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# Rhetorical Invention in a 21st Century Technoculture: A New Ludic Framework for Learning

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RHETORICAL INVENTION IN A 21<sup>ST</sup> CENTURY TECHNOCULTURE:  
A NEW LUDIC FRAMEWORK FOR LEARNING

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A Dissertation  
Presented to  
the Graduate School of  
Clemson University

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy  
Rhetorics, Communication, and Information Design

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by  
Christopher M. Stuart  
May 2020

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Accepted by:  
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## ABSTRACT

This dissertation proposes the ludic framework for learning as an innovative pedagogical model that privileges play, possibility, failure, and social affinity as states of being and positions for learning. The ludic framework works through rhetorics of play as a frame of reference; rhetorics of possibility and invention as a means of production; the acceptance of transformative failure; and engages with digital communities to further knowledge through social affinity while being grounded in constructionist learning theories. The principles that facilitate this are: curiosity, play, flexibility, metacognition, collaboration, invention, persistence, and creativity. To demonstrate this, the dissertation has two case studies: a semester project that explains the need and procedures for teaching technologies in a workflow and a three-dimensional representation of the research in Minecraft: Education Edition.

## DEDICATION

*To Aleesa Millet, my player one:* Without you, this dissertation would be impossible.



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## **Introduction**

### **A Long Way to Learn**

Standardized learning isn't for everyone. I remember struggling in my education all the way back in kindergarten at Livingston Elementary School in Union, New Jersey. When I was in kindergarten, I remember sitting at long tables with a person on either side and in front of me. I was always ashamed of my lack of understandings in the class. I remember my classmate, Tim, being praised for his penmanship and being able to perfectly match the letters in the workbooks and I was always told to do "more lines" in the book until I "mastered" a letter. Unfortunately for me, I never mastered those letters and am still very self-conscious of my handwriting and spelling.

After working in our books, we would all sit on the colorful ABC rug and go through the letters and common words associated with each letter above the chalkboard. Sometimes we would be able to go to different stations where we would use magnetic boards to arrange the months of the year, seasons, and times of day. I remember being frustrated that other students knew the order for everything at the stations and I didn't. I remember looking around lost when the teacher would start the alphabet randomly in the middle and everyone knew the next letter and I didn't, something I still sometimes struggle with. I remember my mind wandering during mini lectures but being focused during story time.

My favorite times of the day were going outside to play on the park and playset or having free playtime in the classroom. I would play pirates with my friends outside with the broken sticks we found near the walnut tree right outside our classroom door. We



would race across the monkey bars out of fear of landing in lava or caltrops. We would pretend to fix fake wounds with alchemical concoctions found around the park. When it was time to go inside, I ran for the oversized Legos, the Lincoln Logs, and the wooden blocks. I was building, imagining, and collaborating with those around me. Eventually, the teacher would ask us to come back together to go through a workbook or pull out sheets of writing paper to practice and all the joy would leave me, and the frustration would settle in.

These memories are vivid to me, like a movie I saw less than a decade ago. Through fourth grade, I remember going home to cry because I failed tests, had to miss free play because I had to do more skill-and-drill, or because my older brother was in gifted and talented and got straight 4's and I was getting 1's and 2's (we were on a numeric system). My strategy for school was simple: study as long as I could focus and barely pass tests. If someone asked me about the information, I would do really well (except spelling), but if I had to take a test, I would instantly forget everything and become self-conscious that I was on a different page or not reading fast enough. The one test I was great at was the picture prompt and I remember being disappointed we didn't do them often except during test prep. Oh, I was also great in gym class! I won many physical fitness awards even though I was one of the shortest and thinnest students in class (I did 33 pull-ups in fourth grade).

Most of what I remember about first through fourth grade was getting ready for standardized tests. The Pre-CAT and CAT tests (California Achievement Test) were always a fear of mine. We were given multiple choice and true/false tests in preparation

and I remember feeling lost or that the questions were asking something of me that I was not ready for. I would look at my peers to see them filling in bubbles while I would panic. I can't even begin to tell you how many tests I would fill in random bubbles with only two minutes to spare. It was because of these tests that I was eligible to stay behind in third grade, but, thankfully, it was ultimately my choice and I decided to keep pushing ahead.

Luckily, by the time the GEPA (Grade Eight Proficiency Assessment) and HSPA (High School Proficiency Assessment) tests came around, I knew how my brain worked enough to study and learn the material. See, something shifted in me in sixth grade and, until a few years ago, I wasn't really sure what that was. My family moved from Union, New Jersey to Manahawkin, New Jersey in January of 2000, which meant new school systems and teachers. I wish I could say that this was the reason, but I started to do really well in school before the move. At Kawameeh Middle School in Union we changed classes like in high school for sixth grade and the movement throughout the day helped. I remember being more focused because I had independence and autonomy by choosing classes and keeping to a schedule. I also nerded out constantly over games and movies with my friends. When I moved, I actually felt lost and everyone was so different than where I lived just an hour north. I did do progressively better and was for the first time designated as one of the smart kids. It was a strange feeling.

### **Games Made Me Better**

One of my fondest memories of reading was a book from the "Choose Your Own Adventure" series in the cafeteria waiting for my mother to finish work. I had to make a

decision: Do I choose to open the creaking gate or duck under the broken slip rail fencing into the dark garden? I desperately wanted to mark the two pages and peek to see what the better option was, but I was committed to doing this without cheating. I tried to rationalize it with Tyler who was reading a different book in the series. Ultimately, I went through the garden because I thought the creaking gate was far too obvious. DEAD. I don't remember what monster was responsible for my death, but I chose poorly. Ask me about other books I read before fourth grade and I will struggle to come up with more than a handful, but I remember these books well.

What was the shift in my learning and why could I recall some material but not others? I was able to vividly recall every single event of those books after reading them, but I could never pass a reading comprehension test in class. When I was working through a test book, and the timer was running, I would try to quickly read through the passage and then answer the questions, but I wouldn't be able to remember enough to get a question right. If I read the questions first, I forgot the questions while I was anxiously reading the text. I was a slow reader because I would vividly imagine everything, which greatly increased my comprehension, but those tests never allotted enough time for me to read slowly. I can still recall events, the map, and characters of *The Missing 'Gator of Gumbo Limbo* (1992) by Jean Craighead George which was the first book report I wrote on my own (without parental guidance). I can still recall vivid memories of video games I played at a young age that required a lot of reading, problem solving, and quick reactions, all skills I was rated as underachieving in school. Why is it that the same skills and, in

many cases, the same tasks had radically different impressions on me? These metacognitive exercises are what drove the research and dedication to this dissertation.

20 years later, I base my pedagogical practices and my own learning on a framework of ludic learning that helped me so much when I was younger. The ludic framework is built on four pillars and eight core principles. The foundation, or pillars, of this framework are play, failure, the possible, and affinity. The eight core principles—curiosity, play, flexibility, metacognition, collaboration, invention, persistence, and creativity—are used to help teachers create more engaging, student-driven, project-based pedagogy and students to take ownership of their learning and understand the nuances of implementing play into their learning strategies. This framework was born out of anecdotal evidence, articulated and fine-tuned with constructionist learning theory, and came to fruition through an amalgamation of practices. This framework helped me grapple with learning because it gave me new points of inquiry and unapologetically engaged with possibility, risk, and failure to enhance understanding. The goal of this dissertation is to establish a foundation of research to justify the framework through play, studies of literacy, rhetorical invention through the possible, and an ethical use of failure. After the foundation is set, I will discuss the pedagogical importance of scaffolding, flexibility, and iterative design which relates to by two case studies: a project-based presentation model and a large-scale collaborative project in Minecraft: Education Edition. I want the reader to come away with an understanding of ludic pedagogy which can then be implemented in their assignments. To do this, I offer a few assignments that can be adapted across disciplines and levels of expertise.

Ultimately, this dissertation is largely about play, learning, and failure. As I will discuss in Chapter 1, play is multifaceted, unpredictable, and a powerful mindset. We play as children to understand the world around us; animals play as a way to practice and hone skills; and we play for entertainment at all ages. Play is complicated and has a complicated dichotomy with work. Play, for me, is a way of being and thinking, which is demonstrated in this dissertation. For some contextualizing information, in Sicart's (2014) book, *Play Matters*, he explains: "We need to think about play and reclaim play as a way of expression, a way of engaging with the world—not as an activity of consumption but as an activity of *production*...play is a way of engaging and expressing our being in the world" (p. 5; emphasis my own). For me, play is a mode of knowledge production through experimentation and invention. Play is what makes me persistent, curious, flexible, open, engaged, creative, responsible, and thoughtful (the habits of mind). Play is a way of learning.

### **Summary of Chapters**

Chapter 1, "It's Time to Play: Playful Inquiry to the Playtrate Ecology" expands on this introduction by exploring the theoretical underpinnings of ludic learning by exploring concepts of play and playfulness in the context of learning, gaming, and writing. First, the chapter explores definitions and the uses of play in both theoretical and practical applications. Looking at theorists and practitioners alike, I will show what play means to game designers, theorists, instructors, and business leaders. Discussions of play will set up theoretical conversations of inquiry, wayfinding, and the rhetorical tradition. I will then move between literacy and electracy to justify a necessary neologism, playtracy,

for which is the foundation for the rest of this dissertation. The chapter will end with a movement into the rhetorics of possibility and uncertainty in relation to the 21<sup>st</sup> century technoculture.

Chapter 2, “An Ethical Dimension of Failure,” expands on what failure means in academia in relations to the rhetorics of possibility. The chapter moves from a sophistic definition of rhetoric which ties to the rhetorics of possibility, uncertainty, and continual invention. The rhetorics of possibility starts the foundation for the ludic framework of learning by linking playfulness and the possible as a state of mind. Then, using the ethics of care, I discuss students’ expectations and their limited innovation due to their fear of failure. I offer a ludic and gameful way of mitigating this through a risk management approach.

Chapter 3, “A Ludic Framework for Learning,” establishes the ludic framework I’m working with which is a combination of rhetorical theory and game-based learning pedagogies from both the rhetorics and composition and the education disciplines. This chapter works to connect theories of composition with theories of learning in education with gameful and technical practices in mind. I end the chapter with listing the principles for the framework of learning which can then be applied to the demonstrations of practice in the latter two chapters.

Chapter 4, “Teaching Workflows through Tanked Presentations,” discusses how scaffolding and workflows using technology work best in a sustained project to promote learning technical skills which are applicable both in and outside of the classroom. This chapter also connects the playcentric design method to compositional theories of process.

The project I use as a case study is what I refer to as “Tanked Presentations,” which requires students to collaborate in teams to design an analog or digital game with a marketing campaign and technical documentation to ultimately pitch the project to outside assessors who engage with the teams in a question and answer period to better understand their project.

Chapter 5, “Minecraft University: A Collaborative Building Experiment,” is the multimodal component to the dissertation which enhances the research by making it accessible in a three-dimensional space, shows the process of the ludic framework across multiple modes (video, text, and software), and has a companion website for the public to access ([Minecraft.christuart.com](http://Minecraft.christuart.com)). This collaborative build in Minecraft: Education Edition was worked on by 11 “architects,” students, my wife, and me, for a combined 200+ hours in-game. This chapter explores the thought process, rationale, and working process of the build itself, in addition to an analysis of the project and how it relates to Tanked Presentations.

The conclusion of this dissertation will discuss the possible applications of the ludic framework for learning in both educational and professional settings. After talking about a core project in the classroom and completing Minecraft University I talk about where the ludic framework can be applied to next. This open-ended discussion talks about the potential of this dissertation in a broad way.

## Chapter 1

### **It's Time to Play: Playful Inquiry to the Playtrate Ecology**

Navigating any space is difficult, but conference spaces can sometimes be the most anxiety inducing spaces we encounter. Conferences take on different shapes and sizes depending on location, discipline, theme, and purpose. There are institutional, state, regional, national, and international conferences of all varieties. Some conferences are for specific academic or trade disciplines, others are genres of entertainment. Most conferences also have a theme that inspire talks, workshops, attendees, and cosplayers (even some academic conferences have cosplayers). Finally, we all have different purposes for conferencing: present and share knowledge; attend workshops to learn more about a subject; learn about the new trends; network with colleagues or business partners; or even to take in the experience of likeminded people. No matter the conference, most people have some sort of anxiety about how to navigate these situations, often resulting in elaborate planning techniques for attending sessions, exhibitor areas, bathroom breaks, food, networking, and rest. No matter how well planned it is, the conference experience is always difficult and often unpredictable, leading to many amended schedules and exhausted attendees.

To demonstrate how difficult the academic conference is, I designed a pen-and-paper tabletop game and published it in a newly established academic gaming journal called *Oneshot*. The game, *The Academic Conference*, has players use a conference schedule of their choice and map out the sessions, breaks, and days into a basic schedule to play with (Stuart, 2019). The goal was to average at least six experience points a day



earned through successful rolls and choices to “win” the conference experience. The first roll you make is to determine how prepared you are for the conference presentation which would dictate how much time you need to spend at the conference writing (ranging from having an abstract to minor revisions). Once the player knows the “preparedness level,” the player is then ready to take on the conference. The core loop of the game is as follows: roll for fatigue; spend points to lower fatigue level by purchasing caffeinated drinks; skip or attend a session; attempt to go to session; then attend/listen or present. This repeats for however many sessions there are allowing for lunch and dinner options as well. Do you want to be diligent and make sure you are well rested, fed, and prepared for your session? Or, do you want to try to network as much as possible at risk of being tired or not fully preparing your talk?

As it turns out, it isn’t entirely difficult to attain the six-experience point average as long as you start the conference moderately prepared. That being said, your experience points can be lost for missing panels, failed actions during panels, or buying caffeinated drinks. When this was playtested at the Children’s Literature Association annual conference, many graduate students said it was a very accurate depiction of how stressful it is to balance fatigue with networking and preparedness. I decided to leave off other considerations during conferences such as grading, catching up on emails, and service.

“The Academic Conference” was my way of expressing the exhaustion and chaos of academic conferences from the point of view of a graduate student. I was moved by Salen and Zimmerman’s (2004) definition of meaningful play: “Meaningful play occurs when the relationships between actions and outcomes in a game are both discernable and

integrated into the larger context of the game. Creating meaningful play is the goal of successful game design” (p. 34). You can approach the game as a way to better understand what it is like to navigate an academic conference or you can play it for the challenge or entertainment value of it. The random nature of the dice roles, the balancing of multiple stat blocks, and planning ahead and being flexible with those plans all reflect the chaos of the conference, but also the challenge the medium offers. I have always seen play as a navigation between structure and freedom, which has always helped me navigate stressful situations such as an academic conference. This feeling is extended through Sicart’s (2014) explanation of play:

Play is a dance between creation and destruction, between creativity and nihilism. Playing is a fragile, tense activity, prone to breakdowns. Individual play is a challenge to oneself, to keep on playing. Collective play is a balancing act of egos and interests, of purposes and intentions. (p. 3)

The playful nature of the game showed the fragility of each situation—especially sticking to a schedule—but, more importantly, when the group of playtesters started to discuss group strategies it became apparent that the conference experience—both the game and the actual conference—were collective experiences we were all playing through.

Using play to understand or help others navigate an experience is not a novel concept, especially in professional development and education. This concept is typically called gamification. Gamification, according to Sierra (2013), is the process of “incorporating gaming structures and principles into a non-game environment” (p 53).

Gamification has a complicated history with game designers, scholars, and pedagogues. The way gamification will be discussed in this dissertation (more specifically in Chapter 3) is through a rhetorical understanding of the terms we use from game design and meaningful play. Gamification, as we typically see it, should not be a reskin of an activity by just trading out the names of different aspects of the activity (i.e., points become experience or assignments become quests). We must strive for a deliberate and meaningful play that alters the student experience. As we explore inquiry through play, it will become obvious that gamification is more than a persuasive tactic by marketers and that I should be “a process that necessitates the blurring of traditional boundaries between play and work, while at the same time never replacing the objectives and goals or outcomes of the original activity” (Sierra, 2013, p. 54). It is easy to exploit gamification, as Bogost (2011) explains: “Gamification is easy. It offers simple, repeatable approaches in which benefit, honor, and aesthetics are less important than facility” (para. 8). I agree with this assessment, but there are also great examples of gamification that do factor in benefit, honor, and aesthetics.

The Academic Conference is a form of professional development that turns the conference experience into a game, but others have turned the conference into a gamified experience to enhance professional development. *C's the Day*, an augmented reality game (ARG), mixes aspects of the trading card game genre “to engage people, particularly newcomers, at the Conference on College Compositions and Communication” through the use of a quest book which generates points to trade in for collectable trading cards which feature prominent members of the conference, journals in

the field, and organizations (Sierra & Stedman, 2012). C's the Day started "in 2010 by a cadre of grad students and game enthusiasts, and debuted at the 2011 4C Conference in Atlanta, GA" and ten years later, most of the original team still supports the game (Origins and purpose). On the official website, they say the game was created in response to discussions around "how games could use ludic conventions to invade and remake the comparatively stiff and formal setting of a massive academic conference" (Origins and purpose). Sierra and Stedman (2012) state the team "designed a game to be played at the conference by anyone who felt like signing up. C's the Day was meant to augment the player's conference experience, encourage them [to] explore and make the most of their conference experience" (n.p.). My first experience at 4C was greatly enhanced through the C's the Day experience because it helped me discover a whole network of game studies academics that I did not know existed.

C's the Day led me to ask many questions about the field, scholarship, and pedagogy. I even met Doug Eyman, a known scholar in the field, because one of the quests I chose to complete led me to his panel on tabletop gaming which was an area I was considering for my dissertation. The following year I got involved in C's the Day by volunteering at their welcome table all three days of the conference which led to further networking and service related to my research interests. I also met a lot of first-time attendees whom were anxious and scared of navigating a large conference and they expressed that the game truly helped put them at ease. One quest asked players to find someone studying games and to ask them about their research. I offered up my research as an example which opened up new opportunities for professional development,

networking, and great conversations about how to improve my pedagogy related to game-based learning. These moments were invaluable to the attendees but also to someone like me who was trying to get their foot into the game studies discipline. Although not everyone sees the value in the gamification of a conference, and some even think it hurts the professionalization of the conference (see Sparklegate<sup>1</sup>); my personal experience was very much the opposite.

Play is the foundation of my everyday life and this dissertation. Play is a behavior, a method, and/or a lens we use to look at something differently. Sicart (2014) says play is a way of being in the world. Salen and Zimmerman (2004) see play as a way to interact with the world or systems we confront. Keogh (2018) sees play as poking around and asking, “What if?” Play is a way to help us navigate spaces of uncertainty or to push the boundaries of our capabilities and understanding. Play helps us problem solve by taking a survey of a situation and trying a different path—often one that is not the norm—to complete a difficult task. These moments are usually complex and difficult tasks, but to take a survey of the means around you to come up with a creative solution is what being a gamer is all about. Play is about making sacrifices and testing tolerances to further experiential knowledge.

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<sup>1</sup> Sparklegate was “an ideological response against the *C’s the Day* game” (deWinter & Vie, 2015, n.p.). deWinter and Vie explain that the controversy started after Berrett (2014) published “‘Sparklepony’ Quest Helps Break the Ice at a Scholarly Meeting” was published in *The Chronicle of Higher Education*. They explain that negative comments from readers from different disciplines chastised and infantilized the game. Eventually, Gawker.com also picked up the story mocking academics. The 2014 session had increased participation but still drew a lot of negativity from the community.

This chapter explores what we know about play and applies it to digital media and ways of seeing the world in a new way, or playtracy. Playtracy is a neologism which is derived from the behavior of play, the Derridian sense of trace, and electracy. This chapter first establishes play as a behavior that helps us see the world through different lenses, then looks to electracy and literacy as foundations of meaning making, and finally concludes with an emphasis on ludic invention. These are the rhetorical foundations needed to engage with the practices of the ludic framework for learning. It is paramount to start with play because Ulmer (2019) designates play as the behavior of the electrate apparatus (or 21<sup>st</sup> century technoculture) and Holmevik (2012) emphasizes invention activities and fantasy—the state of mind of an electrate person—which “allows us to escape those constraints, to see ourselves and the world unabridged” (p. 9). So, let’s start with play.

### **Inquiry, Wayfinding, and Play**

Play is a highly contextualized term which has sparked debate across disciplines for different purposes. Scholars that discuss theories of play often start with Huizinga’s (1938 | 2010) foundational text, *Homo Ludens*, where he analyzed cultural understandings and manifestations of play in societies across the world throughout time. Most game scholars quote the same three sentences from Huizinga:

All play moves and has its being within a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds, i.e., forbidden

spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart. (Huizinga, 1938 | 2010, p. 10)

The movement through, in-between, and across worlds means that play is in constant motion. There is much debate about Huizinga's claim that play happens in temporary worlds within our current reality, the main claim being that anything can be contextualized through play, but our reality is not completely removed. On this subject, Sharp and Thomas (2019) state: "Play starts with the recognition of an opportunity for play. We don't leave the world to play; we just circumscribe aspects of the world carefully enough to permit play" (p. 8). When you are circumscribing aspects of the world, you are creating a game and contextualizing play. These rule bound systems have external influences because they are designed experiences, whether they are designed by you or someone else, it is an experience that can be traced. To understand play is to understand the human experience, as Sicart (2014) explains: "To play is to be in the world. Playing is a form of understanding what surrounds us and who we are, and a way of engaging with others. Play is a mode of being human" (p. 1). Humans are resilient, innovative thinkers who can imagine multiple scenarios playing out at once to come up with the best solution. Play is part of our DNA.

The contextualization of play has generated discussions of definitions and uses of play across disciplines. The scholars I cite here are not an exhaustive list, but they are a mix of rhetoricians, game designers, compositionists, psychologists, sociologists, computer scientists, educators, critics, play scholars, and everything in between. So, what

is play, exactly? Since I am interested in play in education—problem-solving, invention, and awareness—I am specifically choosing scholars that deal with these contexts.

Huizinga (1938 | 2010) established a foundation to work from: movement, arena/space, temporality, and ubiquity. Caillois (1961) is often cited alongside Huizinga for his two categories of play: *paidia* and *ludus*. *Paidia* is an unstructured play that is spontaneous and *ludus* is a rule-based play that has boundaries, structures, and objectives. Hargood (2016) analyzes this binary and explains that *paidia* and *ludus* are on a continuum, moving back and forth, playing with the boundaries and rules, moving from a more spontaneous play to a structured play and back. She explains “reaching a purely *paidia* or purely *ludic* method is impossible: taking either orientation to its exclusionary conclusion would produce only stasis” (p. 100). This hard to achieve balance harkens back to Sicart’s (2014) statements that play is a delicate balance between creation and destruction, of purpose and intention. The oscillation between structured and unstructured play is about uncertainty, wayfinding, and ambiguation: “Playfulness reambiguates the world. Through the characteristics of play, it makes it less formalized, less explained, open to interpretation and wonder and manipulation. To be playful is to add ambiguity to the world and play with that ambiguity” (Sicart, 2014, p. 28). The unknown and the possible are states of play that help us wander and wonder.

Examples to better explain Caillois and Hargood’s explanation of structured and unstructured play can be found in most open world sandbox games that rely on mechanics of survival, such as Minecraft. When you first land in a procedurally generated world on survival mode, you are randomly placed on land with a clear



inventory. Every game starts in a different location (woods, desert, frozen lands, open planes, etc.) and the player is met with calming music and a myriad of creatures and landscapes. There are no instructions and the player has a feeling of complete openness and freedom. This feeling quickly subsides when night falls and enemies (mobs) start to hunt and attack the player. If the player dies, they will either start where they originally spawned or the last bed they slept in. New players are often shocked by the realization that there are things that can kill them and that you lose your entire inventory upon death. This realization often leads to an implied objective: survive. The survival aspect of Minecraft—a move from unstructured to structured play—is complex: you need to manage hunger, inventory, and health while also building fortification and upgrading weapons, tools, and gear to better protect yourself against the mobs. Once a player becomes more advanced in the game, they often return to a more *paidic* play. Salen and Zimmerman's (2004) most basic definition of play is significant here: "Play is free movement within a more rigid structure" (p. 304). Even if the structure is not immediately evident, the movement is always prominent.

Although there is free movement in play, the boundaries, limitations, and consequences of play make it a powerful tool for thinking through or making meaning of situations. Holmevik (2012) defines play as "an activity in which the human agent seeks to experience pain or pleasure," and explains how players of exploratory games with emergent narratives set the standards of pain/pleasure or winning/losing ourselves (p. 13). Holmevik doesn't believe that play can be confined to one place, articulating how "playing means playing out of bounds, in the gaps, over the chasm that no deductive or

inductive logic can traverse" (p. 16). His definition and subsequent explanation paint a visual image that many gamers can recall. Similarly, Stevens (1977) sees play as a “voluntary and distinct activity carried out within arbitrary boundaries in space and time” and emergent meaning comes from within those constructed boundaries, like that of Minecraft or similar sandbox games without an overarching narrative or objective (p. 240)<sup>2</sup>. Sharp and Thomas (2019) also see ambiguity in a similar way as Sicart’s (2014) idea that it adds wonder to the work, but they take it a step further and introduce the notion of it making games “fun” because of “set-outsideness,” or the ability for us to embody new roles or actions by navigating rules. Play and set-outsideness “provides the frame and the potential, and ludic forms provide the structure, ambiguity produces the meaning and experience of play” (Sharp & Thomas, 2019, p. 11). Sharp and Thomas theorize that this set-outsideness is why ludic forms are “called upon as design template for making other types of activities fun,” or, gamification (p. 11). This movement between structured and unstructured play, pursuing ambiguity, and contextualizing a playful situation are all reasons why play is foundational to the ludic framework for learning.

My position is that play can be used as a model for inquiry through wayfinding. Sharp and Thomas (2019) describe how we need to find moments to play and circumscribe the world for our playful activities which is a way to contextualize the playful moment. By doing this, we are creating games, or carving out rule-bound spaces

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<sup>2</sup> Stevens (1977) emphasizes the voluntary which separates play from serious activity and contributes to the notion of the infantilization of play.

to explore. Schell (2015) uses the term “lenses” when referring to this type contextualization:

Good game design happens when you view your game from as many perspectives as possible. I refer to these perspectives as lenses, because each one is a way of viewing your design. The lenses are small sets of questions you should ask yourself about your design. They are not blueprints or recipes, but tools for examining your design. (p. xl)

These lenses are not a conclusive checklist of ways to view the world or an artifact, but they do offer a unique perspective on a design or system. When I ask my students to engage in play, I’m asking them to find points of inquiry to get a different perspective. Whether you want to call this contextualizing, set-outsideness, inquiry, or circumscribing, the approach to play as a lens is useful for students because, as he explains:

The idea is that even though we can’t have one complete picture, by taking all of these small imperfect lenses and using them to view your problem from many different perspectives, you will be able to use your discretion to figure out the best design ... it is wisest to collect and use as wide a variety of [lenses] as possible.

(Schell, 2015, p. xl)

Schell offers 113 lenses throughout his book but emphasizes the adventure and journey of design as an experience that you have to go on for yourself. Play is the foundation for this journey.

As a rhetorician and compositionist, I have been interested by the process a compositionist (read here as designer, writer, maker, etc.) takes on their journey to

“completion.” The famous adage “writing is never done, it is just due” has been a tenant of mine for most of my life. Play is our process of experiencing and contextualizing and it is transversal and requires us to move across/between multiple systems (reality and a game system) or software (the relationship between Adobe Premiere Pro and After Effects). Play is an inventive way of looking at the world and should be framed as such in invention. Hans (1981) sees play as transformative and “the role of play is not to work comfortably within its own structures but rather constantly to develop its structures through play” (p. 5). This development is a wayfinding, much like Haynes’s (2003) exploration of “offshore writing” where she “suggests a mixed reality that privileges neither *terra firma* nor *terra nullius*, nor ‘castles in the air.’ It is *suggestive*—an idea that will bear us (by indirection) toward non-sovereign outposts along transitory migration routes” (p. 670, emphasis in original). Haynes uses a beautiful metaphor of being on a boat offshore whale watching without precision. It is not an exact science, but you have markers that could guide your position. It is a movement towards abstraction: “It would be more compelling to point us toward an *abstract* horizon, much as one does when adjusting the altitude or pitch of one’s satellite dish” (p. 671, emphasis in original). Haynes’s piece is one of the reasons I chose my PhD program, because I believe in this wayfinding in composition and communication studies.

In order for us to understand play, we need to embrace the abstraction and wayfinding in our work. Fink (2016) takes thoughtfulness around play as philosophical inquiry to the forefront of his argument for play:

in play...the connection between the human being and the world is opened up. Human play has world-significance, has a cosmic transparency—it is one of the clearest world-figures of our finite existence. *While playing, the human being does not remain in himself, does not remain in an enclosed domain of his psychic interiority*—rather, he ecstatically steps out of and beyond himself in a cosmic gesture and interprets the whole of the world in a manner that is suffused with sense. (p. 46, emphasis my own).

Fink encapsulates set-outsideness, wayfinding, inquiry, and movement, all necessary understandings of play. The excerpt I emphasize here uses movement and fantasy to highlight how we embody this type of inquiry. Play is powerful in all of its contexts: whether it be children using their imaginations; people playing games as entertainment; researchers building theories and strategies; creative problem solving; or reflection.

When I taught first-year writing and advanced composition, I had my students start the semester with play and wayfinding. I articulated play as a lens to view the world and a way to find points of inquiry that may stray from the normal path of analysis. Within the first three weeks of the semester, I would have my students do a short writing project called The Literacy Failure Analysis (LFA). The LFA was a playful take on the a more traditional literacy narrative assignment where students would reflect on their personal relationship with reading, writing, and/or speaking language which often reflects on literacy sponsors who helped them on their journey. The LFA asked students to reflect and analyze a moment of failure they had while communicating with technology and what they learned from that moment. When I first started the assignment (Appendix A),

students would typically talk about learning to type on a computer, using PowerPoint, or filling out a government form. When I started teaching advanced composition (a 3000-level class) consisting of English, education, and engineering majors, the narratives talked more about moments of embarrassment, fear, or ineptitude in a college classroom. Some students were talking about their first encounters with a CAD program or programming language while others were talking about Adobe InDesign or Microsoft Word. The assignment asked the student to start by writing moments of failure with technology at home and in a class and what specific issues there were before settling on a moment to write about. After they figured out the subject matter, they would sit down with a classmate and tell the story and record it. When they were at home, they would listen to the recording and then write the story with as much detail as possible. I wanted them to analyze how the story was told differently across modes, but I also wanted them to think about why they felt these moments were failures.

The LFA started with a playful writing exercise to come up with possible topics but ended in a very personal and memorable piece of writing. This piece of writing often required several revisions because as they were wayfinding through their memories, they would remember details or have to decide on how to articulate these memories in a coherent way. They were looking at an abstract horizon because the end of the essay wasn't the end of the story, but an analysis of the story being told in two different modes and what they learned from these forms of storytelling. This playfulness in writing, the required metacognition, and the inventional practices they engaged in made this a great

assignment to start with. The Literacy Failure analysis promoted the ludic framework for learning in a tangible way.

