chan has shown a different attitude toward his mother. He allows her to watch his game play and listens to his mother’s commands. This tells us that the space creating these tensions is the site “in which power relations within the families become visible” (Aarsand & Aronsson, 2009a, p. 507).

Chan goes to his bedroom only if he takes a nap and sleeps at night. Instead, the dining and family room are used for Chan’s play during a day. Eunsook likes to invite her friends to her house, and the family room is a good place for them both to have a
conversation and to allow their children to play. While Eunsook talks with her friends there, Chan sometimes has a chance to play games with one of her friends’ smartphones. Since Eunsook does not have a smart phone, Chan is only able to play on one when his mother’s friends come to his home. However, Eunsook revealed her guilt about letting Chan play mobile games while she talks with her friends during my interview:

I do not allow him to watch TV usually. I know it is inappropriate, but when my friends come to my house, I would allow him to watch TV shows or play games with one of my friends phones. Oh … I feel bad for him, but I did it without deeply thinking about it (Interview, May 30, 2012).

Eunsook felt guilty about what she did to Chan because she thought that she neglected Chan while she was with her friends. This can be explained with what Boudieu (1984) has said about the role of bourgeois parents. As a parent, Eunsook is responsible for Chan’s play. She needs to create play areas and support his play and she knows this, but the events unconsciously revealed in this conversation made Eunsook feel uncomfortable and regret her actions.

According to Nowotny, who expanded upon Boudieu’s concept of capital to explain the various emotional factors affecting one’s life, emotional capital is considered as the “knowledge, contacts, and relations as well as access to emotionally valued skills and assets, which hold within any social network characterized at least partly by affective ties” (Nowotny, 1981, p. 148; as cited in Reay, 2004, p. 60). Following Nowotny, Reay (2004) points out that “guilt, anxiety and frustration, as well as empathy and encouragement were the primary motifs of mothers’ involvement” (p. 61). Applying
this, it is possible to conclude that Eunsook, because of her emotional capital, pushes herself to be involved in and control Chan’s game play.

*Figure 13. Chan's family room*

Figure 13 (above) shows the space where Chan plays mobile games and watches television shows. Also, this space is used for so-called “family game night.” According to Eunsook, it was her idea to allow Jun to play computer games at night. Different from Chan having less restrictions on time sequencing and duration of his game playing, Jun is allowed to play computer games only on Friday and Saturday. Since Eunsook thinks that computer games disturb her studies, she applies very strict rules to Jun in terms of the time and space. On “family game night,” Eunsook allows Chan and his sister to play computer games until late at night, and Minsoo also participates in their game play.
The photograph above (Figure 14) was taken on one of these “family game nights.” There is no mother in the photograph, but the father holds Chan’s hand and looks at the screen. Eunsook explained that this is the only time that she has to watch some Korean television shows while they are playing games together. Eunsook planned the day and set up the table and laptops for her children, but she did not participate in their game play. Unlike Lucia, Eunsook does not have much interest in digital game play. For her, digital games are subjects to watch and control, not play. On the other hand, according to Eunsook, her husband was a member of an online gaming community when he was single, and he still likes to play games.

The different preferences and values regarding digital games between the two parents lead them to take different roles on their children’s game play. While Minsoo has knowledge and an interest in digital games, Minsoo has more power for game selection and takes responsibility to participate in the children’s game play. Meanwhile, Eunsook takes on the role of arranging the game space and setting up rules for her children’s game play.
Lin’s playhouse, a representation of her mother’s kitchen.

Lin does not have a specific game space in which to play games, but Lin has her special play area which she calls “my house.” From Lin’s point of view, there are two houses within the home – one is mommy’s house which is the kitchen area, and the other is “my house,” which is a livingroom in the house. In her house, there is a big toy kitchen set, various play foods, and toy kitchen accessories. Also, there is her baby doll, which she takes care of, just as Hwa does for Lin’s younger brother. Lin spends most of her time in her “my house.” This space seems unrelated to Lin’s game play because there are no computer or digital game players placed in the area. However, this space reveals Lin’s preferences and Lin’s family values, which directly affect Lin’s game play.

![Lin's Playhouse](image)

Figure 15. Lin's Playhouse

This space is the representation of Hwa’s kitchen. Hwa, more than any other housewife, has a strong passion for cooking. She bakes bread for her family, and tries to provide homemade foods to her family everyday. Like Hwa, Lin prepares food for her baby doll and her mother, and pretends to go on picnics with the toy foods made by Lin.
Her interests in cooking like her mother, affect Lin’s selection of iPad games. When I showed my iPad games to Lin to get familiar with her in my first visit to Lin’s house, she chose a cooking game and played with it longer than any other game on the iPad. During my second visit, she still wanted to play the game, so Hwa and I decided to download the game in Hwa’s iPad.

However, while Lin has a lot of cooking toys, and she has strong preference for cooking, I could not find any games related to cooking on her mother’s iPad. This is not because Lin does not like these kinds of games, but because she is not the part of the decision making process of downloading games from the App Store. Hwa knows very well about her favorite toys and how she plays with them because she spends a lot of time playing with Lin everyday. However, Hwa did not download any cooking games for her. There are two reasons for this: (1) the games were downloaded by Han, and (2) Hwa does not know how to download games from the App Store. Also, even though Hwa sometimes participated in the game selection, she suggested that her husband download educational games designed especially for learning numbers and letters, not asking him to find Lin’s favorites. Furthermore, Hwa does not value digital games as children’s play. This was revealed when she mentioned the concept of the “tiger mom” in my fourth visit.

Hwa: I just … We always … because all of the Chinese parents. We know. You know the tiger mom … about the tiger mom? Yea? That is what the typical Chinese parent is… Like one, she is my friend, and she said that no matter how smart your kid is you have to spend your time with them … even though like
with playing the piano … You have to sit there for two hours (referring to her son) … Otherwise, he is not gonna play … So, you just kind of, you have to push them. Because they are kids they want to play … they want to eat something they shouldn't eat … So, you have to look after … You have to watch them … That's how the Chinese parents do … If you see the parents, their kids are pretty good … That's not because they were born that way …

Youn: Do they think play is important for your child?

Hwa: We are not really like the tiger mom, but we spend time playing with them … But, they just have a schedule. What you have to do is … they said … two hours … not like play whole day … You just have to do after school … after school, they come home at noon. If you don't make them do something … just sit and watch TV and … I don't think that is good … right? But afternoon … only take a couple of hours to do something … they should … I don't think … they … How to say … um…like whole afternoon … You just take two hours to do your school work or … but my friend said, “my son … you have to watch him every minute, otherwise …” For example, I go to … because … if I stay in the bathroom for ten mins … she (Lin) is really likely to stop reading a book and get her iPad to play games … that's … I don't know … (Interview, August 23, 2012).

Hwa is Vietnamese, but she was raised in Hong Kong and can speak Mandarin. Because of her background, she has been affected by Chinese culture although she is Vietnamese. Looking at the conversation above, she tried to explain how Chinese parents think about children’s play. Borrowing her words, parents have to spend their
time to play with their children for at least two hours a day, but not a whole day. They need to set a schedule for their children’s play time, and have to be with them to monitor their play. Playing digital games and watching television should not be included during play time. Hwa considers children’s play to be important, but for her, play is also a part of education and a thing that she needs to control. Therefore, cooking play with Lin is one of the tasks that she needs to do as a parent, but digital cooking games are not a type of play that she needs to consider.

There is one space arranged for Lin’s game play. It is the dining table during Lin’s meal time. Since Lin does not eat well, Hwa uses the game to make her sit there and eat. This place is different from Chan’s computer game space although the two both eat in these spaces. Hwa does not allow her to play games in the space to monitor her child’s game play. Rather, she lets Lin play games there because making her eat is more important than controlling her game play. Hwa admitted that it was a bad idea because Lin got used to it, and she cannot control her anymore. She has to allow her to play games if she wants her to eat the homemade food.

*Mike’s game space.*

So … pretty much wherever … The bicycle one is definitely in the family TV room and that's where the Wii is set up, too. So, they can't play anywhere. I tried to move the bike thing into kids room, but the TV… So they can't play in their rooms or the car (Interview with Lisa, June 21, 2012).
Lisa arranges a game space in the family room for Mike’s console game play, but unlike Chan and Hwa, it is not to achieve certain goals for her children, but rather for her convenience. Since Lisa is a working mother and has two school-aged children, she does not have much time to arrange things for Mike’s play during the day. Also, because there is no television in each child’s bedroom, the placement of the television and console game players is the best choice for the whole family. During the day, when Mike is with his babysitter, he can watch television sometimes with his siblings and play games in the place, and the place allows the babysitter to keep an eye on him while she takes care of the other children and prepares meals for them.

Figure 16. Mike in a Family Room

When Mike wants to play with his hand-held game players, Mike is used to going to his room where he keeps the game players. In my observations with him, unless he goes out with the game players, he typically played with the game players in his room. However, playing games in his room seemed not to be for the purpose of finding his own place to play games or to escape from his siblings. Unlike Chan and Amy, his two older siblings were not the reason for him to play games in his own room.
There is a bigger age gap between Mike and his older siblings compared to the other children in my study so it is unnecessary for Mike’s siblings to fight with Mike over the game players. This is because the hand-held game players he possesses are targeted for young children and some of them were handed down to him by his older siblings after they did not play with them anymore. They are not intruders or disrupters in his game play, but rather, they are encouraged to be involved in his game play as assistants by their mother and babysitter.

Figure 17. Mike and Julie

Mike’s sister, Julie usually takes on the role of the assistant while he plays digital games. She exchanges the batteries in his game players, and helps him start or stop games, and guides him in how to play the games when her mother is not home. Actually, Mike calls his sister “mom” often when he needs some help from her, and his sister takes on the role of his mother when she is with him. I found some similarities between Mike’s mother and his older sister in terms of their gestures and ways of talking while
she was helping him play a new game with the Wii. For example, she held him on her lap, and often told him “good boy” when she thought he did a good job, behaved well, or showed some good manners.

Julie: Good boy! Hold on. Hold on to it. (the Wii controller) Mike! Ok … That's an ink …

Mike: I … I wanna do the rocket trip one. I wanna do the rocket trip one.

Mommy!

Julie: Ok … This way! You can pass it. P … p … that's a pig …

Mike: P

Julie: Can we get one for a light? ok? That's a … w … w … watch

Mike: W

Julie: Good boy!

