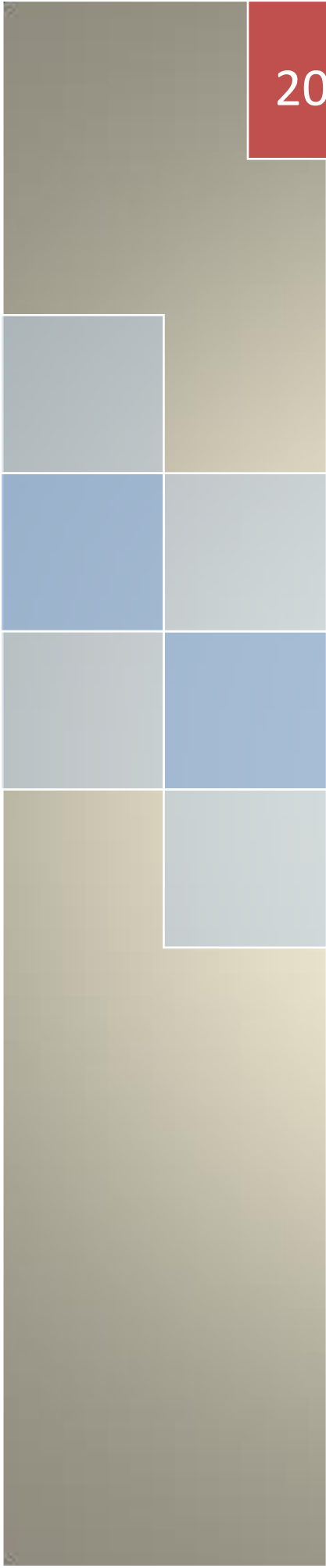




2015

Why Can't My Avatar Go To School For Me?

Searching for Identity and Agency in Role- Playing Games

This literature review explores how role-playing games can be used in adolescents' identity negotiation process. The research draws on literature from psychology, sociology, and education. It concludes with a critical analysis of the limitations and barriers to widespread adoption.



Contents

Introduction	2
Theoretical and Empirical Framework	3
Personal Experience	8
Overall Assessment	10
Strengths	10
Limits	11
Barriers to Widespread Adoption	13
Future Research	14
References	16
Appendix I: My Avatars	19
Appendix II: Harvard Graduate School of Education Annual Student Research Conference, 20th Anniversary	21
Abstract	21
Presentation Transcript	22
Transcript of Q&A	28
Appendix III: Self Reflection	32
My Journey	32
Framework for Evaluation	34
Personal Learning	35
What is Game-Based Learning?	35
Who am I?	36
The Research	37
Relationship with Others	37
Concluding Thoughts	38

Introduction

Identity negotiation begins at birth and ends with death. When a baby is born, the doctor announces the gender. The parents give the baby a name. Clothing and toys are often gendered. For the first few years of life, our identity is constructed by others. As we age, we acquire more autonomy. Toddlers have some choice in the clothes they wear and the toys they use. Eventually, children have control of their name, at least their nicknames. But, while children are receiving more control over their identity, simultaneously, they are becoming cognizant of more labels adults use to define them. In school, students are labeled: “smart”, “bad student”, “ADHD”, “Special Ed” and the list goes on. Identity negotiation becomes more complicated with age. While we may have more control over how we behavior, we continue to carry the identities that others have imposed on us.

Identity negotiation is tightly connected to the exploration for autonomy. As youth develop more autonomy, their identity and roles in society, at school, among peers, and with family changes. Having control in life enables adolescents to seek out new identities and question their current status in various social groups. There is a realization that they are not completely subjected to the identity forced upon them at birth. Adolescents may not be completely free from their previous identity, but as they mature, they find more control over their life and identity. However, some individuals do not find the control and autonomy they seek in real life. Role-playing games can help fill the desire for control. Games can provide players new ways and opportunities to explore identity and gain control over their life.

Theoretical and Empirical Framework

In our lives, we are perceived by others through a combination of how we present ourselves and how others interpret our behavior. Goffman (1967) uses the term *line* to describe the social norms we set for ourselves that will dictate (or predict) our behavior. Once a line is drawn, it is difficult to redraw the line. Consider a time someone made a bad first impression. How long did it take for you to form a new impression of him or her? Have you ever noticed when you visit family, old habits re-emerge (like fighting with adult siblings)? Old habits are difficult to break because we have drawn lines that define how we act around certain people. Are you ever surprised to see how co-workers act at a holiday party? In this situation, Goffman (1967) would say that the person is *out of face*. The behavior (flirtation, aggression, vulgarity, etc.) is contrary to what others would expect based on the line the co-worker drew. Lines are not drawn in stone, never to be changed, but it does take time to draw new lines.

If individuals feel confined by these lines, they may desire to draw new lines. Role-playing games afford people these opportunities and empower them to take back control of their identity. When most think of role-playing games (RPGs), digital games usually come to mind like *World of Warcraft*. However, RPGs do not have to be digital. Children have pretend play (or make-believe), where they imagine a context or situation and pretend to be a certain role. Board games like *Monopoly* are another example; every player takes on the role of capitalist. And before modern digital RPGs, there were MUDs – multiplayer real-time virtual world – which are text-based role-playing games. In these virtual worlds, players are not bound by their real world capacities. Players can describe themselves how they wish to be perceived. They draw a new line and create a new identity.

Gee (2007) describes three identities gamers have to navigate while playing: real, virtual, and projected. In the real world, people have several identities – woman, mother, daughter, sister, computer scientist, student, etc. With each role comes an expectation of how to be; this may include engaging in certain behaviors, expressing certain ideas and possibly how *not* to act. Each of these roles has a line associated with it. A sense of self-worth is also tied to one's identity. Therefore, individuals take on the burden (and benefits) of each of those roles. However, when one enters the virtual realm, individuals are not necessarily bound by existing real world identities. The anonymity of virtual worlds allow people to redefine themselves and explore new ways of representing their real world self. The third identity, which Gee defines as the projected identity, blurs the lines between the real and virtual identity. The avatars that individuals choose to play in games do not act alone. A real person must make choices that affect how the avatar interacts in the virtual world and those choices have an effect on the real person making those decisions. Bailenson's research suggests that qualities a player develops in a game (like confidence) can influence one's behavior in the real world (cited in Dell, 2008). When participating in role-playing games, players are engaging in identity negotiation that is not limited to the game itself. The behaviors and choices that players make will have an impact on the real world self.