### **Play and the Rhetorical Tradition**

The rhetorical tradition engages in play through theories, practices, and analyses of play, but most of this work is found either in the sophistic tradition or in the game and play subdisciplines. Poulakos (1995) sees sophistic rhetoric as being highly reliant on play: “sophistical rhetoric revolves around the notions of opportunity, playfulness, and possibility” (p. 53). Rouzie (2005) sees play in the work of sophistic rhetoricians, but also throughout the use of rhetoric as a form of analysis, research, and pedagogy (his emphasis is composition studies). Daniel-Wariya’s (2019) recent work on “ludic rhetorics” helps narrow the focus of play studies in rhetoric by analyzing how play is used across disciplines. He defines three categories of ludic rhetorics: “(1) experimental theories that describe play as safe, pleasurable, and productive; (2) experiential theories that describe play as personal, motivating, and reflective; and (3) exploratory theories that describe play as imaginative, transformational, and subversive. I call these theories of play ‘ludic rhetorics’” (p. 117). Daniel-Wariya is heavily influenced by the work of Sutton-Smith (2001), who uses rhetorics because “its ideological values are something that the holders like to persuade others to believe in and to live by. Much of the time such values do not even reach a level of conscious awareness. People simply take it for granted” (p. 11). He lists seven rhetorics of play in total<sup>3</sup>: 1) play as progress; 2) play as

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<sup>3</sup> The list of the seven rhetorics should be read as “the rhetoric of” and then the phrase. For example, “the rhetoric of play as progress.”

fate; 3) play as power; 4) play as identity; 5) play as imaginary; 6) the self; and 7) play as frivolous (Sutton-Smith, 2001, pp. 9-11). Sutton-Smith was influenced by Callois's (1961) *paidia* and *ludus*, in addition to four distinct areas of play: *Agon* – competitive; *Alea* – chance-based; Mimicry – Role-play and make-believe; and *Ilinx* – playing with the physical sensation of vertigo. The purpose of his categorical method is to “understand the general character of play theory” because there is much ambiguity around it due to lack of empirical evidence in studies (Sutton-Smith, 2001, p. 12). The contextualization of play, whether through Daniel-Wariya's three categories of ludic rhetorics, Sutton-Smith's seven rhetorics of play, or Callois's four areas of play is a way to understand how pervasive and influential play is in regard to all aspects of our life. To better link play to composition and rhetorics, I want to spend some time explaining Daniel-Wariya's three categories of ludic rhetorics because they help build a foundation for the need for play as a way of inquiry, a contextualizing lens, and a state of being.

The category of experimental play is tied to frivolity and progress. Daniel-Wariya (2019) quotes Sutton-Smith (2001) explaining that the dichotomy of play vs. work is a “Puritanical orthodoxy” where “Play is a commodity, something afforded only to those who have the resources to *not* work” (p. 119, emphasis in original). Both scholars make the argument that those who study play know that it is not a dichotomy; the frivolity aspect of the rhetoric is so pervasive that scholars must constantly defend themselves against this notion. Breaking this dichotomy is an important aspect of understanding the relevance of play, something Rouzie (2005) advocates for in relation to the rhetoric and composition discipline: “I am claiming that much play is not the isolated



opposite of work; rather, that it exists within and transforms rhetorical situations, at its best combining ludic and serious purposes through sophisticated rhetorical strategies and effects” (p. 53). To support this theory of play, Rouzie (2005) uses the sophistic tradition of breaking binaries, further linking this to the rhetorical tradition. Keogh (2018) explains how when we experiment through play, we are both in and out of that play world: “As I play...I become part of the world I am looking down at in my hands—I have some presence in this world but am looking down at it from the outside at the same time” (p. 2). Alberti (2008) embraces the experimental process of engaging with play because it creates an “arena of play,” a safe space for experimentation where students can try out new ideas and methods without risks of harm or failure (p. 47). The experimental aspect of play is key to studies of failure, invention, reflection, and curiosity, but it is the hinderance of the constant defense of the subject that gets in the way of real progress.

Experiential practices and the rhetoric of the self emphasize individuality, motivation, and self-reflection which are important to both students and instructors as they navigate their studies. Daniel-Wariya (2019) explores how players can make real changes to communities and the text through writing and interactions in digital spaces. Johnson (2008) explains play as an intrinsic motivation for writing:

Gamers, motivated by seemingly simple ‘play,’ participate in an enormous number of writing activities, creating a diverse body of texts: gamer-author writing online journals (from both player-characters’ and games’ perspectives), strategy guides, walkthroughs, fan fiction, and blogs. They also participate in

gaming forums and other online discussions and create their own websites. (p. 271)

This intrinsic motivation of play in writing changes the way others may view the game or may encourage others to respond and enter a dialogue about the game. Sheldon (2012) uses incremental rewards to promote engagement, but his take on grades and progression are directly inspired by play theories and gaming: “Letter grades—the way we align them as penalties for failure—and how our educational system focuses on achievement learning can hinder student progress; the direct opposite of experience points mounting to the stars” (p. 43). Motivation and representation go hand-in-hand with play, and if a player feels the system is against them, they will be discouraged to play or engage at all.

Representation is also important to experiential theories and the rhetoric of the self. How the player is represented in the game and what they can do in relation to their own likeness is important for a majority of games. Coleman (2011) discusses Bandura’s concept of “self-appraisal of capabilities” in a system in relation to avatars and agency in computer games:

In order to be properly motivated to play through a difficult game, the player needs to know she can meaningfully affect the game environment. Through interactivity with the game, the player sees that her efforts have value. The world of the game reflects the player’s self-appraisal of agency in such a situation. (p. 40)

The self-appraisal of capabilities is also important to the discussion of education and game-based learning because it makes feedback loops in the education system hyper-

visible. Nielson (2015) explains how video games, unlike other mediums that do not engage in viewer/player agency like books or film, as a technology that “creates privilege to enact and explore identities and navigate the gameworld...[which] challenge, encourage, or subsume what is understood as the stereotypical privilege of the gamer” (p. 46). Nielson sees this privilege as a point of potential exploitation where the game designer can alter a world view or how the gamer’s identity is situated. He explores the technology and conflict of identities further through Boulter’s analysis: “The body in the video game is the site of expressions of anxiety, power, and desire precisely to the extent” of what the game offers in representation, avatar customization, but also in action (qtd. in Nielson, 2015, p. 51). The player is often stuck in the “script” of the game and must engage in situations that the gamer may not agree with, both mechanically and aesthetically.

Exploratory theories and the rhetorics of the imaginary emphasize the imaginative, transformative, and subversive types of play. Sutton-Smith (2001) uses the phrase “rhetoric of the imaginary” in relation to transformative power and exploratory theories which encompass: “imagination, fancy, phantasmagoria, creativity, art, romanticism, flexibility, metaphor, mythology, serendipity, pretense, deconstruction, heteroglossia, the act of making what is present or absent present, and the play of signifiers” (n.p.). The imagination reambiguates the world, to use Sicart’s (2014) words, to create new paths of understanding, or for us to see the possible. Daniel-Wariya (2019) states: “Exploratory theories imagine new pathways and possibilities for rhetoricians to make persuasive claims made possible through computational and procedural media” (p.

126). Bogost's (2007) concept of procedural rhetoric comes to mind here, which is the "art of persuasion through rule-based representations and interactions rather than the spoken word, writing, images, or moving pictures" (p. ix). What Bogost means is that the rules that create the world make a rhetorical argument—i.e., what avatar characteristics can you make in a character creator? Are all skin colors and body types represented? Daniel-Wariya explains the exploratory theories by bringing games into the class as objects to be rhetorical analyzed, but also invokes Hodgson's (2013) methods of game-based learning. Although Daniel-Wariya does not refer to designing the class as a game or modeling his class after a known game, this exploratory method of play is captured in this type of pedagogy.

Although there are other categorical methods to use for rhetorics and play, I explain Daniel-Wariya's (2019) system in detail because it brings up a core tenet of this dissertation: the ludic rhetorics pose questions and open new points of inquiry for rhetorical theory and composition. He states that the ludic rhetorics "ask scholars to reflect upon the forms rhetoric take in twenty-first-century composing, as well as to consider the consequence and possibilities laid open when the destructive side of play as invited into our classrooms along with the games they inhabit" (p. 129). Although the ludic rhetorics are grounded in rhetorical theory and practices used in scholarship and the composition classroom, they are applicable across disciplines.

The three categories of ludic rhetorics—experimental, experiential, and exploratory—are all practices I try to instill in my students and myself for pedagogy, instruction, and all forms of inquiry. These three categories cover the eight principles of

the ludic framework: To be experimental means to be curious, playful, and flexible; experiential is metacognition; and exploratory is curious, playful, flexible, intentional, persistent and creative. Play is one of the pillars of the ludic framework because without play, it is hard to imagine any of the principles in a nuanced way. Without play, we would lose those points of inquiry, or the lenses in which to see the potentiality in our experiences.

### **Literacy, the Apparatus, and Paying Homage to Electracy**

Literacy and electracy are both hotly contested terms that have a lot of political, disciplinary and educational weight. Literacy, according to Ulmer (1989), influenced by Walter Ong and Kenneth Burke, see literacy as a way to organize and preserve thought. Ulmer sees our movement as humans from an oral to literate society, but then takes the leap further to say we are now in an electracy society governed by different rules and practices. Before I discuss the nuances and theory behind electracy, I want to first talk about literacy and its importance to this project.

Literacy is not an individual process, but a social understanding which changed society, creating a moral apparatus that can give both an individual and group power through a defined hierarchy. Vee (2017) states “literacy plays in helping individuals function in society, to the ways literacy is attached to power, and to ideas framing literacy as morally good,” and those who do not have the skills to be literate are deemed bad and illiterate by society (p. 27). Selfe (1999) defines literacy as “a complex set of socially and culturally situated values, practices and skills involved in operating linguistically,” and adds, “within the context of electronic environments” to adapt it to digital literacy (p. 11).

It is by this definition that many argue for the multiplicity of the word literacy, i.e., digital literacy, medical literacy, etc. Vee (2017) has a similar definition for digital literacy: “a widely held, socially useful and valued set of practices with infrastructural communication technologies” (p. 27). Both of these definitions highlight the social and cultural aspects of literacy and, when applied to the digital, they set a bar of understanding for emergent technologies, even if not explicit in their definitions. Vee establishes literacy having both functional and rhetorical components: the function is the tangible skills within the technologies; the rhetorical is the socially used and valued practices. My own definition—the ability to comprehend, analyze, and (re)produce within electronic environments and to understand the norms surrounding them—shares both the functional and rhetorical, but also incorporates the Aristotelian knowing, doing and making to act as a framework of process. When framed using these definitions of literacy, we come to understand how/what skills are valued by society.

When we think of literacy as part of the hierarchy that gives humans power over animals and other humans, we need to think about the shifting mediascape through the rapid changes in emergent media. Selfe (1999), Brooke (2009), Selber (2010), Kafai and Burke (2016), Vee (2017), and many others argue for the humanities to continue updating their definitions of digital literacy and keep up to date with technological trends. Selber (2010), like Brooke (2009), asks for an updated understanding of the canons of rhetoric: technology “tends to infuse each and every area of the discipline, even under fairly narrow circumstances...their increasingly widespread integration into all facets of culture has encouraged scholars and teachers to reinterpret (yet again) the traditional canons of

rhetoric” (p. 2). Updating these canons and the nuances of digital literacy instruction could circumvent many of the societal issues surrounding the app and consumption cultures. Vee (2017) worries about putting too much power in so few hands: “[stripped-down interfaces and systems like Weebly] are built for consumption rather than production of software. This means the programmers and software designers (or the companies they work for) still call the shots” (p. 34). Vee’s argument is that coding is now so widespread that we need to think of it as a foundational skill instead of purely a professional one.

Rhetoric and composition classes have taken up this task in recent years to engage with these emergent technologies in different ways. In the Fall 2017 semester, I was asked by the Writing Program Administrator (WPA) if I would like to participate in a pilot study of ENGL 1030: Composition and Rhetoric as part of the call of “introducing ‘digital literacy’ as a vital competency in General Education at Clemson” by making digital literacy and creativity a more overt aim of the course (C. Haynes, personal communication, July 25, 2017). I worked with two other individuals to reimagine the generic syllabus given to all instructors of the course to emphasize videos, websites, podcasts, games, and other mediums and the use of digital tools (such as the Adobe Creative Cloud). This is not a completely novel idea; the multimodal transformation project (take a research guided essay and transform it across modes) has been a staple of nuanced composition courses for nearly a decade. I was asked to be a part of this because of my work in Minecraft and my emphasis on multimodality throughout the course. We created a syllabus with several sample assignments to replace or supplement the current

assignments on the generic syllabus (research proposal, annotated bibliography, research guided essay, and multimodal transformation). The pilot lead to many pedagogical discussions of how to bring microphones, cameras, games, coding, video editing, audio editing, and web design into the classroom to prepare students to be informed producers and consumers of digital content. We presented this a CCCCs as a digital poster and started a generative conversation about updating the standard assignments in innovative ways.

If literacy is an understood concept of values, social norms, and skills, why do we need terms like electracy? In 1989, Ulmer claimed “The failure of the Humanities disciplines to communicate with the public may be due in part to the fact that what separates specialized humanists from laymen is not only our conceptual apparatus and the discourses of the academy, but the very medium in which we work—the printed word” (p. viii). Ulmer’s neologism, electracy (a fusion of electricity and trace), is not a replacement for literacy, but a new understanding of communication that resides in a different apparatus than literacy. Ulmer (2019) explains how the electrate apparatus exists alongside literacy:

Historically, each apparatus first put its archive into a new medium of storage, and in the process invented a fundamentally different metaphysics (orientation to reality). School itself is a product of this invention within orality of the institution that created literacy. School is relative to the apparatus of literacy, and as such will continue within electracy, even adapting to digital technology, while having



to accommodate the new dimension of civilization emerging within electracy. (p. x)

Ulmer uses the term apparatus because “technology is only one element in a complex cultural ecology that includes ideology and institutional practices as well” (p. x).

Holmevik (2012) defines the apparatus as “a social machine, part technological, and part institutional” (p. 4). The two key terms here are technology and social, or, as Weight (2006) emphasizes, the technosocial. She explains that the technosocial is about relationships “between human and computer, and between humans mediated by the computer” (p. 414). Weight sees the relationship between the apparatus and society as a “triological relationship”: “human programmer/artist, the executing apparatus, and the human interpreter” (p. 414). This is similar to the rhetorical triangle to understand a rhetorical situation. To speak to Vee’s (2017) point about losing agency in the apparatus if we are no longer teaching these digital skills, Weight (2006) articulates how the human is essential to this relationship: “While the trilogue still privileges the human over the apparatus, if we situate the apparatus outside the relationships that form the I, we risk doing what Heidegger famously does: condemning technology as anti-human, and therefore making it almost impregnable” (p. 415)<sup>4</sup>. Weight’s view of the apparatus is very

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<sup>4</sup> Ito and Okabe (2005) also use technosocial in a similar way, and plead for a more nuanced understanding of the apparatus to inform pedagogical decisions: “We propose the term ‘technosocial situations’ as a way of incorporating the insights of theories of practice and social interaction into a framework that takes into account technology-mediated social orders... We draw broadly from approaches in social and cultural studies of technology that see the technical and social as inseparable outcomes of ongoing and historically contextualized practice” (pp. 259–260). This transdisciplinary approach is a wider argument for what Ulmer defines as electracy.

similar to Ulmer (2019), Holmevik (2012), and Arroyo (2013) in that they see the human capacity for creativity, connectivity, and action in this “performative device of unique capacity” (Weight, 2006, p. 416).

The technosocial, or the relationship between computers and humans, is not a new concept. To clarify, when I state the 21<sup>st</sup> century technosocial, I am referring to the constant digital engagement with emergent technologies that is defining the 2010’s and beyond. Ito and Okabe (2005) describe the “technical and social as inseparable outcomes of ongoing and historically contextualized practices” (p. 260) in 2005. With the invent of widespread social media and the wider accessibility of content creation software and hardware, we are seeing an explosion of content (Arroyo, 2013; Ulmer, 2019, Jenkins, Ford, & Green, 2013, Bruns, 2008). This dissertation addresses video and sound editing, web design, coding, 3D design, and graphic design with the intent of persuasion and social interaction. It is understood that the emergent technology of 2020 and the social and electrated practices that surround it will continue to shift, which is why it is important to engage with these forms of technology across the disciplines. This content will only enhance the learning of our students beyond purely academic settings (Gee, 2013; 2017).

The apparatus is a critical understanding of the practice, procedure, institution, state of mind, behavior, philosophy, ground, ontology, mode, and axis of society (Ulmer, 2009). We cannot lose the view of the complexity how meaning is created, and the communication methods change. Holmevik (2012) defends the use of electracy by articulating how compositions have changed with technology and there are new rules, readings, and understandings of those values and meaning making practices which are

not the same as the literate apparatus. For instance, when I have students write a research guided essay, they are engaging in the literate apparatus. When I have them transmediate that essay into a three-dimensional build in Minecraft, record the process, make a development diary of the process, and reflect, that is electracy.

Electracy is most associated with its civic minded action and orientation in the world. Arroyo (2013) explains, like Holmevik (2012), that literacy and electracy have parallels, but electracy “encompasses much more: a worldview for civic engagement, community building, and participation” because it is in a different apparatus (p. 1). Arroyo emphasizes that “electracy is buzzing all around us; it is not something that we call up when we turn on our computers or mobile devices and shut down when we power them off....the behaviors and practices we see occurring in video culture, while not ‘new,’ present an unprecedented gateway for inquiry” (p. 5). Ulmer (2019) uses a new genre called the “konsult” to further his electracy pedagogies, which freely moves through space and time that “supports holistic learning, mediating collective attunement among collaborating consultants and institutions. The holistic orientation requires receiving resources not only from one’s specialized discipline but from the divisions of knowledge as a whole” including the primary institutions of society (governments, corporations, family, and home) (p. xv). Because the whole apparatus is so interconnected, it is impossible to turn off or completely contain that which does not belong or fit into the literate apparatus.

The common phrase associated with the konsult project is “problems be us,” and this is often extended to include all of electracy. I think it is important to link the electracy

apparatus to the technosocial because we live in a time of complete interconnectivity. However, electracy, konsult, and mystory often get conflated together which makes electracy seem to be tied to advocacy, campaigns, and solving problems. I mention the apparatus because I think it is a good structure to compare the different rules and practices that differ between the literate and electrate apparatus, but I don't think all content generated through the electrate apparatus needs to be solving or overtly bringing light to a problem. I teach my students to understand affinity, production, circulation, and consumption in the 21<sup>st</sup> century technoculture, but I don't think it is always necessary to dwell on the social problems electrate designated projects tend to focus on.

Holmevik (2012) breaks down each aspect of the electrate apparatus to better understand how the move from literacy to electracy is a cultural shift. The three I want to focus explicitly on are state of mind (fantasy), behavior (play), and ontology (chora). Electracy is a different logic than literacy, using feelings, or the body, instead of reason; Therefore, it makes perfect sense to have the state of mind to be fantasy. Holmevik references Ulmer and states "fantasy is the state of mind by which experiences and meanings are created. Fantasy exists in the human mind as something that is both connected to, and separate from, the constraints of the world around us. Fantasy allows us to escape those constraints, to see ourselves and the world unabridged" (p. 9). As mentioned previously, fantasy and play go hand-in-hand due to their way of seeing beyond the system and structures that make up our realities, procedural or otherwise. When I explain the state of mind to my students, I describe it as "thinking outside the box" and sometimes as seeing the big picture and the strange borders around it. The goal

is for students to see beyond standard points of inquiry and for them to try new lenses to contextualize a problem. Sophists would look at knowledge as literacy's state of mind and ask what the third option is; what is beyond what we do not see? I will talk about rhetorics of possibility in the next chapter which directly relates to the fantasy state of mind.

The behavior of the apparatus constitutes how practice is conducted and the literacy apparatus engages in experimentation and the electrate engages in play. I already established play as a form of experimentation, a pushing against the rules and a balance between creation and destruction. The experimentation that is discussed here relates to the axis of the apparatuses: Orality operates on the axis of right and wrong; Literacy operates on the axis of true and false; and Electracy operates on the axis of pleasure and pain. Literacy uses the binary of true and false but also weighs itself using the axis of right and wrong. Electracy engages the feelings of the body (pain and pleasure) as a transversal, intersecting the two other axes on a 45-degree angle instead of 90 like the others. Play is the behavior of the electrate apparatus which transcends the scientific tradition of the literate apparatus, and, as Holmevik (2012) explains, current play scholarship is "playing by the rules of that tradition by establishing models and taxonomies, and by drawing conclusions about games and player actions based on deductive and inductive methods" (p. 15). Holmevik continues about his electrate approach to play studies and the obligation we have to play: "We have an obligation to play, and playing means playing out of bounds, in the gaps, over the chasm that no deductive or inductive logic can traverse" (p. 16). Play as a way of opposing the

experimentation method is supported by Gray's (2013) claims about participants not performing as well when they are evaluated in experiments: "Evaluation has this pernicious effect because it produces a mind-set that is opposite from the playful state of mind, which is the ideal state for learning new skills, solving new problems, and engaging in all sorts of creative activities" (p. 133). It is paramount for the electrator to be playful.

Ulmer uses ontologies to explain the theories of being in each apparatus. The literate ontology is category, or the separation of items which help us define them. It is a relational system of measure which directly correlates with the behavior of experimentation. The electrator apparatus relies on chora to weigh its being. Kristeva's explanation of the chora (cited in Ulmer, 2019, p. 148), is that it "can suffice as a representation of the subject in process" that has an "infinite renewal." Ulmer (2019) discusses the use of chora as a way that "names the designing of relations, of jointure or ratio of what is fitting" (p. 70). He refers to the chora as our own place where we can see relationality across media and subjects. Using Plato as his base for chora, Ulmer (2012) theorizes: "Plato's chora is a 'strange' kind, neither intelligible nor sensible, but 'generative,' a space or region that functions as a receptacle within which Being and Becoming (ideal forms and material embodiments) interact" (p. 17). To help us navigate the chora, we must rely on the punctum as a guide in wayfinding. This space is in the fantastic and requires us to engage with our emotions to navigate it. I see choric invention in relation to playing Minecraft: you are in an open world without guidance and you must rely on your gut or instincts to bring about the emergent narrative. This emergent

narrative becomes your articulated journey through the unknown, or the possible. This will be a focus in Chapter 2.

The argument for the use of electracy over literacy when discussing digital writing/composition is because of the apparatus. The apparatus shows that there is a different set of rules and logic when interpreting, navigating, and designing within different types of communication. Morey (2017) designates literacy as alphabetic writing so he says digital literacy is not “sufficient to explain and account for the many innovative and creative ways people are using digital writing” because it frames everything in the logics of the “older writing technologies and logics” (p. 21). Morey related electracy and digital writing to Neo from *The Matrix* (The Wachowski Brothers, 1999) where he can see the code of the virtual world and overcome his challenges because of it. This analogy emphasizes the electrate’s ability to see how something is constructed, the genre values, and the process it took to get to the deliverable artifact we see. This use of electracy is closer to my interpretation and use of electracy, not just as a method of civic engagement and communal problem solving like Ulmer’s konsult, but also as a way of being in the technoculture world. Ulmer (2003) says his goal is “to discover and create an institution and its practices capable of supporting the full potential of the new technology,” and I agree with him here, but as I mentioned previously, most of his work is narrowed to his motto of “problems be us” (p. 29). Electracy is a polarizing term and is convoluted through the several iterations through different projects. This is not helped by the different interpretations by Ulmerian scholars. For this reason, I

propose the term playtracy, so there is a direct correlation to play, trace, and electracy, but on my own terms.

I propose the term playtracy to be used to emphasize the play, trace, and learning modes of our current technoculture. Playtracy is learning and composition born of the electrate apparatus, where our communications and compositions are in a state of continual invention based on the intervention of the social, and emphasizes tracing the link between bodies, objects, and spaces in an ecology through play. To be playtrate means to understand the social constructions of pervasive knowledge production (through continual invention and affinity), usage, and distribution with emergent technology and to be able to trace its impact through the digital ecology. To go further, the playtrate engages in ludic invention, or continual invention, when generating knowledge and looks for the traces the user leaves knowingly and unknowingly through the different affinity nodes they pass through. It is important to understand playtracy through the lens of the apparatus, because it still separates itself from the literate traditions.

### **Ludic Invention through Ecologies of Practice**

The choric space of the playtrate apparatus is a chaotic ecology of foreseeable and unforeseeable relationships which is more easily traversed if the user is familiar with how ecologies work. Eyman (2015) sees the ecology as a framework for rhetorical circulation that is useful to a compositionist or communicator because “it provides a systems-based view of both the environments and relationships that take place through digital circulation mechanisms. Systems are characterized by their compositions, environments, and structures” (p. 85). When we think of our interconnectedness within systems, we need to



consider Edbauer's (2005) use of rhetorical ecologies to better map production, circulation, and feelings across a situation: "no person is ever outside the networked interconnection of forces, energies, rhetorics, moods, and experiences" (p. 10). Edbauer looks at ecologies because the typical way we look at rhetorical situations (author, text, and audience) is not efficient when looking across such a vast interconnected happening. Edbauer sees the rapid and unpredictable shifts as ecological augmentation which "adopts a view toward the processes and events that extend beyond the limited boundaries of elements" (p. 20). What she and Eyman are both expressing here is the need to see a continual invention model within a digital ecology, or, a ludic invention.

The 21<sup>st</sup> century technoculture is not easily navigated and requires a flexible, play-centric approach to invention and learning. When it comes to media production, Eyman (2015) emphasizes circulation and the flexibility required to compose within it: "The circulation of materials occurs in the use, remix, and appropriation of digital texts, and the energy that drives this circulation comes from the rhetorical activity of digital bricoleurs, often operating within particular social networks (in ecological terms, these are communities that inhabit specific ecosystems)" (p. 86). Jenkins, Ford, & Green (2013) examine how circulation is a mix of top-down and bottom-up forces who spread media "in far more participatory (and messier) ways" (p. 1). Without using the terms electracy or apparatus, Jenkins, Ford, & Green examine the 21<sup>st</sup> century technoculture in the same ways I have discussed here: "as people who are shaping, sharing, reframing, and remixing media content in ways which might not have been previously imagined" through networks in a participatory culture (p. 2). The text being created and circulated is

not the literate apparatus understanding of a text, but an electrate one that is manipulated, remixed, and spread again, in what Jenkins, Ford, & Green call spreadability, which refers to “the potential—both technical and cultural—for audiences to share content for their own purposes, sometimes with the permission of rights holders, sometimes against their wishes” (p. 3). The process of circulation that they are discussing here is the same kind of circulation and remixing Ulmer discussed in *Teletheory* (1989). This method of circulation is important to the understanding of how playtracy compositions exist in our technoculture. Eyman (2015) uses the metaphor of swimming: the digital apparatus we are in is the water in which we swim every day, which is both life sustaining and nearly invisible to the untrained eye; however, when we become fully aware of the ecology we can use its complexity for knowledge production, usage, and distribution that furthers the technoculture we live in.

The playtrate user can be better understood as a digital bricoleur, to reference Eyman’s (2015) quote above. The bricoleur, as created by Levi-Straus (cited in Hynes & Doty, 1993), is a “tinker or fix-it person, noted for his ingenuity in transforming anything at hand in order to form a creative solution” (p. 42). The ability to be flexible and adaptive in an everchanging situation is something the player is a master of, and, by extension, so too is the playtrate. Holmevik (2013) makes the connection of the bricoleur to the electrate inventor, claiming it is someone “who *creates through the act of re/making*, as opposed to the engineer or craftsman who creates through deliberative reason founded in scientific literacy” and that the bricoleur is only defined by their potentiality (p. 24, emphasis in original). Ulmer (2012) references chora as a potential

space without end which is the possibility space where invention happens. Brooke (2009) calls this *proairesis*, a ludic invention without an end. Playtracy, and by extension the digital ecology, is about multiplicity, imagination, fantasy, and obtuse meanings which encourage creative thinking, or pursuing the “and” instead of the “is.” This, at its core, is what I mean by acting playtrate.

Playtracy emphasizes the potentiality of a space through ludic invention which is one reason why play is the prefix. Bogost (2008) puts forth the idea of games having a possibility space between the rules of play. He emphasizes the movement and actions we take within the constraints of the invisible system: “we explore the possibility space its rules afford by manipulating the symbolic systems the game provides. The rules do not merely create the experience of play—they also construct the meaning of the game” (p. 121). This movement and manipulation is the ludic invention process. The playful poking and prodding against the boundaries that are established to find new experiences and understandings is exploring the “and.” I will get into the detail of the rhetorics of possibility in the next chapter, but Poulakos (1994), explains the possible to be the in-between space: what is not, but could be. Thinking about possibility in this way shows a fluidity of human experience and how malleable it can be.

In addition to circulation, ecological analysis, and working within in-between spaces, we must also consider the economist of attention. The economist of attention is a phrase the Lanham (2006) coined in relation to a person taking in a lot of information all at once and having to make snap judgments in navigating that “interface.” He uses the example of gamers as “participatory theory par excellence,” where the gamer must

“become a student of his own attention and the attention structure designed into the game. He must become, that is, an economist of attention, studying his performance even while he is immersed in it or in a high-frequency oscillation between the two states” (p. 17). This oscillation is the rapid analysis and response of their own behavior in the game space. The playtrate need to be able to walk, talk, invent, compose, analyze, revise, and distribute in rapid succession, consciously and subconsciously the way that Neo in *The Matrix* is able to read the code of his virtual world and act quickly for the betterment of humanity. What we often forget about the rapid technoculture around us is that the designers must also be attuned to replicate and (re)invent this user interface. The more technology evolves, the more we all become user centered designers. Lanham (2006) addresses this in his book, but also defends how games are training the next generation of economists: “The designer of these digital dramas is clearly an economist of attention, then, but so are the players. Parents may not need to worry so much about their children when they play video games. They may be training themselves for a new economy<sup>5</sup>” (p. 17). Games, with the playful mindset, are helping us—have been helping us—train for this total immersion and rapid response for decades.

Play, when combined with inventional thinking, becomes a powerful space of exploration, wayfinding, and creation. In composition, invention is typically taught as brainstorming, research, outlining, and drafting. Brooke (2009) and Eyman (2015) both

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<sup>5</sup> Economist of attention makes me think about the moment in the *Ready Player One* film adaptation when Nolan Sorrento, the CEO of Innovative Online Industries, debuts “Pure O2”: “We estimate that we can sell up to 88% of an individual’s visual field before inducing seizures” (Spielberg, 2018). Is it possible, with the advancement of technology, and if more users become playtrate that this egregious behavior could become a reality?

say this is not invention per say. Invention should be an exploratory process that follows traces, a jump down the rabbit hole, using your gut (the punctum) to find connections that are not obvious. Mueller (2015) uses an inventional practice called “worknets” where the assumption is “writers and sources out to function as a symbiotic hybrid would, with each dependent upon and acting with the other all along” (n.p.). This is demonstrated by students making four different worknets for an article: semantic (collection of vocabulary); bibliographic (collection of sources from article); affinity-based (a collection of information about author); and the choric (collection of pop culture and historic events at the time of publishing article). These four phases are a choric way of navigating research, and, I argue, a playtrate way of looking at research. In gaming, we try to distinguish between the linear and the dynamic. The former is a path you walk on with the designer holding your hand; the latter is an open space where you are given hints, suggestions, or multiple paths to explore. Ludic invention is dynamic, as the worknets pedagogy demonstrates. You can still be playful and push against the rules in a linear game, but dynamic ones give you possibilities and hail you to play. Holmevik (2013) emphasizes this point by quoting Nietzsche, the “impulse to play calls new worlds into being,” and, within the context of the technoculture, maybe play brings new paths to knowledge to existence (p. 138). Playtrate activities are the bridge that allows us to participate in invention within the technoculture.

Playtracy is a nuanced understanding of how play relates to knowledge creation and circulation in the 21<sup>st</sup> century technoculture. If we think of play as the contextualizing lens and the continual wayfinding we use to produce an artifact or

knowledge and apply is to the principles of the apparatus, we have a better understanding of how playtracy functions around the ludic framework. Playtracy can be seen as the praxis that informs the four pillars of the ludic framework (play, failure, the possible, and social). Play and the possible combine in practice to become ludic invention and we see the social in the digital ecologies that govern the technosocial. Failure, the focus of the next chapter, will connect these three other pillars for a full comprehension of the ludic framework.