(Conversation, July 19, 2012)

As can be seen in the transcription above, Mike calls his sister “mommy” when he plays games with her. During this time, his sister had seated him on her lap, and she was holding the controller with him to help him press the right buttons. Whenever he answered her questions and followed her instructions, she praised him by saying “good boy.” Her representation of her mother, like Lin’s reconstruction of her mother’s
kitchen, is what Bourdieu talks about when he describes that children practice their parents’ roles:

Knowing that ‘manner’ is a symbolic manifestation whose meaning and value depend as much on the perceivers as on the producer, one can see how it is that the manner of using symbolic goods, especially those regarded as the attributes of excellence, constitutes one of the key markers of ‘class’ and also the ideal weapon in strategies of distinction, that is as Proust put it, ‘the infinitely varied art of marking distances’ (p. 66).

Even during his mother’s absence, Mike learned the manner, the way of playing the game by playing with his sister, who might have been taught by her mother. Following Bourdieu, it is not necessary that this practice involve formal education elements. Mike’s sister’s reactions, voice tones, and gestures toward Mike encourage him to reproduce these behaviors to others.

Mike’s older brother was also involved in the game play, but in a different way than with his older sister. If his sister took the role of teaching him how to play games, his brother only participated in the game playing when he cannot turn on the game players or experiences some technical difficulty. His role seems important for Mike’s game play when his father is not home, because without him, no one except his father can set up the game players for Mike. The parents’ roles for Mike’s game play, depends on their absence, are passed on to the two older siblings in this family.
**Mia’s game space.**

Mia has a hand-held game player, the Leapster Explore, she rarely plays games outside, and she is limited to playing games at home because of her family’s financial situation. Since there is only one hand-held game player, her mother does not want her children to drop and break the game player while they are carrying it outside of their home. However, if Mia is home, there is no specified space for her to play games. For Christine, game space and time sequencing or duration of game playing are not essential to control; game selection is a more significant matter.

![Figure 18. Religious Objects on The Walls of Mia's House](image)

In my first visit to Mia’s house, I found various religious objects attached to and decorating the walls of the house. According to Christine, she and her husband, although they were separated lately, are very faithful Christians, and their children, including Mia, have been affected by their religious beliefs. Like the words in the second photograph
(refer to photo formally here), their steps to go into the world are guided by their religious beliefs. During my interview with Christine, she revealed how her religious beliefs affect her game selection.

Youn: What is a good game or a bad game for your children?

Christine: I think educational … um … and that is not going to um … teach them something against our beliefs. You know … like anything that would talk about ‘The Big Bang Theory.’ Something like that. Or Darwin … You know … I am not gonna go for that. But other than that … I want to be wholesome to um … be fun. I want them to help … give my children a safe feeling. Also, being able to learn about the world. You know … I don't like … I like … um … Like I decide to watch TV … So, I like them to see heroes and good, good being good. Not that it is bad to be good … that it is good to be good. You know evil as evil … I just kind of … how I divide that … Like SpongeBob … no … you know … you know … Because it is too …

Youn: Yeah, he is a bully …

Christine: Yea … and it is confusing for kids. You know it is just … nasty. You know it is just yuck … stuff like that … No!! That's how I decide …

Youn: Against your beliefs?

Christine: And morals … You know just morally wrong. If like I said Sponge Bob … He is over there getting … I don't want my children to think that that's
normal or acceptable because it's not… I mean… that's not… natural. You know it's totally against the nature of the person. So… and I am a Meletian. So… You know…

(Interview with Christine, October 05, 2012).

As Christine repeatedly used the words “You know,” she tried to help me understand what she was really trying to say. This was her invitation to allow me to get into the context that we share. She did not provide clear criteria on her game selection, but as she gave some examples such as The Big Bang Theory, Darwin, and SpongeBob, and added the words: “moral,” “evil,” and “Meletian” to her conversation. She tried to convey a sense of the value of her religious beliefs. These words from her mouth were not totally new, but only half hers, following Bakhtinian perspectives (Bakhtin, 1981).

These words have been used by many others in many other times and places, but within the context and affected by Christine’s identity and her previous experiences, the meaning of the words are reconstructed and spoken from Christine’s mouth. They include “the worldviews, concerns, and prejudices of the communities” in which she has lived (Tobin, 2004, p. 144). In this sense, we cannot fully search the trajectory within which the words have been used because it is only possible to really understand these within the context in which they were spoken, but we can assume that her thoughts on digital games and media are made based on her religious beliefs which might or might not be taught by her parents or others in her life, and they will pass on to her children. Also, looking at the words “yuck” and “nasty,” which functioned as expressions of her emotional hatred toward SpongeBob, we can assume that her feelings will affect her
children’s preferences and game selection as well. I found this example in my conversation with Eunsook, too:

I do not let my children watch SpongeBob because I am afraid if they learn those words from the TV and use them to their friend. They just do because it’s fun without knowing the meaning … The funny thing is … when we went to *Universal Studio*, she (Jun) had a chance to take pictures with various cartoon characters. She danced even with the scary Frankenstain, but she disliked to do it with SpongeBob. She said, ‘Mommy, I don’t like Sponge Bob.’ (Conversation with Eunsook, June 28, 2012).

This means that if parents’ rules control external children’s game behavior, their emotional preferences have an influence on young children’s internal preferences of their game, and they are orchestrated and presented in their everyday life.

**Digital game play in public area as the way of resisting modern space.**

In my study with the three-year-old children, I found that they did not have much of a schedule that they needed to follow compared to their older siblings, who had daily tasks which must be done at a scheduled time and place. It seemed that although they tended to have more free time, especially time for play, their free time was also more easily sacrificed depending on their specific family situation. Because of their age and role in their families, they did not seem to have many opportunities to control their own time. Their schedules often changed, flexing within the flow of their family routines. Therefore, young children’s game play was distinguished from their older siblings’ play
time, which seemed to be dictated more by their involvement in various social structures.

Although it is difficult to study due to its triviality and momentary nature, young children’s digital game play often involves times of playing in public spaces (Tobin, 2013). Thus, it is very important not only to explore various types of game play in public spaces, but also to understand how digital games function to negotiate young children’s time and space in modern society. In this section, I describe how the three-year-old children created and recreated their game time and spaces in public spaces, and discuss the meaning of their game play as a way to escape from the control of their parents and the modern space itself.

**Game play within a moving space (In a car backseat, in a shopping cart).**

David has just left his home with his mother, his younger brother, and his older sister to eat breakfast at a local McDonald’s located within five minutes driving distance from his house. David brings his PSP with him, as usual, and gets into his mother’s car. As soon as David has his seat belt on, David starts to play the racing game, *Cars 2* (Sony Computer Entertainment, 2011). As his mother starts her car, David stops the game and looks out the window. Then, David looks back to see a car approaching behind them. (Field note description of David in his mother’s car, September 22, 2012)
The passage above describes a typical Saturday morning for David’s family. As can be seen in the description, it is usual for David to play games in a car backseat. Here is another description of David in his mother’s car on the same day:

In the car, David looks out the window to see vehicles on the road. Then, he plays *Cars 2* for a little while, and then he checks out the window again as he pauses it. Looking at the window happens only for a very short moment. It is more like distractedness. David restarts the game. After a few minutes, he stops it and looks back to see another car behind his car. Then, he starts the game but stops it again soon. David puts the PSP next to him and then looks back to see if there are any cars running behind them. (Field note description of David in his mother’s car, September 22, 2012)

In both of these instances, David continued to check on multiple spaces at a time. The time that David was actually in the car was not very long – less than 10 minutes – but he repeated the process of starting, pausing, and stopping the game for short moments at a time. In the first moment, when the car started to move, David stopped playing the game and looked out the window. It meant that he noticed the movement of the car while he was playing the game. He was aware of his experiences of both the visual space of the game and the physical place of the car. It was also clear that while he was playing the game, the other vehicles next to and behind his car distracted him.

Each of the cars, including the virtual car in the game, existed in different spaces, constantly changing their location while in operation. According to Samuel Tobin (2013), developments of modern transportation systems enable us to create new types of
play. In modern society, children are busier than the children of the past, and they have more things to do to survive in a very rapidly changing society. However, at the same time, the children of today also experience more transition time in their daily routines. This time, which is for nothing but waiting, may occur in a car, a train, an elevator, etc. Due to this situation, cars have become significant places for children to play, to be relaxed, to do their homework, to build their relationships with others, and to experience family life (Barker, 2009). The children do not move, but their spaces do (Tobin, 2013). This enables children to play games, at the same time that they are moving in reality.

However, many studies have shown that there are complex and contingent power relations and conflicts generated between car drivers and passengers or between children and adults in the car space (Barker, 2009; Hoffman, Gal-Oz, David, & Zuckerman, 2013). Within the space that generates uneven power relations, parents often use technology to control and regulate the space and limit their children’s freedom, but children keep trying to challenge their parents’ authority and claim their autonomy as they create various activities and find ways to “influence and transform the spaces of cars” (Barker, 2009, p. 74).

The car backseat in which David was seated is designed for young children’s safety. This protects young children from various hazards that they might encounter during a car ride. However, this also functions to limit their freedom as it ties down their body and constrains their movements. The car moves, but David does not play a role in directing this process. He might be able to ask his mother to take him somewhere in the car, but he is still not the one who directly affects the movement of the car. David kept
checking or looking out at the vehicles around his car. The running cars on the road also
could not be affected by David; they moved along freely under David’s gaze. The only
thing David could do was watching the cars as he turned his head left and right.

This situation seemed to be very frustrating for David. He was powerless and
weak while he was sitting in the car seat, and he could not do anything but sit. However,
when it came to his game space, he was not powerless. He could operate his virtual car
and decided to stop and run the car. He also changed his focus so that he would not fear
the possibility of a car crash. In the game space, he was not the one strapped in a seat
belt in the car. Following the notion of Foucault’s heterotopias, David’s game play
functioned as a way to resist the space and time given to David. He was still in the car’s
back seat and aware of his place in that reality, but in the game space he was moving the
car, which he could not do in his real physical space. This contradiction allowed him to
contest and resist his reality.

I found that a shopping cart was another common space where young children
may play games at the same time that their physical space is moving. Shopping carts are
easy to find in most shopping malls, and some of them are specifically designed for
young children’s tastes; they look like toy cars with steering wheels. However, like the
children sitting in the back seat of a car, the children sitting in a shopping cart cannot
move their carts by themselves. They can turn the steering wheel, however this is only a
pretend motion – it does not affect the movement of the cart. What do children do in this
space while they are sitting? While grocery shopping with his mother, Mike sat in the
shopping cart and engaged in the following dialogue:
Mike: Look at mama. Look at. [His mother, Lisa and his sister, Julie discuss what to buy, he looks down and draws something with his mother’s phone as he is sitting in a shopping cart. Even while the cart is moving, his eyes are stuck to the screen. Lisa and his sister check their shopping list.]