Identity negotiation is an ongoing process. However, the most impactful time for identity negotiation is during adolescence (Erikson, 1963). During this time, adolescents are discovering the roles they may take on as adults and therefore, are re-examining their identity. Role confusion emerges when adolescents are unsure about whom they are and their role in society (McLeod, 2008). To explore their identity, adolescents experiment with different roles and identities. Some individuals choose to experiment in the real world like changing their clothing

style, engaging in artistic expressions (journaling, writing poetry, playing/writing music), and/or spending time with different groups of people. Others explore identity in virtual role-playing games like *World of Warcraft*, *Fable*, and *The Witcher 2*. Some do both. Regardless of the means of exploration, adolescents are at a point in their life where they are evaluating their identity.

Part of searching for one's identity is a desire for control. Adolescents want control at home, in school, and among peers. When adolescents feel denied the opportunity for control, they seek out alternative methods for control. This control can exist in virtual and non-virtual role playing games. In games, "teenagers who may feel a lack of control and agency in their everyday lives are suddenly able to work with adults as equals or even their superiors" (Yee, 2014, p.25). RPGs are empowering because adolescents are seen in new ways. Their age is not relevant in the games. Adolescents can teach others who may be chronologically older than them in the real world. This new role affords adolescents control and respect they may not otherwise have.

In virtual RPGs, players also have control over their avatar, which includes participating in the creation of the avatar. This construction includes, but is not limited to name, physical attributes, mental acuity, and emotional capacity. Most individuals who have any experience gaming are probably familiar with the idea of naming one's character and selecting physical attributes, so I will not spend time explaining those choices. However, mental acuity, emotional capacity, and physical ability may be less familiar. In some games, players have the option to "assign points" to various characteristics of their avatar. In *EverQuest*, there are 12 races and depending on the selected race, players are given a number of ability points to assign to the seven main statistics: strength, stamina, agility, dexterity, wisdom, intelligence, and charisma (Gee, 2007). The distribution of points will affect how others in the game interact with the player's avatar. For example, other players (and computer-generated characters) may be more willing to

offer help to a charismatic avatar. Or, other players may ask for help to compensate for a skill they may not have; a quest may require a character to have great strength and agility and the other player is only strong. By having control over one's avatar, players can control which characteristics they want to be their best and how others in the game perceive their avatar, and therefore, perceive the player.

In addition to games that allow players to assign points to different characteristics, players also have the option of creating multiple avatars that may have different strengths. Turkle (1995) found some MUD users create multiple characters that represent different aspects of themselves or characteristics the players wish to develop. For example, one avatar is a sappy romantic, while another avatar is somber and exudes self-confidence. Having multiple characters allows players to explore different aspects of their personalities throughout the weeks, months or years. Games allow players to test and experiment with different personality characteristics in a safe environment, which has impacts on real life relationships (Turkle, 1995). For example, players can develop social skills in games that then become part of the real identity. Some relationships begin in the virtual world and escalate to a real world relationship. The social and emotional work that players do in games is not limited to the virtual walls. Creating a new avatar is a rebirth, but instead of others dictating one's identity, the creator of the avatar has the control.

Turkle's analysis also describes participants' desire to "enact better versions of how things have unfolded in real life" through the use anonymity (Turkle, 1995, p.190). When living in a virtual world, individuals are not constrained by physical appearances and abilities; the obese can be athletic, the gauche can be sophisticated, and the physically disabled can be free from limitations. Virtual games allow individuals to take back control of who they want to be. With avatars, individuals are not at the mercy of their limitations or how others see them. Gamers can

choose what they share and show in the virtual world. The anonymity also allows players to disclose personal struggles which may not be appropriate to discuss with friends. For example, one player is from a prominent family in a small community with a father who is emotional distant and unfaithful; due to the father's role in the community, the family "presents a public front without blemish" (Turkle, 1995, p. 191). Because the son cannot discuss domestic problems with friends in the real world, he used a MUD to work through his problems. Like his father, the son became a prominent figure in the MUD and served as an advisor and helper. However, the son did not follow his father's example in terms of relationships; "he used the MUD to play the man he wished his father would be" (Turkle, 1995, p. 191). The son had no control over how his father acted and to some extent, how he could react to his father's infidelity. The family's public façade masked private despair. However, the son found solace in a MUD and used the game as a means to control the situation to the best of his ability. When an upsetting event occurred in real life, the son was able to write a different ending in the virtual world. The MUD also gave the son a place to explore his identity by enabling him to act *out of face*.

Because games provide a safe environment for experimentation and releasing negative feelings, adolescents can use role-playing games to test limits without consequence. Consider a student who misbehaves in class. There is an underlying reason. Perhaps, it is a desire for attention because he or she is neglected at home. That student could not only get the attention he or she desires in a game, but also feel a sense of belonging, which could change the student's behavior in real life. Consider a violent student. How might his or her actions differ if he or she played a game that allowed the student to release those negative feelings? Turkle cites a response from one participant defending his violent characters as 'something in me; but quite frankly I'd rather rape on MUDs where no harm is done' (Turkle, 1995, p. 186). Games not only allow

individuals to explore their identity, but they also allow gamers to manage urges for engaging in dangerous behavior. This is not to argue that role-playing games are the cure-all for violent behavior, but games can support adolescents' desire for control and need to negotiate their identity.

Personal Experience

Like everyone, I have many *lines* and *faces* I have drawn and maintained over the years. Most of my classmates who only know me in an academic setting believe that I am quiet and reserved. A few years ago, I was part of a group that wanted to do yearbook superlatives for all of the members. I earned the title of "Wallflower." I was truly surprised when it was announced. It reminded me of the quote, "Those who don't know me think I'm quiet and those who do know me wish I was" because my family and best friends would never use "wallflower" to describe me. However, when I initially met many of the individuals in that group, I was quiet and let others do most of the talking. Those initial encounters set the expectation, or drew a line, which dictated how I would act around them for the remainder of the year. To *maintain face*, I continued the shy demeanor. But I do always find it humorous when classmates comment on the moments I am *out of face*; my favorite comments are the ones that mention someone's surprise that I have a sense of humor. Though I have drawn these different lines that show fragmented parts of me, I see myself as a whole and therefore, think I am funny all of the time.

In terms of role-playing games, I have experience with both non-virtual and virtual games. *Monopoly*, *Risk*, *Clue* are some of my favorite games to play. I enjoyed the opportunity to take on the roles of capitalist, world dominator, and detective because with the new roles came new responsibilities and expectations. In *Risk*, I was far more aggressive and dominating than I

was in non-gaming contexts. Though, some may disagree with that statement; I was an assertive child, who advocated for myself and friends when I felt the situation was unfair and/or needed to be changed. For *Clue*, I could hone my problem solving skills. I did not become a completely different person, but playing these games allowed me to take a break from certain parts of my personality and practice/experiment with new characteristics. I also played a lot of virtual sports games. With each of these games, there was an option to create custom sports players which was almost always the first task I would complete.