## **Chapter 2**

### **An Ethical Dimension of Failure**

When I first started teaching composition as a master's student in 2014, I found that the template syllabus we were given was not engaging enough, nor did it sound supportive of my students' work. The procedural language of course policies was not inspiring, and I found my students lumped everything together with all the other courses they had taken in high school and college. As the semester progressed, I tried to add elements to the assignments that would make them feel more nuanced and kairotic, but students were ignoring feedback and tapped into their rote learning to generate what they thought to be standard college work. It became clear in their reflections that students were afraid to take risks or didn't see the benefits of doing so. Several students did not understand why the minimum requirements were not "A" worthy, but also stated they didn't learn much in the class.

I conferenced with students, exchanged multiple follow-up emails about their reflections, and asked my colleagues how they inspired their students to improve their work. In our conversations, "avoiding failure," "fear of failure," and "wasting time" were all key phrases that came repeatedly. Students felt vulnerable and thought if they put the time in to be creative, it would all be for naught because it deviated from instructor expectations. One student explained how they used to enjoy creative writing, reading, and experimenting with his voice, but standardized testing forced him to write in a more conventional way. My colleagues expressed similar frustrations, but they gave me some strategies to bring attention to transferrable skills which would give students an exigency

to engage with the assignments in a more nuanced way. The student work definitely showed improvement, but students still didn't seem invested in their work.

After teaching two freshmen level composition courses, I started to reflect on my own education and what propelled me to do better and try new things. I struggled in K-12 education because of the standardized approach to all subjects. I received lower marks than my classmates and always felt held back with what I wanted to do. My gut told me to take a risk and deviate from the instructions to make it more fun or interesting. I remember taking a risk on an English essay in fourth grade that received low marks for "not following the assignment." At home, I excelled at playing and modding games. I remember renting a game at Blockbuster with my brother for the weekend with full intentions of beating it, even if we had to play all night. The infamously difficult Disney adaptations on the and other games on the NES and SNES kept us playing long hours, switching controllers back and forth until we beat them: Mario Bros. (Nintendo, 1983), Metal Gear (Konami, 1987), Aladdin (Capcom, 1993), Shadowrun (Beam Software, 1993), Lion King (Westwood Studios, 1994), Earthworm Jim (Shiny Entertainment, 1994), and Super Ghouls 'n Ghosts (Capcom, 1991). I attribute my work ethic and determination to my gaming habits throughout my life because gamers set goals, come up with creative solutions, and move onto another challenge when they finish. When we were not playing video games, I would play chess with my father, football with my brothers, or I would design worlds with Legos, colored pencils, and yarn.

The reflection on my own learning drove me toward game-based learning because I wanted to instill the same excitement and work ethic in my students as I had for



learning outside the classroom. I had no idea there was a whole developing field on game-based learning, gamification, and game-based pedagogy. I started by talking to a librarian at Eastern Michigan University and he used several keywords—games, failure, and pedagogy—to find my very first book on game-based learning. Sheldon’s (2011) book, *The Multiplayer Classroom*, changed both my career trajectory and teaching philosophy after reading the first chapter. Sheldon starts the book with a warning: “If you have picked up this book with the idea that it will help you to include video games in your curriculum, put it down now. Walk Away. There is nothing to see here” (p. xiv). The book is about turning your class into a game, or what has popularly been called gamification. I didn’t want to bring games into my classroom because there were a lot of accessibility and equity concerns, so I was looking for exactly what Sheldon was writing about. The second page of the introduction stated one of the main tenets of my teaching philosophy: “the primary way that players learn is from making mistakes” (p. xv). It was at this moment that I realized play and failure had to be cornerstones to my pedagogy.

The previous chapter discussed what it means to be playrate and the importance of play in today’s technoculture. This chapter, as the title indicates, explores how to establish a rich ethical dimension of failure to position our students to be more inventive learners. First, I want to better establish the rhetorics of possibility and why it is important to the ludic framework. Next, I will explore what a rich ethical dimension of failure is and why it is necessary for our students to succeed. Finally, I will showcase how I use these principles of play and failure in my course design.

## **The Rhetorics of Possibility**

Managing expectations and weighing the outcomes of a task is difficult to do, especially when the stakes are high. Students set their own expectations through previous experience, the course documents, and how the instructor responds to their work. It is easy to get stuck in a reality based on projected limitations which are often times defined by previous failure. My current students at Clemson University are accustomed to receiving “A’s” and tend to write in a formulaic way which becomes their tried and true method of writing for standardized testing. At Eastern Michigan University, where I taught for my master’s degree, most students struggled with confidence in their ability to write coherently due to past failures but were more open to innovative and persuasive methods of communication if they believed they had the ability to learn it. Both groups of students were still fighting against the boundaries they set for themselves and wrestling with their projected capabilities or limitations.

To get students to think beyond the limitations and boundaries of grades, they need to learn about the foundations of how we view our situation through positionality. Poulakos (1994) explains the rhetoric of possibility through three positions: actuality, ideality, and possibility. To Poulakos, actuality is what is observable and obvious, the now. He explains the actual position as “the way things are in the world,” or “what is believed to be known and understood about reality” (p. 67). Actuality is the position of our convictions, how the world works, and why. Students whom are content or become complacent with their situation are stuck in an actuality position. Standardized testing and rote learning have pushed us into this position, taking away imagination and the possible

from our rationales. The second position, ideality, is what ought to be or the unattainable perfection in reality. Poulakos specifies that “ideality is what is envisioned and known about a world that can never be made actual” (p. 68). Ideality is a tricky positionality to strive for because it isn’t only unattainable, but it is also the perfection that we are told to aim for. The famously adapted quote, “Shoot for the moon even if you miss, you will land among the stars,” exemplifies ideality here, but does this adage help or hinder us? If the ideal, or perfection, is never attainable, why are we told to strive for it? Poulakos offers a third in the binary: possibility. Possibility is the in-between, what is not but could be. The possible is typically seen as something that may lie just outside our immediate grasp. Possibility “underscores the fluidity, the elusiveness, and the malleability of human experience,” which makes it a more meaningful pursuit than ideality (Poulakos, 1994, p. 68).

Rhetoric helps us see our positionality through the rhetorical situation, giving us an insight on when to act. In an earlier work, Poulakos (1983) defines rhetoric through a sophistic lens: “Rhetoric is the art which seeks to capture in opportune moments that which is appropriate and attempts to suggest that which is possible” (p. 36). In relation to positionality, he links “rhetoric to a movement originating in the sphere of actuality and striving to attain a place in that of potentiality” (p. 36). In Chapter 1 I suggested that one of the key points of play is that it is a movement, like rhetoric here, that is striving for potential. Since the moment is in constant flux, there is opportunity to move through the potential and fail (*kairos* and *metanoia*). Poulakos (1983; 1994) uses a debate in both of

his works to explain his concepts and outlines the power of the possible on a person in the following passage:

But the rhetorician is not confined to a single movement. After he captures the appropriate and places it temporally, he moves toward the suggestion of the possible. The starting point for the articulation of the possible is the ontological assumption that the main driving forces in man's life are his desires, especially the desire to be other and to be elsewhere (1983, pp. 42-43).

Games and game-based learning does a good job of casting the suggestion on the player or student to help them see their desire to be elsewhere or to be other. This positionality of the possible is a strong force of the psyche which is tied to the imagination and fantasy, the state of mind of electracy, and an influence of playtracy.

In order to determine what is possible in relation to the other positionalities, the rhetor must understand where the boundaries are and how to push them to move beyond the position of actual and into the realm of the possible. Salen and Zimmerman (2004) see play as a way to interact with these boundaries, as a free movement in a rigid structure, or, what is possible (p. 304). Possibility is the explorative function of thought which captures the known and unknown into a space where failure and success are intertwined. Through this exploration and experimentation, new actuals and idealism are imagined, manifested, and/or discarded. This intertwining of failure, possible, and play further strengthens the framework for ludic learning. Poulakos's (1994) work is important to a conversation of failure in the classroom because thinking rhetorically about the possible "cultivates the awareness that knowledge of and attachment to the actual hinders

us from aspiring to transcend it while utopian ideals amount to unimpeded fantasy—the kind that refuses to come to terms with the materials of actuality" (p. 69). In other words, this pedagogical work of a continual revision of the actual, a push into the possible, is the ludic invention the ludic framework is built upon.

Invention is one of the five canons of rhetoric and is typically rooted in the imagination and process of discovery. Gee (2017) talks about imagination in thought, preparation, and execution and how “we badly need to think about how experience, talk, texts, and media can fuel the imagination as a guide to future action, hopes, and possibilities” (p. 29). Gee does not engage in theoretical discussions of rhetoric and playtracy, but he does discuss gaming, learning, and literacy in most of his works. He sees possibility as being contingent on the person’s experience with difficulty:

People who never confront challenge and frustration, who never acquire new styles of learning, and who never face failure squarely may in the end become impoverished humans. They may become forever stuck with who they are now, never growing and transforming, because they never face new experiences that have not been customized to their current needs and desires (Gee, 2013, p. 115).

These statements have a lot to do with Poulakos’s (1994) articulation of positionality. Invention should be inspired by play; a pushing against boundaries and a stretch of the imagination to engage with what is possible. DeWitt (2001) emphasizing that we need to be more tolerant of disorder and complexity in our invention models “with more whimsical, haphazard, at times playful, accidental, and random methods of discover” (p.

23). This playfulness is at the heart of what Brooke (2009) calls *proairesis*, or continual invention, is rooted in a ludic process of trial and error.

Proairetic invention is an open-ended mode of invention that explores the choric space for more points of inquiry and connection. Arroyo (2013) sees Brooke's continual invention form as the counterpart to the final form or analysis because it is fluid and seeks innovation and emergent narratives. She said the invention process "is less concerned with achieving stasis and more interested in creating points of departure from which future inventions will traverse and take place" (p. 59). This is not the type of invention that is typically articulated in a composition class through mind mapping and freewriting, but instead it is a quest for the enigma. Brooke cites Barthes hermeneutic as the partner of the proairetic as a quest for meaning that generates multiple points of departure. The example Brooke (2009) gives is using the search results from Google not as the point of closure and the answer, but as a point of departure (p. 83). The most concise definition he gives for proairetic invention is "a focus on the generation of possibilities, rather than their elimination until all but one are gone and closure is achieved" (p. 86). Most of the chapter on the subject is spent in constant movement, performing exactly what *proairesis* is.

This playful, continual, and open approach to invention is what I am articulating as a ludic invention. Brooke (2009) asks us to teach our students to "shift their own perceptions of writing, urging them not to think of their essays as empty, preexisting containers to be filled, but rather as texts emerging from an ongoing process of reading, thinking, and writing" (p. 27). This canvas approach to potentiality requires the reader

and writer to engage in the punctum (gut feeling) to navigate the chaotic choric spaces. The search and production are personal and relies heavily on the experiences of the individual. Eyman (2015) explores invention as discovery and to what extent invention should include: “the searching and negotiation of networks of information, seeking those materials best suited to creating persuasive works, as well as knowing which semiotic resources to address and draw upon (aural, visual, textual, hypertextual) and what technological tools are best suited to working with those resources” (p. 66). He positions invention in the technoculture as a method of experimentation and engages constantly with possibility, failure, and play. Aarseth (1997) uses the same logics applied to cybertextual processes because traditional reading cannot account for the connectivity of these texts. He calls this “*ergodic*, using a term appropriated from physics that derives from the Greek words *ergon* and *hodos*, meaning ‘work’ and ‘path’” (p. 1, emphasis in original). Like Brooke and Eyman’s explanation of invention in reading and writing, Aarseth is looking at the paths less traveled or not taken as points of potential and play, “you are constantly reminded of inaccessible strategies and paths not taken, voices not heard. Each decision will make some parts of the text more, and others less, accessible, and you may never know the exact results of your choices; that is, exactly what you missed” (p. 3). These types of invention are pursuing the possible and are engaging with as many lenses as possible to find the lesser traveled points of inquiry. With this continual invention, there is also an opportunity for failure.

Failure is usually articulated as a lack in an ability (I wasn’t good enough) or a missed opportunity (I failed to take action). Poulakos (1994) discusses rhetorical debates

and making arguments, but I see this as being applicable to any situation where the person could potentially fail. Play takes place in a location, or venue. Schell (2015) says we need to forget the technical aspects of the hardware for a moment and think about where we are using it, where we are playing the game, whether that be public, private, or a mixed space. Poulakos (1994) talks about the arena of symbolic competition for rhetorical debates as a game and a play of actions. He says it is about the skill you exhibit, not the argument. No matter the exhibition, the acceptance is that you are going to play:

To enter arenas of symbolic competition means to be willing to play, win, or lose. Whether entering as a challenger or challenged, one, by virtue of one's entry, helps perpetuate competition as a practice. In doing so, one not only agrees to play a particular game but also endorses the tacit understandings that have made the game possible. By extension, one plays not only for a victory but also for the pleasure inherent in playing (p. 65).

Poulakos talks about perpetual practice and constantly entering into the arena to engage in the possible by means of being playful. When he explores the negotiation of the possible, he is talking about human experience and it's "fluidity, the elusiveness, and the malleability" (p. 68). The power of play is to not accept the ideal or actual and always looks at the possible: "Recasting the ideal as a version of the impossible and the actual as a version of the unacceptable, the possible urges the kind of movement that oversteps the boundaries of the actual and undercuts the appeals of the ideal" (p. 69). Seeing the third



option, the continual third option, is the ludic invention that makes the playtrate a wayfinder through sophistic rhetoric.

In order to enact a ludic pedagogy that frames failure in the way Poulakos (1994) frames the possible, we can use principles of uncertainty. Costikyan (2015) has a similar understanding of play as the means to attain the skills needed to move into the realm of the possible. Play, for Costikyan, is uncertainty and unpredictability, two things that cannot exist in the realm of actuality; if it were, we would not want to engage in play because it would no longer be a challenge. He criticizes Caillois (1961) for only seeing play and games as a binary of win and loss. Costikyan expands play into the realm of the possible through uncertainty to break the binary, leaving a third space of continual play. It is through this continual play, the oscillation of thought through actuality, ideality, and possibility where creativity and persistence reside. Costikyan (2015) cites Malaby, a cultural anthropologist, and his approach called contingency: “the world is unpredictable—and that grappling with the same kind of unpredictability in the more constrained context of the game appeals to our fundamental nature...part of the reason games appeal is because they allow us to explore uncertainty, a fundamental problem we grapple with every day, in a nonthreatening way” (p. 13). Managing the fear, stress, and preconceptions of failure when the stakes are higher—like for a grade in a class—is how we get towards a rich dimension of ethical failure.

### **Toward an Ethical Dimension of Failure**

Failure is a loaded term in education. When a student or teacher thinks of failure, they typically think of the dreaded letter grade: the “F.” Letter grades hold a lot of weight

in our culture and we are told that our future depends on them so a failure grade has a gravitas that seems to be dream crushing. Juul (2013) expands on this fear of failure through what he calls the paradox of failure. He describes how we have a fundamental desire for success and to feel good, but gamers constantly choose to engage in an activity that means failure, incompetence, and uncertainty. Juul explains what separates our typical understanding and fear of failure from that of a gamer's is the inadequacy is turned into motivation to "escape the same inadequacy, and the feeling of escaping failure (often by improving our skills)" (p. 7). He positions the player as entering a contract where there will be happiness in success and disappointment in failure. Juul proclaims, "video games are the *art of failure*, the singular art form that sets us up for failure and allows us to experience and experiment with failure" (p. 30, emphasis in original). Through this experimentation we use metacognition to reflect on why we failed but, in the reciprocal, we typically don't analyze why we succeeded. Juul understands failure as part of the process of learning: "Failure then has the very concrete positive effect of making us see new details and depth in the game that we are playing...we come away from any *skill*-based game changed, wiser, and possessing new skills" (p. 59, emphasis in original). The skill-based game—whether it be a classroom or Dark Souls (FromSoftware, 2011)—has a lasting effect on the player when they fail, which makes revision so important to the learning experience.

Physically, games create a safe space for experimentation and problem solving, but that doesn't mean players don't deal with hardship and failure<sup>6</sup>. Keogh (2018) describes playing through these possibility spaces as plaything through different timelines "as authentic and inauthentic through death, memory, and failure" (p. 140). When a player dies in a game, there is a "temporal glitch" in the player's experimentation but Keogh (2018) says this is a pedagogical tool to remind the player of an incompetence: "Playable character death is a mistake to undo and a lesson to learn" (p. 138). When I teach about failure in my class, we often talk about the temporal aspect of having to redo or revise actions which just adds to the completion time of the task. Keogh (2018) expands on this concept by explaining character death in Minecraft by explaining the different types of losses when the player dies<sup>7</sup>: 1) the player drops everything in their inventory; 2) The player now spawns in the last bed they slept in (checkpoint); 3) If the player took too long to get back to the place of death to collect inventory, the stuff will disappear; 4) If the player died via lava, the inventory burns up; 5) Whatever is lost will have to be recovered by more mining and more crafting; and 6) The player loses all levels of experience above seven. Keogh mentions that failure in games is about death, memory, and failure which I think is the exact sequence of events and thoughts that the player goes through when a character dies in a game like Minecraft because much of it relies on

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<sup>6</sup> The idea that games create a safe space for experimentation is problematized through an analysis of gaming culture and the hypermasculine aggression towards women and minorities. This analysis is most prevalent through studies of gamergate, a 2014 movement that brought this issue to national attention (Mortensen, 2018).

<sup>7</sup> Keogh (2018) emphasizes the time and inventory lost but does not go into the same detail I do here. He does not mention the experience points lost nor does he explain lost inventory due to time restrictions.

memory. Most character deaths are not going to happen near a checkpoint. I've died countless times underground while mining or exploring which required me, now sans map, to find that location once more through caverns, mines, and other obstacles. The time and labor it takes for player recover is a pedagogical tool of process for "through repetition and failure multiple pasts and lost futures converge on the present play experience to intermediate each other through muscle memory, genre conventions, retries, 'Game Overs,' seriality, and wasted time. To play a videogame is to overwrite invalidated pasts and to speed at alternative futures." (Keogh, 2018, p. 140). A visual representation of this is in fig. 1, which is a 2014 New Zealand Mountain Dew advertisement with the tagline: "To get to easy you have to go through hard" (Colenso BBDO).



Figure 1 Mountain Dew advertisement from New Zealand (Colenso BBDO, 2014)

There is no better example of this scholarship than a student email I received during one of their Minecraft projects. The project required students to transmediate an aspect of their research-guided essays on a villain in Minecraft: Education Edition and document the process. A student, whom I'll refer to as C. B., emailed me on a Tuesday night after class with the subject heading: "IM CRYIN." This is her email:

CHRIS!!! 😊

I'M CRYING 😭😭😭

How about I was almost done with my structure. I was filling in rooms with details. I was trying to be creative and put a "lava pit" to represent hell in my ship...and i burned the ship down. Not all the way down, but at least 50 %. I'm not

literally crying, but i did cause a scene in the [academic building] when i started screaming "my ship is on fire". I'm hurt 🤔🤔

From a very unhappy student,

[C. B.] 😞 (C. B., personal communication, April 4, 2017).

This is a real, authentic moment of failure. C. B. had never played Minecraft before my class and was determined to do a good job on her Davy Jones Flying Dutchman. This wasn't the first email about failure I received from a student, but it was the first concerning Minecraft because it was my first semester teaching with it, but it was the most authentic and believable. All instructors have received the half-hearted "it won't upload" or "it somehow deleted" email, but this felt different. After reading the email, I immediately emailed her back (while I was in class) and reassured her that failure was all part of the process and that it would be easier to rebuild than she thought. I received a reply minutes later: "Thanks! Honestly, it was kinda funny, and i'm actually rebuilding thing pretty fast!" (C. B., personal communication, April 4, 2017). C. B. lost time and labor (about six hours if memory serves right), but she was able to recover and rebuild in less than half that time. Juul (2013) emphasizes the need to accept responsibility for us to learn through our failures:

Once we accept responsibility, failure also concretely pushes us to search for new strategies and learning opportunities in a game. Failure reveals strategic and learning opportunities in a game. Failure reveals strategic depth to us, and players of single-player games in particular often *need* to be pushed toward that experience. We could theoretically seek out depth and improve our skills without

failing, but failure has the double function of creating in us a feeling of being flawed and focusing us to reconsider our strategies in order to escape that feeling (p. 116, emphasis in original).

This feeling of being flawed is the learning tool and motivation to overcome failure, but it does not have the same reaction in all students. C. B. gave me permission to share the situation with the class on our next meeting so we could talk about failure in a relevant way because she understood that her flaw came from a position of inexperience and wanted her failures to support and give confidence to others. This process is what I hope all my students use in moments of failure and uncertainty.

The idea that failure is a process that everyone needs to work through in order to hone their skills is better represented in the rhetorical concept of *metanoia*. Myers' (2011; 2016) work on *metanoia* has a profound impact on my thinking about failure. She explains *kairos* as a widely discussed rhetorical principle often used to explain fleeting or opportune timing, but the lesser known principle of *metanoia* is "an active emotional state in which reflection, revelation, and transformation occur and thus expand the opportunities available in the concept of *kairos*" (Myers, 2011, p. 2). *Kairos* may be a swift moment that is easily missed, but *metanoia* "can be engaged in as a process, one in which reflection leads to recognition" of the missed opportunity, resulting in probable change (Myers, 2011, p. 8). The process of metanoic reflection is more than just metacognition; it is the process of recognizing what did or did not work and what steps need to be taken to approach a similar situation again with a better understanding. Myers (2016) changes our understanding of *kairos* by stating: "*Kairos* inevitably sharpens our

attention and narrows our view, limiting what we see and value. In moments when the kairotic opportunity cannot be seen or seized, a new view opens up, creating the opportunity to consider a different range of possibilities. In these moments, we have the opportunity to experience *metanoia*” (p. 386). The movement from a kairotic moment to a matanoic one helps us oscillate through actuality, ideality, and possibility. This reflection is a profound one.

The process of failure and metanoic reflection is transformative and builds a type of experiential knowledge. Juul’s (2013) understanding that these skill-base challenges have us come away wiser is because of the constant metanoic reflective process. Myers (2011) explains that “If *kairos* is seized, a person is carried down the path of that particular opportunity, but if the moment is missed, the path(s) of *metanoia* remain — paths that bring opportunities richly variegated with reflection, regret, transformation, and repentance” (p. 11). Without the ability for the student to reflect on what did and didn’t work, students will revert back to risk aversion, instead of formulating a new plan. Holmes and Lussos (2018) explain the profoundness of the relationship between *metanoia* and *kairos*: “*metanoia* is actually in partnership with *kairos* and can characterize a wide range of responses to *kairos*, from a dramatic spiritual conversion to, more commonly, a minor change of mind. The term translates to *meta* (after, beyond) and *nous* (mind). It is a reflective act of revisiting a past experience or response to a rhetorical activity” (p. 129). Revisiting the past experience also harkens back to pedagogical moments like my student, C. B., burning down her ship. It wasn’t just the act of putting lava in a wooden ship that made her pause and reflect, it was the system and tools she



was working with the provided a much larger context. Homes & Lussos (2018) go on to explain how hard won the transformation can be:

While Myers is thinking about this in terms of how a rhetor can exploit it in an audience or, rather, create a place for it once the audience leaves, this term also confirms in Aristotle's words, that our embodied dispositions (*hexeis*) are harder lasting in the mind...we may not change our minds immediately following the exposure to a single effective appeal (logos, pathos, or ethos). Rather, attitude change takes place over time and space (p. 129).

This metanoic process is pivotal to the ethical understanding of failure in the classroom; Failure through inventional processes can create a lasting change in disposition towards learning.

Ludic invention is one method that helps us enter the unknown or lesser known without fear of failure. Risk aversion is a concern that comes up in a lot of pedagogical conversations surrounding creative work. This stems from the fear of too much freedom, ambiguity, and lack of experience, but it is play that guides us though: "openness, looseness, possibility, and meaning making provide the substrate of play. The ambiguity of play allows the player's work to produce meaning, meaning owned by the player. When ambiguity works alongside set-outsideness within the experience of the ludic form, players have fun" (Sharp & Thomas, 2019, p. 14). Stephens and Holmevik (2016) connect the invention process to risk aversion in their pedagogy: "You cannot be a successful inventor if you are not also prepared to fail—and more importantly, learn from those failures. Our education system, with its obsessive focus on assessments and grades,

is set up to punish failure. This leads to risk aversion in the student which is something that ultimately stifles innovation” (p. 3). If we are able to get our students to understand failure as a transformative, processual concept instead of a dead end stop, or the end of success, we can get our students to achieve much more: “They should be encouraged to explore problems in creative ways that emphasize the larger end goal, which is invention of new knowledge, skills, and learning artifacts” (p. 3). Niman (2014) explains how someone with little experience with risk would get easily overwhelmed in the face of uncertainty so we need to encourage “nonfatal failure” through a dynamic path of learning which would create an environment that promotes success and individuality (p. 94). What risk aversion boils down to is vulnerability.

The biggest apprehension from students is when they have to present their work to a larger audience that they come face-to-face with. When students make multimodal compositions or are working through the different stages of revision, many of them feel very vulnerable and are afraid to present to their peers at the risk of feeling inadequate. Colton, Holmes, and Walwema’s (2017) ethics of care is important for consideration in this setting because it “recognizes moral value in the reciprocal and singular relations of caring between individuals that ensures one another’s well-being” (p. 60). Part of the equation in the ethics of care is determining if the action or situation is wounding or caring for an individual, but it isn’t as simple as a binary: “these terms offer a set of fluid ratios to allow us to characterize the totality of relations of those affected by a given tactical action, and, in turn, to attribute ethical behavior which, in some cases, will involve wounding certain individuals to help ensure our collective ability to ensure an

ethics of care for the most vulnerable” (Colton, Holmes & Walwema, 2017, p. 60). To promote empathy, we discuss learning types, how they are reflected in the different course projects and assignments, and personality types. For of point of inquiry, everyone in the class takes the Myers-Briggs test on 16Personalities.com and we talk about how the different categories and what they mean personally, as a learning style, and professionally. We contextualize the test by discussing how it is an introspective self-reporting tool that can easily shift based on experience, mood, and other factors. That being said, it has turned into a really useful tool to discuss collaboration, unity, and risk.



Figure 2 Myer-Briggs ENTJ designation from 16Personalities.com

The means to function within the ethics of care comes to a rhetorical discussion of interaction. *Phronesis* is understood here as practical intelligence or learned knowledge through practical application, but not necessarily through rote repetition (Holmes, 2018). A *phronetic* understanding of something requires the player to engage with the task to fundamentally understand the situation and the tools she uses to attain a desired outcome. When there is a disadvantage and the *phronetic* understanding informs the student of this, they have developed a *phronetic* understanding of the classroom and the regular order of

business that it takes to be an efficient student. Adding to that understanding by subverting expectations through game-based learning (such as the specializations or using different gaming software) is a start to broaden their education but engaging with metanoic reflection after peer review and their group-based projects add to the *phronetic* understanding by mitigating future surprise of these tactics. deWinter (2014) sees the value of this embodied play in her study of tutorials and how players learn the systems they are engaging with: “While players ‘play around’ in the game...they are learning the underlying rule structure for both gameplay *and* community participation” (p. 70, emphasis in original). However, when students are taken by surprise and do not learn the system immediately, they engage in a metanoic reflection which builds their knowledge base. When writing, composing, or editing is articulated as the skill that is being honed, students can take that framing and work towards overcoming the failure from their last encounter.

Students in my freshmen and junior level composition classes are required to conduct peer review throughout the semester in different ways: from the typical paper review to presentations with Q&A sessions. This exposure leaves many students feeling vulnerable, especially when they read from their work or showcase the alpha version of their game. Riche (2017) sees the human as a rhetorical being that is inherently vulnerable because they are “someone whose life is contingent, perpetually exposed, and always subject to the effects of language” (n.p.). Students are constantly calculating risk and managing expectations, and some students are more vulnerable than others due to their previous experiences. Hodgson (2013) discusses the circumstantial footing players

have in games, much like students in a classroom: “many players begin on unequal terms because of their backgrounds, gaming experiences, skill sets, and so on” and even though players may start with the same in-game resources, “skills, available time, and access to gaming resources (all particular gaming affordances)—radically skew not only how [students] start but also their playing conditions more generally” (p. 47). Without our interventions and our aid, students are set up for failure instead of success.

### **Specializing in Failure: A Risk Management Approach**

Acknowledging a student’s vulnerability and discussing ways to work towards a successful learning experience is paramount to game-based learning. If we think of instructors designing courses as game designers because both are in the business of creating player experiences, we have a different perspective on student vulnerability. Sicart (2005) states that a game is an experience built on a set of rules: “A game is both its rules and the practical existence of those rules” (p. 15). This practical existence of a game manifests in the higher education classroom as students acting in accordance with the syllabus, which not only outlines the expected outcomes and assessment scheme, but also the system in which the students will engage, much like reading the technical rulebook of most games. The syllabus then becomes the tangible document for the class to run in sync with student experiences. Hodgson (2013) designates professors as “course designers” that should be thinking about their students’ experiences, or, game experiences which “are not just processes of building rules (syllabi), selecting content (course material), and determining function of the game (pedagogy),” but instead should

be focusing on the student and what they must interact with in the classroom. This approach is an individualized approach that optimizes the experience of the player.

Designing a game that has challenges can be thought of as risk management. Riche (2017) uses Reid's (2014) explanation of rhetorical positioning through "risk management" to better explain student vulnerability. Reid discusses the writing process and rhetorical engagement as a risk management because students constantly calculate what risks they need to take to get an "A" or their desired grade in a class. Reid makes the point that students use risk aversion and play it safe to get a "B" instead of taking the risks needed to get an "A." He decided to assign "B's" to assignment completion to take the anxiety of failure away to promote risk taking for those students that truly want to get an "A" (Reid, 2014, p. 192-193). I use a similar tactic in my classroom to promote risk taking. My policy is that if everything is completed as instructed, it earns a "B"—unless there are issues of sources and process—and in order to earn the "A," students must engage in a "specialization" based on their Myers-Briggs results. The specializations indicate where extra risk can be taken, but since it accounts for only 10% of their grade, students are more inclined to push themselves beyond the core assignment in a creative or innovative way. These specializations often change the entire approach to the assignment or project which often helps them think outside of the literate apparatus and engage more thoughtfully in playtracy.

As I stated in Chapter 1, specializations are used to give students a sense of autonomy over their learning for projects and larger assignments which alter the minimum requirements in different ways. The specializations are as follows: Warrior,

ranger, mage, bard, and builder. The warrior specialization typically adds to wordcounts or “experience” (i.e., longer videos) which requires the student to gather more content or explore larger topics. Rangers are the research specialization which adds more sources to cite or requires students to gather more assets for compositions which need to be cited in their preferred citation style. Mages are the “technology” specialization which adds technical requirements to projects such as making videos, websites, or engage with more complex software. The bard is the creative specialization that requires students to use code to problem solve or create a composition that involves creative writing, 3D printing, or painting/drawing. Finally, the builder class asks students to create digital assets in either Minecraft: Education Edition or a content creation software. One semester I had students research and transmediate myths in a project largely inspired by Ulmer’s (2003) *Mystory* and several students requested hybrid specializations that worked with the subject matter of the assignments. I opted for a monk which required students to engage more closely to the mythos and spirituality of their research. I also created a Necromancer which was a focus on the life-death cycle of their myths and required their assignments to engage in a Rogerian style paper. Neither of these classes appealed to the masses, but I wanted to accommodate the students that wanted to experience something new. Students are assigned their first specialization based on their Myers-Briggs type, but can change their specialization after the first large assignment or project is due. Students are encouraged to change their specializations as frequently as they desire in order to cycle through all the specialization to experience new ways of thinking.