Mike: Look at. [showing me his drawing] poo-poo! [As his cart approaches to a dessert section, Mike looks at the products in a shelf] Mama! I want strawberry ice cream.

Lisa: Mike! That's what we asked you.

Mike: Can we have the strawberry ice cream? [Lisa and his sister look for it in a refrigerator. He is drawing something on his mother's iPhone with his thumbs.]

Mike: I made a spider web again. [no response from Lisa or his sister] Look at! I made a spider web. Look at! [He lifts the phone higher and shows it to me.] You can watch that.

Youn: Ok. [The cart begins to move again and he looks around at the shelves]

Mike: It looks yummy. [showing his drawing to me and then stretching his arm to touch my camera]

Lisa: Alright! We're moving.

Mike: [passing by the vegetable section of the grocery store] What are those mama?
Lisa: [looking off at something else] Mike! Draw another one.

Mike: What's that mommy?

Lisa: I'm doing delivery in the back. Try another one. [looks at her daughter]
Stay there. I will get it.

Julie: Ok.

Mike: What's this?

Mike’s sister: This one's mine. You play your game. [Mike presses the home button] Oh. No, no, no … Mike! Not that one. Not that one. Not that one Mike!

Mike: I just want to.

Julie: No, no, no … Mike! Not this one.

Mike: Please …

Julie: No, Mom said no. Only M's one …

Mike: [clicking his siblings’ game folder] I don't wanna do that one. Those ones are not hard.

Julie: You want me to do it?

Mike: No.

Youn: Is it your game?
Mike: Yea … [clicking on his own game folder]

Youn: There are a lot.

Julie: Mike! No, no, no … Don't leave it right there. You have to hold it.
[grabbing game] Alright, I will hold it. You want me to hold it?

Mike: No …

Julie: You wanna hold it?

Mike: Yea. Watch this. [takes the game back from her]

Julie: Try this one.

Mike: Look at our pictures.

Lisa:Alright! Let's go. I think that's everything.

(Conversation at a grocery market, July 10, 2012)

Mike was the only one sitting in the shopping cart while his twelve-year-old sister was walking around the grocery market with her mother during their grocery shopping. How were they able to occupy different spaces and take on different roles in the grocery store? As seen above, Mike was also able to participate in the decision making process of his mother buying ice cream, and he wanted to be involved in their shopping as he pointed at products, tried to touch them, and asked his mother some questions. However, the cart interrupted him and limited his ability to be a shopper. On
the other hand, his older sister worked as a team with her mother, discussing the shopping list with her and finding and delivering products to the shopping cart.

In his qualitative study of parents and children shopping together, Rust (1993) revealed that there are big differences between parents’ expectations and shopping behaviors in younger children (ages two–three) and older children (ages ten–thirteen). The study showed that parents are more likely to tolerate older children’s shopping behaviors and accept their requests. According to Rust, “this may have been a function either of altered power relationships or of more educated children who knew ahead of time what mom would accept” (p. 7). In other words, older children more likely behave as their parents would expect them to while they are shopping together. Mike, who is less affected by cultural capital than his sister, has lack of knowledge of social norms and rules, which means that he usually has to sit in the shopping cart during their time at the store.

Mike is constrained to this specific space during their time in the grocery store because the seat is designed for children and he is usually strapped in the seatbelt. The children’s seat in the shopping cart might be designed to prevent young children from hidden dangers such as falling products from a shelf. However, it might also be used as a means of controlling unpredictable children, for the sake of the adults in the store.
However, regardless of his physical limitations, Mike continued to find ways to create his own spaces for play. While he could not be involved in the shopping or when his requests were denied or ignored by his mother and sister, he tried to play with his mother’s phone. He did not start to play games, but as he attempted to open his sister’s game folder and searched the phone screen, he was able to negotiate the space and time given to him during the shopping time. This shows the function of new technology that is integrated into existing social structures as a way for young children to cope with their everyday lives and challenges (Ito, Okabe, & Matsuda, 2006).
Children’s space in public areas.

Figure 20. Chan in a Playroom at a Local McDonald’s

Eunsook often visits a local McDonald’s restaurant to allow her children to have playtime with their friends. There is a playroom separated from the main dining area where people can order and eat their meals, and the playroom consists of two different spaces: one is a small dining area with tables and chairs, and the other is a play area surrounded by a safety fence. The play area is double protected and separated by two different walls; one is the wall placed between the main area and the playroom, and the other is the safety wall placed between the small dining area shown in the photograph and the play area.

Young children and their parents or caregivers go in and out of the playroom using the outside area of the indoor playground, which I will call “the intermediate
space.” However, the direction of movement in and out of this space is opposite for parents and children; the children go in and out of the space from the indoor playground, but their parents go in and out of it from the main dining area. While the children play in the indoor playground, their parents order their food in the main dining area. After they pick up their food and enter the intermediate space, the children typically leave the playground and meet their parents in this intermediate space. This opposite direction of movement tells us that the physical space functions to control the children’s movement and keeps their bodies within the playroom. The children’s space is distinct from the adults’ space.

Figure 21. Video Cabinets at a Local McDonald’s

There are three video game cabinets located next to the wall of the playroom. They have low-end graphics, and the games have simple rules, allowing children to play the games without needing additional help from adults or older siblings. The game
cabinets have vivid colors and child-friendly features, making them very appealing for many children as they are waiting for their parents. The game cabinets located near the playroom are functional in that they make children stay in the area but they do not require an extended period of time or involvement. In his study, Guins (2004) discusses the quotidian game space, including video game cabinets where digital games are played, and he questions what individuals should do as they look out from the game screen. The video game cabinets located near the playroom in the McDonald’s do not just make a statement about the games that children play— they also show how their existence or their spatial location affects young children’s play culture in their everyday lives.

From the video game cabinet photograph, it is possible to see how these machines function to distract children and keep them within the play area in the restaurant. During my observations, I did not see Chan playing games with the game players, but I saw that after Chan’s family went outside of the playroom and while his mother was cleaning up their trash, he was holding the controller and pressing its buttons. The game players, arrangement of the space, and the various play structures were orchestrated to control children’s bodies. There are many public places like the McDonald’s playroom where children are separated from adults. For example:

Amy, a three-year-old Caucasian girl, usually plays Angry Birds with her mother’s iPhone while she waits for her mother in the kids club at the local gym. At least twice a week, Mary goes to the gym to exercise and she takes her three children with her. They stay in the kids club until Mary comes back to them. In
the kids club, there is a television and there are toys on the floor. The TV screen is always on, and children are able to watch various cartoons, including Disney movies through the TV screen. Today, Amy is allowed to play *Angry Birds* with her mother’s phone. She is playing the game while sitting on a couch. From time to time, she raises her head from the phone screen, and watches the movie for a while. (Field note description of Amy in a kids’ club, September 04, 2012)

This Kids’ Club serves as another example of a children’s space within a public area. The main purpose of the space is to keep the children safely in the place until their parents come to pick them up. It is a space for waiting, and like patients waiting for a nurse to call, the children wait for their parents to call their name.

![Figure 22. Amy in a Kids Club](image)

Amy played mobile games in this space, but she was not fully immersed in the game. She held the phone with her two hands, but her eyes were drawn to the television screen. Her game play seemed to be ready to stop at any moment. What made Amy so
distracted from her game play? Console game devices such as the PlayStation, Wii, and X-box, require a large television screen for play, and children need to fully engage in the process once the game is started. This is because console games tend to require players’ full attention to understand the many rules and complex stories. However, compared to console games, since mobile games have simple rules and require a very small portion of both space and effort, children are better able to multitask. In other words, mobile games do not need to serve a purpose by themselves, but they are able to serve as a sort of medium, connecting split and scattered time from space to space as children move about in their daily lives.

As Amy was waiting for her mother to pick her up, she was prepared to stop her game at any time. The physical and mental spaces created during this type of mobile play are more like a bubble – it can be popped at anytime and recreated easily – rather than like the sacred “magic circle,” in Huizinga’s words (Huizinga, 1949, p. 77). The mobile game perfectly fit and functioned to deal with the situation in the Kids’ Club. This is what Samuel Tobin (2013) argued about when he discussed the function of mobile game play in quotidian life. Mobile game play is opportunistic, and depends on the situations. “It fits in a purse, a pocket, a train ride, a waiting room attended to without dominating the attention” (Tobin, 2013, p. 4). Her mobile game play was never complete, and it did not require that she be fully immersed or unaware of her physical surroundings. Rather, The mobile game player can be turned on and off anytime. This temporal game play allowed her to fill up her waiting time, defeating boredom as it is played interstices of the day.
Game space as a threshold within public areas

Games may also play an important role in establishing thresholds within public spaces. This was seen in the following interactions between Mike, his mother, and his sister, on their way to a local hair salon:

Lisa: You're gonna get your hair cut first Mike!

Kevin: I know. I just want a hair cut, too.

Lisa: Woo … What about Mike? You want Kevin to go first?

Mike: Yea …

Lisa: Ok … Let's see when we get there. Who is easier? Maybe Kevin should get to go first this time. Should mommy go first?

Mike: Yea. I am gonna watch you.

Lisa: You are?

Mike: I can play … on your … I can see your phone.

Lisa: Ok … But Mike! You have to sit very quietly, and if you won't sit quietly, you have to come outside and no phone.

Mike: Why?
Lisa: Why? Because you have to behave if you want to play with the phone. Do you understand?

Mike: Mmmhmm …

(Transcription of Mike in a car, July 24, 2012)

Mike and his family were heading to a local hair salon to get their hair cut. While they were on the road, they were discussing who would get their hair cut first and what they would do in the hair salon. Compared to the car space, the space of the hair salon required a very different attitude from Mike if he wanted to stay in the space. As soon as Mike crossed the threshold of the hair salon, he needed to behave and be quiet, as his mother suggested. This set of behavioral and emotional changes, followed by the changes in their space (from the road to the hair salon) as well as the change in time (from when they left to the time that they arrived) can be explained by the term, “the chronotope of the threshold” (Bakhtin, 1981, p. 248).