In Appendix I, I included some of the characters that I created as a youth. Because I created the characters over a decade ago, I cannot accurately describe what I was thinking when I created them. However, I will provide some context and comment on recurring themes that I observe now. Both the baseball and soccer players were created when I was first entering adolescence. I played on a softball team for one season a few years prior. I was primarily a soccer player. The moment I started walking, I began kicking around a soccer ball. I joined an official soccer team at the age of three and continued to play for a decade.

The context I described above may have shaped the characters that I have included. In terms of recurring themes, the obvious similarity is that they are all male characters and have “male” names. Even though I named the characters after myself, I used my initials or gender neutral names. It did not seem “right” to give male players female names. The characters also have distinct physical features: tan skin, tall stature, and lean bodies.

The images included in the appendix only include the ones that I named after myself. I actually created enough players for an entire soccer team. This may speak to a desire for control. By creating a team from scratch, I was able to select characteristics for my players that would make them successful in the game and therefore, make my real self, successful playing the game.

Even when the artificial intelligence system had control over the players (because as a gamer, you only have control of one player at a time), I could depend on the user-generated computer characters to play well; they were all created to be the best player.

Overall Assessment

While I have mentioned virtual and non-virtual role-playing games throughout this paper, for the purposes of discussing the overall assessment, I will focus on virtual games.

Strengths

At some point in each of our lives, most of us will experience some degree of identity negotiation. How each person chooses to explore identity can differ, but as the world becomes more dependent on technology, more individuals are spending time in virtual environments. Therefore, games are becoming part of the identity negotiation process. Some individuals use games to escape an unpleasant life. Others see games as a way to overcome insecurities. Each person has one or more reasons for playing. The importance is that these individuals are already choosing to play games and some are consciously using the games to explore identity as Turkle has identified. Proven results and user buy-in are major strengths that should not be overlooked.

The greatest strength of this technology is that playing virtual games is already part of many children's lives. According to 2014 Entertainment Software Association report, the average number of years a gamer has played video games is 14 with the average gamer being 31 years of age (Entertainment Software Association, 2014). Based on this information, the average gamer started playing at 17 years of age. A 2014 Nielsen report shows that there was a twelve percent increase in number of hours played per week from 2011 to 2013. Mobile devices have become extensions of people; some cannot leave their home without some sort of mobile device. For

some, mobile devices have become the new pacifier; parents give their children a tablet or phone to keep them occupied and “comfort” them. The platform for playing the virtual games exists and the parents are willing to give their children access to the technology. It is time to leverage existing technology to transform how adolescents and youth explore identity. Instead of enabling children to passively engage with virtual environments, adults can facilitate conversations that support adolescents in their identity search.

Yee (2014) explained that adolescents are drawn to virtual RPGs for the control and agency that may be lacking in their real life. He also suggests that games level the playing field. Adolescents can work with adults as equals or possibly as superiors. If adolescents are afforded these opportunities in one aspect of their life, they may not need to seek other opportunities for control. If adolescents are satisfied with the amount of control they have in games, they are less likely to act out in class, assuming their misbehavior is linked to a desire of control (which is not always the case). Turkle’s work has also demonstrated the impact of using role-playing games to explore identity. MUDs give players opportunities to practice behaviors and work on themselves. For example, Bailenson found that the confidence players develop in games translates into the real world. Turkle discussed how MUDs act as a release. She quoted one study participants as saying that he preferred engaging in aggressive behavior in a MUD rather than in real life. Individuals who enjoy playing RPGs and do not have an addiction can benefit immensely from playing. Role-playing games afford players an opportunity to explore themselves and experience a level of control they may not otherwise have.

Limits

On the other hand, there are still some concerns that should be addressed. One of the major strengths of games is also a major weakness. The anonymity that allows players to explore who

they are can also be used as a weapon to take advantage of others and be destructive. When individuals can hide behind a screen and anonymity, there is the potential that individuals will engage in hateful crimes like cyberbullying, identity fraud, and discriminatory rants.

Unfortunately, there is no shortage of examples of these cybercrimes (Kaplan & Moss, 2003). However, the virtual environments that adolescents use do not need to be open to the general public. Educational game developers have created separate servers for school facilitated games (Klopfer, 2015). The internet can be a dangerous place, but adults can use those concerns to teach about responsible digital citizenship.

Another limit to using games as a means for exploring identity is that some individuals have crippling addictions to games. Tanner states that more than 5 million children may be addicted to videogames (as cited in Young, 2009) and the issue is serious enough that there are detox centers for video game addiction. Addiction to role-playing games and other virtual environments can undermine the normal development activities of identity formation. For individuals that are at risk for developing an addiction to virtual games, role-playing games should not be used, but how can adults know if a child is at risk? Young (2009) describes eight warning signs: preoccupation with gaming, lying or hiding game use, loss of interest in other activities, social withdrawal, defensiveness or anger, psychological withdrawal, using gaming as an escape, and continued use despite its consequences. Addiction should not be taken lightly and therefore, is a limit that needs to be considered when using games for any educational purpose.

Similar to concerns about addiction, virtual games cannot replace human to human interaction. Individuals may be able to connect on an emotional level in virtual worlds, but there is no replacement for human touch. Children who are deprived of normal sensory stimulation experienced developmental delays; humans have a biological reaction to touch. Touch can

reduce blood pressure, anxiety, and cortisol levels (Ardiel & Rankin, 2010). Touch is also a form of communication (Chillot, 2013). Consider a handshake to seal a business deal, a kiss with an intimate partner, or a hug to comfort a bereaved friend. Virtual games are limited by the lack of opportunities for human touch, a biological necessity.

A disconnect from society can also be a potential limiting factor. Players have control over their avatar(s) in many respects: physical appearances, where the avatars go in the virtual world, and with whom the avatars speak. Virtual worlds offer players agency, which they may not otherwise have. Turkle (1995) stated that some players used MUDs to reenact better versions of their real life. However, at some point, each of those players has to return to the real world. What each of those individuals explores in the game may transfer into the real world - a timid student in the real world and a leader in the game finding confidence to speak more in class - but there is no guarantee. Virtual role-playing games can support adolescents as they explore their identity, but there are still limitations. Furthermore, what helps one individual may harm another.

Barriers to Widespread Adoption

Games have received support from some parents and schools, but there are still barriers to widespread adoption. There continues to be a stigma associated with using games in educational contexts and disagreement over the purpose of school and education. Teachers who do not have experience with games and/or comfort with trying new technologies will probably not volunteer to incorporate virtual worlds into their classrooms. Additionally, even those willing to use the technology may not have comprehensive training for facilitating these experiences. Klopfer (2015) mentions that even the best developed games need to be accompanied with professional development for teachers. A lack of training will serve as a barrier to widespread adoption

because using a technology without understanding and leveraging the capabilities is not truly adopting it.