Specializations were loosely inspired by Lee Sheldon (2011) and his book, *The Multiplayer Classroom*. Student testimonials have proven time and again that this choice allows them some agency during typically static moments of class which in turn encourages them to produce more invested compositions; a composition they often show off and are proud of to talk about. The suggestion of risk and experimentation is always at the forefront of all assigned work with the hope that some students will push themselves to try something new for the sake of their learning experience in the class. The students that are assigned mages by the Myers-Briggs test typically think making videos or being required to use a program like Adobe InDesign for an assignment is unfair due to workload but the students that stick with it show the most improvement in confidence and skill level throughout the semester and tend to be the media specialists or group leaders for the final projects.

The ethics of care is important to the discussion of specialization. When we discuss choosing specializations, how to approach compositions to optimize what the students get out of it, and, most importantly, guidelines for actionable feedback that respect their peers, we discuss ethics of care. One specialization is not superior to the other, but it does help us discuss expectations and care in an individualized way which helps students cope with minor obstructions, challenges, and failures. The warrior is not better or worse than the bard; however, we do discuss how those with the affinity for the mage needs to push themselves to advance their technical skill while also balancing the rhetorical message they are trying to get across. Students will often challenge one another



and push themselves to further their skills and knowledge of the medium they are working within, whether that be video editing, photo manipulation, or technical writing.

In addition to these enhancements to my class, I also stress collaboration. For collaboration, most projects have collaborative components either explicitly or implicitly. As you will see Chapters 3 and 4, many of the projects and assignments have the option for or require working with others in class and splitting the work in an agreed upon way. Collaboration is a skill that is highly coveted outside of academia, but many of the iterations of it in K-12+ education is more of a formality than meaningful practice. I have students draw up agreements—a division of labor—and reflect on the practice afterwards which talks about both their achievements and collaborations. The experimentation is where the fail fast and fail forward initiatives come in<sup>8</sup>. For some assignments and projects, they are required to use specific software or procedures which are then altered by the specializations. However, I also give my students the opportunity to innovate and experiment which is incentivized with weights. For instance, if I have my students create

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<sup>8</sup> Fail fast and fail forward initiatives are largely used in business models and design thinking where failure is seen as a positive thing because it opens up creative problem-solving but also working through adversity which is valuable in thinking through multiple possibilities. Fail fast has been used by Holmevik in his classes, but also as part of his workshops on digital creativity using production software. Fail fast essentially means to jump into a digital environment and tinker. Without formal instruction or a heavily guided course, you will inevitably make mistakes, hit roadblocks, and have to experiment to complete tasks. However, this is where the real learning happens because it forces you to discover, invent, and collaborate on tasks. This can be looking up a tutorial, reading guides, or interacting with a specialist. Either way, failing fast gets you in and dirty so you can start creating. Fail forward means you don't fall back when you hit a roadblock but find another path without looking back. Sometimes this is articulated as finding a path of least resistance, but others say it is a reflective act that lets you build on failure. Either approach works well for learning technology in an environment that is playful and allows for failure.

infographics, I may suggest using Canva or Infogram (guided open source programs) to do so and to have them submit it as an image file. However, I may add another option to use Adobe Illustrator and document the process as a 10% weight to the project. If students engage in this step up in difficulty and complexity, I want their effort to be rewarded, so I multiply their grade by 10% and add it to the final score. This, while also encouraging revisions for all work, gives an incentive for innovating and experimenting, but it also, and more importantly, allows students to fail or misstep without harsh repercussions. I always tell my students that they will be rewarded for their effort, not for the final product, which is why I have them document their process of composing, so I can see the effort they put into it.

Communication helps students understand the stakes and expectations of the course, but I find that deliberate conversations around failure, risk aversion, and rhetorics of possibility are paramount to getting students to embrace the principles of the course. The second and third session of my class is often dedicated to talking about the “habits of the creative mind” by Miller and Jurecic (2016), failure, and learning strategies. The habits of the creative mind are similar to the *Framework for Success in Postsecondary Writing* which was written in collaboration with the Council of Writing Program Administrators, National Council of Teachers of English, and National Writing Project in 2011. This framework expresses habits of mind and experience with “writing, reading, and critical analysis” that are necessary for college-level writing courses and “Students who come to college writing with these habits of mind and these experiences will be well positioned to meet the writing challenges in the full spectrum of academic courses and

later in their careers” (p. 1). The framework and the habits of the creative mind encompass the same tenets: curiosity, openness, engagement, creativity, persistence, responsibility, flexibility, and metacognition. Where the framework differs from the habits of the creative mind is in writing experiences: developing rhetorical knowledge; developing critical thinking through writing, reading, and research; developing flexible writing processes; developing knowledge conventions; composing in multiple environments. In my freshmen composition and rhetoric class and my technical writing classes, I use the experience as course outcomes and the habits of the creative mind as the structure to get to those outcomes. I use Miller and Jurecic’s (2015) book because it has exploratory essays on each habit of mind and even touches on the framework’s experiences, but not by name. To students, the course outcomes, even with their descriptions, don’t help contextualize what they are to learn because they are the supposedly testable and quantifiable outcomes instead of a process or roadmap on how to get there. I started excerpting Miller and Jurecic’s book for my students which gave them processual explanations on how to be a more open thinking, researcher and writing in the classroom. The way they explained flexibility, openness, and creativity lead to more profound writing and ludic invention.

I want my students to embrace the playtrate mindset which helps them understand how to read, navigate, and compose in the 21<sup>st</sup> century technoculture, but I also want it to be reflexive of their learning which promotes risk taking by pushing the boundaries of assignments and working towards the possible. Nearly the entire ludic framework accounts for this through curiosity, play, flexibility, metacognition, invention, and

persistence. Play, failure, and the possible—three quarters of the pillars—are essential to this framework and how students and instructors use it to overcome adversity in their learning. In Chapter 3, I explain the ludic framework for learning which is a pedagogy informed by playtracy. Some scholars refer to playful pedagogies as gameful thinking, which is typically understood as bringing the mindset of a gamer—confidence, creativity, curiosity, flexibility, and determination—to non-game challenges (McGonigal, 2011). Kafai and Peppler (2012) propose the use of “gaming fluencies,” due to its likeness to literacy, as a complex fluency that is “not only in game design but also in the creative, critical, and technical aspects of working with new media” (p. 355). Gee (2013) emphasizes the pedagogic principle of the circuit of reflective action. Stephens and Holmevik (2016) emphasize fail fast principles of innovation. I will bring all of these concepts and more together to articulate the need and function of the ludic framework for learning.

## Chapter 3

### A Ludic Framework for Learning

The first day of the semester is always the most difficult for me. Not because I'm meeting new students or because some instructors have anxiety about going to the wrong room at the wrong time, on the wrong day. No, the first class is difficult because I care so much about my student even before I meet them, and I want all of my students to give me a chance to explain and convince them that the ludic framework for learning is to benefit their education. The first day of class starts the same every semester:

*Good morning class. My name is Christopher Stuart, but please call me Chris. This is [insert name of course here with the section number]. Before we get into the subject matter of the course, I want to spend some time talking about the pedagogy and how the course is designed for your betterment. I have a short script I would like to read to you, so please bear with me. Also, yes, this is going to be strange to some, exciting to others, and completely confusing to many of you. Let me get through the script and I will fully explain and answer any questions you have. Here we go:*

*Welcome players! This course is designed as a multiplayer roleplaying game. You are the players. I am the game master. I will serve as your guide, mentor, and ally on your adventures. Your objective is to complete as many quests (assignments) and raids (projects) as you can to acquire enough experience points (XP) to hit the level (grade) you deserve and desire. On your journey you will also navigate random encounters (impromptu presentations), PVP and PVE challenges (workshop critiques and presentations), update your journey log (weekly blog),*

*engage in builds (2D and 3D compositions), and participate in three raids (projects) alone, as well as with guilds (groups).*

*With the class being designed as a game, you—as the player—have agency to forge your own path to success. You will decide if you want to accept quests, what journeys you want to log, and what avatar will represent you online. Quests, builds, journey logs, and raids will all have variations based on what specialization you choose during character development. The specializations are as follows: Warrior, Mage, Bard, Ranger, and, after it is unlocked, the Builder. So, players, do you accept the challenge?*

*Now, I know that many of you probably have a lot of questions, but I can tell by the smirks on some of your faces that you get where I am going with all of this. This course is inspired by roleplaying games such as Dungeons and Dragons, Fallout, Skyrim, and World of Warcraft, but you do not need to be a gamer to understand or engage in this course. No, in fact, you are all gamers, you just don't know it yet.*

The script has been through at least nine revisions over the years, but the goal is always the same: to give the language of the course in a concise way so it can be used as a starting point for discussion. The first time I read a variation of this script out loud to my class it was met with a lot of worried looks and even some laughter. Some students thought I was kidding, and others wanted to know if they were in the right class. I realized that the language was not as ubiquitous as I thought, and it was not as well-written as it could have been. After feedback from my students over the years, it rolls off the tongue and works as a great entry to the pedagogy and course. This past semester—

the ninth iteration—the script received the most positive feedback and excitement from my students but not because it was a room full of gamers. Instead, I was told that it was refreshing to hear something different. Both of my 3000 level classes this semester are nearly entirely graduating seniors and this shows how stimulating and refreshing a more nuanced pedagogy can be for some students.

The ludic framework works well as a means to facilitate learning, but discussions about games as a medium is also important. The language in the script above is familiar to those that play roleplaying games, but that is a small population of students. Well, then why use these types of games as inspiration? Well, Finseth (2018) uses games in her classroom as a case study to promote concepts of rules, challenges, problem-solving, and play because the mechanics of a game “incorporates methods of accommodating various learning styles and abilities and asks instructors to think about what types of materials (texts, technologies, assistive devices, pre-existing knowledge, and so on) they will need to provide to ensure student success” (p. 16). The mechanics are a significant part of the didacticism of games and we can think of disciplinary knowledge and practices as the mechanics of our classrooms, which is why gamification is an easy reskinning of a class to help support disciplinary practices (more on this later). The interdisciplinary and accommodation of different learning styles is what attracted me to game-based learning as a pedagogy to begin with. Gaming as a practice and the gaming language is not owned by any discipline because they are concepts of engagement game designers use to articulate practice and mechanics.

Gaming language in the classroom is typically associated with gamification because it is seen as an easy model of replication and identification with games. Sheldon (2011) discusses using gaming language in his game design classroom but also offers up a dozen other classes that range from elementary school math to college-level sciences. Farber (2015; 2018) surveys instructors and schools that engage with game-based learning to talk about the implementation and reception of such methods. The first bit of advice Farber (2018) tells instructors who want to get into game-based learning is “don’t do it alone; find a group of other teachers who are making things happen on their own and join them” (p. xi). One of the reasons he says this is to protect the instructor from reinventing the wheel or falling into the pitfalls of flawed gamification. I understand the difficulty of trekking it along and it was not until I started networking across game-based learning groups that I realized how many flaws were in my pedagogy. The first issue is always the language used in the syllabi.

The language I use in my script is concise and references the typical academic language they are familiar with to help with comprehension. I use the terms guide, mentor, ally, and game master to flatten the hierarchy of the classroom and show the students that we are in this together. I use quests, adventures, and raids to say more about how I want the students to think about the assignments than their relationship to gaming. Quests are small and quick assignments that can be turned in more than once or promote exploration of a certain technology in the classroom which is typically how quests function in games but instead of exploring technology, they may explore a mechanic or area. Adventures are slightly larger quests that require a specialization (as discussed in



Chapter 2) and are typically tuned to their preferred method of learning (writing more, research, creative work, or technology). Raids are large, often collaborative, projects that require planning, strategy, and take significantly longer to accomplish, like their massively multiplayer online roleplaying game counterparts that require guilds (teams) to accomplish together. Raids are also often difficult and prone to failure and repeatability (peer review and revision). When we discuss these terms and their gaming and pedagogical uses in the classroom, more students understand that I'm asking them to experience the class in a way that suites them best, instead of purely "taking" the class for credit. The gaming language is loaded and articulates my expectations in so few words (though the explanations the first week sometimes take some convincing). I hope the gaming language creates a more meaningful experience for the students.

Moving beyond the language for a bit, using games in the classroom is equally complicated, but justifiable. Finseth (2018) justifies the use of games in her classrooms by offering this definition of what a game is: "A game is a playful, interactive goal- and rule-based system with an established set of mechanics and an integrated feedback metric, in which players work toward solving problems and completing challenges" (p. 16). The feedback metric is typically where gamification falls short or becomes problematic because this is often either a checkmark in a book (non-evaluative) or the feedback does not support the problem and challenges established in the classroom. If the game-based pedagogy is not intentional or incorporated into the core of the class (rules and mechanics), it will not support the learning of the students. Finseth (2018) said it must also "involve ample amounts of play, something that edutainment and instructional

games seemingly overlook” (p. 17). In my experience, this seems to be the case because the gamification employed here is often point based for completing tasks in a particular way or order which gives little room for experimentation, play, and failure. To avoid these issues, we must discuss the theories behind game-based learning that promote deeper learning.

The ludic framework for learning is a praxis that I’ve been working on since my second semester of teaching in 2016. The framework has gone through several iterations, but the purpose is always the same: to help students engage in a deeper learning that embraces ludic invention and failure. To reiterate, the ludic framework is built on four pillars and eight core principles. The foundation, or pillars, of this framework are play, failure, the possible, and affinity. The eight core principles—curiosity, play, flexibility, metacognition, collaboration, invention, persistence, and creativity—are used to help teachers create more engaging, student-driven, project-based pedagogy to reach course outcomes, but it is also for students to take ownership of their learning and understand the nuances of implementing play into their learning strategies. This framework was born out of personal experience with learning and games, articulated and fine-tuned with constructionist learning theory, and came to fruition through an amalgamation of practices. This chapter will hopefully take the principles that have been explored in Chapters 1 and 2 and expand upon them through a discussion of game-based pedagogy, constructionist learning theories and practices, and other praxis that rounds out the ludic framework’s pillars and principles.

When I articulate my pedagogy to students, I describe it as a playful pedagogy that uses roleplaying games as a structure for learning. Some see this through the gaming language on the first day, but others, like my colleagues, find it to be a hard sell because of how different it seems on the surface from other courses. The hardest sell for many colleagues in game-based learning is that there are so many different names for similar frameworks that most will use the term that is most readily available to them: game-based learning, game-based pedagogy, or gamification. The reason why I am now promoting the name is for the same reason why others are not using it: there are too many different approaches to game-based learning lumped into the same category and title. To best understand the ludic framework for learning, I must first explain the praxis and discussions around game-based learning and how that relates to gamification.

### **Why Game Studies Matters in the Classroom**

Pedagogical approaches to games stem from many practices, but the primary aspects I will discuss are games as learning artifacts, using professional design software, and intuitive coding literacy models (Kafai & Burke, 2016; Vee, 2017; Holmevik, 2012; Steinkuehler, Squire, & Barab, 2012; Sullivan, 2014; Gee, 2003, 2007, 2013, 2017; Colby, Jonson, & Colby, 2013). Most game-based pedagogy scholars and practitioners state they are responding to calls for educational reform and innovation. Farber (2015) states there is a strong push for innovative education reform, as highlighted by Edutopia, George Lucas's education research foundation, and the Institute of Play, made famous for the New York City game-based school, Quest to Learn. Farber works with educational technologists around the world to promote game-based, instructionist, and constructionist

learning. Kafai & Burke (2016) attribute playing games in the classroom to learn (instructionist) has greatly overshadowed the project and process-based approach to games and design (constructionist) (p. 2). There are benefits to both approaches, but scholars across disciplines, especially the humanities, may favor the instructionist approach based on course outcomes, course content, or the technical ability required to design games (Holmevik, 2012; Colby & Colby, 2008; Sierra, 2016; Hodgson, 2013). Others who are able to teach the technical side of designing analog and digital games in their courses prefer the project and process-based approach in constructionism (Bogost, 2007; deWinter & Moeller, 2014; Eyman, 2002 | 2016; Kafai & Burke, 2016; Rouzie, 2005). The constructionist approach to learning (Papert & Harel, 1999) puts the emphasis of learning on the student as a means of making knowledge. The student is oftentimes seen as a bricoleur, one that is able to make learning situations out of the means around them. The bricoleur approach is a practitioner's approach to playtracy, which is a better fit for the 21<sup>st</sup> century technoculture than the schools of the literate apparatus.

In 2017, Gee declared, “schools, as we know them, are a poor fit with how human beings actually develop,” and good ideas at schools “often become prey to reformers and businesses seeking to standardize, commodify, and go to scale in the name of profit and efficiency” (p. 157). Critical thinking skills are being replaced by a standardized method of writing. Composing for different audiences using different mediums and platforms are being replaced by technical manuals and nonfiction materials that are difficult to contextualize and explore. Although young people understand complex systems, they are being tested purely on the literate apparatus and school-based literacies which don't

match up with the current technoculture. Troia and Olinghouse (2013) found that with the current Common Core State Standards “teachers report frequently giving writing assignments that require little analysis, interpretation, or actual composing (i.e., abbreviated responses, worksheets) and devote less than 3 hr per *marking period* to instruction related to writing strategies (and even less time to other aspects of instruction)” (p. 345, emphasis in original). Instead of preparing students for the workforce and the life of the 21<sup>st</sup> century technoculture, they are stuck in the logics of print literacies and state mandated standards of learning which do not even reflect college writing standards and strategies (Rothman, 2012). Teachers across the globe at all levels of education started to use games as a learning tool or basing their pedagogy on the systems and mechanics games use to promote engagement, persistence, and learning. Squire (2008) acknowledges the advanced mechanics and engagement modern games employ “which allow for unprecedented player exploration and expression” due to the multimodal presentation of information (p. 167). Gosper and McNeill (2012) posit that game-based learning “enable students to develop and demonstrate the achievement of learning outcomes from lower order foundational knowledge and skills through to complex concepts and higher order metacognitive and creative skills” (p. 217). This interdisciplinary, higher order of thinking is what we need in our classrooms.

The print apparatus has its benefits, as discussed in Chapter 1, but purely teaching in that apparatus is putting our students at a disadvantage for their personal and professional futures. Selfe, Mareck and Gardiner (2007) highlight a key difference in game-based learning and standard teaching through interviews with Josh Gardiner, a

student: “Josh considered the literacy he acquired in the context of gaming environments to be active, challenging, and intellectually engaging” (p. 24). This challenge, something Gee (2007) continually remarks on, is a fundamental model of games, because “Good video games offer pleasure from continuous learning and problem solving. They are hard and complex and their difficulty ramps up as the game proceeds” (p. xi). The continual need to problem solve in games creates communal spaces that are created through audiences and other players called “affinity spaces” (Selfe, Mareck & Gardiner, 2007; Gee, 2013, 2016; Hodgson, 2013). Within these affinity spaces “[y]oung people’s literacy activities in the semiotic domain of gaming may prepare them to operate, communicate, and exchange information effectively in a world that is increasingly digital and transnational—and in ways that their formal school does not” (Selfe, Mareck & Gardiner, 2007, p. 30). This is a key feature of the ludic framework within the ecological understanding of learning, consuming, and producing because it engages with one of the pillars: social.

Gee (2004) makes it clear that there is no single learning strategy that works for all students. Like other forms of pedagogy, some students will not learn through games, because, as Hodgson (2013) explains, “many players begin on unequal terms because of their backgrounds, gaming experiences, skill sets, and so on... While players may start ‘in-game’ with the ‘same’ basic resources, what they bring to that game—skills, available time, and access to gaming resources (all particular gaming affordances)—radically skew not only how they start but also their playing conditions more generally” (p. 47). These limitations are also teaching moments. Bogost (2007) highlights the expressivity of

games the representation of how real and imagined systems work: “They invite players to interact with those systems and form judgments about them. As part of the ongoing process of understanding this medium and pushing it further...we must strive to understand how to construct and critique the representations of our world” (p. vii). These analyses are complex and could never be accounted for in a standardized environment, which is where interdisciplinary thinking becomes so important for game studies, as Nitsche (2008) emphasizes: “It is incomprehensible that any single theory could do justice to a form as rich and vivid as the video game. The variety of these games calls for a diversity of analytical approaches: no one approach is sufficient,” but we need to use multiple theories because they are complex interactive systems that the player needs to make sense of and generate new meanings as they play (p. 1).

K-12 scholars are trying to measure the difference in pedagogical approaches and have found promising results in game-based learning approaches. Baldwin, Bowman & Jones (2016) also make the claim that although the gaming controller is not a “quill pen, carbon-lead pencil, or laptop keyboard—[their] study offers preliminary evidence that there are associations between gaming and writing,” especially in the case of narrative based games (p. 286). Nitsche (2008) explains the five analytical planes as rule-based (console), mediated, fictional, play, and social, where “All five are conceptual planes that have their own qualities and define themselves through different elements. Yet in order to provide a fluent gaming experience, they all have to work in combination” (pp. 15-16). The complexity, as outlined here, is what helps navigate, alter, and control the 21<sup>st</sup> century technoculture by making games put a stake in the ground, create meaning, and

offer analysis of culture, design, and reality. Härig (2012) argues that the actions the player engages in is a form of communication and the game itself adds a level of critique and commentary: “the game communicates by means of the game context and the game framing. It acts like a referee or even like a mentor who is rebuking” (p. 212). Härig also calls attention to the power of priori knowledge, essentially what I articulated as phronetic knowledge in Chapter 2, which is the advancement of learning and critical thinking through restrictions and challenges of the game and failure on the part of the player (p. 211). This process of building upon critical thinking through communications with a complex interactive system is a skill that is needed in today’s technoculture.

In addition to creative thinking, many scholars promote the use of games for the critical thinking and the safe space games offer to experiment. Greenhalgh (2016) writes about ethics educators that use complex systems games in classrooms because it “befits the broad nature of ethics education” and they “invite students to take on new perspectives in a number of contexts” (p. 221). she argues that the inclusion of these complex systems and scenarios amplify the student’s “relevant abilities,” but also helps students “more easily conceive of all the factors contributing to a decision regarding right and wrong” within a safe environment (p. 222). Role-playing has always been studied within the context of games and players in that deciphering symbolic meaning from avatar appearance and contextual images and storytelling is a “collaborative process of co-construction. To award a certain symbolic meaning to a phenomenon within a game is an act of trial and error and negotiation with the game’s general framework as well as with the other players one is confronted with” (Stephenson-Mittlböck, 2012, p. 239). This



is also seen in live action roleplaying games (LARP) in Lovett's (2020) 2016 election-themed LARP which "is intended to teach students to listen to others' stories, consider the consequences of persuasion, and navigate difficult conversations about their views and values as students embody the roles of fictional or near characters with unique goals and values" (n.p.).

Game-based pedagogy, in all its forms, enhances learning in many different ways. From the traditional textual analysis of using games as artifacts to inspiring methods and pedagogy, games are an interdisciplinary feat that is versatile in execution and reception. It is no wonder that one of the highest grossing forms of entertainment in the world is only getting stronger and more ubiquitous with all ages. For the next section, I want to get into the details of the two approaches to using games for pedagogy: game-based learning and gamification. The ludic framework falls in the middle of these two approaches, but there is a rich history of the two that is important to this discussion.

### **Game-Based Learning and Gamification: Two Approaches**

There has been substantial debate whether games should be part of pedagogy. Although some of this is purely semantics, there is also great concern over the abuse or exploitation of the game culture, industry, and mechanics. This debate can be seen in the contention of two terms: game-based pedagogy or learning (Ifenthaler, Eseryel, & Ge, 2012; Farber, 2018; Dowling & Ahern, 2016; Hodgson, 2013; Colby, Jonson, & Colby, 2013) and gamification (Niman, 2014; Farber, 2013; McGonigal, 2011). There is less debate over the former because it is seen as using games or game design pedagogies to facilitate learning, much like literature is used as an artifact or mentor text in a classroom.

Gamification is found across disciplines and in industry—conference titles, books, websites, business models, and persuasive tactics by marketers—which makes many academics and designers cringe. Bogost (2014) famously wrote an essay called “Why Gamification is Bullshit,” which attacks the corporate model of gamification which uses mechanics to promote engagement through points, which he called “exploitationware.” He claims “Gamification is easy. It offers simple, repeatable approaches in which benefit, honor, and aesthetics are less important than facility” (para. 8). Bogost goes on to claim the -ification is an indicator of a cheapening and abuse of the root word, games, and there is no meaningful, lasting change or learning because the companies are only worried about earning more money. One example is the exploitation of fitness trackers to motivate employees through corporate wellness solutions (Gilmore, 2016) or FitBit’s marketing of fitness trackers to students to monitor physical activity in gym class. It is for these reasons that scholars like Farber (2013), McGonigal, 2011), and Sierra (2012) advocate for a use of gamification that does not mask or hide the original intention, goal, or outcome of the activity with gaming language. The language I use in my course is a form of gamification, but through a discussion of the mechanics and terminology, I hope to heighten the understanding of the task and process through the gaming language instead of cheapening it. I think it is important to talk about both of these pedagogical approaches before getting into the advancement of the ludic framework.

Game-based learning typically takes the fundamentals of new literacies and emergent technologies, as described by Gee (2017), and implementing them in a classroom setting through course policies, methodologies, and assessment. Dowling &

Ahern (2016) explore standard pedagogies in the K-12 classroom which “limits a deeper and more flexible understanding of the content” (p. 293). The goal of game-based pedagogy is to “design personalized and individualized experiences” that are effective in the classroom, something educators have been trying to do since the 1960’s (p. 293). Hodgson’s (2013) pedagogical approach with games makes it clear that “what is at stake here is not how similar courses and games are to one another, but how we might bring principles and practices from both into a shared space” (p. 46). Hodgson’s goal is to treat the classroom as an “arena of play” (Alberti, 2008) which “let students develop skills and understand course content within those play spaces,” and the mechanics and techniques that are borrowed from game designers “may lead to a number of positive outcomes—including creating this ‘arena of play’ where students may try on identities, become part of particular affinity groups and semiotic domains, and engage in situated and embodied learning” (p. 48). This mentality is what flipping the classroom or updating pedagogical practices to reflect playtracy is all about. Colby and Colby (2008) explain the classroom space as being similar to the gamespace as it is a “magic circle, a space bounded by terms and class periods and defined by its own set of classroom rules and learning objectives” (p. 303). Colby and Colby also make a clear connection between the classroom and gamespace through the intrinsic rewards by using World of Warcraft (2004) and Hodgson (2013) says this approach is absolutely necessary, citing rewards both through points towards grades and gameful rewards in the class.

Some education scholars approach game-based learning as a mixture of both gamification and game-inspired learning. Farber’s (2015) use of games to “deliver

content, to build skills, and for review,” which he refers to as “game-inspired learning,” doesn’t only include the game as artifact in the classroom, but he uses game practices to enhance the learning in his class (p. 2). Farber (2015) explains that the use of modern games can be used to teach “abstract concepts such as the laws of physics, systems thinking competencies, social and emotional learning, collective team building, spatial reasoning, problem solving, and many other real-life skills” (p. 2). He goes on to say that all games can be educational, but it is important to remember that the teacher still needs to frame, contextualize, and deliver the lessons to the students instead of just having them “tacked on, similar to how other educational technologies are sometimes misappropriated” (p. 22). This constructivism perspective enforces the “learn by doing” structure that humans are accustomed to (Farber, 2015, p. 9). Farber (2018) explains that “[t]he degree of effectiveness of an education game can be analyzed by matching core mechanics to learning goals” (p. 46). This touches on one of the main criticisms of using games in the classroom: Teachers will often cite fun and engagement as the rationale for using games in the classroom which is a very reductive use of games, as has been explained in this chapter. There is room for fun, for sure, but the effectiveness of using the mechanics of a game to match, emulate, and enhance the learning outcomes in the class is where game-based learning really shines.

To avoid passing judgment on gamification, it is important to understand what aspects of gamification could be used for the betterment of the student. Sierra (2012) describes gamification as “incorporating gaming structures and principles into a non-game environment” (p. 53). Zichermann and Cunningham (2011) define gamification in a

similar way: “the process of game-thinking and game mechanics to engage users and solve problems” (p. xiv). The principles that I highlight in my pedagogy embrace the unconventional learning environments and game thinking through openness, play, and persistence. We cannot ignore the claims of Bogost and others, however. Bogost’s (2012) use of exploitationware is mostly founded in the corporate greed model of pointsification, or the use of a point system to drive fun and persistence and ultimately targeting those that are part of a completionist culture of artifact finding or achievement hunting. Points and badges have become huge staples in corporate learning and purchasing models in order to game the system to encourage repeatability.

Gamification rose in corporate enterprises because they were looking for a new way to engage their employees and keep their customers invested in their companies. They discovered that gamification was a way to appeal to younger audiences, but also reassure repeatability. Badville.com, a company that started in 2010, offers “an award-winning enterprise gamification and analytics solution delivered as-a-service.” The company bought the popular gamification wiki site called Gamification.net to own the term “gamification” on all social networking sites and the web domain. With the rise of this corporate software, a company called Classcraft emerged in 2013 to bring gaming into the classroom because “Teaching is all about relating to kids’ experiences and tying that to course matter. All kids have played video games – they understand the general rules and memes in gaming and enjoy playing them.” Doing a simple Google search for “gamification” will turn up dozens of enterprises that sell gamification platforms for businesses and schools, but very few actually offer any justification or scholarship

besides how it relates to the younger audiences that know games. This is where the corporate gamification model greatly differs from the game-based learning, game-based pedagogy model.

The gamification model does have benefits as a pedagogy, and if we get past the corporate branding of the term, we can see benefits of such a venture. Burke (2014) focused on what was working and what wasn't in businesses. His book outlined how to move away from the gimmicky "magic pill" that most think gamification was and gave a structured approach that aligned the business outcomes with the player/customer outcomes. Like Burke, Tullock (2014) explained that gamification should be an extension of the mechanisms and principles video games use to teach complex tasks that players need to learn. Both scholars focused on the complex systems at play in the mechanics of game design, making the play meaningful. Also in 2015, McGonigal published another *New York Times* bestseller, *SuperBetter*, which focused exclusively on the mechanics of games and the complex systems that make them up, and applied them to everyday life to make you "super better" at what you do. This book did not have the critical success of her former book, *Reality is Broken*, because the audience was the mass public, making the gameful life she explained feel like a gimmicky gamified self-help book to some, but it became a bible to live by to others. Although Tang et al. (2009) focus on the use of video games, they do mention other gaming aspects can be used to "hold learners in focus by encouraging learners to participate during the lesson through gameplay" (p. 3). These are the important principles that can bridge with game-based learning to promote a stronger pedagogical model.

Frameworks for gaming and the learning outcomes from games have been debated and scrutinized since the conception of game-based learning. Gee (2003) lists 36 learning principles in the appendix of his book, and alludes to them throughout, which reflect “active, critical learning,” “committed learning,” “identity,” probing the world, “situated meaning,” and multimodalities (pp. 206-212). Dowling & Ahern (2016) list the following learning characteristics of games that focus on processual learning: requirement to try; opportunity to plan; opportunity to experiment; possibility of failure; games are iterative; and they are recursive (pp. 295-296). Scalies & Wilson (2012) echo this, indicating that assessment must be based on the development of student learning; aligned with goals of instruction; produce valid and reliable evidence of knowing and doing; and provide data that could improve learning outcomes (p. 290). More simplified frameworks will focus on play, narrative, choice, and engagement, arguably the fundamentals of what a game is and how it functions (Nicholson, 2015). These are all ways to justify using games in the classroom because it enhances the pedagogy and updates it to prepare students for the 21<sup>st</sup> century technoculture. Herro and Clark (2016) claim a majority of technology stakeholders do believe in these strategies to promote learning and problem solving skills in education, healthcare, and industry, but “these same universities face difficulties when moving GBL into higher education classrooms where cultural norms and organizational structures, at times, act antithetically to learn through games” (p. 19). To ignore this medium is to ignore cultural and educational advancement.