According to Bakhtin, a chronotope is literally a “time space” and means “the intrinsic connectedness of temporal and spatial relationships that are artistically expressed in literature” (Bakhtin, 1981, p. 84). To understand one’s life and history in a novel, it is inevitable that one must consider both the space and the time narratively, as expressed in the novel. Likewise, the conversations during Mike’s trip to the local hair salon only make sense when considering the variables of time and space and their changes during the process. Bakhtin explained the chronotope of the threshold, stating:
The word threshold itself already has a metaphorical meaning in everyday usage (together with its literal meaning), and is connected with the breaking point of a life, the moment of crisis, the decision that changes a life (or the indecisiveness that fails to change a life, the fear to step over the threshold) (Bakhtin, 1981, p. 248)

In a novel, the hero encounters many events that affect his life on the road, and when he crosses the threshold of an event, it becomes a breaking point, changing his life. When Mike crossed the threshold of the hair salon, which is not a children’s place, from the road, he became a different person who practiced social rules. This was meaningful as he is not yet old enough to be expected to behave maturely in all spaces. In other words, as he experienced this type of space, he temporarily left his childhood and entered a type of adulthood. However, there was another encounter that changed his process as he played the game in the hair salon:

Mike: [while playing *Angry Birds* on his mother’s phone] Oh! That's a big angry bird. [speaking loudly]

Lisa: M!

Mike: Yeah!

Lisa: Oh! Mike! Please be quiet.

Mike: Haha! [lauging loudly] Oh yea! [making the birds fly and looking at Youn]
Oh! I missed! [stretching out his arm and looking at his mother]

Lisa: Ok! Keep trying Mike! You did a good job Mike!

Mike: Wow …

(Conversation at a local hair salon, July 10, 2012)

In the hair salon, Mike was supposed to be quiet and well-behaved as he should have changed his posture to be like more adult. However, as soon as he started the *Angry Birds* game with his mother’s phone, he forgot about this, reverting to his typical behavior, lost in the game. The temporal game space created a brief moment of crisis between Mike and his mother, but it also allowed him to feel as though he was more in control of his body and mind in the unfamiliar space.

**Young children’s digital game play in commercial spaces.**

Commercial structures, such as electronic shops, toy stores, department stores, and discount stores, have become more common places for families to hang out, play, and eat. Mothers often say, “I go to the mall with my kids every Saturday afternoon.” In fact, Lucia said this during our first visit (September 07, 2012). Going to the mall or a shopping center has become a ritual for many families in modern society, just as going to church on Sunday serves as a habitual and repeated experience. There have been many attempts to understand the commercialized space in people’s life. According to Walter Benjamin (1999), the spaces in an arcade represent modern pedestrian lives.
In commercial spaces, people find their past and dreams from products and displays, and they pass various lives coming from different sociocultural backgrounds. Following Benjamin, the spaces are not just a commercial place in which people buy commodities, but rather a mixed space that presents various people’s lifestyles, habits, thoughts, and values, and that reveals different power relations between the industries and the consumers and among the people from different social classes.

During my study with the six families, I visited various commercial spaces such as the 99 Cents Store, Target, and various shops in a shopping mall, allowing me to encounter multiple scenes in which the children play digital games in the spaces. Their game play was not only for killing time, but also for testing new games and the game players displayed in the commercial areas. The displays and arrangement of the game products encourage children to play with them as they capture their eyes and minds within the area. In these areas, children are not just game players, but also future consumer. They practice how to buy and consume commodities while testing games and game players. This practice becomes habitual as they repeatedly visit the space, and it affects their consumption of game products.

However, these commercial spaces may also serve as sites for family leisure activities. For example, Minsoo often visits Best Buy not only to purchase products, but also to check out new games with his family. When he visits the store, he tests various games and encourages his children to play them. During a recent visit, they played a tennis game on the Wii and they did a virtual car race together. This moment was not very long, but for the father and his children, this place became a version of a video
arcade where they could play games and watch others play. The various game players on display allowed them to make the space playful as they escaped from the commercial space.

These types of experiences may also allow children to experience new cultures. As they test new games, the children generally have some knowledge of the popular game characters. They might wish to have new game players as they see new game players on display within the store. However, their cultural experiences cannot be identical, and they are varied depending on the situation. Although Chan and his sister had the chance to experience the *Angry Birds* game in the store together, we could not conclude that their experiences were the same or that their game selections in the future would be affected in the same way. Ito et al. (2006) argue that children’s experiences with new technology cannot be summed; these experiences are scattered, personal, and contingent, although they occur in the same space and may involve playing with the same devices. At this point, the game spaces within commercial areas serve as meaningful spaces in which young children’s scattered and personal game experiences might be observed naturally, including the experiences of interacting with new cultures and people.

**Heteroglossia and Digital Games**

Children are affected by media primarily not via imitation, but instead, as we will see in the chapters that follow, through the complex interplay of media content with children’s preexisting knowledge, concerns, and anxieties as
mediated by their social interactions in specific local communities. (Tobin, 2000, p. 30)

Following Joseph Tobin, I see digital games as more than just a medium for delivering global meaning to players, but rather as the site for young children make sense of their everyday life by interplaying with the messages from the games. To shed light on and move beyond the current issues of globalization and digital game media effects, I intend to discuss the interplay between the globally circulated meanings that are presented in digital gaming media and the effect that these meanings have on the three-year-old children and their parents in this study.

To understand the children’s conversations and behaviors related to their digital game play, I used Tobin’s Bakhtinian text mapping, an extended application of Bakhtinian theories. Joseph Tobin (2000) pointed out that as we trace out children’s conversations, it is possible to understand not only how the children make sense of digital media, but also to draw a picture of people’s tensions in the context of a larger society. In this chapter, I will show the ways in which the children talked about games while also exposing the double-voiced discourse present in these situations, which may be “a text composed of citations, allusions, and repetitions of the words of others” (Tobin, 2000, p. 143)

Discussion one: “Dora is so girly”.

You know . . . I have learned . . . you know . . . my major was food and nutrition in college. So, I had to learn some family studies, too. From that experience, in
my mind, I came to conclude that, ‘Hmm, games are not good for education.’ It came from my education in Korea. So, I grew up with that kind of thinking . . . I cannot talk about games because I do not know anything about them. I don’t know about games at all, but . . . My husband often tells me, ‘This game is fun. The boys should play like this. Playing with a sword . . .’ But um I feel it looks . . . violent. (Interview with Eunsook, May 30, 2012)

Following Bakhtin, Tobin (2000) points out that the meaning of every discourse is contextual. This means that understanding the context is essential for a researcher to understand the meaning of the discourse made by a participant. This includes not only understanding the moment in which the utterance is made but also understanding the participant’s past experiences that may have contributed to the participant’s thoughts and identity. Eunsook is an immigrant parent from South Korea. Different from her children (Both Chan, age 3, and Jun, age 7, were born in the United State), most of her childhood memory and educational experiences were made in Korea.

As Eunsook repeatedly spoke the words “you know”, in the beginning of her conversation, she invited me to get into the context that we share. It was her utterance, but once I shared in the conversation, the phrase took on a co-created meaning, involving both of our shared experiences. Having a similar cultural and educational background as Eunsook, I was able to empathize with her and understand her thoughts on digital gaming. Even as a researcher of young children’s digital games, I often find myself asking my husband to stop his gameplay, saying, “Do not play the game that long! It’s not good for you and our son’s education.” Eunsook has learned that digital
games are bad, but she has barely had the chance to play digital games or to figure out what might make digital games bad on her own.

I remember that when I was young, in the 1990s, I often saw my friend’s younger brother playing Super Mario with his Game Boy. At the time, I always wanted to play it, but I never asked him if I could play the game because I thought that the game was not for me, but for boys. The room decorated for a boy, my friend’s indifferent attitude toward his game play, and my past experiences all stopped me from asking him to play the game with me although the three of us often played together. These types of stories and experiences are not uncommon among women like Eunsook and myself. Most of the mothers in my study grew up without experiencing games by themselves because of the predominant discourse in which digital games belong to boys. This has led to more mothers with anxiety about their children’s game play than fathers.

However, the fears of these mothers, who are actual consumers in the digital market, do not stop their children’s game play. In From Barbie to Mortal Kombat, Cassell and Jenkins (1998) explain the growing digital game market, especially for girls. With a rise in the application of feminist theories in digital game studies and digital game industries seeking new consumers, digital games targeting girls have become increasingly popular (Cassell and Jenkins 1998). Cooper (2006) argues that there still exists a digital divide in terms of gender norms between boys and girls, which gives girls anxiety about digital technology because of the social pressures of the past, but I found that this anxiety presents itself in different ways than the anxieties of mothers concerned about their children’s digital game play. Girls playing games on a daily basis now is
nothing special or new, and I did not find any instances of the girls having been
discriminated against regarding their game play or gender.

The young girls in this study did not display any anxiety about using digital
technology, contrary to Cooper’s argument. According to Hwa, along with her piggy
bank, Lin’s iPad is something that she wants to protect and keep away from bad guys,
not at a thing to be afraid of:

Hwa: When she saw the police, she asked, ‘Where are they going?’ If someone
breaks into our house, She knows what to do. Just dial 911.

Hwa: If a bad guy comes in what do you do?

Lin: Why do they come to our house? What we do is simple . . .

Hwa: They might come to take your iPad or your piggy bank . . . if a bad guy
comes in what are you going to do?

Lin: Call the police.

Hwa: What number are you going to dial?

Lin: 911! . . . when the bad guy comes in, I will use the baseball bat . . . I am
going to fight with them.

Hwa: No . . .

(Conversation, August 23, 2012)
Clearly, the matter of simply playing digital games is not sufficient to explain how digital games might disempower young girls as they play. These young girls did not display any fear of using their game players, and they fought to keep their game players from their brothers, unlike the behaviors described by Eunsook and myself from the past. Playing digital games is no longer only a boys’ thing. Today’s children play games regularly.

Nevertheless, there still exist criticisms of digital games as many see them as a space where stereotyped gender roles are easily reproduced and reinforced (Walkerdine 2006; Bryce and Rutter 2002). Now, it is more of a matter of how the game is used rather than whether or not a girl is able to play a game.

According to Joseph Tobin (2000), when children talk about their games and digital media in general, they rehearse and perform gender roles. In other words, when children talk about digital games, it is easier to see how they view and perform their different gender roles, and how the digital games play a role in this process. For example:

Jun: Chan likes *Mike the Knight*.

Youn: I want him to play a new game. So … [opening the *Dora the Explorer* webpage]

Ashley: Wow … *Dora the Explorer*? Haha …

Youn: This!
Ashley: *Mermaid Adventure?* I think that Chan really, really dislikes this. This is for a baby girl. Dora is girls’ stuff.

Jun: Chan likes *Mike the Knight* [game series].

Ashley: Dora is so girly.