Differing opinions on the purpose of school will also affect adoption practices. Those who see students as empty vessels that need adults to pour knowledge into their minds would not be interested in using games. The ability to construct an avatar and explore one's identity would be in conflict with the notion that students need to be told how and what to think.

Identity negotiation along with an increasing desire for control continues to be a part of human development. The methods and tools that adolescents use to navigate unfamiliar situations will evolve over time. Currently, role-playing games are supporting this transition. Research has demonstrated some of the strengths, but there are still limitations and barriers to widespread adoption. Adults have many decisions to make about role-playing games. If adolescents are already choosing to play, do adults try to leverage games for their own agenda, ban adolescents from playing all together, or allow adolescents to keep games as "their thing"? Any decision we make as educators and parents will have consequences, so we must decide what we hope to accomplish and what the most important aspect is for each of us.

Future Research

Sherry Turkle has completed a considerable amount of research on identity exploration in MUDs, but the subjects of her studies are university students and older adults. To continue this research, I would like to conduct studies with adolescents to understand the direct impact of playing these games. Brown (2009) found a profound impact on individuals when they were denied the opportunity to play, but how might those individuals engage with virtual environments as children? Would the murders that Brown studied have engaged in criminal acts

on the games and would that experience have deterred them from conducting criminal activities in real life? If I were to conduct a study with adolescents, I would be interested in a longitudinal study that started when the children began playing massive multiplayer games and continued through middle-adulthood. The data that I would collect would take a holistic view of the participants; I would look at academic success, social and emotional health, as well as physical wellbeing.

An additional area of interest is related to stereotype threat. Aronson *et al.* (2002) studied the impact of stereotype threat on African American computer science students and how it can be mitigated through promoting a growth mindset. Students in the experimental condition were asked to write letters to their at-risk middle school “pen pals.” Before writing the letters, the subjects of the experiment were told that their letters should stress the idea that research describes intelligence as malleable. The results of the experiment suggest that priming students to think of intelligence as malleable can mitigate the effects of stereotype threat. Using the ideas described above, I would like to conduct research on how playing a game with a virtual character before an exam affects student performance. Can engaging in a virtual environment also help mitigate the effects of stereotype threat? Additionally, how would student performance differ if students took the exam on the computer as their virtual character? To some extent this is already occurring through the use of stealth assessment in games. However, I am interested in the effect for high stakes testing. Similarly, how might school performance differ if at the beginning of each day or school year, students did an activity with their avatar?

References

- Ardiel, E. L., & Rankin, C. H. (2010). The importance of touch in development. *Pediatrics & Child Health, 15*(3), 153–156.
- Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the Effects of Stereotype Threat on African American College Students by Shaping Theories of Intelligence. *Journal of Experimental Social Psychology, 38*(2), 113–125. <http://doi.org/10.1006/jesp.2001.1491>
- Brown, Stuart. *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul*. New York: Penguin Group, 2009.
- Chillot, R. (2013, March 11). The Power of Touch. Retrieved April 20, 2015, from <https://www.psychologytoday.com/articles/201302/the-power-touch>
- Dede, C. (2013, September 28). *iGame Inaugural Conference*. Lecture conducted from Institute for Game Accelerated Multidisciplinary Education, Cambridge.
- Dede, C. (2015, March 30). Motivation and Learning: Opportunities and Challenges with Games. *T561 Class Lecture*. Lecture conducted from Harvard Graduate School of Education, Cambridge.
- Dell, K. (2008, May 12). How Second Life Affects Real Life - TIME. Retrieved April 21, 2015, from <http://content.time.com/time/health/article/0,8599,1739601,00.html>
- Entertainment Software Association. (2013). Essential Facts about the Computer and Video Game Industry. Retrieved April 2, 2015, from http://www.theesa.com/wp-content/uploads/2014/10/ESA_EF_2014.pdf
- Erikson, E., & Tamiment Institute. (1963). *Youth: Change and challenge*. New York: Basic Books.

- Fidoten, H. (2015, April 10). No More Chocolate Covered Broccoli. *Student Research Conference*. Lecture conducted from Harvard Graduate School of Education, Cambridge.
- Gray, P. (2011). The Decline of Play and the Rise of Psychopathology in Children and Adolescents. *American Journal of Play*, 3(4), 443–463.
- Gee, J. (2007). *What video games have to teach us about learning and literacy* (Rev. and updated ed.). New York: Palgrave Macmillan.
- Goffman, E. (1967). On face-work. In E. Goffman (Ed.), *Interaction ritual: Essays on face-to-face behavior*. Chicago: Aldine Publishing Company. pp. 5-45
- Kahn, W. A. (2009). Dimensions of the student project team. In *The Student's Guide to Successful Project Teams*. New York: Psychology Press. pp. 1-21.
- Kaplan, J.D., J., & Moss, J.D., M. (2003). Investigating Hate Crimes on the Internet. *Center for the Prevention of Hate Violence*. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.174.7399&rep=rep1&type=pdf>
- Kiang, D. (2014, October 14). Using Gaming Principles to Engage Students. Retrieved April 6, 2015, from <http://www.edutopia.org/blog/using-gaming-principles-engage-students-douglas-kiang>
- Klopfer, E. (2015, April 14). Models for Understanding Student Understanding of Models – The Role of Games in Structuring Learning about and With Simulations. *Dean's Distinguished Lecture*. Lecture conducted from Harvard Graduate School of Education, Cambridge.
- Mezirow, J. (1990). How critical reflection triggers transformative learning. *Fostering Critical Reflection in Adulthood*, 1–20.

- McLeod, S. (2008, January 1). Erik Erikson. Retrieved April 12, 2015, from <http://www.simplypsychology.org/Erik-Erikson.html>
- Nielsen. (2014, May 27). Multi-Platform Gaming: For the Win! Retrieved April 4, 2015, from <http://www.nielsen.com/us/en/insights/news/2014/multi-platform-gaming-for-the-win.html>
- O'Donnell, M. (2004, March 22). US IL: Blagojevich Focuses Ire on Drug-Based Game. Retrieved March 28, 2015, from <http://www.mapinc.org/drugnews/v05/n484/a07.html>
- Seidel, S. (2015, April 13). Remixing Education: A Cypher on Hip Hop Pedagogy. Lecture conducted from Arts in Education Program, Cambridge.
- Squire, K., & Jenkins, H. (2011). *Video games and learning: Teaching and participatory culture in the digital age*. New York: Teachers College Press.
- Yee, N. (2014). *The proteus paradox: How online games and virtual worlds change us- and how they don't*. New Haven: Yale University Press.
- Young, K. (2009). Understanding Online Gaming Addiction and Treatment Issues for Adolescents. *The American Journal of Family Therapy*, 37(5), 355–372. <http://doi.org/10.1080/01926180902942191>

Appendix I: My Avatars



FIRST NAME	HR
LAST NAME	Fidoten
JERSEY NUMBER	26
MAIN POSITION	CENTER FIELD
COMPLEXION	MEDIUM
FACE	CLEAN
HEIGHT	6 FT 4 IN
WEIGHT	204
BODY TYPE	MUSCULAR



FIRST NAME	Coca
LAST NAME	Hampton
JERSEY NUMBER	91
MAIN POSITION	CENTER FIELD
COMPLEXION	DARK
FACE	CLEAN
HEIGHT	7 FT
WEIGHT	217
BODY TYPE	MUSCULAR





Appendix II: Harvard Graduate School of Education Annual Student Research Conference, 20th Anniversary

On April 10, 2015, I was a panelist in a session entitled, “Alternative Educational Opportunities and Real World Settings” led by James Honan, Senior Lecturer at the Graduate School of Education.