The ludic framework I'm working from strikes a balance and is heavily influenced by the playrate culture we are currently in. Kapp's (2012) emphasis on "game thinking" is a type of framing of a system or activity to include "competition, cooperation, exploration, and storytelling" which is the balance we need in all of our teaching (p. 11). Sicart (2009) explains games in this line of thinking: "Most computer games are systems of rules that encourage players to work toward goals in a virtual environment. And many computer games address players by means of a story. There are, then, two fundamental elements to these computer games: systems and worlds" (p. 21). As already discussed, the system that I use in the classroom uses quests (small assignments), adventures (larger assignments), raids (projects), guild raids (collaborative projects), journey logs (weekly reflections), random encounters (reading quizzes), and player-vs-player (PVP) challenges (impromptu presentations), in addition to leveling systems and achievements in the traditional gamification sense. By articulating the relationship between the academic and gaming terminology, it opens up a deeper understanding of the link to process. A journey log is not just a weekly reflection, but it is a documentation of the student's journey through the class and a metacognitive exercise to capture their successes, failures, and their process with quests, adventures, and raids. The journey logs are unique from the other assignments here because each week they are asked to reflect using the ludic framework's principles as a heuristic which further engages them with the principles the course is built on. The rhetorical purpose here is not only to increase investment, but to get students to think creatively about what it means to learn. Through this practice, they



are learning about fundamental composition processes: invention, composing, revising, rebuttal, and rhetorical ecologies. Grouling et al. (2014) explain this concept further:

To further define gamification, it is important to consider its purpose...In professional contexts, this may mean persuading customers to buy more products or visit more vendors. In education, it means encouraging our students to participate more actively in our courses. In the context of professional writing, we saw engagement as behaviors that demonstrated professionalism, collaboration, and good project management skills—behaviors encouraged in our course objectives. (p. 267)

Using game-based learning and gamification, as you can see, is loaded and often times polarizes the audience one way or another. I call on teachers at all levels to reframe their thinking, teaching, and classrooms within the context of playtracy. In order to do this, we need to better understand how a game lends itself to help redefine the classroom pedagogy I suggest.

### **A Shift in Learning Theory**

Game-based learning that integrate gaming literacies have substantial research behind them and equating the classroom to a game space is easier than most consider. Hodgson (2013) explains that is it not difficult to connect the classroom to play and games through the work of Huizinga's work: "classes are activities demarcated from 'ordinary' life; they proceed according to their own boundaries of time and space they have fixed rules and follow an orderly manner," and they promote affinity spaces and collaborative understandings (p. 46). It is through these affinity spaces and collaborative

understandings that the personal and individualized experiences come through. As Gee (2017) explains through his journey with game-based learning:

There was no one space (like a classroom), but many. There was no one teacher, but many. There was no textbook. Things developed in my head, in terms of *cognition* and *feeling*, as well as *valuing*. But things also developed in my fingers, eyes, and body, as I became a better gamer and a better participant in, and observer of, gaming as a set of different, but related, activities (pp. 108-109, emphasis in original).

Gee's point, along with other scholars, is that games are not just a medium of entertainment but have a more profound effect on the player which ties to education. Juul's (2005) definition of a game brings us to a more direct comparison to education: "A game is a rule-based formal system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels attached to the outcome, and the consequences of the activity are optional and negotiable" (p. 36). Rule-based systems become the syllabus; variable and quantifiable outcomes are explained through grading policies; grades and quality of work are assigned letter and number grades; students want to do well since their academic and scholarship status is contingent on their grades; and consequences are negotiated through professors and administrators. What this definition alludes to is the important conversation that game-based education brings to the table: player experience.

The player experience is the foundation of constructionist learning because it puts the learner at the center to create meaning through process. Kafai and Burke (2016)

further the constructionist ideas of learning into what they call “connected gaming,” where the student is part of an affinity space (Gee, 2017) which situates their learning in a community of like-minded individuals both digitally and in person. The constructionist approach of Kafai and Burke (2016) designate the student as a designer who “can learn not only about academic content by writing explanations and creating visual representations and simulations but also about technical skills such as programming and digital interface designs” through gaming and coding platforms (p. 4). The student is afforded the attention and process of learning by being at the center of the learning process, but affinity spaces connect the student well beyond the classroom.

The student experience has moved beyond the classroom and is now part of a participatory culture through the use of YouTube, Reddit, and other connective platforms. Arroyo (2013) uses participatory composition to frame learning ecologies because we are constantly being hailed and prompted to participate, collaborate, and perform. Bruns (2008) uses the word “produsage,” derived from production and usage/user, where he claims the role of the consumer is no longer relevant and there is a blurring of boundaries between the producer and user (p. 14). He states that the term produser “highlights that within the communities which engage in the collaborative creation and extension of information and ...the role of 'consumer' and even that of 'end user' have long disappeared, and the distinctions between producers and users of content have faded into comparative insignification” (p. 1). This collapse of the producer and consumer dichotomy opens up into what Kafai and Burke (2016) discuss with connected gaming and Gee’s (2013) affinity spaces. Gee says that affinity spaces show the collaboration of

humanity as it is always meant to be, what he refers to as synchronized intelligence: "Multiple tools, different types of people, and diverse skill sets are networked in ways that make everyone smarter and make the space itself a form of emergent intelligence. The sum is more than its parts; the collective is smarter than the smartest person in it" (Gee, 2013, p. 174). These spaces are part of the 21<sup>st</sup> century technoculture so they are "fluid and ever-changing. They are hard to strictly demarcate. Spaces and subspaces come, go, and transform as the interest/passion that fuels them evolves and as technologies change" (Gee, 2017, p. 118). Gamers constantly dip in and out of these spaces to learn new information about games or a task they cannot complete, often contributing to the conversation across the globe. The social aspect of learning through these affinity spaces is a pillar of the ludic framework and it is an aspect of learning we discuss throughout the semester to encourage learning beyond the classroom.

Gaming fluencies and connected gaming are both key learning theories that I use to establish the ludic framework for learning because of their reliance on "technology literacy," flexibility, production, and connection to affinity spaces (Kafai & Peppler, 2012; Kafai & Burke, 2016). Miller & Jurecic (2016) emphasize complexity, labor, and uncertainty in learning to the betterment of students, something that should be embraced: "learning to accept complexity and to thrive in the shadow of uncertainty takes time, because figuring out who to connect ideas from different disciplines take practice, and because divergent, creative thinking can't be taught by rote" (p. 12). Gaming fluency synthesizes gaming literacy and technology fluency by way of teaching game design. Kafai and Peppler (2012) the theory as the following:

We contend that learning to design games can engage youth in an equally wide range of valuable practices, all of which are complexly intertwined ecologies that help youth to coordinate multiple activities and types of meaning-making systems. We call this intermix of technology and gaming practices gaming fluencies because youth can become fluent not only in game design but also in the creative, critical, and technical aspects of working with new media. We're using game production as a way to promote gaming literacy in the broadest sense as well as to enhance technology fluency. (p. 355)

Gaming fluencies is something I regularly practice in my technical writing class because it gives a good framework to engage in the “creative, critical, and technical aspects” of working with the emergent technologies I will discuss in detail in Chapter 4 (p. 355). Although Kafai and Peppler (2012) are talking about coding and digital games here, this concept works well with teaching the design of analog games because we use Adobe software and other design tools to remix and create new games. Engaging with games (both digital and analog) in the classroom and performing a rhetorical analysis helps students learn about design principles, best practices, and the rhetorical power of multimodal composition all within the context of the gaming industry.

When I bring games into the classroom, I try to engage them as a form of analysis. In my technical writing class, I will bring in an analog or digital game and the students will work in groups to learn and play the games. Some games are relatively easy to play (party card games) because their instruction manual is less than 100 words. Other games require students to either jump in and learn through the process of failure and

interaction or I will give some basic demonstration of the mechanics. When I introduce Minecraft to the class, I do little explanation of the mechanics because there are built in tutorials that I have created for those that need it. The CodeBuilder suite is less intuitive so I do a few demonstrations of block logic coding before letting the students tinker and play to create new behaviors. While they are trying to figure out and play these games, they are taking mental notes and making connections across media for analysis when we debrief at the end of class. I always ask my students to reflect based on their fluency of “not only in game design but also in the creative, critical, and technical aspects of working with new media” (Kafai & Peppler, 2012, p. 355). These abstract lessons about knowledge and skill then become tangible within the theme of the course. Although Kafai and Peppler are using gaming fluencies with elementary school kids, their concepts still resonate at all levels of education. I use gaming fluencies as the theme of the course, but the theory that helps me scaffold and build the course is the connected gaming framework.

The connected gaming framework resonates well with playtracy because it connects the student with communities of production and consumption and privileges a feedback loop that is greatly lacking in most classrooms. The theory is an offshoot of the connected learning theory and the six core principles, as identified by Ito et al. (2013) (cited in Maul et al., 2017): “(1) interest powered, (2) peer supported, (3) academically oriented, (4) production centered, (5) shared in purpose, and (6) openly networked” (p. 5). Connected learning is based on the idea that “practices that employ digital media can foster self-expression, link home, school, community, and peers, broker connections

based on shared interests, and expand youths' access to new activities" (Maul et al., 2017, p. 2). Much like the concept of the prosumer, Kafai and Burke (2016) contend, through this theory, "learning to play and make games as part of a larger gaming ecology in which the traditional roles of game player and game designer are no longer treated as distinct entities but rather as overlapping, mutually informing processes for learning" (p. 5). They extend this further and explain how the theory of connected gaming is truly the way to promote learning in the 21st century technoculture:

making and playing games is a form of computational participation, and promotes solving problems with others, designing intuitive systems for and with others, and understanding the cultural and social nature of human behavior in these contexts. It is what Ito identified as 'the constructing and problems solving in a networked world.' Previously such ideas were closely tied to concepts, practices, and perspectives fundamental to computer science, but they now are becoming markers of everyday digital citizenship. (p. 125)

This is a similar argument Vee (2017) makes about coding literacies—and digital literacy more broadly—and her plea is for the humanities to not give up the power of digital composition to the technological elite. Much of Kafai and Burke's (2016) book is about implementing coding in k-12 education and the profound benefits of coding, but what I want to home in on, as it pertains to the ludic framework for learning, is this concept of low floors, high ceilings, wide walls, and open windows.

Kafai and Burke (2016) cite Resnick and Silverman's (2005) use of low floors, high ceilings, and wide walls and add open windows to help distinguish what tools, kits,

and/or programs to use for learning. This unnamed system is a constructionist approach devised by Papert for the Lego programming language. For easability, I will refer to this framework as the Pedagogical Technology Framework (PTF). PTF, uses a building metaphor to help visualize the process of choosing a technology. The full descriptions of each principle, as described by Kafai and Burke (2016) are as follows:

- *Low floors*: a tool that is intuitive enough to allow new users to acclimate to it gradually and with a degree of confidence.
- *High ceilings*: a tool that also allows more experienced users to create constructs (in this case, video games) that can grow increasingly complex and nuanced as one's own proficiency increases.
- *Wide walls*: a tool that—in addition to low floors and high ceilings—allows its users to create a wide range a [sic] constructs, letting users tap into elements of personal experience as well as popular culture to design and develop something entirely unique and representative of their own interests and backgrounds
- *Open windows*: a tool to facilitate the sharing of digital media. The creation of digital communities represents the new frontier in terms of making computer programing a more accessible skill for youths. (p. 107)

Kafai and Burke added the open windows to “emphasize the equally important social dimensions of construction tools” which promotes affinity groups and playtracy. To demonstrate the use of the framework, I want to walk through the thought process of choosing a program for a specific task that is common in most classroom: video editing.



The tool has to be intuitive enough for a new user to figure it out without too much instruction. If I were teaching a video editing class, the high ceilings would be more important than the low floors, but since the course does not have video editing skills in the course outcomes, I need to make sure I give options to my students for all skill levels so students can progress through them. A common assignment I require my students to engage with is a development diary which logs the entire process of the Tanked Presentation assignment (discussed in the next chapter). These videos are typically between 15 and 20 minutes and require students to have a mix of screen capture, interviews, voice over, graphics, and title cards. This is an assignment that needs to be scaffolded because it requires some advanced understanding of editing, but it isn't something that requires very high ceilings. When assigning this, I can use Adobe Spark Video, a web-based entry level editing program with built in tutorials and templates. Clemson University offers several other editors without cost, TechSmith Camtasia, Adobe Premiere Rush, Adobe Premiere Pro, and Adobe After Effects. After Effects is too high ceilinged and specialized, so I would remove that, and Camtasia's editor does not have too many transferable editing techniques because it is very proprietary. Spark Video, Premiere Rush, and Premiere Pro work well as a progression of skill and features and they are from the same company so they would be good to offer within the low floors and high ceilings categories. Wide walls asks for the technology to be open enough where the user can use their skill and resources to create something that is not void of personal interest (i.e., a program that only allows you to create a game of snake vs an open game design platform open to the imagination). Spark Video has many limitations

and students often refer to it as an “animated PowerPoint,” and they are not entirely wrong. Because Spark is less of an editor and more of a streamlined publisher, Premiere Rush and Premiere Pro would fulfill this principle well. Finally, the open windows concept of publishing, feedback, and community is essential to constructionist and ludic learning. With hundreds of thousands of tutorials on YouTube, Adobe’s Education Exchange, and whole forums dedicated to technical and creative help with these programs, they would absolutely meet the open windows criteria as well.

The PTF is a useful tool to not only choose the best technology for your class, it also helps students understand the thought process behind the technological choice or options they can choose from. The example of the development diary is a thought process I would go through with my students, so they understood why I chose to teach them Premiere Rush and Pro instead of Spark. Even though I chose to use Premiere, I would still offer up other options for those that are more comfortable in another program or want to try something more advanced. Baker-Doyle et al. (2018) use the term “models of possibility” which promote acts of courage to try a new technology or create something new through online networks (p. 318). They conducted a study of K-12 teachers that engaged in acts of courage to try connected learning and new technologies in their class even though they were afraid or discouraged and found that when these teachers engaged in their professional networks, they became highly inspired and confident by models of pedagogy or similar circumstances and perspectives. By using PTF with my students, explaining how to use models of possibility, and demonstrating a technology or skill instills a confidence in them to replicate the curiosity, persistence, and courage at another

time. And that is an ethical responsibility I've put on myself to better prepare my students for jobs, other classes, and personal pursuits. This is the subject of the next chapter.

### **The Ludic Framework for Learning**

I have discussed the ludic framework as being built on four pillars and eight core principles. The foundation on which it is built (play, failure, the possible, and affinity) and the eight core principles—curiosity, play, flexibility, metacognition, collaboration, invention, persistence, and creativity—are meant to be used as a guide by both students and instructors to help facilitate learning. As already mentioned, the framework went through several iterations and it was the habits of the creative mind that really helped me round out the principles to act as a guide to course and learning outcomes. This framework started as an analysis of my own learning and relationship to my ability to creatively problem solve and remain engaged on text-based games when I could not focus or retain information in school or doing homework. The ludic framework is theoretically influenced using constructionist learning theory and an amalgamation of practices in composition studies, rhetoric, game design, gaming fluencies, and connected gaming. This framework helped me grapple with learning because it gave me new points of inquiry and unapologetically engaged with possibility, risk, and failure to enhance my understanding of subject matter. This is a process-based approach that can be applied to any classroom at any level in any discipline. This project-based approach emphasized in constructionism should be articulated with the pillars in mind and the outcomes of the course can be realized through the principles. I see the ludic framework as the pedagogical practice of playtracy which, once understood, becomes a state of mind or a

nuanced understanding of circulation, spreadability, and interconnectivity within the digital ecologies that make up the 21<sup>st</sup> century technoculture.

I felt the need to create this framework to better articulate how game-based pedagogy actually functioned in the classroom by using the language administrators were familiar with. I was part of a team at Clemson University to pilot a technologically enhanced first-year writing course that fully embraced the 21<sup>st</sup> century technoculture while still appeasing administrators that wanted outcomes. My solution was to use the Council of Writing Program Administrators Outcome Statement which was used in most first-year writing courses but expand on the “Composing in Electronic Environments” outcomes to better reflect the added digital creativity components in the class. This is the revised list of outcomes:

- Rhetorical Knowledge
  - Understand how purpose and audience shape medium, design, and genre
  - Recognize and analyze rhetorical situations
  - Adopt appropriate voice, tone, and level of formality
  - Understand how genres shape reading and writing
  - Write in several genres
- Critical Thinking, Reading, and Composing
  - Use writing and reading for inquiry, learning, thinking, and communicating
  - Understand a writing assignment as a series of tasks, including finding, evaluating, analyzing, and synthesizing appropriate primary and secondary sources
  - Integrate their own ideas with those of others
  - Understand the relationships among language, knowledge, and power
- Processes of Composing
  - Be aware that it usually takes multiple drafts to create and complete a successful text
  - Develop flexible strategies for generating, revising, editing, and proof-reading

- Understand writing as a dynamic process that requires writers to use invention and re-thinking to revise their work
- Understand the collaborative and social aspects of writing processes
- Locate, evaluate, organize, and use research material collected from electronic sources, including scholarly library databases; other official databases; and informal electronic networks and Internet sources
- Learn to critique their own and others' works
- Learn project management in group settings
- Knowledge of Conventions
  - Learn common formats for different genres, modes, and mediums.
  - Develop knowledge of genre conventions ranging from structure and paragraphing to tone and mechanics
  - Practice appropriate means of documenting their work
  - Control such surface features as syntax, grammar, punctuation, and spelling.
- Composing in Electronic Environments
  - Use electronic environments for drafting, reviewing, revising, editing, and sharing texts
  - Learn how to manipulate images, edit video, compose using text and images, and choose the best online media for a rhetorical situation
  - Learn to problem solve through user interfaces, user input, coding, and creative thinking
  - Understand and exploit the differences in the rhetorical strategies and in the affordances available for both print and electronic composing processes and texts.
  - Understand the difference between literacy and electracy

The language here is very similar to the original list, but we tweaked the language enough to make it align with the objective of the pilot study and what methods of composition we were using in our classrooms. I suggested that the outcomes were not enough, and we should include a framework to meet those outcomes. The ludic framework was still not completed, but we decided to use another disciplinary source, the Framework for Success in Postsecondary Writing, which used the habits of mind as “ways of approaching learning that are both intellectual and practical and that will support students’ success in a variety of fields and disciplines” (Council of Writing Program Administrators, et al.,

2011, p. 1). The habits—curiosity, openness, engagement, creativity, persistence, responsibility, flexibility, and metacognition—became the base of the ludic framework, but they also helped instructors articulate the “how” of the course outcomes that so many new instructors struggle with. Since this syllabus was intended to be used as a generic syllabus for other first-year writing sections at Clemson University, we wanted to make sure this was articulated in a way that made sense.

My use of games in the classroom helped me rethink how to position the habits and Framework for Success in Postsecondary Writing in a way that eventually led me to the ludic framework. Composing in multiple environments, for this document, meant “all forms of writing involve technologies, whether pen and paper, word processor, video recorder, or webpage” and suggested writing a traditional essay, making a webpage or video, and designing a brochure using the same information (p. 10). This statement lacked the coding and project-based approach Kafai and Burke (2016), Vee (2017), Holmevik (2013) and others were articulating when it came to gaming fluence, coding, and modding. This definition was definitely constructed with the print apparatus in mind without emergent technology, coding, modding, and collaboration mentioned. After further research, I found *The Habits of the Creative Mind* (Miller & Jurecic, 2016) which added a more nuanced and tech savvy language on the habits I was already familiar with: “*Habits of the Creative Mind* is designed to help students learn to use writing as a technology for practicing thoughtful engagement with the world” (p. 7). Miller and Jurecic talk about wandering, uncertainty, failure, and play, all language left out of the Framework’s description of the habits. This was not a surprise for a national organization

of writing to stifle this language (see previous sections), but it did prove that a new framework was needed.

The ludic framework takes the language of both the Framework for Success in Postsecondary Writing and the habits of the creative mind and puts an emphasis on play, collaboration, and invention. Whether we are engaging our students in a first-year writing class or an engineering class, these principles promote playtrate learning that helps the students meet the needs of the course (immediate need of administrator) as well as the learning beyond the classroom many claim to hold close to their pedagogical hearts and goals. Although principles seem basic and common, I am going to go through each one and explain how I use them in the classroom as part of the ludic framework.

Play is at the foundation of this dissertation and it is the first pillar to a ludic framework. Play, as both a pillar and principle of the ludic framework, engages with Sicart's (2014) explanation that "play is a dance between creation and destruction...[a] balancing act of egos and interest, of purposes and intentions" (p. 3). Play as a constant motion, a lens to see the world, and a way of being carries the framework into practice. Rouzie (2005) links play and the writing classroom to an "energy with which players challenge solemnity, engage in word play, deflate pomposity, introduce alternative perspectives and rhetorical moves," which has a transformative power on the learning and process of the student, but also on the energy of the room. Whether we are asking the student to engaging in ludic invention, look at alternative perspectives, or try to creatively solve a problem, play is essential to our interactions with the world.

I ask my students to playfully think before they act. Schell's (2011) articulation of the contextualization of play through the use of lenses is a large part of what I ask my students to engage in. To be playful is also to be creative, persistent, flexible, and curious, but I felt the need to include play as a principle because it is so essential to learning. In addition to asking my students to play games throughout the semester, I always have them design character sheets for a tabletop roleplaying game in Adobe InDesign. This small assignment is a technical one about representing alphabetic, numeric, and iconographic information on a single page, but I also want them to play with the established rules of the genre. By using their affinity networks, they wayfind their way through genre conventions they may or may not even know about. This assignment could easily be a reproduction of a text as a technical exercise, but the playful aspect adds individuality and autonomy.

Curiosity is that step in the direction of the unknown, to engage in the possible, and the start of something new. Miller and Jurecic (2016) find curiosity to be important to our learning and being in the world because it is about confronting the unknown: "The more you practice confronting what is unknown to you, the more comfortable you'll become with questions that confront all kinds of complexity and with answers that never settle things once and for all" (p. 15). Curiosity is an inner journey that drives us toward knowledge, and it is not something that can be taught, only encouraged. In Chapter 2 I talked about risk aversion, engaging with the possible, and uncertainty, all important considerations in gaming and design. Curiosity often stems from play and we need to be



flexible and persistent to find the answers we seek or at least until we come to the next crossroads.

When I ask students to engage in curiosity, it is often associated with researching a subject or technique. The fail-fast and trickle-down pedagogy mentality Stephens and Holmevik (2016) promote is how I get my students to be curious. When I first introduce Minecraft: Education Edition (2016) to the class, I invite them to the world I created and point new players in the direction of the tutorial (with only the basic commands of moving) and more experienced players to an open city with quests. The more experienced players will engage in curiosity by exploring the world and trying to figure out the controls that many of them forgot over time. The new players are confronted with failure time and time again because they do not have the experience of working in this type of space or with the mouse and keyboard control scheme. I slowly give them information, but it is through the emersion that they start to learn themselves and their curiosity usually carries them through the experience and future assignments.

Flexibility is the ability to adapt to different situations, to see the missed opportunity or the change in expectation and change to still accomplish the task at hand. A learner who is flexible in their learning is a bricoleur, the one that is able to see what tools and materials are around them and use them to their advantage. Flexible learners also engage in metacognition and are adept at recognizing the familiar in the unknown. Agency is also important for the ludic framework, and it is inherent in many of the principles but I think it is the most important for flexibility for both the student and instructor. I ask my students to forge their own path and think beyond the instructions or

guidelines of the assignment to do what they believe is right or best for the given task. Being flexible is also about taking risks and trying something new.

I mentioned specializations in the previous chapter in relation to rhetorics of possibility, but it is issues of the unknown, adaptability, and learning to recognize the familiar in the unknown that really showcase the flexibility built into that aspect of the course. Students often know what to expect when I ask them to complete an assignment such as making a video or designing something in InDesign. To make sure they are engaging in flexibility, their specialization alters the assignment in a way that makes them engage with it ludically. Some specializations may change the word count, the number of images, add a video component, ask the student to conduct an interview, or make a creative project that represents the primary task. One student referred to the specializations as the personal touch to generic assignments.

A persistent learner is one that can meet a challenge or failure and continue to find a new path to success. I talked about persistence when engaging in Meyer's (2011) metanoic reflection and in relation to Juul's (2013) paradox of failure. A persistent learner is not afraid of failing but acknowledges it and learns from it. I'm fond of a quote from a game called Children of Morta which perfectly encapsulates the movement of play and the previous discussion of the possible: "A hero never knows what is awaiting them at the end of a road. Moving is more important than reaching" (11 Bit Studios, 2019).

Most of my assignments and course policies are inspired by persistence, but the type of assignment my students relate most to persistence is video editing. I teach video

editing as a lesson in language and skill. We first talk about how video editing is similar to writing and how cuts are just punctuation. Once the class understands the fundamentals of editing, I ask them to create a “Day in the Life of” video where they record themselves throughout an entire day and then edit the footage together into a 1-3 minute final product. After reading the reflections, it is clear that video editing is something that people either love or hate. Many of the issues are technical—computers cannot handle the large files or rendering—but some students explain how difficult it is to piece the clips together, trim them, and put out a final clip that falls into the 1-3 minute window. Persistence is how they are able to get it done.

Collaboration is not something that fits as well in the print apparatus due to fears of plagiarism or illegal collaboration. Collaboration is important because it changes the orientation and view of the learner because they are able to see from multiple perspectives. Collaboration is a foundation of communication, writing, and design, but assessment, ego, and patience get in the way of working beyond oneself. The ludic framework for learning, as with connected gaming, is built on the idea of working, collaborating, and engaging in others through affinity spaces or the produser culture.

In Chapter 4, I talk about Tanked Presentations, a collaborative semester-long project that perfectly encapsulates the ludic framework for learning. Another example of collaboration in my classroom is when I put them into groups to figure out a new game. Throughout the semester, I will bring in short games with minimal instructions and ask them all to play them in small groups for 15 minutes. Seeing them work together and rely on each other’s strengths is true collaboration. Some students will shuffle, others will set

up a board, and there is always at least one student who takes it upon themselves to be the gamemaster to make sure everyone is playing the game the same way. When I walk around to each group and listen to their conversations, it is clear that it is a fully collaborative act to figure out and play the games assigned.

Ludic invention, proairesis, and the rhetorics of the possible are all important to learning in the technoculture. To engage in invention is to be playful, flexible, persistent, creative, and collaborative. In playtracy, it is expected to pursue the punctum, or feelings, and see where these connections are made by analyzing the trace through the ecology. Brooke (2009) sees this as a collaborative act that enforces recursivity which eventually leads to new knowledge and experiences (p. 68). Because everything is interconnected through the ecology, invention also means the ability to negotiate based on learned experiences.

As I discussed in Chapter 1 and Chapter 2 with ludic invention, invention is paramount to the ludic framework and playtracy. In my technical writing class, I have students research a software, game, or emergent piece of hardware and create an infographic based on the production history, reception, key features, and more. Most of the students have never researched technology before and to see engage in research and other inventive practices to gather information and arrange it into an infographic is a great demonstration of invention. I encourage my students to draft the infographic using post-its, index cards, or to sketch a wireframe on paper before trying to arrange it digitally in Adobe Illustrator. Some students end up with scrolls of paper to represent

their infographic while others arrange information on cards and take pictures of different orientations.

Metacognition is a transformative process (*metanoia*) that helps us establish our experiences as knowledge creation. When we reflect on a situation or previous event, we store our revelations and memories to be called upon when we need them in similar situations in the future. Metacognition is also our ability to reflect on our current situation and take inventory of how we came to that situation or piece of information.

I take reflection very serious in my class. For every project I ask the students to reflect, but I also have a weekly blog post called a journey log that requires them to reflect on their use of technology for assignments and projects. Based on the specializations, they either write out a blog with some embedded media; use outside research for extended understandings of concepts in class; make a video; or engage in a creative act and record the process. Many students reflect how time consuming it is or that it doesn't feel natural. By the end of the semester, their journey logs are typically robust with information and a demonstration of learning throughout the semester. Students write final reflections after reading over the entire semester of journey logs and they are typically shocked about how much they wrote and changed perspectives on technology in the classroom.

Creativity is the hardest to quantify, but I like it to play. Everyone wants to promote creativity, but it means to embrace the individual, subjectivity, and the unknown. Creativity is about taking risks, a novel approach, or to see connections between two

unlikely things. Game-based learning always promotes creative problem solving, a skill that is difficult to teach, but, like play, it is a way of being in the world.

Creativity is something I hold dear to my heart and I try to make sure students understand that creativity is not just an artistic endeavor. Students are often shocked by the work they produce in my classes because it takes on such a wide range of audiences, genres, and purposes. The bard specialization requires the most creativity because it asks for students to create a five-minute experience to represent the prompt for that week. Some students have drawn, painted, or sculpted things and recorded the process, others will write music, songs, or interpretive dance. I don't get many students to stick with the bard specialization, but those that do create brilliant compositions.

The ludic framework is more than just these eight principles. Create a classroom that facilitates play, curiosity, flexibility, persistence, collaboration, invention, metacognition, and creativity is no easy task. I use games in the classroom (game-based learning), have my students design and remix games (gaming fluency), and I use gaming language such as quests, raids, and guilds instead of the traditional classroom jargon (gamification). The ludic framework encompasses all of these aspects of the classroom. I use journey log instead of weekly blog because it emphasizes the movement and direction we typically think of in relations to journeys and thinking. I call their groups guilds because a guild is usually a group of skilled individuals supporting one another and working together on projects. I use the term raid instead of project because a raid designates a difficult challenge that requires collaboration, planning, and multiple attempts at completing. I'm not using gaming jargon to make the class feel edgy and

gamey, but the language holds a lot of power which I articulate to the students both through the script and throughout the semester.

I have tried many different types of documentation in the class to enhance the gaming process of the classroom to different degrees of success. I used to pride myself on the ability to create “player cards” for all of my students, something Sheldon (2011) talks about in his course. Player cards would list the student’s name, their avatar name, an image of their avatar, all of the quests, adventures, and raids, their point values, and I would update them weekly so show their “character progression.” This was an aspect of the class that required a lot of manual labor on my part, but students loved their personalized cards that showed a snapshot of the course and their progress. When I first started teaching this way, I used to have a leaderboard where I would list the top five students using their avatars and would have prizes, but it became far too much to manage as a graduate student. I now have students maintain their own “guild contracts” which assigns roles to each student based on their specializations and keeps them accountable for making annotations and updates so the entire guild/team can see the progress together.

To showcase the ludic framework in a practical use, the next two chapters will explore two projects: one semester project and one extracurricular project. Chapter 4, “Teaching Workflows through Tanked Presentations,” discusses the “tanked presentations” project inspired by ABC’s *Shark Tank* where students design or remix an analog or digital game and create a marketing campaign around it to be pitched to judges in a highly structured presentation model. This project is playrate in nature and is further enhanced by the ludic framework for learning. Chapter 5, “Minecraft University: A

Collaborative Building Experiment,” is a documentation of the process and results of a month-long build in *Minecraft: Education Edition* which represents the theoretical foundations of this dissertation in an interactive space.



## Chapter 4

### Teaching Workflows through Tanked Presentations

The hardest thing to hear from a student is that they believe they were not prepared for an upper level class, an internship, or job after taking your course. The first time I heard this at the end of my second semester teaching a first-year writing class. A student got an office job a month prior to the end of the semester and he thought he was actually ready because he finally took a writing class at the college level. I caught him talking to another student on the last day of class and he said, “I might lose my damn job because my boss doesn’t like my writing. Thanks a lot, professor.” I couldn’t help but take it personal. The next fall semester I ran into another student from the same class and he told me he barely made it through his engineering internship over the summer because he didn’t know all the nuances of Microsoft Word and another program I had never heard of. I knew I wasn’t the only teacher in the university teaching students and my supervisor had to fight at nearly every writing across the curriculum meeting for other faculty to understand the burden of teaching writing and writing software should not only fall on the English department. Even with these assurances, I still wanted to do better for my students. When I went home to visit my parents for Thanksgiving, my father had ABC’s *Shark Tank* on the television. I have watched the show before, but I had a moment of inspiration to use the presentation model from the show in my classroom. Tanked Presentations was born.