(Conversation, July 03, 2012)

*Dora the Explorer* was originally a popular animated television series that has since been made into various versions of digital games targeting young children. The main story of these games is similar to the television show, which involves Dora, a young Latina girl, traveling around the world with a monkey as she completes various missions along the way. *Dora’s Mermaid Adventure* (Viacom Media Networks 2013) is one of the online games available on Nick Jr.’s website, and in this game, Dora explores the sea as she becomes a mermaid. I chose this game for Chan because Eunsook suggested that I find some games on the educational game site *Nick Jr.* and I heard that Chan had never played the Dora the Explorer game series. The game that I picked seemed fun to play because it was designed to be played like *Super Mario* (Chan’s favorite game), so I imagined that it would be less boring than the other commercial learning games which purposes are mainly not for entertainment but for education. I did not intend to choose the game for Chan to make him and his peers talk about gender related issues, but I accidentally involved some children in the discussion of what games are for boys and what games are for girls as I suggested that he play the game.
In the discussion above, the two girls (Jun and Ashley) talked about games for Chan. When I tried to introduce *Dora’s Mermaid Adventure* to Chan, they discouraged me from doing it by providing their own rationale. First, they pointed out, Dora the Explorer game series are not for boys but for girls. When I clicked on the website, it made Ashley laugh. After that, when I clicked on *Dora’s Mermaid Adventure* among the available games and she stressed that what I was choosing for Chan was wrong by repeating the word “really.”

According to Tobin (2000), the repetitions of the word can be the sign of exposing the double-voiced discourse in this situation. One could say that it was only Ashley’s argument, but it was double-voiced, reflecting dominant discourse in a larger society following Bakhtin. To support her argument, Jun also suggested that I pick another game (i.e. one of the Mike the Knight game series) for Chan. Chan was invisible in this conversation, but I could say that he also participated in the meaning making process as a listener, and both Ashley and Jun’s utterances have affected Chan’s game selection.

*Mike the Knight* is a popular animated television series with an adventure story in which Mike acts as a knight, like his father. In the game Mike goes on trips with two dragons, just like Dora does with her monkey. I have seen Chan playing the game many times, and instead of playing *Dora’s Mermaid Adventure*, Chan chose one of the *Mike the Knight* games to play right after our conversation. Chan, like the two girls, selected a specific game character to make sense of his gender identity. According to West and Zimmerman (1987: 142), this process of selecting a correct game as a boy or a girl can
be a part of the gender recruitment process, which is “a self-regulating process as they begin to monitor their own and others’ conduct with regard to its gender implications.” Chan is not only playing the game, but also making sense of his gender identity during his game play.

Also, according to Tobin (2000), this behavior is not just a rehearsal for adulthood, but rather a serious and meaningful performance by a three-year-old boy. As one of the girls pointed out, Dora’s Mermaid Adventure is too ‘girly’ for Chan. There are no male characters in this game, and everything is related to girls, including jewelry, necklaces, and stars. On the other hand, Mike is a knight. He gets along with dangerous dragons, and he proves his courage and power as a man throughout the game. The children have to find games in which they can perform their gender, allowing them to be accepted by their peers.

By just selecting game that feels right for them, as a boy or a girl, young children seriously interpret and then represent these game characters in their real lives as they perform their gender. This is done not just through imitating the game characters, but also in a way that makes sense for the child as he or she expresses gender during everyday life. This became clear as Chan helped his mother water the tomatoes in their backyard:

Eunsook: Wow! The tomatoes are getting bigger, aren’t they? Can you water them, please? [Chan waters the tomatoes using his squirt gun.] Wow . . . Good Job! What game are you going to play? Are you going to play the robot game? Robot?
Chan: Yes! [squirting the water into a bucket with his squirt gun]

Eunsook: Wow! Super Strong! Good Job!

Chan: [smiling and looking up at his mother proudly] Yo-ho! [squirting the water] Mommy! Chan is super strong.

Eunsook: Wow! Super strong guy! Wow! Good job! (Conversation, June 7, 2012)

While Chan watered the tomatoes with his squirt gun, he pretended to behave like a robot in his favorite game. Then, Eunsook responded to him positively by saying “Wow! Super strong! Good job!” and Chan cited his mother’s words again to assure her that he did a right thing. Tracing out their conversation, we can find that there is a mind transformation of Chan from a three-year-old boy to a super strong guy, which his mother reinforced by saying ‘super strong guy’. Although the robot character that he performed does not represent a certain gender or explain what a grown-up man means, Chan and his mother applied the character to deal with their real life situation. The robot game itself does not force him to be a strong male man, but his interpretation of the game character and the people around him interplay to contribute to his performance of the game character in his real life.

In another example of this behavior, Chan and his sister had two friends, Tom (age eight) and Ashley (age eleven), over to their home to play. When they arrived, Chan followed Tom around and watched him. Tom showed his Nintendo DS to Chan,
then took out the stylus from the DS, touched Chan’s toy, and rolled it from Chan’s head to his chest. Chan imitated this behavior, then stood up on the sofa:

Chan: [standing up] Super strong.

Tom: No! [climbing onto the shoulder of the sofa and standing]

Chan: What?

Tom: I am really super strong.

Chan: No . . . [climbing up like Tom] I am super strong! [jumping down from the sofa] I am super strong. [raising his hands] Heehaw . . . Heehaw . . . [running around the living room]

Chan: [moving towards Tom] Super strong! [Tom pushes him and he turns around. Super strong! [jumping on the sofa] Super strong! [Tom opens his Nintendo and faces it toward Chan like a weapon]

Ashley: What are you doing Chan?

Chan: Super strong!

Ashley: Super strong?

Tom: [wrestling with Chan] I want your toy! [grabbing Chan’s toy sword]

Chan: Heehaw . . . [turning toward Ashley and clenching his fists like a super hero]

Ashley: Chan! If you touch this [pointing toward a toy car], you get stronger.
Chan: [jumping down from behind the sofa and grabbing his sword] Heehaw!

(Conversation, July 3, 2012)

Tobin (2000) said that to understand the deeper meaning in children’s talk about digital media, we need to find what things remain unsaid in the conversation; we have an obligation to answer, although the words or gestures used to answer the utterances of another can never be completely adequate, because the meaning of these utterances is inherently double-voiced, contradictory, and unfixed. There was no mention of a particular game in this scenario, but looking at the children’s performances, there were many stereotypically gendered characteristics displayed that may come from the game characters that the children know and love.

From my point of view as an audience in this play, Chan was the main character who had to defeat his enemies. He needed to show his power to the enemy (Tom) as he climbed up the sofa, raised his hands, and jumped down from the sofa. He needed to continually prove that he was both more powerful and a more strategic fighter than Tom. Tom also acted out his character as he continued to challenge Chan. They attacked and counter-attacked as men. On the other hand, Ashley, the only girl in the scene, did not engage as a warrior in the fight, but instead, she served as a wise woman, trying to give Chan advice that might help him to defeat his enemy. They did not directly explain their roles to me, but the entire context and the children’s bodily movements and gestures allowed me to understand what they were trying to show as an actor or actress in this play.
This situation, dominated by the boys, showed the children’s desperate efforts to be seen as strong men. Tobin (2000: 54), points out that ‘the reality of these boy’s lives is that they spend most of their childhood under the control of women,’ leading to ‘their performances of masculine swagger’. Chan spends his most of time with his mother and older sister, and he has to obey his mother’s authority. As he pretended to be a robot or to perform like some masculine character from his games, he displayed a meaningful sense of power, although temporary.

While the young boys played boys’ games and performed male behaviors, the young girls also displayed typically female behaviors as they mimicked their mothers. In a way, as the girls played the games, they took on their mothers’ roles by taking care of pets, feeding others, and cleaning their rooms. They seemed to be serious and hard-working while playing these games, using voices and gestures to mimic their mothers’ behaviors.

However, this type of representational play in digital games can be dangerous as it may encourage misrepresentations of what women should do or how women should behave. Mia likes popular princess characters, like the other girls in the study. According to her mother, she changes her outfits many times on a daily basis, and she likes to play princess games such as Disney Tangled (LeapFrog Enterprises, 2012) with her Leapster Explore. Mia is biracial. Unlike her Caucasian mother, she has dark skin and curly hair. However, Mia does not own any games with princesses that have dark skin or characters from different ethnic backgrounds. Both the princess characters and her mother are white, but Mia is not. I was not able to identify the ways in which these
game characters might affect her in terms of her perceptions of beauty, but I could see that Mia desperately tried to look pretty as she wore Barbie dresses or decorated her princess game character with flowers and jewels. Here is an example of how she presented her idea of beauty:

[Mia goes to the television shelf and then takes a DVD out of the shelf]

Mia: I wanna watch this.

Youn: What's this? Let's see... Barbie? What's the story about?

Mia: Barbie and...[Nutcracker] He is a nutcracker. Look at...Isn’t that pretty? I feel I am watching...

Cris: She likes a princess. Youn! I like the video game, Angry birds. I always wanna play it.

Mia: I always...I always...Love this one.[points at the Barbie on the DVD cover]

Cris: She likes watching TV.

Mia: I like watching TV, too. Oh! That [the Barbie] looks just like you.

(Conversation, October 26, 2012)

Mia told me that she likes princesses while her brother said that he likes the Angry Birds game (Rovio Entertainment, 2009). This can be an example of gender differences in children’s game selection. However, I focused more on what she said at the end of the conversation. Mia said ‘Oh! That looks just like you.’ She thinks that
Barbie is pretty, and that the Barbie looks like me. Where is this idea coming from?

What makes her think that I resemble the Barbie more than her wearing a princess dress?

According to West and Zimmerman (1978, p. 135), such sources like the Barbie character may “describe the sorts of behaviors that mark or display gender, but they are necessarily incomplete.” To complete the process of making sense of gender, Mia needs to interpret the popular figure and apply or modify the concept “as the occasion demands” (West & Zimmerman, 1978, p. 135).

Furthermore, by playing games that allow them to rehearse their mothers’ roles, these girls are able to experience having other people around them under their authority. For example, as Amy was watching her mother’s cooking, she mimicked her mother’s behavior towards me:

Amy: [stepping on a chair to watch her mother’s cooking] What is that mommy?

Can I stir? Can I stir?

Mary: Just for a second. There you go. Look at what you do. Keep it down. We are making donuts.

Amy: Wow . . . Do you wanna eat a donut? [turning toward Youn]

Youn: Yes. Please . . .

Amy: Mommy! She wanna eat a doughnut. Mommy . . .

Mary: Yes. You need to cook first.

Amy: When the donut is done. We can eat it.
Mary: Ok! Good job!

[touching the measuring cup]

Mary: Hold on baby. No! No, no, no, no . . . You have to be careful. The computer is right there ok?