When given the opportunity to present, I eagerly accepted because as I conducted research for this paper, I realized the most important moments were speaking to others. Engaging in a dialogue helped me formulate my thoughts, listen to new perspectives, and reflect on the information I had acquired.

By writing this paper, I will have an artifact of what I have completed, but only a limited number of people will read this. To reach a greater audience and make the research experience more meaningful, I felt compelled to discuss my research at the conference. Included below is the abstract I initially submitted. The abstract was written at the beginning of my research process and outlines what I had originally planned to research. I have also included the transcript of the conference session, which includes my slides, a transcript of my presentation, and excerpts from the Q&A. I did not include the questions that were directed at the other panelists.

Abstract

Learning through play is not a new concept. Children make sense of the world through exploration and experimentation. However, as children progress through school, inquiry-based learning disappears. Failure, a necessary part of learning, becomes taboo; students develop an

aversion to failure and therefore, “play” the system rather than pursue experiences beyond their comfort zone. However, educational games exist that challenge these notions of learning.

Oregon Trail, *Where in the World is Carmen Sandiego?*, and *Treasure Mountain*, are few of the games that require many of the skills that have been deemed 21st century skills.

Presentation Transcript

“On one end of the spectrum, I studied murderers and found that the absence of play in their childhood was as important as any other single factor in predicting their crimes”

“On the other end, I also documented abused kids at risk for antisocial behavior whose predilection for violence was diminished through play.”

Brown, Stuart. *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul*. New York: Penguin Group, 2009.

For over a decade I have been advocating game-based learning. I always ask why not? Children actively choose to play games with one another and in solitary. As long as children are not denied the right to play, they will. And so I believed that we can leverage what children are already doing to enhance the learning experience. As I have conducted further research on this topic and seen craze around game based learning, I have begun to redefine what I mean by game based learning. My focus is on the importance of play. The quotes on the screen highlight the power of play; it not only serves as a deterrent for engaging in criminal behavior, but play is also used as an intervention. I am not advocating that we can solve the world’s problems with games. Nor am I suggesting how our criminal justice system should operate. Rather, I wanted to share examples of how play is part of our lives.



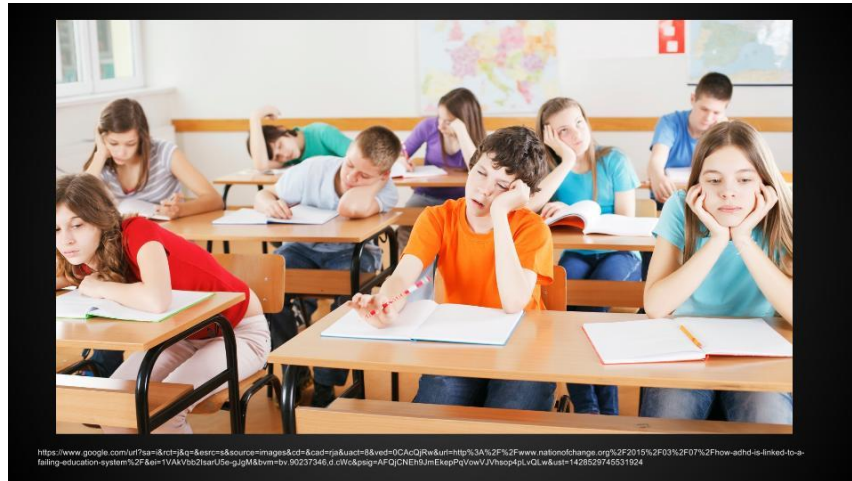
In these two images, we see a polar bear and dog playing - these are unlikely playmates. These photographs were taken in northern Canada. The sea hadn't frozen yet, so the polar bears could not walk across the ice to hunt the seals. The bears hadn't eaten in months. The researcher along with his sled dogs spent much of their time in the bears' territory. The bear photographed in these images above began to approach Hudson, a rambunctious sled dog. Instead of barking and fleeing, Hudson wagged his tail and bowed in a playful manner. And that was the beginning of a beautiful friendship. The two had daily playdates until the ice was thick enough for the bear to tread on and return to hunting for seals. The dog could have easily been the bear's meal, but the bear chose to play over the biological need to fill his stomach.

"In a world continuously presenting unique challenges and ambiguity, play prepares these bears for an evolving planet."

"[Bears] that played the most were the ones who survived best...Play lets animals learn about their environment and the rules of engagement with friend and foe"

Brown, Stuart. Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul. New York: Penguin Group, 2009.

The importance of play is not limited to humans. All animals including insects use play to make sense of the world. Play is essential for our survival and this is why I'm drawn to games.

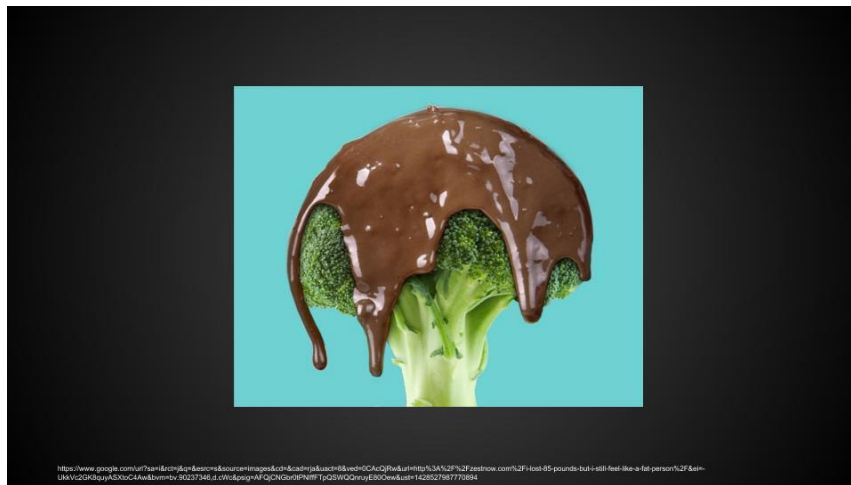


How many of you played games in elementary school? Middle school? High School? Alright, so as we get older, there are fewer opportunities to have fun. Students sit bored in classrooms. Lepper and Henderlong found that “consistent with previous research, intrinsic motivation showed a significant linear decrease from 3rd grade through 8th grade”