I have now been teaching the Tanked Presentation model for five years in nearly all the classes I have taught. The primary iteration I use asks students to create a digital or

analog game, process documents, and marketing materials and present them to a panel of outside assessor whom I call the media executives (sharks). The presentation is a highly structured sequence of events: up to a two-minute pitch of the game; up to a minute to hand out materials; and up to an eight-minute question and answer period between the media executives and the presenting team. Although it is a collaborative project, only one person from the group is required to speak for the team to get credit. Instead of competing for an investment, they are trying to persuade the media executives to choose their project as the best in the group. I have worked on several iterations of the project in my class and I have helped other instructors create their own version for grant writing, marketing, communications, theater, and technical writing. The project is versatile, and it sets the students up for success instead of assessing them in a way that is critical of their presentation ability.

The Tanked Presentation was born as I was trying to figure out the nuances of the ludic framework. I knew I wanted my students to create games because the process, as Kafai and Burke (2016)'s *Connected Gaming* explains, would best prepare students for engagement outside academia. It was important for me for my students to walk away with authentic skills and experiences that would transfer outside the classroom and a framework for learning that would help them do that. The first iteration of the Tanked Presentation had discussions of invention, creativity, and play, but little else. I struggled to see the bigger picture and scaffolding necessary for this project to be what it is today, being a second-semester teacher and all. The ludic framework helped me shape the schedule, tinker with the requirements, and figure out the group dynamics needed to

create an authentic collaborative experience that may be replicated in other classes or workplaces. In later iterations, I had student reflect on what has become known as the four pillars of the ludic framework: play, failure, the possible, and social affinity. The first semester I brought in Schell's (2011) *The Art of Game Design* with his lenses, the rationales and reflections about the game and teamwork became prominent parts of their discussion. They always logged what their missteps and failures were, and I wanted my students to think beyond the project and plan as if they would continue working on the game in the future. Finally, their social affinity for connecting with others for playtesting or bouncing ideas off of peers from other classes made for a much wider experience than I ever imagined. The atmosphere in the room completely changed from instructor driven to team driven on workshop days.

The transfer to other classes was also important to me, but this drive was led through curiosity, play, collaboration, persistence, and creativity. Eventually, I saw a need for this class for humanities students, so I pitched a 3000-level class at Clemson University to target those who wanted to take an advanced composition class and work more with digital composition. I named the course "Composing in Digital Environments" and advertised it to humanities students that would typically opt out of the advanced writing course because it is not a requirement. A lot of my previous students told me they were having a hard time getting a job because the expectation of a Clemson student is to be proficient in the Adobe Creative Cloud and other professional software. Tanked Presentations was already accomplishing this without being prompted so I designed the class to build confidence in their technical ability while also gaining marketable skills

they could put on their resumes. Since Clemson University has the Adobe Creative Cloud available to students as part of their tuition, we spent a lot of time designing posters in Illustrator; making videos in Premiere Rush and Premiere Pro; designing manuals in InDesign; and photo manipulation in Photoshop. The course focused on the process and design theories around these compositions more than the programs themselves, so there were plenty of opportunities for students to engage in open source software and other tools they may have had on their computers. I foregrounded a lot of this work with discussions around the technoculture, digital ecologies, and how rules of the literate apparatus shift and change through the digital apparatus. I wanted my students to engage in play, analysis, and collaboration so I opened up more class time to play Minecraft: Education Edition and the CodeBuilder suite to practice transmediation, spatial reasoning, problem solving, and coding. By the time we got to the Tanked Presentations, students were well versed in the software and had plenty of opportunities to play and practice before their work was assessed. I was able to dig deeper into game design methods which in hand strengthened my understanding of the ludic framework.

It is important to know that Tanked Presentations is just one project in a large conversation around a framework for learning. Tanked Presentations helped me refocus the ludic framework and articulate it in a more nuanced way so my students could use it to reflect throughout the semester on their own learning and how it connects to the course outcomes. The scaffolding of technical skill is more important to some than others, but the principles of the ludic framework—curiosity, play, flexibility, metacognition, collaboration, invention, persistence, and creativity—are all engaged through the process

to provide a well-rounded learning experience that is highly flexible and personal, if students are willing to analyze their learning in such a way. The journey logs ask the students to engage with one of the principles each week to reflect on their experience with technology, an assignment, part of a project, or something outside of the class that is affecting their learning experience. This malleability by the student is my biggest hope because it shows the student is invested in their learning process and the content will follow.

The current version of presentation portion of Tanked Presentations, which will be the primary focus of this chapter, is split into three parts: the pitch, distribution of media and technical documents, and a Q&A with the media executives<sup>9</sup>. Unlike the television show, all the students are in the same room so they can watch and support their peers. The typical presentation follows this flow: Students introduce themselves as a gaming company and give a two-minute pitch on what their game is, their motivation behind it, the social issue they are addressing, and a few quick mechanics or plot points. Students then pass out business cards, treatment (sales) sheets, game box art, advertising posters, and provide a link to their company site. Finally, the media executives get up to eight minutes to ask questions about their process, game, materials, and the design choices behind all of them. In total, the students are in front of the room for no more than 10 minutes.

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<sup>9</sup> Appendix B – Tanked Presentations Assignment Sheet has the full explanation of the project, each step, and this semester’s schedule.

There are a lot of components required for the project, but the model is flexible based on what the course outcomes are and how much time is allotted for students to work on it. The project requires the following items to be completed for assessment and are all represented in presentation model in my latest course:

**Game Design**

- Game Box
- Game Board
- Game Components
- Cards

**Technical Writing**

- Game Design Document
- Alpha Report
- Playtest Interviews
- Beta Report
- Tutorial or Walkthrough
- Game Manual
- Treatment Sheet

**Media Artifacts**

- Company Logo
- Game Logo
- Informative Poster
- Cinematic Poster
- Business Cards
- Kickstarter Site
- Development Diary

Figure 3 - Tanked Presentation Submission Checklist

Although students were offered both analog and digital games, all the students in this class are creating an analog game of varying types and have a strong foundation for creating these artifacts based on the workflows set throughout the semester. The important thing to remember about this project is that it is collaborative and feeds into the students' strengths by forming teams and assigning roles to fulfil each requirement. Teams are formed around four essential roles for the project: Project manager, game designer, media specialist, and technical writer. The project manager is in charge of

making sure all students hit their deadlines and they jump into any role needed throughout the length of the project to ensure nobody is getting overwhelmed. The game designer is responsible for the systems and mechanics of the game they are creating and communicating the technical and media needs. The media specialist focuses on the posters, development diary, website, and graphics. Finally, the technical writer is responsible for the tutorials, manual, game design document, testing reports, and treatment sheet. These roles are highly flexible and adaptable to other iterations of Tanked Presentation. In a theater and performance class, the roles shifted to project manager, set designer, costume designer, marketing agent, historian, and script writer. The purpose of the roles is division of labor and accountability, but the roles typically blend together and shift throughout the process.

The remainder of this chapter will take a deep look at the Tanked Presentation model, what is required, and how to effectively bring it into the classroom. First, I will discuss how to teach scaffolding and workflows to set the students up for success both in and after the semester. Then, I will explain how game design practices further shaped the ludic framework to be more recursive and collaborative. Finally, I will close the chapter with an analysis of the implementation and some of the issues that have come up over time.

### **Scaffolding a Workflow**

Whether the project is assigned over a five-week period or twelve, the technology has to be scaffolded over the course of the semester to ensure student confidence, their meeting of the course outcomes, and for there to be a unified vision of what the expectations are

for each composition. Scaffolding, according to Kang (2018), “provides temporary yet essential support to assist learners in developing new understandings by identifying the main features of the task, demonstrating or modeling the task, and jointly participating in problem solving” (p. 735). Scaffolding is a collaborative approach to teaching something complex, such as writing or composing with digital tools, which helps to deepen a student’s understanding of a process or skill so they could eventually complete the task without the support structure. Scaffolding also works best if the model of learning more horizontal so students can look for help outside of just the student, eventually building up the confidence, collaboration, and access to resources each student has. Prensky explains, (cited in Finseth, 2018, p. 29), "Using technology is the students' job...The teacher's job is to coach and guide the use of technology for effective learning (teachers need to be better at) asking good questions, providing context, ensuring rigor, and evaluating the quality of students' work" which is called partnering pedagogy. When I am looking for mentor texts, or models of compositions, I will supply one or two, but I also ask my students to find their own or to even showcase something they created.

The way I scaffold software in my class depends on the skill/confidence level of the students, but also what I am requiring them to do. For instance, I would not show advanced color correction and keying out green screens in Adobe Premiere Pro if I didn’t require interviews. Nor would I teach paragraph styles in Adobe InDesign if the project only asked for a few short pages of text in a word processor. I use the Pedagogical Technology Framework (PTF) from Kafai and Burke (2016) to help me narrow down the software to use and I articulate the evaluation with my students so they understand the



other software I consider and why I made the choices I did. For scaffolding to work, and for the Tanked Presentation to work, students need to have the confidence in their ability to succeed before they engage in persistence, creativity, and play. Without them, students will have a hard time seeing the reward in the risk or will just write off that skill or technology and pass it off to another student in their team. Ideally, when scaffolding works well in a class, student experts will emerge, and they will help the other students to promote a collaborative approach to learning that the ludic framework excels in. I already explained some of this thought process in Chapter 3, but I want to talk specifically about the Tanked Presentation model to show the flexibility of the project and how scalable it is.

The Tanked Presentation model typically breaks down into the following categories for software: video editing, word processing; page layout and design; graphic design, and game design. The decision-making process for what software to use needs to take in account accessibility, course objectives, project objectives, time to learn, and student skill level. Accessibility is first in the list because it determines the feasibility of the project and if anyone is being excluded. Clemson University has a contract with Adobe so all students, faculty, and staff have access to the Creative Cloud, making access to professional software less problematic. Clemson also has multiple computer labs and the library with the software installed, an Adobe specialist help desk, IT help desk, and training workshops throughout the year. All students are also required to have access to a laptop computer, but not all computers can run these programs smoothly, nor should we require students to have top of the line computers if their major deem it an absolute

necessity. When I taught at Eastern Michigan University without a laptop policy and no Adobe Creative Cloud, the Tanked Presentation model still worked with free web-based software and paper prototyping so there is a lot of flexibility here. The course and project objectives shift depending on the level and subject matter of the course and I provide two examples below. The Tanked Presentation model is flexible on the time it takes in the semester—I've run it as short as five weeks and as long as twelve—so the more advanced software, unless scaffolded all semester long, should not be considered if it conflicts with the other deciding factors. Finally, student skill or confidence level will also greatly affect the decision of what programs to choose. I discussed in Chapter 2, and will elaborate on below, how fail-fast pedagogy (Stephens & Holmevik, 2016) and ludic invention encourages wayfinding and playfulness with technologies, but, again, there needs to be a scaffolding and assessment of student ability to set the students up for success, not ultimate failure. All of these deciding factors determine the skills required for the project and what software (and other technologies) can be offered to fulfill the project and course outcomes.

When I plan for a Tanked Presentation project, I must consider the workflow of my students to optimize the technologies they are using and to set realistic goals. Adobe Creative Cloud has made it easy to work between programs because the files are compatible, and the use of saving in the Adobe Cloud makes the files accessible whenever you need them. However, if a student takes on the media specialist role and captures a lot of video and/or creates multiple drafts of a video, the allotted Adobe Cloud storage fills remarkably fast. In all three classes (First-Year Writing; Composing in

Digital Environments; and Technical Writing) we talk about version control, data management, and file storage options that fit their needs based on what they are trying to accomplish in the course. After I implemented the development diary in addition to the tutorial and other video files, the media specialist became the best at data management and file storage due to the sheer size of the files. Once the students understand how to manage their files in an orderly way, we talk about workflows.

Workflows across individual technologies and software is difficult to teach, especially when every student has a different background, computer, and course needs. Companies are trying to integrate their software into learning management systems (LMS) to help with workflow, but we aren't quite there yet. Most LMS workflows are for submitting work and leaving feedback, but web-based software such as Adobe Spark Page, Weebly, or Infogram all require you to either open up the composition in an iframe or externally. This can be clunky and doesn't optimize the system. Some LMS are working towards full integration of the Adobe Creative Cloud, Microsoft Office, and other productivity suites which will centralize the software in a convenient place. However, a workflow is more than opening or exporting work but also the process of completing a project. Video editing does not start and end with Adobe Premiere Rush or Premiere Pro; its process starts with the video capture and asset downloads then moves into assembly, editing, post-process augmentation, exporting, and then hosting. The workflow includes workshops on best practices with video and audio capture (microphones, phones, and video cameras); working in video editing software and augmentation with stabilizing, keying, cuts, and titles (Adobe Premiere Rush and Pro);

and exporting and hosting (Google Drive, YouTube, and Vimeo). This workflow gets more complicated when graphic, game, and page design are included in addition to the recursive process of invention, composition, playtesting, feedback, and submission (Figure 4). Technical writing classes are great opportunities to talk about workflows, collaboration, project management, and data management because of the nature of the discipline and career, but this is an important conversation to have in all classes that require complex multiple software projects.

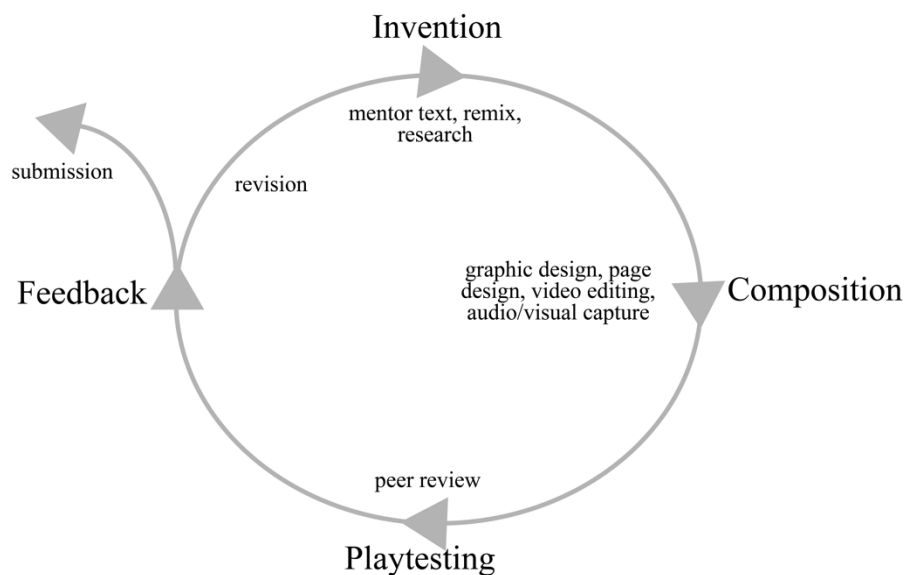


Figure 4 Iterative Design Visualization

For students to understand the workflow across multiple software, we first need to teach them the basics of each program needed. I accomplish this in four ways: lessons, workshop, micro-workshop, and e-learning. When I need to teach something foundational—video editing or graphic design—I start with a short overview on the medium of composition. For film editing, we go through a lesson called “Film is a

Language” where we break down what we know about the medium<sup>10</sup>, how it relates to something familiar (writing), and several examples that demonstrate that knowledge (music videos, film trailers, and tutorials). “Film is a Language” is a longer lesson that takes up most of the 90 minute class, but it is flexible to accommodate student and class needs whereas “Design 101” is a much shorter overview of basic graphic design and layout design principles that can be a microlesson on the day of a workshop. Workshops are typically 60-90 minute demonstrations with students around a certain software and is typically going over the basic workflow to accomplish a specific goal. The basic film editing workshop goes over opening a new project, importing media, the timeline, cutting/moving clips, transitions, editing to sound, title cards, synching audio, and exporting. All full workshops typically have an e-learning counterpart in the form of a video tutorial—created by me or found on YouTube—or a step-by-step text-based guide on my website so students can follow along without having to take copious notes and still have refresher for later. Micro-workshops are typically short demonstrations of a specific skill that can be accomplished in 15-30 minutes. These are my favorite workshops to conduct during Tanked Presentations because they are highly specialized to the project and usually based on the needs and questions of the students. An example of a micro-workshop would be going over paragraph styles in Adobe InDesign, screen capture in TechSmith Camtasia, or creating table of contents in Microsoft Word. These four types

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<sup>10</sup> This is surprisingly easy to do if the students are shown several examples because we are fully submerged in digital media in the 21<sup>st</sup> century technoculture. The digital ecology we live in is so pervasive that students immediately recognize the norms of a medium and genre with little prompting or background knowledge.

of learning are highly specialized and adaptable, constantly engaging with the principles of PTF and the ludic framework.

An important aspect of scaffolding and teaching workflows of software is ludic invention. The recursive process of composing is applicable to all forms of composing, and the invention process while using a digital tool is no less important than the invention process for a research guided essay. It is incredibly difficult to learn software from a lecture which is why I encourage all of my students to follow along on their own devices during demonstrations. I find it important to always leave at least five-ten minutes of “play time” at the end of a workshop for students to click around and try new things. Kang (2018) states play as one of the four guiding practices for integrating digital components into a digital writers’ workshop, but also in the teaching of any digital tool. Kang tells instructors that creating a mentor text is a form of play and we need to allow our students to play as well in order to learn the process: “This playtime was essential for students to get familiar and comfortable with the digital platform or tool. However, it was playtime with an emphasis on scaffolding” (p. 739). It is for this reason I create websites, videos, and game worlds (more on this in Chapter 5) for my students to try to replicate or at least as a space they can play in. Instructors need to support the students for a deeper understanding and eventual completion of a specific work, and through a collaborative approach to scaffolding, both teacher and student learn together.

The goal of scaffolding in my class is to ensure that students are confident in their abilities by the time the Tanked Presentations project comes about. Whether the Tanked Presentations is a culminating project, like the multimodal transformation project in

composition classes, or a semester-long project, using the full semester to scaffold affords the students the time to see how the technologies work together as a process. I've found students struggle the most with video editing because the asset capture is the most complex and requires outside technologies. For this reason, I introduce audio/video capture and video editing within the first few weeks of the semester and attach a low stakes assignment to it like a "Day in the Life of" video<sup>11</sup>, a video remix, or an explanation of a reading. The "Day in the Life of" video is great because it is a lesson in audio, lighting, and filming and there are plenty of similar vlog style videos online to use as a mentor text. The first lesson they learn when they go to edit the videos is that they should listen to my "bonus tips" and lessons in class (many start filming in portrait mode only to realize that Instagram and Snapchat stories are very different formats from YouTube). After they learn the basics, we can then either "remaster" the video at a future date, or we can move onto more advanced editing and reflect on our previous work. The goal of this type of learning, while connecting to the 21<sup>st</sup> century technoculture, is "to remain in a constant state of production, which moves desire out of the realm of the negative and allows knowledge formerly excluded to emerge" (Arroyo, 2013, p. 33). This

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<sup>11</sup> The "Day in the Life of" video assignment is a low stakes assignment I created for the purpose of learning video capture and editing techniques. After I introduce Adobe Premiere Rush or Premiere Pro, I have students record events of a single day (i.e., waking up, making breakfast, going to class, meeting friends, going to work, etc.) and edit the clips together with title cards and royalty free music. I choose this because they don't have to go out of their way to find filming moments and I encourage them to do everything on their smart phones. Students tend to not like the subject matter (themselves) but find it to be an easy assignment to learn video editing with.

constant production, also explained through the constant motion of play in Chapter 1, is where the ludic framework excels.

Scaffolding to teach workflows of different mediums, software, and projects is no easy task, but ludic invention does make this easier. When I have my students create, I ask them to learn the basic skills needed to open and operate the program, but it is really so they gain the confidence and recognition of the software so they will continue to produce in it for assignments and projects in the future. The fast-fail method promotes this basic understanding and then asks the students to make something and find the answers to their questions on their own through affinity spaces and communities. Instilling the curiosity and persistence is the first step to success, but the instructor is responsible for reminding the students or fostering communities of collaboration and the recursive process of the iterative design method. Students creating in this way will have the confidence and language to research their questions and the curiosity to ask the software more questions, until they are engaging with ludic invention to discover what else is possible. This is one of the hardest things to foster in the classroom because students are often overwhelmed by their major classes, but my goal is to try to instill this framework in them, so they then see the value of applying it to other classes.

After the first skill or layer of understanding is established in the classroom, we move forward to continue the process and production. After my students feel more comfortable with video editing, we push forward with another layer: graphic design. I have my students create lower thirds, title cards, logos, and other graphics for their videos to work into their development diaries (part of Tanked Presentations). Integrating graphic



design seems like an unnecessary step, but if we articulate the project as a workflow and that the assets they are creating can be used across mediums (websites, videos, business cards, posters), the utility of these software becomes less one-dimensional and class assignment oriented. Once students become comfortable switching between programs, we can then widen the scope to screen capture, page layout, game design, and wherever else the project needs to go.

The core components of the Tanked Presentation project model are designed to teach students about scaffolding, workflows, and collaboration across compositions to better reflect the complexity of projects they may encounter in the workplace or in a personal project. Slowly building up students' confidence and skill levels in a software is important but showing them how they can connect the software across workflows to optimize their communication and design skills transcends disciplines and helps the student engage in the digital ecology. One goal of my pedagogy is to show students how they can contribute through affinity spaces (open windows) and further their own skills through feedback.

### **Bringing Game Design into the Workflow**

When Tanked Presentations was first introduced to my class, it was a first-year writing class with students that lacked some of the basic technologies required to make videos, code, or design using professional software. I wanted to promote constructionism and have students create a marketing campaign around a product they created, but I was worried about accessibility with my students. I carved out a five-week section at the end of the course for my students to engage in a collaborative multimodal transformation of

one of their peers' research guided essays by making a Twine game, a poster, and a presentation. Forming the teams was easy (they chose those sitting next to them) but getting the students to compose in Twine (a text-based adventure software) or make posters was more complicated than I imagined. The day I introduced the project I brought in large construction paper, markers, colored pencils, scissors, and tape so the newly formed teams could start brainstorming. After two class periods there were branching storylines, multiple outcomes, and dialogue options sketched out without any mention of the platform they would be using for the project. Each team elected a game designer/coder to go into Twine and start typing this up—after a workshop and a playable mentor text trainer I created—and the rest of the team started to focus on how to make a video, posters, and a presentation using Microsoft PowerPoint and Word, Apple iMovie, and Canva. These were all technologies they had at their disposal in either computer labs or on a teammate's computer. I encouraged them to show their process through paper prototyping and storyboarding in class before they met up outside of class to use the lab computers. The students rose to the challenge and became bricoleurs. Even though the presentations were a mix of hand-drawn mind maps, clip art posters, and short Twine games, we all learned a lot as a class.

This first iteration was a turning point for my pedagogy. Two years later, after I conducted research on game-based learning and constructionism, I realized that what I did in my classroom was the type of hands on, ludic learning that I engaged in constantly in my personal and professional life. Kafai and Burke (2016) point out that constructionism “equally values concrete and abstract modalities of learning” (p. 85) and

that maker culture and process-based learning can “demonstrate how the learning of science, technology and engineering can be situated concretely within making tangible artifacts rather than being taught in the abstract” (p. 86). Most of my students didn’t have the background or resources to design complex dynamic stories in Twine without guidance. They also struggled with the skills and technologies needed for video editing and graphic design, but with some guidance and resources they were able to at the very least create paper prototypes of what they were trying to accomplish. When I started teaching at Clemson University, the bar was raised because of the expectations and resources of the students, but the bricoleur attitude and ludic pedagogy remained the same. I started to think bigger and more complex about the game design integration and it was the connected gaming model that helped me theorize it. My goal was to approach the project with transparency and engage in the ludic framework and embrace the rhetorics of possibility to showcase the full process of game-design and how it related to composition studies’ approach to recursive process of playing and revising: “A virtuous cycle can exist. Engaging learners with new materials, tools, and activities in gaming can help broaden as well as deepen participation in computation” (Kafai & Burke, 2016, p. 99). Thus, the full integration of both analog and digital game design was born in the Tanked Presentation.

The role of the game designer is multifaceted. Rogers (2014) says the game designer is a director, planner, and designer that “needs to possess many, many skills” that is well-rounded in a number of areas. Schell (2015) lists 20 different skills as “big ones” and claims “almost anything that you can be good at can become a useful skill for a

game designer” (p. 3)<sup>12</sup>. When I teach about the interdisciplinarity of game design, I hope students feel more encouraged and that they feel they have something to contribute. The number one skill Schell says is the most important is listening: “Game designers must listen to many things. These can be grouped into five major categories: team, audience, game, client, and self,” which is the main focus of his book (p. 5). The same day I assign the first chapter of Schell’s (2015) book I also assign Markel (2015) to my technical writing students which states “technical communication begins with *listening*, *speaking*, and *reading*” which explains how a technical writer must be able to listen and communicate across disciplines and specialties to effectively compose their technical document (p. 3, emphasis in original). Although none of my classes are game design classes, the connections to composition and technical writing are seamless in their theories and approaches to writing, reading, and listening. This is the reason why I use games as they primary artifact in the Tanked Presentation project.

The ludic framework is heavily reliant on the ludic invention process. In game design this is called the iterative process. Fullerton (2019) emphasizes play as an experience and wants to reiterate that the player should be a key focus throughout the entire game design process. Instead of reusing the iterative process model, he calls this the “playcentric design process” which “focuses on involving the player in your design process from conception through completion,” or, as I articulate to my students, this

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<sup>12</sup> Schell (2015) lists the following as the “big ones”: animation, anthropology, architecture, brainstorming, business, cinematography, communication, creative writing, economics, engineering, games, history, management, mathematics, music, psychology, public speaking, sound design, technical writing, and visual arts (pp. 3-4).

recursive design model keeps the audience in mind at every stage of development (p. 12). The playcentric design process emphasizes playtesting (audience/peer review) and makes collaboration at the forefront of design to ensure that the player experience goal is not lost. Fullerton (2019) defines iteration at the center of playcentric: “you design, test, and evaluate the results over and over again throughout the development of your game, each time improving upon the gameplay or features, until the player experience meets your criteria” (p. 16). The flow of the playcentric design process is as follows:

- Player experience goals are set.
- An idea or system is conceived.
- An idea or system is formalized (i.e., written down or prototyped).
- An idea or system is tested against player experience goals (i.e., playtested or exhibited for feedback).
- Results are evaluated and prioritized.
- If results are negative and the idea or system appears to be fundamentally flawed, go back to the first step.
- If results point to improvements, modify and test again.
- If results are positive and the idea or system appears to be successful, the iterative process has been completed. (p. 16).

I use this process with my students as a model of development, not just with the game, but with the marketing and technical documentation as well. Although the process isn't word-for-word applicable to the other compositions, with some flexibility, students understand this process as a guide for all types of work. We discuss the playcentric model

in relation to our standard iterative design model which are very similar but being playcentric seems more rhetorically focused because of the emphasis on both play and the audience. If you look at the full assignment sheet for Tanked Presentations (Appendix B), you will notice there are three playtests in addition to several team meetings with me. The playcentric model requires more interaction with audiences, stakeholders, and other interests which prompts metacognition through discussions and reports. After each playtest, teams are required to write up reports of what was discussed, the criticism they received, and what is actionable. These reports require all team members to sit down together to discuss the next plan of action instead of the game designer hearing one perspective and taking it upon themselves to decide if they want to make that change or not. I use playcentric and iterative synonymously because they are similar, but it is the collaborative requirement of the playcentric design that better links it to the ludic framework and rhetorical models of composition. Since most of this is discussed in a gaming context in the first week of introducing Tanked Presentations, students are typically ready to start pulling their teams and ideas together as a cohesive group.

The Tanked Presentation's goal has always stayed the same, but the workflow and artifact has shifted depending on course outcomes, resources, and student feedback. The media portion has evolved with the integration of the Adobe Creative Cloud and the gaming artifact has grown as the workflows have improved. The most difficult part of the project is choosing the gaming artifact. In some classes I've had all the students create a digital game using Twine or Minecraft: Education Edition. Other classes I have the students focus on a variety of analog games: party, card, board, or tabletop roleplaying

games. For two semesters, student groups were divided and some wanted to make digital and other wanted analog. The flexibility of the project affords both to work simultaneously without completely derailing the course preparation. In the following sections I will discuss the difference between both approaches and how students adapt to the shift in workflows.

### ***Analog Game Design Workflows***

Analog gaming, often referred to as board games, is on the rise (Taylor, 2018; Arizton, 2019). According to Arizton, board game conventions, crowdfunding, and the global trend of the need to put down electronics and devices is fueling this trend. Most students talk about familial connections or party games when we discuss analog games. There is typically a sense of community in their considerations. Arizton (2019) breaks down board games to the following types: puzzles, tabletop board games, card and dice games, collectible card games, miniature games, and roleplaying game (RPG) board games. This comprehensive list is what we use to discuss the analog game market in my class in preparation for tanked presentations. When I ask students to consider what game they would like to make, the decision is not just on what type they are interested in, but I also ask them to incorporate a social or design commentary as the inspiration for the game. This can materialize as a theme to the game, a specific mechanic, or aesthetics. Some of the repeatable topics have included campus eateries, campus parking, the simplification of game puzzles, global warming, and representation in RPGs. The theme is sometimes explicit in the name of the student created company or the name of the game, but it can also be more subtle through the inclusion of a limiting mechanic to draw attention to the

issue. When it comes down to the designed experience of the game, most become pretty unique.

The analog game medium includes a large array of games, so I have limited the options to party games, card games, board games, or tabletop roleplaying games (TTRPGs). To ensure that students understand the categories, I bring examples of each game to class, we play some of them, and we analyze the game manuals for similarities and differences in the genres. Most students choose the card or board games (sometimes a hybrid), but the last two semesters have generated three TTRPGs from ambitious and innovative groups of students. The selection process for their game ideas engages in most of the ludic framework, but I see curiosity, invention, and collaboration the most. The invention process for picking a game moves through multiple stages: 1) we survey different types of games in class; 2) I ask them to write about their dream game—medium, genre, specific components, and theme—and talk about what skills and resources they would need to make it; and 3) Teams are formed around a type and/or theme of a game and they spend multiple sessions brainstorming, researching, and sketching up ideas for a game they would like to make. Since this is a collaborative project, each teammate needs to be open and flexible to what the team is interested in, but they also need to show enough persistence and curiosity to come up with a team plan. Most groups cite this part of the project as the most difficult because most students feel one way or another about a type of game, but most don't express it at the start of the negotiations. More times than not, the compromise comes down to how the game designer can incorporate as many of the ideas as possible.





Figure 5 - Student Created Pict-A-Phone party card game



Figure 6 - Student Created Tailgate of Life board game

The teams can take the design of their game in three different directions: a remix of an existing game, a supplement or expansion to an existing game, or a new game from the ground up. Most teams choose to make a completely new game. Some make a game based on games their friends and family have created (party games and drinking games are common choices). The two games that are typically remixed are Monopoly () and The Game of Life (), but others have been inspiration: Chutes and Ladders (), Candyland (), and Sorry (). The supplements have only been TTRPGs for Dungeon World (). There were two expansions that students developed, one for Monopoly (), the Clemson edition,

and another was for a card game I had never heard of. We don't have time to play a lot of games in class, so it makes sense that the remixes or inspirations are the classic games that most students played when they were younger.