Amy: This is hot. This is too hot.

Mary: You have to be very careful. The computer is right there.

Amy: Mommy . . . Can I show it mommy? Mommy? Can I do that? When you do that, I can't. Remember we did um . . . on the computer? um . . . um . . . um . . . um . . . we did a . . . um . . . um . . . we did um . . . um . . . we did um . . . um . . . um . . . glass computer.

Mary: Last time you were here she splashed the computer.

Youn: She really likes to cook, even in the game.

Mary: Games, too?

Amy: Can I do it now Mommy? Mommy?

Mary: I need these in the oven. It's getting late.

Amy: Can I do it?

Mary: No!
Amy: No?

Mary: Ok! Here . . . but listen! No whining. Get your hair out of the food.

Amy: Can I lick this one when I am done Mommy?

Mary: Thank you. Ok. Let go.

Amy: Can we play now? [turning toward me] In my room?

(Conversation, September 18, 2012)

Like her mother, Amy really likes to cook, but in her real life, her mother dominates the kitchen, and she needs to follow her mother’s instructions if she wants to participate in cooking time. It seems that Amy does not have any power in relation to the cooking. What she can do is to listen to her mother and use some tactics to negotiate with her mother in order to gain access to the cooking tools. On the other hand, in the game space, Amy is more powerful in that she can control the space and the tools for cooking.

According to Bryce and Rutter (2002), digital games play a role in reinforcing stereotyped gender roles for children, but it is also possible that the children’s activities with digital games may be used to contest and resist their reality as young boys or girls. In the case of Amy playing cooking games, the games might imply that cooking is for girls, not for boys as they are filled with pink objects and girl characters. However, looking at the entire context in which her cooking play is generated, these games are
more likely to offer Amy an experience of being in power as she is able to control the variables in the digital kitchen.

Her tones and gestures resemble her mother’s while she plays the games. She is a being her mother, Mary not a typical woman described in the game. When someone is around her and wants to play with her, she speaks to the person in her imitation of her mother’s voice, and she commands to the guest to follow her instructions. During the game, she is the commander, more like the typically masculine characters in various games, although she still operates in a typically feminine environment in the game, based in the kitchen.

**Discussion two: “Intent participation, the way to sneak into adulthood”**.

Digital games, whether children directly participate in or just observed, may serve as a means by which children might sneak into adulthood. In this discussion, I will focus on the meaning of young children’s viewing of digital games on *YouTube*. *YouTube*, a media sharing website, itself seems irrelevant to young children’s digital game play because it is not for playing games, but for sharing media. However, I see young children’s viewing of digital games on *YouTube* meaningful as a part of their gaming experience.

Imagine the typical American family’s experience on Super Bowl game night. While the family watches the game, they are not physically involved in the game play, but they play the game in their imaginations as they make plans, set the positions, and coach the players; this process helps people to learn various game rules and play
strategies that can be used for our future play. Furthermore, the family might experience various events during the game including seeing commercials during breaks, preparing and eating snacks, and enjoying family bonding time. These are integral parts of the game viewing experience, forming habits, rituals, and family game culture.

Young children’s viewing of games on YouTube is also distinguished from young children’s normal game media consumption because the game videos on YouTube have unique characteristics, which cannot be found in traditional game media. Unlike traditional game media, professionally made and disseminated by game industries with specific targets, the game videos on YouTube are user-created videos, mostly made by anonymous game players. There is also a wide variety of media content that is irrelevant to digital games on YouTube.

In my study, the young children’s mothers were especially concerned about the possibility that their children might be exposed to adult languages and sexual content while watching media on YouTube.

Um … Well sometimes, he goes to YouTube, and then he looks for things on YouTube. He starts watching things on that. So I definitely … I watch to see what he is looking at. It's amazing what they can find on YouTube. It's amazing and free. He can find and navigate through it. Oh, my gosh! Probably, there he can do some more than I can. So um … Yes … If I hear bad language or it seems too scary … Sometimes on YouTube, he watches something like Transformers. Stop! Yea. No … Definitely, he can't do that. So, I would say scary things, bad language, guns … Those things no! However, because he is the third child, he is
more exposed to guns and bad language. My other two were never … They were very restricted … he is …

(Interview with Lisa, June 21, 2012)

Lisa told me about her son’s navigation of YouTube when I asked her, “What is a bad game for your child?” From her answer, I could understand her fears about her son being exposed to bad content while he plays games on her iPhone. Mike is often allowed to play games with his mother’s phone when they go grocery shopping (see session on Game play within a moving space), and during this time his game play becomes invisible or out of her control. During these moments, he often clicks the YouTube application on the phone and watches random videos uploaded by others. Her concern is not that her son is playing games on her phone, but that he is able to access additional media online during his game play.

Even Lisa was unable to describe how Mike was able to navigate YouTube and decide what to watch. He cannot read and type letters, but he was able to watch the Transformers trailer on YouTube. What was his strategy? How did he find this by himself? Since he is not able to search for the videos by himself, he is only able to watch media that show up as recommended videos or videos related to the user’s interests, which might be his mother’s or his siblings’. For example, in my phone, if I open the YouTube application, I can see several Korean music videos, video clips for children, and several cooking shows uploaded by ordinary people.

Because Mike was able to watch the Transformers trailer, he may have been navigating based on his brother’s or his sister’s interests, navigating from one video to
another as he clicks through the related videos. Citing his mother, “because he is a third child,” Mike has more chances to access various resources than his older siblings. This might be because his mother is more relaxed in her control of her son’s game play, based on her past experiences with the other two children. However, what she said might also be understood as her concern about Mike’s early exposure to violent content because his older siblings are able to access game content for older children.

I saw Mike’s media watching on YouTube as “intent participation” because he was watching the popular media content intentionally. The term, “intent participation” refers to “keenly observing and listening in anticipation of or in the process of engaging in an endeavor.” (Rogoff, Paradise, Arauz, Correa-Chávez, & Angelillo, 2003, p. 178). According to Rogoff et al. (2003), intent participation is a powerful tool for fostering young children’s language acquisition and learning about life in their communities. Like Chan, who learned how to turn down a game sound by observing his father, intent participation allows young children to learn about things by themselves. Intent participation is distinguished from incident observation in terms of the degree of the observers’ attention. Mike is an intent participant because he is intentionally engaged in watching YouTube, and his attention is fully focused on the media content while watching and searching the contents on YouTube.

Young game players who intentionally watch game scenes played by others online or offline are intent participants as they are actively involved in the process of observing and listening. However, their observations are often from the third-party perspective; they are not invited to the game play due to various barriers (e.g., lack of
knowledge, parental controls, etc.) and they only experience uninterrupted space. Rather than playing games, they spend most of their game time watching others’ play, both online and offline. Their participants are often invisible because they mostly observe others without any verbal or written expression, both online and offline. They are not playing games, but they are legitimate peripheral participants (Lave & Wenger, 1991) in the game activities of their group, “watching what is going on and becoming involved” (Rogoff, 2003, p. 318).

*YouTube* has become a powerful space for these young children to experience the various digital games played by adults. Without knowing who played and uploaded the game scene, when the children watch the performances and actively engage as intent participants, they sneak into these imaginary communities. In the beginning, young children might wander around the digital space to see what is happening, but their keen observation might “promote skilled participation by young children in mature activities” (Rogoff, 2003, p. 320). I see their participation as meaningful for explaining how young children make sense of what being a “grown-up” means.

The game media as a part of popular culture passes along informal knowledge that can serve as an important source for the children to make sense of this meaning. Therefore, as I watched the children playing with and viewing various digital game media, I was able to describe how the game content had become a part of the popular culture that leads the young children to adulthood.

Chan also often watches digital games on *YouTube*. While Lisa restricts Mike’s access to *YouTube*, Eunsook helps Chan to watch game scenes on *YouTube*. This is
because Eunsook thinks that watching children’s games on *YouTube* allows Chan to develop his game strategies. Eunsook is also afraid of Chan watching adult content online, but she thinks that it is ok if she allows him to watch videos that have been censored by her.

*Figure 23. Chan Watching Super Mario Game Scenes on YouTube*

The photos above depict Chan watching *Super Mario* on *YouTube*. He was able to watch not only someone else’s game play, but also to listen to the player’s voices and read some sentences while he watched the video. The game character is both the game character itself and the representation of the actual game player, and during his game watching, Chan was involved in the player’s experience. After he watched the video, he was able to click on other game scenes among the related videos on *YouTube*.
Not surprisingly, current technology allows individual game players to share their game experiences with others through video sharing websites, game portal sites, and blogs. They edit and remake the game scenes, similar to music videos and short movies. Also, people subscribing to these post their comments online, and share their ideas, and offer tips for anonymous viewers. All of the participants play a role in creating an online community, and the people become members of the community through these interactions.

Chan is the “third-party intent participant” in the YouTube community. What he is doing is just watching the game scenes, but invisibly and silently he sneaks into the community and learns their languages, interprete their behaviors, and make sense of their thoughts. For Rogoff et al. (2003), this observation is more than mimicking others, but understanding the real world. Whether the community accepts him as a member or not, Chan is a part of the community and affected by the members of the community.
From only this little bit of observation, I was unable to discern what exactly he learned from the space, but I was able to watch the process of digital games allowing young children to participate in an online community. According to Samuel Tobin (2013), the children’s participation does not necessarily lead them to have a bonded and strong membership in the community, but rather it is used as a trick or tactic for young children to dig up secrets from adults without exposing them to the adults.

Then, is being “the intent participant” good or bad for young children? Here, I say yes and no. As they are observing others’ game play, they are able to more easily survive among others, which might be more difficult if they were visible to others. For example, Chan cannot participate in older children’s game play because he is too young to play these games. In this space, he is an uninvited guest, and he is easily rejected by the children. However, when he decides to just watch their play without interrupting them, he is not rejected by the older children. During this time, Chan is spying the older children’s play to gather information which will help him join the group soon.

Watching other’s game play or engaging in various imaginary game communities might allow young children to overcome the barrier of being stuck in childhood, but I suggest that participating in the online game space does not always provide positive outcomes, but it can lead children to misinterpret what adulthood means. Many critics have voiced concerns about young children experiencing various media content that might contain sexism, racism, and violent language as they emphasize the importance of protecting innocent children or childhood itself (Bennett-Smith, 2012). Jackson and Scott (1999) argue that as modern anxiety grows and
reinforces the concept of childhood, parents tend to experience fears about their children losing their childhood. According to Jackson and Scott, this is because of our unstable and unpredictable society, and with the development of technology and globalization, we have to deal with anonymous and invisible enemies so that and even our neighbors and communities become unfamiliar and unsafe. Therefore, the parents’ concerns about their children sneaking in adulthood with digital games have become global issues, and they may serve as powerful forces in disconnecting their children from other social groups.