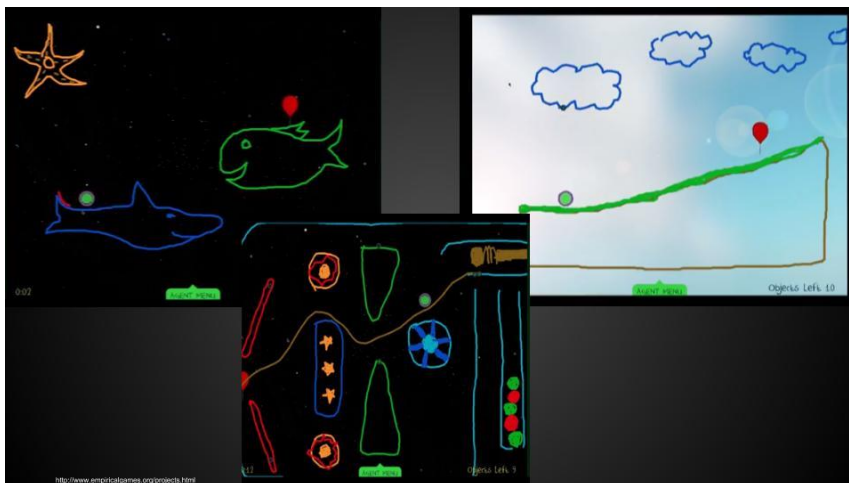
In response to this decline, those with good intentions saw the boring classroom as an opportunity to gamify it. Everyone likes games, so let's use game mechanics in the classroom.

Instead of giving you grades, I'm going to give you a badge. Badges allow more flexibility in terms of recognizing different abilities. However, badges serve a similar role when think about it in terms of motivations. Like grades, badges, are an extrinsic motivator. Individuals complete tasks to get badges rather than because they are curious. And this is not to say that is applies to everyone, but Lepper & Henderlong found "Not only do children seem to be losing their enjoyment of the learning process itself but the systems of extrinsic incentives and constraints that American schools employ to keep students on track do not effectively compensate for the declines in intrinsic motivation."

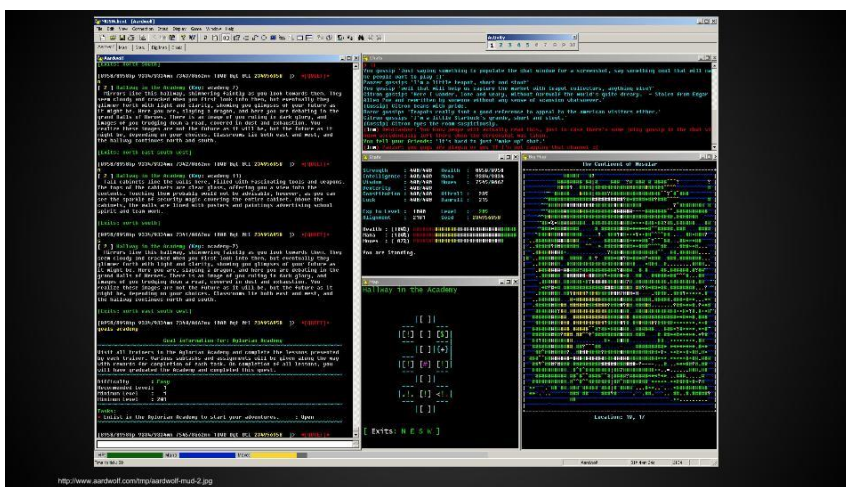


In addition to gamification, we began to see an increase in games deemed chocolate covered broccoli. For those of you not familiar with this term, it is the idea of trying to make boring activity fun - hiding the taste of something bad with something delicious. For example, instead of practicing your times tables with worksheets, you get to kill zombies for every question you answer correctly. As mentioned before, however, extrinsic motivators cannot compensate for the decline in intrinsic motivation. Lepper and Henderlong describe the 4 C's of intrinsic motivation: challenge, curiosity, control, and context. Killing zombies is not within the

context of learning arithmetic and nor does it peak curiosity at least not about math. It may be challenging if you don't know arithmetic, but overall, the game is not intrinsically motivating.



Fortunately, the educational game industry continues to evolve. There are now designers who are developing games that connect the activity back to the content. Last week, Val Shute presented about stealth assessment in games. She described her game Physics Playground, which helps middle school students better understand concepts related to qualitative physics; the game has a series of challenges where the player must guide a green ball to reach a red balloon by drawing objects in an interactive physics environment. Students learn about levers, fulcrums, ramps, and springs through experimentation with the game.



Now that I've spent most of my time talking about the journey, let me explain a little about where I currently am in my research. My focus is on identity creation.

Turkle (1995) found that use of MUDs allows individuals to create multiple characters that represent different aspects of the player or characteristics the player is trying to develop. For example, one character is a sappy romantic, while another character is somber and exudes self-confidence. Having multiple characters in multiple games allows players to explore different aspects of their personalities throughout the week, month or years. Turkle's analysis also describes participants' desire to "enact better versions of how things have unfolded in real life" through anonymity (Turkle, 1995). One male participant explained that his father was abusive, but the father is a prominent member of the community so the participant felt pressured to stay silent. However, in a game, the participant chose to be a father figure and acted the way he wished his father had acted in real life. MUDs provided an environment for identity negotiation. Adolescence is a pivotal time for identity creation. Games enable individuals to test the limits and explore socially unacceptable behavior in a safe space. Turkle cites a response from a 21-year old college senior who defends his violent characters as 'something in me; but quite frankly I'd rather rape on MUDs where no harm is done'. What a powerful statement. Imagine if we took a holistic approach to education and used games to facilitate some of these conversations. If a middle school or high school students made a statement about rape, how would a teacher or peer respond?

Games allow you to play with identity - you can build an actual character and environment. Turkle calls games a laboratory for the construction of identity.

Transcript of Q&A

Q: “I raised my hand for both being in support and a little skeptical of games. I saw a poster session today that was teaching language skills to I think it was elementary school children and for those who already have English skills, it draws them in and helps them learn better. But for those who are just learning English for the first time, it’s actually very distracting, so I just curious if you recommend sort of who needs to be at the table when these games are designed. I don’t know if you’ve thought of critically - if there are 5 people on the team, 3 needs to be educators”

A: “I’ve never consider how many of different people need to be on a team, but it definitely should have educators, designers, engineers, but I think it’s really important to have that conversation and user testing is a huge part of it. When you’re sitting in a lab trying to predict what students need, you sometimes miss a huge thing and there are also instances of games and other things being used in a way that wasn’t anticipated, but it actually really beneficial. Portal is not an educational game, yet, it’s teaching physics and other important skills, so having a diverse group of people - and it doesn’t just have to be educators; it can be industry leaders. Going to the idea, if we want to prepare them for the real world, what skills do children need to have?”