Figure 7 - Student Created Growing Steady Resource Management Game  
Once the team is formed, the students will decide on the game they are going to

create and then split up the work based on the assigned roles. For analog games, the game designer typically teams up with the technical writer to do research on the mentor text (game) by looking at game manuals, reference sheets, and YouTube videos. Since the technical writer is the teammate primarily responsible for the game design document, they work closely with the game designer to make sure everything is captured and all notes from the research are used in an efficient way. After the game mechanics are settled, the teams will often meet and focus on the aesthetics—team and game logo, board design, cards, and other components—and the game designer will work explicitly with the media specialist to fulfil these designs. The workflow for analog games is a lot more collaborative work across the Adobe Creative Cloud because every aspect of the game needs to be made or altered in order for the game to be printed and presented.

Game boards and other graphics are typically designed in Adobe Illustrator and Photoshop. The gaming cards, reference sheets, and manuals are created in Adobe InDesign or Microsoft Word. An additional component was added in recent years, inspired by my students' work, 3D printing and design. Many students wanted to print their own tokens, coins, and meeples for games and used the 3D printers on campus to do so. I started to require at least two items to be printed and/or designed using software such as Autodesk Tinkercad ().



Figure 8 - Student Created Monopoly Remix Based on Rick and Morty  
The curveball in this process is when the students decided to make a TTRPG

which is almost exclusively done in InDesign. Teams flatten out more and all members are game designers and technical writers throughout the process with at least one occasionally breaking off to be the media specialist to do the video work. The TTRPG is a difficult genre to play in class, but we do spend several classes on analyzing the *Dungeons & Dragons Dungeon Master's Guide* (Wizards of the Coast, 2014) as an exemplary piece of technical writing and a format that can be emulated for game manuals and the GDD. To showcase playtesting, I created a *Dungeon World* (LaTorra & Koebel,

2013) oneshot game that lasts about 30 minutes to demonstrate how difficult it is to play a game and to host a game (dungeon masters) that the group has never played before. We then talk about what would make the process easier to playtest, such as reference sheets, a manual, or even more time to read over the rules. The TTRPG is nearly completely text, so the teams that create these games rely heavily on the playcentric design process before they even get to the group playtests in class (3/4 the way through the project). Although not many teams have taken up this challenge, the games are typically the most innovative, fun, and thoughtful to the project's goals.

### ***Digital Game Design Workflows***

The digital game design potential for Tanked Presentations is contingent on the confidence level of the instructor, their flexibility, and student knowledge or skill of coding software. When I first started this project, all students had to create Twine () game which gave them a “greater ownership of their learning as well as a dual sense of being both player and maker under the constructionist approach” (Kafai & Burke, 2016, p. 12). I created a game in Twine that took the player on an adventure of doing research and creating a multimodal component for the paper in the form of a Twine game.

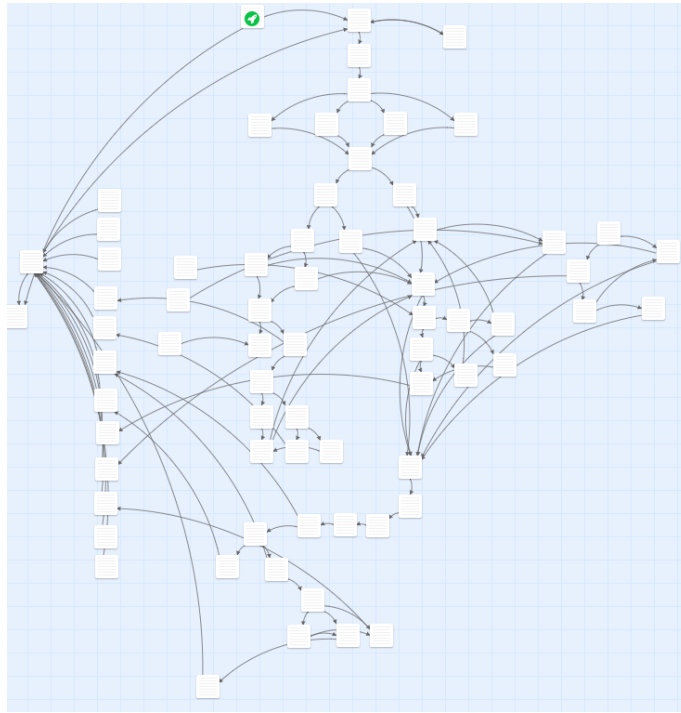


Figure 9 - Twine Backend Example

The game was very meta, but it acted as a tutorial on how to conduct research and turn it into a Twine game, coding and all. I created the game during the second semester of trying Tanked Presentations to limit my workshop time and to give a mentor text that students could take home with them and reverse engineer their games by looking at the coding of each designed choice. I put in over 60 hours into the development and testing of that game and it made me realize how flawed my teaching was of coding and game design and that my expectations for student games was way higher than it should have been. I changed all the requirements, timelines, and workshops for the second semester and added incentives for advanced coding by offering extra credit. The quality in work became significantly better because I was engaging in playcentric design and the ludic framework.

Creating a mentor text for my students changed the way I viewed the multimodal transformation requirement in the first-year writing classes I was teaching. Kang (2018) and Kafai and Burke (2016) both talk about the importance of mentor/model texts because it is a form of collaborating and playing alongside the students so the teacher and student can problem solve together. Twine was becoming difficult to use in the classroom due to hosting issues and a lot of the students were either intimidated by the coding or felt that the platform was far too limiting to make an engaging game. When I introduced Minecraft: Education Edition to my class in November 2016, I modified the in-game tutorial world to benefit my class. I found that students who were familiar with keyboard and mouse games quickly moved through the world and often made it more difficult for the new players to do anything. Eventually, I made a tutorial world from the ground up which accommodated all types of players and even demonstrated the expectations of the Tanked Presentation gaming artifact. I updated the world over the course of three semesters as the game was updated with new features, eventually leading to the final iteration which demonstrated coding with command blocks and the CodeBuilder feature. Student were able to play through the world and see a three-dimensional representation of the gaming artifact they were expected to make and were able to see the coding I wrote for common actions students like to alter. I will go further into detail about the features of the Minecraft world I created in Chapter 5, but I thought it was important to talk about the process here.



Figure 10 Front and Back of Composition Castle

When I introduced Minecraft: Education Edition into Tanked Presentations, I didn't realize that the project model was about to grow well beyond my expectations. Initially, I wanted to introduce Minecraft: Education Edition<sup>13</sup> because of its ability to foster collaboration, spatial reasoning, and creativity, but the introduction of coding has really changed the capabilities of the project. Twine was a great way for students to learn about game design, but the games were primarily about narrative more than anything

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<sup>13</sup> I will use Minecraft and Minecraft: Education Edition interchangeably. Although students are working in the Minecraft: Education Edition, the concept of the game is identical. When I'm referring to a specific feature in the education edition, I will identify it as such.



else. Minecraft was more about recording process and working together. When students were making something in Twine, one person would write the narrative and choices, and another would do all the coding to make it happen.

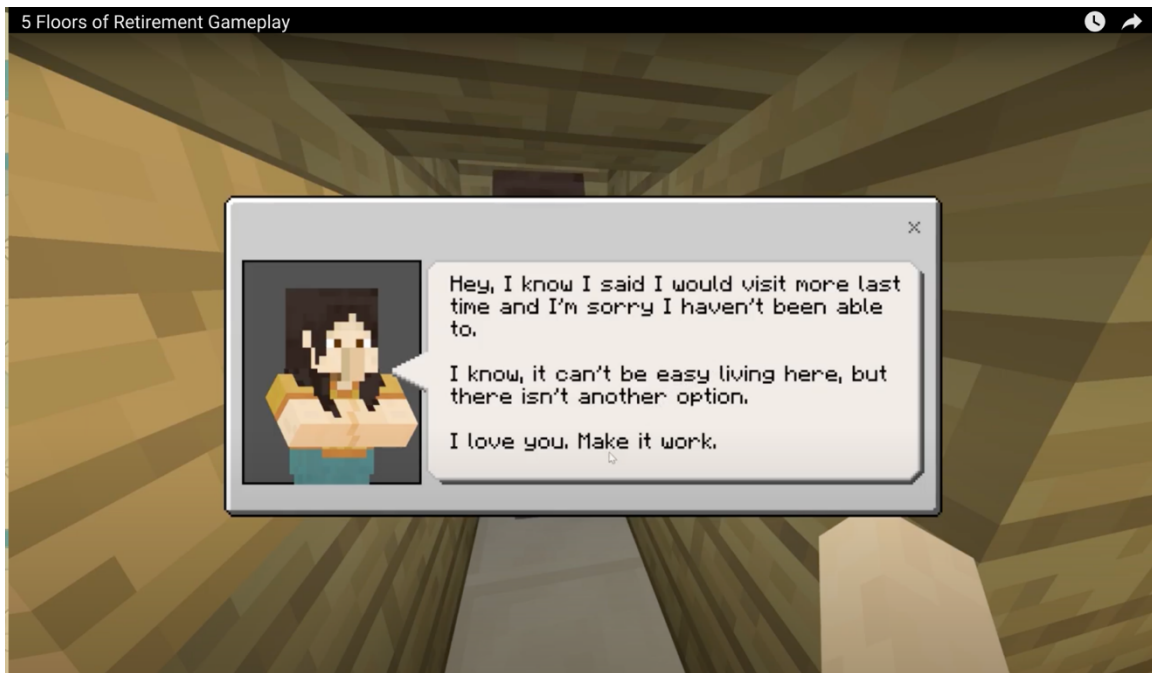


Figure 11 - Student Created Minecraft Game Dealing with Depression and Retirement Homes

With Minecraft, the entire team would work in the world together building structures and doing research on aesthetics. Minecraft was scaffolded into the class, unlike Twine, so students were much more comfortable with Minecraft before we got to the Tanked Presentations portion of the semester. After posting some in-game screenshots of the class, I realized there was a whole community out there of educators trying to accomplish similar goals. This now became a talking point with other academics which prompted me to create new pages on my website for my work in Minecraft and the Tanked Presentations. Due to this visibility I started to receive even more feedback on the projects and made improvements throughout.



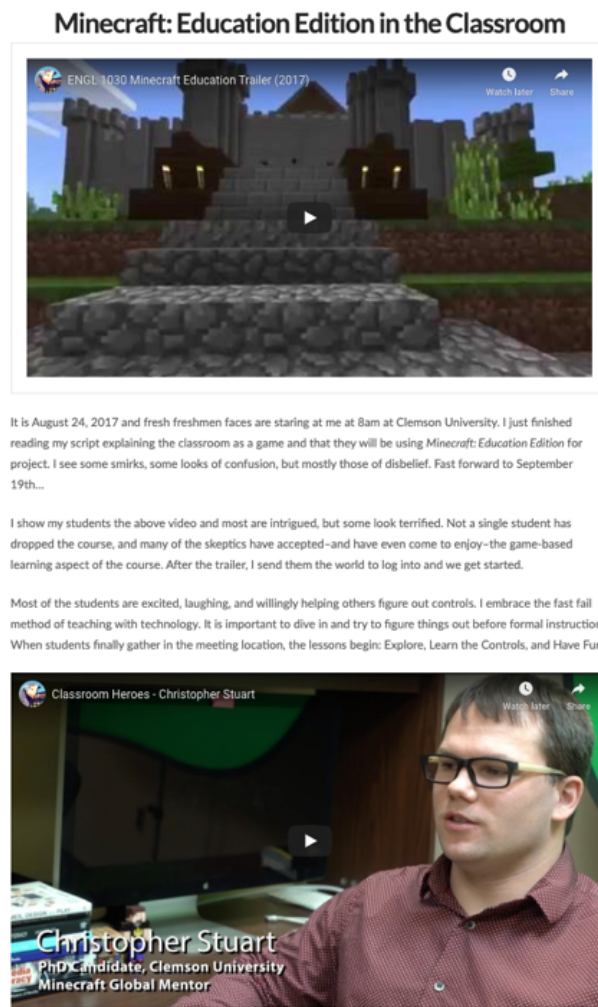


Figure 12 Pedagogy Explanation on Personal Website

As previously stated, the workflow in Minecraft is a bit different than the analog game design option because the game is actually built in Minecraft using the aesthetics of Minecraft. The game has implemented a screenshot and export feature to record process, but simple screenshots were not enough to show the time-lapse of building the structures. I asked students to start using screen capture software to record parts of their builds which then brought the game design into the video editing workflow. Clemson University has a TechSmith Camtasia license, but some students felt more comfortable using Apple

Quicktime, Microsoft GameStudio or Open Broadcast Studio. This inclusion created new problems to teach my students about digital literacies because of the file sizes and file types associated with screen recording. I didn't want my students to use their phones to record their screens, so we compromised by using much shorter clips that were easier to manage. Students also became frustrated with the voxel aesthetic of Minecraft which oftentimes created a conflict with visual design choices on the team's website, posters, and box art. Many of the teams became accustomed to saying that the game is just a concept or prototype that was hastily made in Minecraft as a proof of concept more than a finalized game. After the introduction of Microsoft MakeCode, this argument started to fade away.

Microsoft MakeCode is a low stakes block logic coding platform that is in the Minecraft: Education Edition software which gives players the ability to create small coded events or to alter some behaviors of the game. The block logic coding is rated for grades 2+, so the noncoding students still have the opportunity to participate because of how low of a floor it has to get started. The tutorials are helpful, but I created a workshop day for all of us to use the software together and a homework assignment to create four simple actions and record their results (another way to integrate screen capture and video editing). Although not everyone used the coding in the Tanked Presentations—like with Twine, the game designer became the primary coder—it was an entry into coding logics that showed how coding was not scary or reserved just for the specially trained. The coding element, like the 3D printing implementation for analog games, became a niche way of making the Tanked Presentations more nuanced and brought new skills into full

view of the workflows. Some of the projects that students created can be found at [Minecraft.ChriStuart.com](http://Minecraft.ChriStuart.com).

### **Peer Review Becomes Playtesting**

As previously discussed, the playcentric design method is how I articulate the design process for Tanked Presentations and it engages both with the ludic frameworks pillars (play, possible, failure, and affinity) as well as several of the principles (play, flexibility, metacognition, collaboration, invention, persistence, and creativity). As Fullerton (2019), Schell (2015), and Rogers (2014) all proclaim, playtesting is foundational to a good game. Fullerton (2019) says games should be prototyped and playtested early and often to meet the audience's expectations and the game's full potential (p. 12). Schell (2015) clarifies the iterative process through different filters, or lenses, to see the game and see playtesting as the most important of the eight: "It is one thing to imagine what playing a game will be like, and quite another to actually play it, and yet another to see it played by your target audience" (p. 92). Rogers (2014) admits that playtesting is the first thing that falls out of the game design process for sake of time and energy. For these reasons, I have my students go through multiple peer review sessions which eventually become alpha and beta playtests.

The student teams have multiple checkpoints with either me, the instructor, or their peers to make sure they are on track for successfully completing the game in the allotted time. Before I implemented all the checkpoints and different types of testing, the work wasn't consistent, and most teams were scrambling to get things done last minute (whether they had five-weeks or ten). Each team leader fills out a contract that has each

teammate's name and assigned role as well as due dates and information for the game they are creating. The first checkpoint is this contract being filled out with team information, company name, game working title, a short description, and genre of the game. This discussion is the first step towards working on the mechanics and technical documentation around the game. After another week, teams are then required to write up a long description of the game along with key design features, a theme, and a short paragraph about what games they are inspired by, almost like a literature review of games. Once this checkpoint is passed, there are a series of informal discussions until the alpha testing and beta testing are due.

Alpha testing is typically a rough draft of the game in a playable state without worry of the aesthetics that will be in the final version. The key here is playable. Students are asked to create a 10-minute experience—analogue or digital game—along with a survey for their playtesters in class. Since this is the first demonstration of the game, I make sure that all groups get at least two playtest runs with feedback in addition to instructor feedback on their documents. The more ambitious games don't feel the alpha testing is long enough for the players to get a full understanding of the game, so they typically resort to showing a simplified version to get the basics down. Once the testing is done, the team goes through the feedback and generates a one-page report, quoting the surveys, and responds to the feedback with a changelog entry in the GDD. The same week they do the in-class testing, teams are also required to do a full playthrough testing outside of class and film interviews with participants for a detailed report.

A week after the alpha reports are turned in, the teams make their revisions and conduct a different style “playtest” for the beta test. Students are given five minutes to present the game and the changes that were made to the class, typically showing new mechanics, aesthetic changes, and reference sheets. After their demonstration, they ask the audience for advice or point to areas they would like critiques on. This opens up to a floor discussion with the class on what everyone likes, what they can be constructive on, and a wish for the game. A wish is something that they don’t see in the game or something that would require a large amount of work to implement. While this discussion is going on, a teammate is taking notes while another one is recording the demonstration and open forum after. After the session is over, the group will discuss the commentary and type up another one-page report that reflects what the audience suggested and what they will change before the final version. Students are then encouraged to playtest again outside of the classroom if they need to make systemic changes to their game. The recordings for these events end up in the development diary to capture the larger game making process.

In composition, peer review is important to the writing process and I designed the playtesting in Tanked Presentations to show different types of collaborative review and criticism to promote player experiences and feedback. The playcentric model allows for many opportunities of feedback but writing the reports and changing the approach to the feedback is a fundamental understanding of the ludic framework. Game design books talk about different methods of playtesting for different types of games, audiences, and company sizes and I wanted to have an adaptable and flexible approach which would

accommodate different classes and needs of the students. For instance, during the COVID-19 pandemic, students were still able to engage in the beta testing by recording themselves playing through the game and asking the audience for feedback on specific aspects of the game. When I helped implement Tanked Presentations into a marketing class, they used focus groups and external interviews to gauge client feedback. The important takeaway from this method is both the metacognitive work and the constant involvement of the intended audience.

The development diary is a newer addition to the project which requires students to shoot footage each week, edit it together, and do some postproduction work on the sound and video to produce a professional style video that amounts to between 15 and 30 minutes. The recommendations for the video suggest each teammate to screen record something they worked on throughout the process, to be interviewed multiple times by the media specialist, and to incorporate behind-the-scenes footage of the team working, doing playtesting, and presenting. This video works as an accountability measure for all involved because the project lead makes sure there is an even distribution of labor and deadlines are being hit. Some enhance their videography skills by conducting multiple interviews and edit them together in a way that is engaging to the audience. Other students work on company ethos by producing motion graphics, introductions, and even commercials in their videos. This accountability works in tandem with the alpha and beta testing because they need to be recorded and edited into their videos in a way that shows their process over the five to eleven weeks.

## **Preparing for the Presentation**

The Tanked Presentation structure requires students to present their work across multiple modes in a highly structured format. The students cannot read from a script and need to make sure they have a “Kickstarter style” website to showcase the game, the game details, artwork, posters, business cards, treatment sheet, tutorials, and other videos that are relevant to the game. The pitch (no more than two minutes) is important, but the supporting media is the key to a solid presentation experience because the media executives, or sharks, respond more to the materials shown than what is said in the pitch. Since the Q&A portion is the longest segment (up to eight minutes), it takes a lot of the focus and pressure off of the speaker for the pitch and allows them to just explain the long description of the game the team has revised over the entire length of the project. The media executives review the company sites before the presentations and often already have questions formed before the presentation is even heard. This is all to ensure that all aspects of the project get a fair representation on the day of the presentation.

The website is the primary artifact for the Tanked Presentation model because it has every requirement showcased, rationales explained, and gives the teams the chance to organize their project in a familiar way<sup>14</sup>. The inspiration for the website was the

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<sup>14</sup> This is even more important for the Spring 2020 semester when Clemson University moved all instruction to online during the COVID-19 pandemic. All games for the semester were analog, but the final products were packaged with print-and-play in mind (no physical artifacts). This was a test of the flexibility of the Tanked Presentation model. The websites were the primary piece for evaluation accompanied by a longer pitch video made by each team to explain the game, the process, and how to read the company website. I worked with my students to create card templates to print on 8.5 x 11 inch paper in Illustrator for uniformity and we had a special online workshop with a

Kickstarter sites for board games and TTRPGs which follow nearly identical formatting but is not a Kickstarter standard. Kickstarter sites display the entire “campaign” on one long page, so I have my students create these websites on Adobe Spark Page for its simplicity and organization. Most of these game sites have the name of the game with a short description or tagline at the top; move into an about section which has the long summary of the game with images; a detailed description of the game and its mechanics; what is included in the purchase of the game; pledge levels; stretch goals; media; team information; and the development cycle. Students are required to follow this format, but the pledge levels section is an optional content area. All of this information is copied and pasted from the GDD and reorganized to make it more visually appealing. I thought it was important to include the development cycle (what had been done so far and what will happen if the game is funded) to get students to think beyond the classroom project and create a projection of where the project could be if they had more time. This moves the project away from being just another school project and helps them visualize working on a similar team in their career job.

The website is a great example of data management and version control amongst the group. Each technical document needs to be given a downloadable link and hosted on the website as a clickable link or button. If students just use the GoogleDrive link to the project folder, they find that only students in the class can click on it because the folders are protected. Students will typically use a separate link on a filesharing site

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prerecorded explanation of the website which acted as a model for their pitch videos. Students said that the whole process seemed streamlined.



(GoogleDrive, Box, or Dropbox) to host their files to the public, making sure the most recent or updated files are linked. Images and videos are embedded and organized on the site throughout the different sections. Finally, and the most important section to some students, is the explanation of the team. This is the stamp of approval or signature from the team that made the game and associated documents. Students will upload headshots and list out their roles in the project. Some students will add extra information in accordance with the theme of the game, i.e., a team made a Minecraft game that walked the player through puzzles around censorship, so the team listed their favorite banned books or media under their names. This identification also helps during the Q&A portion because the Sharks have names associated with roles if they want to ask a direct question.



Figure 13 Screenshot from Tanked Presentation Promotional Video  
The media executives are given specific roles to play during the presentation to

try and make the presentation process as authentic as possible to a boardroom style presentation. There are four “sharks”: angry shark is the timekeeper and game design critic; happy shark is there for moral support and technical writing; meh shark is hard to impress and focuses on media; and the wild shark can take on any personality and

focuses on company professionalism and presentation fluidity. These personality types keep the presentation and Q&A moving forward and make sure that every aspect of the project is given a look. The four executives—usually a mix of former students, graduate students, and faculty—run the presentation cycle to give the students an outside perspective on the project materials and to keep the student focus off of me. The executives are given a one-page summary of the project (Figure 14) and an evaluative rubric (Figure 15) along with the following guidelines:

- Do not comment on a student's attire unless they are clearly in a costume.
- Not all students need to speak for credit. Always address the group or specific artifact.
- The executive personalities help balance the conversation. Please keep to your assigned personality.
- Do not ask them about the class. They are not to put the project in the context of the class.

Welcome to Christopher Stuart's Tanked Presentations!  
<https://bit.ly/2L0QV12>

The presentation will be broken into THREE parts:

1. You will have up to Two Minutes to pitch the game to the sharks.
2. Presentation materials will then be given to the Sharks (about 60 seconds)
3. Up to Eight Minutes of Q&A from Sharks

**Game Expectations:**

1. **Deals with Social/Game Issue**
  - Doesn't have to be explicit in the game, but a social/design issue need to be the inspiration.
2. **Made using *Minecraft: Education Edition***
  - **Game Manual** should explain the coding feats that went into the design (NPC, Command Blocks, BlockCoding/Javascript)
3. **Game completion/Video**
  - **Website** with the following information:
    - Links to the Game and Code needed to play in MEE
    - Game Manual explaining how to play
    - Game Development Diary explaining the making of the game
    - Game Tutorial/Walkthrough

**Presentation Expectations**

1. The Game
2. Box Art: Printed box art for a DVD case to represent the game and platform it is intended for.
3. **Posters:** At least one advertising poster printed (11x17).
4. **Treatment Sheet:** An explanation and rational of the game and its functions. Can include marketing data, company information, and other relevant information.
5. **Video Trailer/Demonstration:** See above for types. (typically not shown during presentation)
6. **Student Presenters**
  - a. Not all students need to talk, but all must stand at the front.
  - b. Questions should only be directed to the group, not an individual.
  - c. Present from a website (no script allowed)
7. **Company Website:** A site to represent the company, the product, resources, and team.
8. **Company Logo**
9. **Business Cards**

**Shark Roles:**

- **Angry Shark:** Wants to challenge your work and thinking. Timekeeper and game executive hawk.
- **Happy Shark:** Loves your work. Looking for marketing materials and website.
- **Meh Shark:** Not impressed by anything. Looking for the social/design elements. Wants to be persuaded.
- **Wild Shark:** Looking for team preparedness, company professionalism, presentation.

Figure 14 One-Page Summary for Tanked Presentations

Company Name: [Debunkers Inc.](#)

Shark Personality:

Key Personality:	Happy Shark
Look For:	Loves your work. Looking for marketing materials and website.
Shout Out:	If student is shaken, comfort them. Support the students. Clap and praise/compliment.

Scorecard (Circle One):

1. Company Professionalism	1	2	3	4
2. Organized and Prepared	1	2	3	4
3. Persuasive Arguments	1	2	3	4
4. Effective Use of Time	1	2	3	4
5. Efficient Materials	1	2	3	4
6. Question Responsiveness	1	2	3	4
7. Purpose Articulated Well?	1	2	3	4
8. Game Box Authenticity	1	2	3	4
9. Good Use of Platform?	1	2	3	4

COMMENTS:

Final Evaluation (Circle One)

Best Game || Best Presentation || Best Marketing Materials || Best Company Ethos || Best Campaign ||  
Best Video Features

Figure 15 Media Executive Rubric for Tanked Presentations

The sharks also serve the purpose of engaging with the ludic framework in a subtle way.

The sharks engage in a way that asks for playful and flexible thinking; they are asked to think about their process and collaboration with the team to establish team ethos; the

questions are persistent and exploratory which engages in invention, persistence, flexibility, and creativity. To ease the expectations of the presentation, I don't require students to dress formally for the presentation because I want them to be comfortable and I don't want to put a student in the position of having to borrow or buy professional attire for a class project. I also tell the students that I want them to roleplay as a company and not mention the class. I want them to think of collaboration, collegiality, and professionalism. The play of this helps them imagine new scenarios and possible outcomes.

### **Metacognition and the Ludic Framework**

As I mentioned in the project overview, I created this presentation model to give my students a more authentic project and presentation experience to better engage in learning opportunities which would lead to being prepared for the next steps in their journey. This culminating project is an exemplar of the ludic framework because it engages in multiple methods of inquiry and production: ludic invention, playcentric design, and playfulness. The connection between composition studies, technical writing, game design, and constructionist pedagogies are all easily articulated to both students and administrators. I have created variations of Tanked Presentations over the six years of teaching and I have worked with other instructors to adapt it to their classes and workshops. Instructors and students both have explained that doing something that requires so much creative thinking and multiple workflows across technologies is a skill and an opportunity not many receive before they have to do it for a job. I take the feedback my students write serious and have made many adjustments throughout the years of doing it.



Files used for all the assignments

Persistent is on top of the list here because I think it was the most important. I've used up my patients working on some of these assignments, but I think my work speaks for itself. All those files above are files/images that I used in all our project. As you can see, the scroll bar indicates there are a LOT more content. I've gone through so many trials and errors to come up with my final work. Pretty much everything we worked on here, except coding, was new to me. Like working with Photoshop, Premiere, Illustrator, Weebly, Canva, etc. Spending countless hours when introduced to these software for the first time turned to an hour or so the second, third time around. If it wasn't for persistence, I think I would have given up on a lot of the work and turned in a half-assed assignment. Finished, but not polished.

#### Figure 16 Student Reflection

After the entire project is submitted, engage in more metacognition both in writing and verbally to debrief and connect the project to the learning outcomes and ludic framework. Their metanoic reflections about division of labor, collaboration, and how they worked through failures individually and as a team help me change the project for future classes and adapt based on the needs of my students. The reflections often talk about the scaffolding, workflows, and the constant move to production. The reflections

are not always possible. There are usually a number of students that complain about the use of games in the classroom and that playing Minecraft is a waste of time. There are also students that like the Tanked Presentation model and game-based learning, but don't see how the course is a first-year writing, advanced composition, or technical writing class. Some students outright complain about the amount of work that is assigned throughout the semester. These reflections are just as important as the positive ones and many of them engage with the eight principles of the ludic framework in their journey logs, so I hope they at least learned about themselves as learners, producers, and consumers through the ludic framework.

In the next and final chapter, I will showcase the multimodal component of the dissertation: Minecraft University. The multimodal portion is a 3D representation of the dissertation research built collaboratively with current and former students in Minecraft: Education Edition. The interactive work will explore research from game studies, literacy, and failure. The chapter explains the process and rationale for building the world and what was learned during the process.

## **Chapter 5**

### **Minecraft University: A Collaborative Building Experiment**

I first started playing Minecraft on the Xbox 360 when it came out in May 2012. My younger brother played it on the PC for some time and kept asking me to play. I didn't understand the appeal of a floating grass block that can break other blocks. When it released on the Xbox it came with a free trial, so I downloaded it and tried it out. Within twenty minutes I paid the full \$19.99 and played it with my brother until early in the morning. I had no idea what the game really was until I started playing and I was surprised at how in-depth and open it was. There was no creative mode yet, so all the blocks had to be properly mined. I quickly moved from exploring, dying by zombies and creepers I didn't know existed, to building the infamous dirt square hut. While my brother turned to the mines to get resources, I started to cut down trees and experimented with building. When he finally emerged with iron ore, I created a multiroom building for us to store everything. He couldn't believe how quickly I learned the game. A few weeks later I made gigantic castles, sprawling mines, and a few towers. Minecraft became my new favorite digital experience.

K-12 education scholars gravitate towards Minecraft for its ability to foster creativity, problem solving, and collaboration. Kafai and Burke (2016) mention Minecraft throughout their text to demonstrate the capabilities connected gaming has. They describe the game as:

an indie game that breaks down the fences industry and academia have historically built between game playing and making by offering both



simultaneously—a *play* and *creative* mode. In the creative mode, players use square building blocks to construct their own environments, be it houses, gardens, or entire cities—which collectively, in some instances, have led to re-creative the whole state of Denmark. In the play mode, the environment switches into a world itself, driven by a clock that brings out night monsters. As a player, one can choose the play mode. (p. 8)

The two game modes open the game to multiple audiences, but with the introduction of modding, coding, and the marketplace, and the fact that it is on literally every platform a digital game can be, Minecraft is a game for every person and every occasion. Minecraft is a possibility space like few other games have accomplished and has set a trend in gaming to allow for open sandbox games without a narrative where the player collects resources to make structures and tools in a survival experience.

I wanted to bring Minecraft into the classroom because I felt it perfectly encapsulated the ludic framework and it opened up opportunities for workflows across software which would help students engage in affinity spaces and take ownership of their learning. By using the CodeBuilder, it would fulfill the need to introducing students to coding, the flexible and creative thinking required in modding and game design, and the collaboration it requires would facilitate new discussions and reflections. The Minecraft community is one of the most diverse and widely spread communities in the world. Gee (2017), Kafai and Burke (2016), and Farber (2018) and talk about Minecraft's community as one of the most important aspects of the software (especially if you consider open windows in PTF). After Minecraft was bought by Microsoft for \$2.5

billion in 2014, there was a lot of concern over what would happen to the community and creativity of the platform. Microsoft executive Jeff Teper (cited in Landay, 2017) said: "Minecraft is a development tool. People build worlds out of it" (p. 129). Mojang's COO (the publisher of Minecraft) echoed this sentiment:

We don't want any story that we make, whether it's a movie or a book, to create some sort of 'this is the official Minecraft, this is how you play the game' thing. That would discourage all the players who don't play in that way...When coming up with a story, we want to make sure it is just a story within Minecraft, as opposed to the story within Minecraft.(cited in Landay, 2017, p. 129, emphasis in original)

This is really important to gamers like me who focus on both the emergent narrative of the game but also the potential the platform offers for making new games and narratives. I truly believe that Minecraft will one day become a full fledged game design engine where you can create mobs, modify behaviors, and create full scale roleplaying experiences without ever leaving the Minecraft interface. We already see this with mods in the Java edition, and Microsoft employees have made mention of this both privately and publicly.