However, by simply maintaining their position away from other social groups, parents cannot stop their children from making sense of adulthood. Prohibited or not, the young children experience various digital gaming media, both online and offline. It is impossible to remove all of the bad media content from the online space. The problem is not the contents, but rather the invisible children watching them silently (Tobin, 2000). Before we decide whether the game watching behavior is good or bad, I would suggest that it is important for these “intent participants” to speak out about what they have seen, and we need to listen to them.

**Discussion three: “Bad guy robot is dead”.**

Amy: Daddy! Can I sit here? I wanna be a good girl.

(Conversation of Amy during breakfast time, September 16, 2012)

Julie: A unicorn … didn't know what that is … ok … That's the A, A, A, Apple … So what letter is it?
Mike: A …

Julie: Good boy! K, K … kite.

Mike: K

Julie: Good boy.

(Conversation of Mike and his older sister, July 19, 2012)

According to Wierzbicka (2004), the discourses of good boy and good girl are easily found in the speech of Anglo-Saxon parents, and the expressions are culturally constructed and now used to rear contemporary American children. In my study, the parents of the three-year-old children, while were not all Caucasians, also often used these expressions to discipline or educate their children. The young children in my study often said these words to gain their parents’ affections or recognition of what they were doing. For young children, being a good boy or a good girl is a concept that they have to learn to survive in their everyday family life, and they make sense of the meaning of these words from their everyday life experiences (Tobin, 2000).

For Amy at the breakfast table, being a good girl meant finding the right seat and sitting properly to have her breakfast. Also, for Mike’s sister, the expression, “good boy” was used to encourage Mike to answer her questions. During this time, Mike decoded what she wanted from the expression, and decided to be a good boy as he answered her questions. It seemed that Amy and Mike were in different situations, and they applied different strategies, but fundamentally they were both required to do the
same thing, obey a certain rule. In both situations, being bad was not an option, and what they had to do was to be good as they decoded the messages that they received from others.

This binary of good and bad or good and evil is also widely used in a lot of popular media, and in young children’s digital game culture, there are only two kinds of people; one is a good guy, and the other is a bad guy. This explicit binary tends to be used by children to set their own criteria for understanding other people in the world.

Eunsook: [as Chan plays Mickey’s Robot Laboratory (Disney, n. d.)] You will make a strong robot … Right?

Chan: Robot, super strong! Bad guy robot!

Eunsook: Yes! It is a bad guy robot...

Chan: Yeah! Yeah! Yeah! Fight! [punching the other robot on the screen] I won! Bad guy robot is dead.

(Conversation of Chan and Eunsook, June 7, 2012)

Citing Eunsook, “already, he got to have this idea that a bad guy robot should be defeated” by a super strong robot. Like Amy and Mike made sense of the concepts of good boy or girl from their experiences with others, Chan understood the concept of good and bad guys from the game content. According to Joseph Tobin (2004), the children’s local experiences and the messages from digital media are orchestrated and then they reproduce new meanings for the children. Chan reconceptualized the meaning
of being good and bad from the game media as he combined it with his own local experiences. To be a good guy, Chan first, needed to listen to his parents, just as a good guy is obligated to follow the rules of a game. Also, he had the idea that bad guy is one who loses the game. Being a good guy, Chan has to be strong and win the game.

Listening to parents and being strong do not seem to be a problem at all, and they are even encouraged in early childhood education. However, Joseph Tobin (2004) points out that the problem of young children making sense of game media is that there are hidden messages that promote certain ideologies. For example, the interpretation that good guys always win may stem from the logic of colonialism, the victor’s justice. Within this logic, the context in which the fight is generated is not considered; the only matter to consider is who wins the fight. Young children might understand the word “failure” to imply being bad. The hidden messages from digital game media are powerful, but Tobin showed in his study that not all of the children agree with this message. Some of children are able to resist the media message.

In my study, the children also showed their resistance to winning as they intentionally failed their game missions and took on the role of a bad guy in their play. Also, they often resisted answering the questions given by educational games. After Lin answered several word questions asked by one educational game, she intentionally chose a wrong answer as she was laughing whenever the game said “incorrect.” As she intentionally chose the wrong answer, Lin might have reduced her anxiety of failure.

For Joseph Tobin (2004), the scariest part is not the explicit messages which directly require winning, answering questions, or being a super strong robot, but rather
the abstract images of an ideal family, woman or man, and child which might be mingled into their preexisting anxieties and prejudices, and then reinforced by the children’s lives. Young children know that a bad guy robot is not real and something to make fun of, but for them a princess with light skin in the game is something to desire and want to be, or even to make them frustrated.
CHAPTER 6
CONCLUSION

Amy: Why this is glass?

Youn: Um?

Amy: Why this is glass? [pointing at the iPad]

Youn: Because … I am not sure … but it's clear. The screen.

Amy: Yah. Like this. [pointing at the window in her bedroom]

Youn: Yeah … Like the window. Yes!

(Conversation, September 20, 2012)

Like the window that Amy pointed at, digital games are a type of media that allows young children to make sense of their world and their existence throughout their everyday lives. However, young children’s digital game play remains at the forefront of most parents’ imaginations, creating extreme views and even fears regarding their influence. Clearly, we have seen dramatic changes in people’s life with the development of digital technology in modern society, and it accelerates our media anxiety. However, I argue that each generation has a unique collection of media and accompanying media anxiety.

In the 1920s, when broadcast radio was introduced into American society, many people were concerned that the radio would weaken children’s reading skills and disrupt family relations, but instead, as television emerged in 1948, the television became “a
prime mover in juvenile misconduct and delinquency soon followed” (Wartella & Jennings, 2000, p. 34). Just as television and radio once experienced periods of resistance and ignorance, so too will digital gaming for young children.

Young children play games on the road, in the car, and even throughout the day, in the midst of spontaneous play. As Samuel Tobin (2013) argues, today’s young children’s digital gaming experiences are different from the isolating arcades of the past. Their game play has become an integral part of everyday life. It is nothing special that my two-year-old son, who has limited language abilities, often utters the word, “game” to me to get my permission and support to play games on my phone. However, some early childhood educators have hesitated to include this issue in their discussions, and the others may have overvalued its existence in early childhood education. Also, many game researchers and makers have only focused on studying the technology, rather than the children. By doing so, society has become blind to the behavior and influence of these historical children, who were born with digital technology, and who exercise their power and freewill through their play.

Experiencing everyday life with six three-year-old children allowed me to understand how actual children acknowledge digital games as a part of their play and one of their everyday life experiences. The ethnographic methods that I used in this study allowed me to focus on the children’s voices, artifacts, bodily movements, interactions with others within their homes and daily routines rather than the technology that they used. This helped me to reduce my power as a researcher and prevented me from being affected by my previous assumptions and dominant discourses on young
children’s digital game play. My focus was on the children playing digital games, not the games that the children played. Therefore, the issues discussed in my study were not about gaming but about young children living with these games. I found what Bourdieu calls “a logic of practice,” which “played strategically with time and especially with tempo” (Bourdieu, 1990, p. 81). Young children’s digital gaming practices exist with their own time and rhythm; they do not follow any sort of scientific logic or order, they flow along with their own “feel for the game” (Bourdieu, 1990, p. 82):

The ‘feel’ (sens) for the game is the sense of the imminent future of the game, the sense of the direction (sens) of the history of the game that gives the game its sense. (Bourdieu, 1990, p. 82)

This means that we cannot understand children’s practices by using scientific logic or methods. To understand their logic, what we should do is look at the body of the practice and the environment perceived by the body. The individual practices, although they can never be totalized, are meaningful to understand because they are a part of a greater logic of modern society, with its own time and rhythm.

This study is the process of finding the inconsistencies, ambiguities, and contradictions in young children’s digital game play, revealing each child’s sense of time and rhythm, a beginning stage of the process of fully comprehending young children’s lives in modern society. From my experiences with the children, I have discussed issues surrounding children’s digital game play including: digital games as play, learning with games, family relations in regard to young children’s digital game play, digital game spaces, and the heteroglossic digital game world.
Digital Gaming vs. Playing with Digital Games

In *What Video Games Have to Teach Us about Learning and Literacy*, James Gee (2003) starts with the statement: “I WANT TO TALK ABOUT VIDEO GAMES – YES, EVEN VIOLENT VIDEO games – and say some positive things about them” (Gee, 2003, p. 1). Beginning his book with the phrases “video games” and “even violent video games” is powerful for both education and digital game studies because he attempts to explain that even violent games have educational value, and this has been ignored in both education and digital game studies.

In my dissertation, I WANT TO TALK ABOUT YOUNG CHILDREN’S DIGITAL PLAY – YES, EVEN their PLAY WITH GAMES. This is my attempt to capture the attention of early childhood educators and ask them to consider the power of young children enriching their play by using digital games as a tool (or a toy?). For the six three-year-old children in this study, digital gaming is just one of the many ways that they play with these games. They play the games, but they also use the games to create and extend their play using their imaginations. The game system (or game device) cannot limit young children’s play (Hughes, 2003); the young children can break the game rules at any time, and they do not hesitate to transform their game player into a platform for their imaginary play. As Caillois (1961) explains, young children freely navigate between *paidia* (spontaneous play) and *ludus* (controlled play) during their play with games.

I argue that as young children navigate their game spaces during their daily lives, they exist somewhere in between spontaneous imaginative play and digital gaming.
Although young children often navigate in and out of the game space and do not follow the game rules, it is difficult to say that their play is not entirely their game play because their play still requires the children to be immersed in the game by using their imagination, and the platform for the ideas for much of their play comes from their gaming experiences.

Young children’s digital game play cannot be explained by any game theories, and it cannot rely on content analysis that has been focused on adults’ and even older children’s gaming. It is distinguished from adults’ gaming because their main focus is not about how to play games, but about how to play with the games. The six three-years-old children show various play experiences with digital games in their everyday life. We cannot explain a girl playing Angry Birds (Rovio Entertainment, 2009) repeatedly just to watch a blue bird turning into three little birds, which is rarely related to the game goal, without looking at the three-year-old girl’s play. The girl’s play is the hidden piece of the puzzle here, and its existence questions much of the current research available that has focused on adult game players.