Q: “I’m also interested in games as learning experiences and obviously when we talk about physics, there are a lot of pre-existing engines for non-educational games so that’s a space where it is very well developed like in virtual games it is very well developed. Additionally, there is this stealth assessment backchannel to games and I would ask, other than those two things, what do you see as the specific learning advantage or potential of virtual games as opposed to practical games with actual game components?”

A: “One of the draws of virtual games and I touch on this when I was talking about identity - so I starting off with using games to teach content because that is where my research initially started,

but I'm moving away from using it to teach content. That's definitely an interesting area of research and there's proof that it's working, but that's not where I'm interested in focusing. With virtual games there is this anonymity is huge because you can pretend to be someone that you're not. You can practice being someone you wish you were. And with board games where you are seeing person to person, you lose that anonymity."

Q: "It is a fascinating concept - game and identity. I have not heard much of it before. I am curious, when students come to play a game; they already have some type of identity, multiple identities. How does this new relationship with the new identity games [inaudible] - is that identity constructed, reconstructed? What about the identity the game developers are trying to promote? Whatever the reason. It could educational purpose. [inaudible] It could be single identity, it could be multiple identities. I want to know if there are some good examples of where games and identity works out. I am also interested in how the student can also participate in the game development in the identity and in flux."

A: "I agree we all have multiple identities. I'm a student, I'm a daughter, I'm a friend. In those different contexts, I act differently. You raise a great point that gamers and developers have the ability to construct identity in these virtual worlds. It's also imposed on them because the designers of the games limit your options. With Wii sports, there are a limited number of skin colors, so what if your skin color doesn't exist there? You are forced to categorize yourself. I am not familiar with literature about allowing students to be part of the game development process, but I think that could be a powerful tool. And going back to your questions, maybe we need students to be part of the conversation, which is what will allow a student to explore their identity?"

Audience A: “As a follow up to that, there is a study on gender equality and gender representation in the workplace particularly with women in corporate settings, I think at the board meetings particularly. The individuals in the study choosing avatars of men or of larger figures than they actually are and how that increasing confidence and allows them to speak up and take positions that they don’t normally take, which I think is pretty fascinating and I know that there’s been some research on exploring race identity as well.”

Q: “I understand the appeal of using these games to motivate students to learn, but I was wondering two things. One, is there any point at which you develop a kind of expectation of immediate rewards in the badges you were referring to and does that become a problem later on when you don’t receive something immediate as a reward? Second, you refer to a case where it was preferable for a student to find a release in the game in terms of the boy who had a very domineering father. I know of some cases where people have come to prefer the virtual world to real life and it becomes a weird balance. So what’s the risk there?”

A: “For your first question, are we setting up a Pavlov’s dog type of situation? I totally agree with that and that is part of the reason I am moving away from the game-based learning approach for teaching content. That is why I am skeptical of game-based learning. I think it has a lot to offer, but there is still a downside. We are even seeing in the workplace where we are trying to get games into work because employees don’t want to do their work anymore, so let’s give them badges. The other piece to that is that I don’t think games should be all fun and games. If we are preparing them for real life - life is not always fun, you are going to have to engage with difficult topics, deal with topics you’re not interested in, so yes, it’s important to teach students how to engage with information they don’t want to.

In response to those who spend too much time in the virtual world, that is definitely an issue, but research has shown that it is not widespread. The individuals, who spend too much time in the virtual world, have an existing psychological issue. They need an intervention. It's not the game to be blamed, but characteristics of the individual."

Audience A: "To comment on your first question, as someone who played games and continues to play games - we've come to expect games to be associated [with badges]. I don't know if anyone here has played *Civilization*, which is one of Sid Meiers first games, and you build a wonder of the world that's not going to be built for two hours and in the meantime, other people are building armies of things. There is a sense of delayed gratification there and putting off an instant reward. In this specific time and place of instant reward, this behaviorist model of games is very prevalent now because it can make money, but that's not necessarily the only potential. A game doesn't have to look like that to have an educational goal.

Appendix III: Self Reflection

My Journey

I chose the literature review assignment because although I have been an advocate of game-based learning for over a decade, I have not familiarized myself with the literature that supports what I learned through personal experiences. I believed this assignment would be an excellent opportunity to review the literature. Therefore, when I wrote the initial proposal, I stated that I planned to study the history of game-based learning. However, as I began to review the historical literature, I found my passion for the topic dwindling. Though history is important to understanding how something became what it is today, I felt that there were more meaningful assignments I could do. I wanted to make a contribution to the research, which would entail more than summarizing existing research.

As I searched for a new subtopic, I was reminded of Geoff Marietta's research and the game simulation he designed around bullying. I first learned about Marietta's research in April 2013 from an edWeb Webinar, "Seeing the (Virtual) World Through Others' Eyes: A Game-Based Approach to Developing More Positive Relationships," co-hosted with Elisabeth Hahn. The webinar discussed their research on using virtual environments for negotiation exercises. My path crossed Marietta's again when I attended the inaugural iGame conference at MIT in September 2013. Marietta was participating in Entrepreneurial Idol for *SchoolLife*, a game where players experience bullying from different perspectives.

I was intrigued by the social and emotional learning in a game-based learning context so I reached out to Marietta to see if he could help me with this paper. During our conversation, he mentioned that one of the major challenges he faced was getting his game into schools. Marietta mentioned that many of the schools do not have the technical infrastructure to support a

classroom of students working with his game. Many of the 1:1 schools have Chromebooks, which do not currently support Unity, a necessary piece of the game, and the schools do not have the bandwidth to support several students running the game simultaneously. Because of the challenges Marietta faced with his project, he thought a paper about the technical infrastructure of schools would be useful to the game-based learning community. I left the meeting re-energized and excited to begin my work. I even wrote an outline, which is included below.