Also, the children’s practices with digital games reveal a lot of inconsistencies in current play discourse, which does not accept young children’s digital game play as play. Admittedly, this type of play cannot be counted as authentic play in terms of the current rhetoric surrounding the concept (Sutton-Smith, 1997). However, the six children’s game play showed playfulness, a close relation to their reality, and the opportunity for freedom of choice, which are all major characteristics of young children’s play. Without understanding it as authentic play that may serve as a source of
development and a representation of their world, it is hard to explain the meaning of their practices.

Here I cautiously question the exclusion of young children’s digital game play in current early childhood play discourse because it has prevented us from learning a great deal about a type of very meaningful play in early childhood education. Digital games do not displace young children’s authentic play in childhood, but rather they are integrated into various types of meaningful play in their everyday life (Buckingham, 2007).

**Digital Games and Learning**

Digital games can be a source of education for young children, but the games cannot authorize or guarantee the learning outcomes that are anticipated in the educational game advertisements. In other words, digital games do not decide the children’s learning, but the children control and make decisions on their learning during their game play. The six three-year-old children in this study were all active learners, taking charge of their own learning processes and outcomes. They each had their own learning style, tempo, and goals, which made their learning special and unique. However, as Buckingham (2007) mentioned, many policy makers, scholars, and educators have emphasized the power of technology in young children’s learning with digital games by eliminating the children in their discussion. This has resulted in various discourses about digital games, rather than children who play them.
Digital native and immigrant discourse was often present in the conversations with the children’s parents in my study. They showed their fears about the power of digital technology and their concerns about their children’s informal learning processes and knowledge gained through their game play. However, at the same time, they believed that they could find the solution to this problem with educational software. In this discussion, the assumption is that digital technology has created a new generation that we have never seen before (Buckingham, 2007), and it can control people’s lives. However, Buckingham warns against this type of technological determinism because it makes us miss very important questions about young children’s learning with technology.

Education inevitably uses technologies of many kinds, and it has always done so . . . The question is not whether to use technology, or even which technologies to use, but why and how we should use them (Buckingham, 2007, p. 163)

Following Buckingham, the key is not the games, but the children, who have the power to make them meaningful or meaningless. The six children learned various things during their game play. They learned about the game rules and language, how to control the game players, and how to interact with others. They also learned the social rules and norms by decoding the game’s content and by receiving direct instruction from their parents during their game play. However, learning did not always occur as they intended; it was sometimes more like an accident in that no one expected it. There were also times that learning did not occur at all, despite the children’s or the parents’ expectations. The children frequently failed to learn despite their efforts and parental
support. In these cases, they might not find other ways to achieve their goal. Instead, they might want to stop playing their game and then forget about it. This is because the children’s gaming experiences tended to lead the children to various learning events as their existence was related to many other life experiences, resulting in the six children having different pathways for learning. We could not possibly trace out all of their learning processes because of the accidental events, failures, discontinuities, and abandonments that occur regularly due to the complexity of their everyday experiences.

Young children’s digital game play at home is very different from learning in a formal education system. There is no specific target, goal, or method to be used for the education. Their learning processes also continue to occur both during and between their game play, blurring the boundaries between their ordinary practices and their game experiences, and making it difficult to filter out the knowledge gained through their game play from their ordinary learning experiences. I would not suggest that digital games are insufficient for early childhood education, but I would argue that young children’s learning experiences with digital games should be considered differently. As Sefton-Green (2004) points out, young children’s learning with games is on the continuum of their everyday practices, and therefore we cannot understand it without looking at the entire context.

Young children’s learning with digital games is not limited to learning about math, science, and literacy, which are the content knowledge topics described most commonly in digital gaming education. I would suggest that we need to get beyond our views on digital games as a substitution of a formal education system and consider the
idea that young children learn about attitudes and ways of living in a technologically saturated society as they test out game devices and play new games, and they use their game play as one of many strategies and tactics for surviving their everyday life.

**Digital Game Play in Modern Family Life.**

The six three-year-old children’s digital game play experiences were varied, diffusing and flowing with their family lives, showing that a child’s family has a significant role in determining the setting of their digital game play. In his book *Distinction*, Pierre Bourdieu (1984) explains that a family is not only people living together, but also a social structure affecting one’s cultural acts, dispositions, and tastes. This means that a family affects not only the external conditions of young children’s game play but also the ways in which young children play the games. Young children’s parents select games for their children, set up the game’s rules, mediate the game space and time, and interact with their children during their game play. Following Bourdieu, young children consciously or unconsciously imitate and interpret their parents’ ways of doing, which becomes a source of cultural capital. To understand the family dynamics of young children’s digital game play, I focused on the children’s home context and the family relations involved in young children’s game play.

A home is a significant place for living, and it is not just a physical space with objects, but also a conceptual space presenting one’s life, habits, and identity. The home as one of the children’s game spaces tells a lot of stories; the arrangement of the furniture, the children’s bedrooms, a family room, and objects placed on the walls in the home show the families’ style, tastes, and habits (Collier & Collier, 1986). The six
children decode these things and make them their own as they live in the space. This means that current research discussing the digital divide among different social classes has revealed its limitations as it considers only the economical matters of young children’s digital game play. Money availability and the number of digital gaming devices do not explain how digital games function to maintain their social class in a young child’s life. Like any other cultural act (e.g., eating, playing, reading, etc.), young children’s digital game play interplays with other family factors and affects young children’s cultural tastes which plays a role in maintaining the family culture.

Digital games are also a site for family power struggles. The six children, while they are never free from their cultural capital, struggle to have power over their own game play. The parents exercise their power over their children’s game play as they arrange the gaming space, apply various rules, and monitor the children’s game play. This is what de Certeau (1984) calls a strategy used by the powerful, and the strategy maintains parental authority over the children’s game play. However, the children also do not passively accept this power structure; they have their own tactical power to resist and escape parental authority and create their own game space and time. In this dynamic interaction between the parents and the children, the children become powerful and active game players.

However, digital games are not just a battlefield between young children and their parents, but also one of many shared activities for coping with modern life. According to Samuel Tobin (2013, p. 111), “Because modern life is inherently boring, distraction is necessary,” and thus new types of play will always emerge. Mobile games
satisfy the needs of people in modern society because of their tentative features and mobility (Ito, Okabe, & Matsuda, 2006). The six children use mobile games to cope with their boredom in the backseats of cars, in shopping carts, and at local hair salons. During their mobile game play, the children are able to shape and reshape their spaces by coping with their immediate situation and negotiating with public regulations and constraints on their everyday practices. Also, mobile games allow the parents to balance busy schedules with everyday family life.

I argue that digital games are more than a baby sitter who substitutes the role of parents. Young children’s digital game play is not just merely a leisure activity for young children; it also reflects their family culture. For a family, digital games are a cultural site that brings about family connection and communication as the members of the family produce and reproduce meanings and practices by engaging in young children’s game play. Also, digital games are evolving practices for a family, which allow young children and their parents to survive in everyday modern life.

**A Heteroglossic Game World.**

This study explores very young children’s digital game play as a hybrid and complex site for the children’s interests, skills, and agency to meet popular culture and their local experiences. In his book, *Good Guys don’t Wear Hats*, Joseph Tobin (2000) argues that digital games are neither totally innocent nor powerless in young children’s lives. Digital games, whether they are so called educational games or not, function as “vehicles of ideology” as they invite young game players and their parents to respond to ideological messages (Tobin, 2000, p. 3).
Digital game media as popular culture produces various ideological messages, but digital games cannot control young children’s everyday game practices, which is the main point of de Certeau. The power of ordinary people’s everyday practices is that it allows them to survive from the dominant power (de Certeau, 1984). Many educational game advertisements accelerate commodification of education as they imply that people can buy knowledge. In my study, the young children’s parents also celebrated their children’s use of educational games, as they believed in the promises of the games’ advertisements. The game advertisements encourage the parents to invest their money on them by interpellating them into the logic of a good parent or a good consumer. Educational games certainly comfort parents’ anxieties about their children’s academic achievements and exposure to violent game content, but they fail to satisfy the children, who are the actual players. Contrary to a game’s advertising phrase, “Learning is fun,” Lin was easily bored with the learning game that she was presented with.

Young children are powerful meaning makers. Digital games obviously have the potential to play a role in reinforcing stereotypical gender roles, creating faulty images of adulthood, and homogenizing global culture, and they can easily enter young children’s lives through various forms of dissemination. However, I suggest that they cannot function until young children make sense of them by using their prior knowledge and experiences. According to Joseph Tobin (2000), to understand how digital games affect young children we need to look at the individual child talking about and playing with the digital games, not the game media itself. The six children’s everyday digital game practices and their talk about digital games reveal not only the potential harm or benefit of digital games in early childhood but also the power of the interplay between
young children who have already been affected by their local experiences and the digital game media’s messages.

Young children and their parents do not directly receive these messages from the game media, but they make sense of the messages by decoding and interpreting the game media based on their theories about everyday life.

**Making the Invisible Visible**

My intention in this study was to visualize very young children’s various game practices in their everyday family life by exploring six three-year-old children’s digital game play in the context of their own homes. While I do not take the stance of either warning or celebrating young children’s digital game play at home, I suggest that young children’s digital game play should be understood as a meaningful cultural act in young children’s family lives. Digital games are now a part of contemporary play for both adults and young children. Digital games do not entirely change or displace other practices in early childhood, but they are integrated into existing young children’s everyday practices in their family life and creating new types of play, communication, and ways of coping with modern life.

I hope that this study will turn the attention of early childhood educators and game researchers toward very young game players and shed new light on digital games as a meaningful cultural site for both young children and their families in modern society.
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APPENDIX A

IRB LETTER OF PERMISSION
To: Kathryn Nakagawa  
WILSN

From: Mark Roosa, Chair  
Soc Beh IRB

Date: 05/31/2012

Committee Action: Expedited Approval

Approval Date: 06/31/2012

Review Type: Expedited F7

IRB Protocol #: 1204067672

Study Title: Young Children's Digital Game Culture in Everyday Life

Expiration Date: 05/20/2013

The above-referenced protocol was approved following expedited review by the Institutional Review Board.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date. You may not continue any research activity beyond the expiration date without approval by the Institutional Review Board.

Adverse Reactions: If any untoward incidents or adverse reactions should develop as a result of this study, you are required to notify the Soc Beh IRB immediately. If necessary, a member of the IRB will be assigned to look into the matter. If the problem is serious, approval may be withdrawn pending IRB review.

Amendments: If you wish to change any aspect of this study, such as the procedures, the consent forms, or the investigators, please communicate your requested changes to the Soc Beh IRB. The new procedure is not to be initiated until the IRB approval has been given.

Please retain a copy of this letter with your approved protocol.