Game Based Learning: how to get games into the classroom

1. Abstract
2. History - Games can be used to learn
3. Getting games into school
 - a. technology infrastructure
 - i. PEW survey (internet capabilities)
 - ii. all trying to use Wi-Fi = Fail
 - iii. Chromebook doesn't have Unity Plugin
 - iv. iPad has its own challenges
 - b. teacher training
 - c. design for entertainment
 - . how to get schools to adopt technology
 - d. Special communities already exist
 - i. ex: Minecraft - ASD parents - 10,000 peeps
 - ii. Use the power of a social movement
4. Conclusion

Unfortunately, the excitement for this paper diminished. As I spoke with more and more individuals about why I am a proponent for games, I noticed a recurring theme: identity. For the next iteration of my paper, I chose to focus on the "identity crisis." Both James Paul Gee and Kurt Squire discuss identity in their books. Squire (2011) included anecdotes about his students that resonated with me. In one story he explained how a student, Jason, refused to complete assignments and respond to adults, but after becoming friends with Jason through gaming, Squire learned about Jason's real interests; Squire was able to engage Jason in a manner that previous teachers had failed to do. The connection that Jason and Squire built in the game translated into

the real world and Jason was willing to complete school assignments when Squire gave them to Jason. This story along with other information lead to the paper outlined below which sought to explore identity negotiation.

1. Introduction
2. Literature Review
 - a. Culture
 - i. Time Investment
 - ii. Gamer Communities
 - iii. Impact
 - b. Identity
 - i. Real, Virtual, and Projected
 - ii. Avatar Creation
 - iii. Escapism
 - c. Education
 - i. Interest driven learning
 - ii. Social Consciousness
 - iii. Teacher relationship
3. Conclusion
4. Future Work
5. References

This is the outline of the paper I submitted for the mid-semester report, but based on feedback, I moved to another version of the paper. I was concerned that I would not be able to find the data to support my hypothesis and I was concerned the paper outlined above would be too much area to cover. I have not included all of my iterations, but the paper that I am submitting is the product of several iterations. Each time I met with my research group, my paper transformed in some manner.

Framework for Evaluation

Learning cannot be transformative without self-reflection. Transformative learning occurs when reflection reassesses “the presuppositions on which our beliefs are based and acting on insights derived from the transformed meaning perspective that results from such reassessments” (Mezirow, 1990, p. 18). Through reflection, individuals are able to reevaluate their knowledge and change existing assumptions that may be wrong. Learners are empowered to take control of their own learning and seek out new perspectives when engaging in

transformative learning (Cranton, 1996). Thus, self-reflection is essential for learning and should be valued as part of the evaluation process.

Personal Learning

What is Game-Based Learning?

During the process of writing this paper, I have learned what I mean by game-based learning or perhaps, what I do not mean. I am not interested in gamification; replacing grades with badges will not help students. As professor Dede explained in his lecture on games (2015), providing too many extrinsic motivators undermines intrinsic motivation. I am also not advocating that we trick students into learning content through games and this goes beyond the chocolate covered broccoli issue. I initially began advocating using games to teach because children are already choosing to play games and I believed educators could take advantage of that fact. However, I attended a lecture by Sam Seidel (2015) on hip hop pedagogy. Seidel mentioned in his talk that one of the concerns of using hip hop is the potential of institutionalizing the one aspect of the students' lives that they actually have control over. Games have a similar role. Gray (2009) suggests that children choose to watch television and play video games because those are some of the few unstructured activities children are allowed to do. Therefore, I am weary about continuing to advocate the use of games in schools and other structured settings. Additionally, something Dede (2013) said at the inaugural iGame conference continues to resonate with me - school should not always be fun and games. If school is preparing students for the real world with the skills necessary to succeed, then Dede is correct. Life is not fun, at least not all of the time. Students need to learn how to be bored, do activities they do not enjoy, and passively interact with authority figures. On the other hand, if one views school as a separate entity with its own set of goals, school may not always be fun, but it can be

engagin. Further, as Eric Klopfer stated in his Dean's Distinguished talk (2015), the focus should be on finding the fun in a topic rather than finding a way to make the topic fun. Therefore, through writing this paper, I have learned that I may not be as enthusiastic about games as I had initially believed. They can serve as an aide in the learning process, but should not be the main forum for teaching content. We can still use game principles like the ones described by Kiang (2014) from the blog post shared in the Google community: compelling narrative, opportunities and expectations of failure, multiple paths of engagement, scaffolding, and context-driven activities. Games like many of its educational technology predecessors can be used to help inform teaching practices, but it will not be a cure all for education.

Who am I?

Last semester, I enrolled in courses that all had a group project, and not by accident. I wanted to collaborate with others because the best ideas come from building off of one another's ideas. I also wanted an opportunity to put theory into practice. Knowing the research is important; and we used it as a foundation in our projects, but I wanted to develop actual products (at least prototypes) from which end-users could gain some utility.

I enjoyed working on all of my projects from last semester, but with all group projects, there is inevitable conflict and comprising. When this semester started, I decided that I wanted an opportunity to conduct an individual project. Working on this paper has helped me realize how much I enjoy being part of a team - even with the inevitable conflict. My favorite part of the process was when I met with my section group because I could talk through my ideas and hear feedback from the group.

The Research

I was speaking with a family member the other day who asked me if I have to write a thesis. While I realize this paper would not meet the standards of a thesis, I consider this project a summation of the work I have completed over the year. When I applied to Harvard Graduate School of Education, I focused my personal statement on how I have experienced technology in an educational setting and I reflected on the moments when technology failed to meet my students' needs. I have used this year to gain insight into how we can leverage technology to truly transform or even disrupt education.

This paper has served as means of exploring one idea that I believed could transform learning. During the process of my research synthesis, I revisited ideas and text discussed in my courses throughout the year in an effort to make sense of what I have learned and put the pieces of the jigsaw together. I have not only focused on my coursework, but I have also reflected on lectures and other events I have attended during this academic year.

Relationship with Others

As I mentioned before, working with my research group was an important part of the process. The other student in my group was skeptical of game-based learning; his feedback and questions throughout the process helped me to organize and verbalize my thoughts. Through our debates, I was able to find clarity and focus for my paper. Moreover, supporting his writing process provided an opportunity to contemplate different educational technology topics and explore an alternative method for writing a paper. The teaching fellow was integral to the process; she transformed my stream of consciousness monologues into to comprehensible notes and supported me throughout the writing process. This paper would be significantly different without her help.

Concluding Thoughts

Kahn (2009) describes three types of success when conducting group projects - grades, personal learning, and relationships with others. Though this project did not begin as a group project, I would not be where I am today without the support of others. Therefore, I believe this is a group project and I can use Kahn's framework to measure success.

For most of my academic career, my success has been defined by others through the use of grades. However, this year has included an exploration of alternative methods for assessment and I am writing this self-reflection because I believe that my personal learning is the most significant indicator of success. Through ideating and iterating, I not only learned more about game-based learning, but I also learned about myself. Furthermore, during the process of conducting this research, I established relationships with other game-based learning researchers. Some offered to speak with me, others guided me in the direction of helpful research, and some provided feedback on my written analysis. I hope the relationships I began during this research project will continue through my career and perhaps, I will provide support to other researchers in the future.