Minecraft is an immensely popular game. To summarize Landay's analysis as to why Minecraft is so popular—and I would add powerful—is its mechanical simplicity that is full of design potential, audiovisuals, agency, the community, and because you learn by doing (pp. 129-130). She nails the "why" I use it in my classroom when she discusses the player agency. My dissertation covers the constructionist learning theory

created by Papert through the practice of Kafai and Burke (2016) in their book which references Minecraft as a great tool to create and think through. Landay's says this of the agency in the game:

Minecraft offers the player choices of agency, from the ludus of more structured, goal-oriented survival to the open-ended paidia of creative mode, and many possibilities in between as players choose mods, servers, and maps, and create their own games within Minecraft that afford them experiences to interpret, explore, combine, remix, transform, and invent. (p. 130, emphasis in original)

Landay doesn't discuss Minecraft: Education Edition, but they do highlight the malleability of the world and the true creative potential with their discussion of redstone. Kafai and Burke (2016) also talk about the power of redstone: "These [redstone] tutorials, at times covering content equivalent to that in undergraduate engineering courses, are compelling examples of the metagaming prominent in many gaming communities that Gee and other researchers have written about illustrating how learning moves beyond the confines of the game itself" (p. 96). Although I don't get too involved with redstone in my classes (and there is very little in Minecraft University, how they talk about the potentiality of the platform through collaboration, creative problem solving, logics, and spatial reasoning—and I would add coding through the CodeBuilder application—, is the reason I chose to demonstrate the ludic framework for learning through Minecraft: Education Edition.

In the previous chapter, I discussed how I used Minecraft: Education Edition as a platform for students to build games through the CodeBuilder application, but this chapter is about building a three-dimensional representation of the dissertation research in an interactive space for others interested in game studies, literacy, and failure. This chapter reads more of a process log and analysis of the 3D build from start to finish<sup>15</sup>. The goal was to build a Minecraft University with three buildings—one for each of the aforementioned research areas—along with a welcome center and common build area which demonstrates the ludic framework for learning both in process and in finished product. The entirety of the project took over 200 working hours across eleven “architects” (nine students, my wife, and myself) over the course of six working weeks. The project is a downloadable world for other Minecraft: Education Edition users via my website which is listed at the end of this chapter.

### **The Planning Stages**

Ever since I introduced Minecraft: Education Edition to my class in November 2016, I knew I wanted to build a learning environment with my students. Microsoft was slowly adding new features to the software to make it more of a platform to create playable lessons. Every semester that went by, I edited a larger play space for my students to learn the new features. I added a castle with NPCs for each player specialization (see Chapter 3) which assigned them a task to complete for homework which would give them more experience with research, building, the mechanics of the game, and video editing. When

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<sup>15</sup> If you are interested in more images, videos, and discussion of practice, visit [Minecraft.christuart.com](http://Minecraft.christuart.com) for the companion website to this project.

the CodeBuilder update came out in 2018 for their two year anniversary, I added a whole new section of the map to include a tournament ground that taught students how to use command blocks and the new MakeCode system that utilized block logic coding to change or create new simple commands and behaviors. I built a mentor text for my students to explore, deconstruct, and play through to better learn the platform I was asking them to make games in.



Figure 17 - Minecraft World Created for Students 2018

I floated the idea of making a Minecraft University where research from my dissertation would be on display in an interactive world built in Minecraft: Education Edition to multiple parties: students, colleagues, and members of the Minecraft: Education Edition team. Students thought it was a great idea and expressed interesting in helping out with the coding and building of the world. Some colleagues thought it sounded like a good multimodal component for the dissertation, but it sounded pretty

ambitious. The Minecraft team thought it would be fantastic and told me more coding and hosting features were on their way. I was excited about the former, but the latter never came to complete fruition. Hosting capabilities did greatly improve; the original system only allowed multiplayer if everyone was on the same LAN, but you can now use port forwarding to connect with anyone as long as they have your connection information. The advanced behavior modifications have not been added to the Education Edition, so I couldn't make the game a roleplaying adventure like I had hoped. I spent a lot of time talking the project over with students to figure out what would work for the dissertation and what was within the scope for time.

I set up a meeting on February 20, 2020 with all interested students and talked out the project, the timeline, and some of the buildings I was interested in building to represent the dissertation in Minecraft. We established three levels of determination: the minimum need for completion; attainable feats; and wishes. As a group, we outlined the following in the three categories (the italicized text represents text added after initial meeting date):

The minimum needs for completion:

- Build a common area with student builds and a welcome center.
- Build a university with at least two of the three modified areas of research represented (game studies, literacy, and failure).
- The welcome center needed to explain the project in detail and also have an area to send players to different areas of the world.

- Each building needed to have signs and/or NPCs explaining the research.
- Student builds needed to have author signatures on their creations.

The attainable feats:

- Make hexagons throughout the entire common area as building plots.
- Build all three university buildings.
- Build a gate around the university with gardens and a welcome center.
- Have entrances to the failure building throughout the entire world.
- Code teleporters and NPCs.
- Code conditionals to reward explorers.
- Create two towers at the entrance of the university.
- *Make pixel art.*
- *Make a “Minecraft University” sign in the sky.*

The wishes:

- Code behaviors to help with exploration.
- Create secret areas with hidden rewards.
- Fill nearly every plot with a student created structure.
- *Make a gallery with all the student quotes about the project.*
- *Work with students to design and build all three structures*
- *Make a welcome center in the university.*

- *Create a website that documented the entire process.*

During the meeting with 13 current and former students, they showed a lot of interest in having design input on the structures that were built in the university. Several students made suggestions that I felt would completely deviate from the idea I had in my head about the project. I told them we would figure out the structures on our first build day (the following week). Some students didn't want any part in the building but would be on standby for any coding work that was needed. I told them I was hoping for at least five dedicated students to put in at least six hours of work to help me get the wireframe of everything done. As we left the meeting and I got caught up with some of the former students, there was a sense of excitement in the room. There were many other students in the workspace listening in, some even chuckled at the idea for a dissertation project. I knew this was a big ask from students considering we were only four weeks away from spring break and I wanted to have everything done within six weeks. The entire process surprised me.

The goal was to have consistent build times for my students where we could meet face-to-face in an open space that allowed us to spread out and work alongside others that were working on the same build area. I reserved an open workspace away from other worktables in the Pearce Center for Professional Communication which was a reservable four-room working area with tables, chairs, and computer screens. I reserved the space for Tuesdays and Thursdays from 11am-4:30pm with the promise to interested parties that I would figure out a way to open up other days remotely. Partially because I wanted to retain control over the project, I required to be present in the world when the students



were building, but this turned out to be an unnecessary caution with those that helped. I worked with a student in Clemson Computing and Information Technology (CCIT) to try and get the host computer hooked up to the virtual private network (VPN) to use the local access network (LAN) on campus so I could set up the host computer in my home instead of bringing it to campus every day, but we couldn't get it to work. I eventually opened up the build times to Monday through Friday from 8am – 4:30pm until spring break (March 13, 2020)<sup>16</sup>. The workspace was perfect for the number of students helping consistently (five) and it even worked for our most crowded day (nine). The open atmosphere worked to our advantage and afforded me the ability to walk around and consult with students without moving furniture.

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<sup>16</sup> Due to the COVID-19 pandemic, the host computer was only able to be plugged in until March 13 on Clemson University's campus. McNeill (2020) published a blog post on his website about how to use port forwarding to get your host computer online as a server for remote access on March 19, 2020. I started hosting the world remotely online on March 26, 2020.



Figure 18 - Students Working in Pearce Center

The first day of building, February 25, 2020, had four students committed to work for the entire five and a half hours with ambitious goals. I asked the students to help me find a good place to build, terraform the land, and start mapping out hexagons for the build areas. We spend the first hour and a half trying to get the host computer's WIFI and ethernet cable to connect to the campus network. Once it was hooked up and running Minecraft: Education Edition, we experimented with different phrases to put into the seed field to randomly generate a world so we could start exploring to find a good build space. The seed we decided on was an iteration of "Minecraft University" which became seed - 1060498797.<sup>17</sup> The five of us spread out and quickly found a procedurally generated

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<sup>17</sup> Seeds are pseudo-random values that are generated by Minecraft's algorithm which determines the characteristics, features, and starting point for each world. If another

village near a large flat area and hilly terrain. We all decided that it was the perfect place to build the university and common area and it required a lot less terraforming than we expected. I saved and exported the world for version control, and we started to plan out what to do next.

### **First Builds; First Failures.**

I wanted to make hexagons throughout the common build area to designate building plots, but I also thought it paid homage to classic hex grid board games like Settlers of Catan (Teuber, 1995) and Heroscape (Ness, Daviau, & Baker, 2004). We experimented with several different hexagonal designs, something not easily created in the voxel world. We finally decided on a design that had 12 blocks across the top and bottom. I asked for input from the students on what block would be best to make the hexagons out of and everyone had a different idea. I suggested that we choose our top three and put them in lines next to one another and we would vote. After everyone put their favorite blocks down, I was slightly leaning towards one block, but everyone else wanted a different one. Finally, a student put down the kelp block and suggested we use it for its unique green texture with white grid lines. Unanimously, we all decided that would be the best block. After we created about two dozen of these hexagons, I realized that my hexagons did not line up with one of the student's designs next to me. I told everyone to stop and we looked at it for a while. After two engineering, a graphic communication, and a computer science major all debate with a PhD candidate in rhetoric, communications, and

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Minecraft: Education Edition user used the same seed code, they would see same world we did before we built anything (*Seed*, 2020).

information design for about fifteen minutes, we finally figured out the issues. We revised the design down by one block on the top and bottom (now 11 blocks) and we remade all the hexagons. After about ten minutes I realized that my hexagons were still different than one of the student's. We reconvened and looked them over once more. We realized that some of us were adding an extra row of blocks at the top and others weren't. I finally drew out on grid paper what four hexagons looked like side-by-side and agreed that we would all go with that design. We made about 60 hexagons and called it a day.



Figure 19 Hexagon Layout in Minecraft

Once we had the hex grid set up throughout the entire area (over 120 hexes), we debated on what the welcome center should look like. My former students referenced my underground grand central station that had beautiful vaulting ceilings and teleporters throughout to send players to different locations around the map. I was getting better at letting go of my preconceptions of the project and being more open to collaborative ideas from the group. I expressed concern for my want of everything being both gaming related

and a reference to my experience with gaming. That's when a student suggested a game console. We decided on making a Nintendo Entertainment System, commonly referred to as the NES. This was the first console I played on at home and it truly sparked my gaming interests in life. While some students were creating more hexagons, and another student started terraforming land for the welcome center, I sat with three other students while we researched images of the NES until we found the one we wanted to recreate. I used Adobe Photoshop to shrink the image down into a pixelated grid to help with the blueprints. After a lot of trial and error of testing out the size of the building in relation to the rest of the space, we managed to get it to fit exactly where we needed it to next to the village. Using the fill command and teamwork of breaking blocks in our way, we created the outlined structure to work from. While some students continued to work on the NES's interior and exterior aesthetics, I worked with another student to determine where the buildings, gates, and towers would go for the University.

I suggested to the group that the most prominent building would be the game-based learning building and it could be in the shape of two duplicated Space Invaders (Taito, 1978) sprites. I sketched out what it would look like on grid paper and then made it larger in Adobe Photoshop on the grid. We spent about an hour trying to find the right size of the building in the space we were confined to but managed to get the right dimensions and I began the build. The student I was working with had the printout of the build in front of him and was marking off each block he put down. I figured in my nine years of experience I didn't need to do that. I got halfway through the build and realized that I missed one block which threw off the entire build. I started over two more times in

the same time it took the student to do his side of the build and they finally matched up. The student had to go to class and another student sat down with me to build. We realized that the base we built was slightly too small for what I imagined for a structure. We expanded it out in every direction by one block and redesigned the interior spaces to keep with the same pixelated look. While we were finishing this up, I went back to the NES to make sure everything was going right when we realized the slope in the sides were off, the structure wasn't big enough to spell out Nintendo, and there wasn't enough room to build the teleporters. We all worked together to fix the outside structure which deleted some pixel art a student created, and we built an interior wall to give us the room we needed for teleporters. Unfortunately, we could not fix the Nintendo on the outside, but we laughed about it and thought it fit the structure well. It was at this moment that I realized that the build so far was completely engaging in the ludic framework and we were systematically moving through the different principles together. We accomplished a lot in the first week and I knew the second week would be telling for how much progress we would make as a team when we started the university structures.





Figure 20 Game Based Learning Building (top view)

### **Building the University in a Troubled Time**

After the ground floor was done for the game-based learning building, we were able to figure out the positionality to the other buildings and the front gate. The opening of the university was sitting about a third of the way between two large mountains which wrapped around to form the valley the buildings were going to sit between. We discussed as a team, about six of us, that we were going to turn the edges of the two mountains into towers and wrap a gate around the opening to the valley for the grand entrance to the university. I also explained that I wanted to have the literacy building to the right, built into the mountain and wrapping around to the top to show progression and movement from foundational literacies to advanced digital literacies. A lot of students had opinions about the failure building and what it should look like. Everyone knew that there would be areas throughout the world where you could get stuck based on a failed jump or

curiosity into certain areas which would put you on a path of metanoia, a physical path of reflection to get out and start over. I suggested the crazy idea of making a falling tower stuck mid fall with blocks frozen in the air for the main structure and then a bunch of smaller areas that link together through teleporters. The team loved the idea and I said we would work on the failure tower last because it would be the most difficult.

One student started to work on different iterations of the two towers that would flank the gates of the university while others worked on the aesthetics of the welcome center, rearranging the buildings of the procedurally generated village, their personal builds, and the framing of the game-based learning building. As the students were working, I started to fly around to record them working and would give feedback on the different tasks they were completing. Two students were working on supports and aesthetics inside the welcome center which were pixel arts from Mario Bros. (). The main support structure in the middle had to be redone several times and, after a bout with some frustrating coding, he was able to finally reproduce it the way he wanted it to look at the center of the structure. The welcome center looked better than I had hoped.

Once the framing of the towers was completed, we built the gate and experimented with a few designs to both make it look collegial and playful. We opted for quartz and iron rods so the outline of the gate was there, but you could also see the buildings through it. I created diamond pickaxes to frame the entrance way with a small archway. We decided to give the gate more depth, so we made it three blocks thick and kept the same height all the way back to the towers for uniformity. The entrance sat only a third of the way through the gate because it was directly lined up with the village and



the opening of the game-based learning building, but it looked a little odd from the distance. I started to make a welcome center to break it up which was quickly picked up by some of the students which they finished rather quickly. With the remaining time of the day, students experimented with the towers to make them look more playful.

At the start of the fourth session, only two students showed up, so we focused on making a grand walkway with a garden and pond leading up to the university. We moved the original pathway through the village and stylized it with stone bricks. I left the design of it to the students and asked them to do what they felt was right, a phrase I started to utter more as time went on. I mentioned making the iconic creeper face in the ground during session one and a student decided that she wanted to make it in the center of the walkway as a garden. We realized everything was off by a few blocks, so we moved everything over and rebuilt it, once again struggling with the hexagonal shapes we were trying to incorporate into the design. More students started to join the session and moved between building personal structures and the outline of the game-based learning building. I took a break from the project and came back about an hour later to see a beautiful walkway, the outline of the game-based learning building, and several personal builds throughout the world. As most students joined, we looked more intently at the interior of the game-based learning building while two other students created a large Minecraft University sign in the sky above the gate.

I explained the meaning behind the game-based learning building to the students and how I wanted the history of games to be represented inside. I offered the suggestion of staggered walkways and ladders that would lead to platforms where signs could be

placed to display information about the research area. For some reason, I had the industrial and chaotic look of Donkey Kong (Nintendo, 1981) and other arcade games in mind. I built one small platform with a sign on it and asked students to replicate that. I finally let go of my control and truly thought of this Minecraft University project as “our” collaborative project. I left the students to work while I taught a workshop and worked with another student. When I came back, I was amazed and excited how seven students were sitting in this reserved area, working together on all different structures and joking about parkour challenges (jumping puzzles that are iconic to Minecraft) which would be high risk, high reward. They even started to carve out an area under the building that would be part of the failure structure if they fell during the challenge. We wrapped the week with a lot done and me feeling hopeful.



Figure 21 Minecraft University

The third week was especially hard for coordinating with students because it was the week before spring break which meant my students were taking midterms, finishing projects, and going on interviews for internships, co-ops, and jobs in addition to an unforeseen issue, the COVID-19 pandemic. I told my students that I didn't mind if they worked remotely and that I would type out an itinerary of everything that still needed to be done in an email to the group, but their studies and interviews came first. We met Monday through Thursday the week of March 9<sup>th</sup> with only a few students dropping in for a few hours at a time. Thursday, March 12<sup>th</sup> students were very anxious about the possibility of the university closing due to the pandemic and I had nine students crowded around tables trying to get as much work done as possible with the mentality that this was the last day they would be able to work on it. The energy was different. Students were nervously joking more, but there were many long silences that were filled with the rapid clicks of their keyboards and mice. Over those several days, I worked more than usual on the project and changed a few things for aesthetic purposes, built out a more robust failure area under the game-based learning building, and made a few alterations to the towers. As a group They tackled their personal projects and almost the entirety of the literacy building. I worked on the failure tower because most students thought it sounded a bit too chaotic for more than one person to work on it at a time. Nobody knew when they left that day that it would be the last day, we would all see one another face-to-face

for the project.<sup>18</sup> We left a lot unresolved, but, if the project were submitted in this state, I knew I would be happy with it.

### **Making the World Educational**

After the world was pretty much built, I had to go in and add signs, slates, posters, and boards<sup>19</sup> to explain the project, how to explore the world, and the research areas. I started in the welcome center and explained that this was the multimodal portion of a dissertation project that took ten students and me over 200 working hours to plan, design, and build everything that is in the world. I also explained the rationale for Minecraft University and the common area. I dropped some books into the village buildings that had references to video and board games that would hopefully bring back some nostalgic moments of gaming for some of the visitors. Some personal stories were also included in some of the structures I built in the village and outside of it. I wanted the common area to feel more like a waiting room or lobby you would find in a game, somewhat inspired by Aech's basement in *Ready Player One* (Cline, 2011). Once the area was complete, I started to work on the signage in the university.

The goal of the signs was to showcase the research that went into the dissertation that acts both as a model or mentor text for future researchers and pedagogues, but also as an interactive archive for those that are both interested in game studies and Minecraft.

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<sup>18</sup> After getting the host computer set up at home with port forwarding, I hoped up the server to run 24/7 for student to jump on and finish their structures if they wanted to. Many have, and I intend on having the world open until April 13, 2020 for them to work in an official capacity, but also if they need a distraction from the chaotic pandemic filled world we are currently living in.

<sup>19</sup> These are the four options for areas to display text in Minecraft: Education Edition. For the remainder of the chapter I will refer to all of these as signs.

There was a concern for balance: I didn't want to have so many signs that it took away from the structures that we built, but I also wanted to make sure enough research was represented for it to be a dissertation project. I divided the research into three categories: definitions, scholars, and application. The definitions were for terms and theories to be explained in a short, concise way that would be understood by a wide range of users (i.e., play, playtracy, invention, and *metanoia*). The scholars sections were those that greatly inspired my work and who might be helpful to fellow researchers and practitioners if they wanted to dig deeper in the concepts explored in the university (i.e., Holmevik, Poulakos, Juul, Kafai and Burke, and Ulmer). Finally, the application signs were examples, websites, and lessons that can be taught in one of the three areas to give a more elaborate experience. Several of the students who helped me with the building found the information interesting and thought it was a good way to make the information readily available. One student said during an informal conversation, "Honestly, this reminds me of a kids museum; you can read about failure on a sign and then fail a parkour challenge and experience it first-hand." That is exactly what I was trying to accomplish here.

The game based learning building was designed to call back to platformer games that made video games popular and I wanted the experience to reflect that. Game studies is a subject that I hold dear to my heart and theories of play, design, and experiential learning are prominent subject areas that come up in my research and pedagogy. I wanted the movement through the space to be playful and challenging but also rewarding both in failure and success. The higher up you go in the building, the harder it is to navigate and the signs reflect persistence, the rhetorics of possibility, and experiential learning. It looks

like there is only one way to get to the roof, but there are actually two in the game-based learning building and one through the tower of failure. If you fall from the top parkour challenge or a high platform, there is a high likelihood that the player will die, sending them back to the welcome center. Players always have the chance to fall into a place of failure, requiring them to navigate dark and uncertain spaces to get back to the university or common area.



Figure 22 - Game Based Learning Building

The literacy structure is built into the rock of a mountain and wraps around to a tall glass structure on the top. The literacy structure starts with stone bricks and quartz to signify foundational strength and a call back to the Greek influences. As the player walks through the structure, it slowly turns into a modern brick in a more open space before coming upon a futuristic glass structure that represents the openness of electracy and playtracy. There is a feeling of movement, adaption, and historic progression of the

structure that was deliberate, but the shape of everything was directly contingent on the shape of the mountain and cavern it is built into. The signs here talk about the movement from the foundational literacies of the print apparatus to playtracy and the 21<sup>st</sup> century technoculture. This building feels to be the most traditional, but the aesthetic choices say just as much about literacy as the signs do.



Figure 23 - Literacy Building

The tower of failure is supposed to represent a snapshot in time of a structural failure, but the player can still find opportunity and progression through the failure. If the player climbs through the tower, they are met with a parkour challenge that will bring them all the way to the top of the game-based learning building which is far more difficult to get to from within the game-based learning building itself. The tower itself has a lot of missing blocks replaced with scaffolding to make it look like it is in disrepair. There aren't many signs in the tower itself, but failure is everywhere in the world we



created. There is a large open area and a mess of tunnels under the game-based learning building; there is a crack in the floor in the literacy structure that will bring you to another area of failure; if a player jumps through the eye or mouth of the creeper symbol they will end up in a failure area; and there are ways to teleport to platforms high in the sky that have no way to get down except to jump into the unknown. Every step and every action always has the possibility of failure and we wanted to try and capture that in the game while still making it playable and fun for those that are not particularly good at navigating spaces like these.



Figure 24 - Failure Tower

### **Minecraft University: An Analysis**

The whole process of building this multimodal project was more of a learning experience than I ever expected. I was hoping for four student participants, but I ended up with nine. Out of those nine, two of them put in more than twenty hours into the project. Out of the



nine, only three were current students and the rest were former students. Initially, there were five more participants, but since we didn't get into the coding as intended, they opted not to participate.

The entire process was supposed to be completely documented via screen recordings, photographs, video recordings, and interviews, but we had some technical issues and was not able to capture everything as intended. The process with more detail and images is available on a Minecraft portfolio I created at [Minecraft.christuart.com](http://Minecraft.christuart.com). The development diary shows a time-lapse of much of the building process both in-game and in the Pearce Center for Professional Communication workspace we reserved. There are a few short clips of interviews with some of the students and I provide some voiceover to talk about the process as well. Documenting the process is important to show the labor that was put into something that is difficult to quantify and qualify. We all worked long hours and were able to collaborate on nearly every aspect of the build which is something I personally have never fully experienced before. As explained in previous chapters, I have my students collaborate on game design and builds in Minecraft and require them to document their process, but I have never collaborated or recorded the process on something so comprehensive before. I now have another mentor text to share with future students and instructors.

This project was meant to showcase an extended view of the ludic framework and how it functions over an extended project. I can honestly say that I learned a lot more about the framework than I ever imagined. We talked about the principles and pillars while we were building and whenever a student would talk about messing up, not being

able to figure something out, or confusion, there was always a team standing up to help. We talked about play and how it was about points of inquiry and pushing against actuality to enter into the realm of possibility. Students often talked about curiosity or would ask questions about the rationale for the project, buildings, or companion website. One student was not so comfortable with building in the university and another wasn't comfortable with feedback at first, but both students became flexible and reflected on why they thought they didn't engage in those areas. We did a lot of reflecting because we did a lot of failing. Sometimes a build didn't go the way we wanted, or we put the fill/clone command in wrong and had to work together to fix it. We often weren't sure how to approach something, so we would engage in wayfinding and persistence continually. When someone had an idea, we would all dive into research, try to find the best method of making it a pixelated image, and share it with the group. We went through a lot of graph paper. I could not have done this without the collaboration and persistence of the team. We spend well over 200 hours in the game together and I had contact with each architect along the way.

At the start of the project I was very protective over the design, overall aesthetic, and the direction the project was heading, but this changed the more I worked with the architects. It is not that I didn't trust them, it was that there was so much riding on the project because it was part of the dissertation and the culmination of my educational experience as a PhD student. I learned to be flexible. There were certain ideas that I shot down in the beginning that we ended up using in the end. We accomplished nearly every point in all three levels of determination except the coding. They were all eager to learn

and to help me with the project, but not just because it was Minecraft, because I gave them a voice and an author signature to give them due credit. I wanted to work alongside them and treat them as equals in the project. By the end, we were more of friends and colleagues than the student/instructor relationship on paper.

I had the opportunity to interview six of the students about their experience on the project. I asked them about what they did, their biggest failure, collaboration, and overall experience on the project. M.H. said the hardest thing about the project was being happy with what they made but collaborating with others made it easier: “usually working with other people gives me a lot of stress and anxiety” but he found it enjoyable and “good for communication skills and teamwork.” When A.R.C. was asking about why he proposed the platform idea in the game-based learning building, he said, “I was trying to make sure it felt like you had to climb up the walls...trying to make a walkway and make it feel like you are going to fall off. I wanted to make it interesting and intriguing to get to the top” and he also found the collaboration to be a positive experience, “it is enjoyable to get other people’s opinions and not just be in your own head.” When M.K. was asked about failure, he instantly thought about the first day when we had tech issues and couldn’t figure out the hexagons. He captured our entire first day well: “we thought it was simple and we had a plan, but because we were a block or two off we had to redo it...we had some happy accidents with the clone command too.” When I asked N.J. about his overall feelings on the project, he responded with this: “I kind of went into this project thinking it was just something fun to do...but by working on it, I don’t know, there was a lot more to it than I thought. A lot more thought into what you are doing with the dissertation and

that was really cool.” The overall experience was positive for the students and they all thought the collaboration aspect was far more enjoyable than expected. I have had some really bad experiences with collaborating in Minecraft, and we shared some of those experiences while we were working on the project, but the biggest thing that made it a better experience was communication.

This multimodal portion of the project is intended to be a visual and interactive representation of the ludic framework and playtracy and complements the written portion of the dissertation well. I tried my best to capture the experience I had with the planning and building with my students, but, for me, the entire process was a true manifestation of the previous four chapters of this dissertation. The university came out aesthetically better than I ever could have imagined, and the representation of each research area is fitting for both the medium and message. For instructions on how to download and play the world, or a more detailed description of the process, please go to [Minecraft.ChriStuart.com](http://Minecraft.ChriStuart.com).

## **Conclusion**

### **Wandering Elsewhere**

I started this dissertation with an anecdote about how I struggled in K-12 schooling. In closing, I want to both talk about my experience in college and what is in the future for this dissertation.

I started my PhD program as a wander. I felt like I didn't belong in a PhD program, honestly. I was not a good student until middle school. I struggled on exams in high school. Most of my college classes seemed shockingly easy once I figured out how my brain focused and moved between project. I worked over 40 hours a week, took on large course loads, and still found time to be with friends, family, and my personal interests. I thought getting an M.A. in literature was the right thing to do so I approached a few professors at Montclair State University and asked for letter writers. One professor I really respected (and most feared) said she would write a letter for me because I "survived multiple classes with [her] and got at least a B." I was applying for the M.A. program at Montclair State, so I thought the process would be easy. The deadline was about a week away when my school email notified me that the letter was submitted. What surprised me was that I also had an email from her. I used to have the letter framed and in my desk drawer at home, but I have lost it during the many different moves in the last eleven years. I also don't have access to my school email anymore, so I can no longer retrieve it. For sake of time and space, I'm going to paraphrase the email here:

Mr. Christopher Stuart is not ready for graduate school. I am writing this letter to inform the graduate school that I believe he still needs some time to become a

better student, a better writer, and a better person. There is a chance that he may never be ready for an advanced degree, but I can say with certainty that he is not ready now.

I have thought about this “letter of recommendation” at least once a week since starting my M.A. at Eastern Michigan University in the fall of 2013.

One of my biggest weaknesses is that I tend to get too invested in things that I enjoy or am passionate about. If I see come across a challenge, I obsess over it. It doesn’t matter if the challenge is getting an A in the hardest class I have ever taken, Dungeons & Dragons, or crocheting; I try to learn and do everything I can. Nobody likes to fail because it makes us feel inadequate, but I truly stand by the scholarship in this dissertation which talks about working through the adversity to succeed at a later time. Maybe Fortuna is looking down on you, deciding that it isn’t your time, allowing speedy little Kairos roll past you on his ball. In moments like those, you need to embrace Metanoia and work through the failure to be better prepared next time.

Maybe there was some truth to that letter of recommendation. Thinking back, I don’t think I was ready for graduate school, but I didn’t get to make that choice in the moment. Dr. Neufeld was the first graduate professor that I interacted with in my master’s program. Our first conversation was after I received a D on my first assignment in my M.A. class. I approached her, nearly in tears after class and she told me, “graduate school is not for everyone.” I love Christine, and I am forever grateful for her wisdom and guidance throughout these last seven years. She was right in her assessment in my work. I had taken three years off in between undergraduate and graduate degrees and I

was out of practice and fell into some old ways. That paper was absolute trash and it was an embarrassment. Dr. Neufeld gave me another chance and worked with me all semester to ensure I maintained my grades to continue on for the following year. She went on to be my thesis chair and a letter writer for my PhD program.

There is that cliché saying: At the end, we think of the beginning. I cannot help but think about these defining moments that brought me to this dissertation. The ludic framework is a passion project to help students that are falling through the cracks or those that don't quite benefit from the way most professors lecture and teach. The ludic framework is what worked for me on my own personal journey of learning. I love teaching and I love helping students reach their potential and beyond. I want them to see through the lens of the possible and become curious learners who look for challenges. I want them to get the jobs they don't feel they are qualified for because they lack the confidence in their technological or communication abilities. I've had many students come to me throughout the semester thanking me for the way that I teach. Most of them don't understand how much more work it is for me to teach this way, but I know it has a huge payoff.

So, where do we wander from here? To take this project even further, I would like to continue working on Minecraft University and integrate in behavior mods, JavaScript, and exporting. I would love to continue on this project just to see how far we can take it. I really enjoyed working on the project with my students and I still cannot believe how many hours they put into it when they could have been studying or hanging out with friends. I am eternally grateful to those students.

I want to further refine the ludic framework and create a teaching manual that outlines the principles in their own chapters so teachers at all levels and across disciplines can adapt it for their own teaching. Teaching manuals like this with syllabi, assignment sheets, and examples are sorely lacking. There is a lot of potential for refinement in the ludic framework and I want to see how far I can take it. Making a website with short three-minute videos on the different concepts explored in this dissertation would be a great way to tighten up the framework while simultaneously help teachers out there that have an affinity for innovative pedagogy.

To link the dissertation to industry partners, I would love to create a workshop model that uses the tanked presentation structure to have employees compete in a game jam where they have to pitch their game to sharks. This would be a great opportunity to talk about workflows, collaboration, communication, and play in the workplace. Businesses already use the habits of mind in their professional development, but I think the inclusion of play, invention, and discussions around failure could be fruitful to their development as a company.

Overall, I want to continue working on this pedagogical model and associated projects to make them more refined and compact so they could be delivered across grades, disciplines, and workplaces. I want my project to inspire others who did think they would succeed in what they are passionate in. In today's chaotic world, between politics, pandemics, and climate change, we need to focus on our positionality and look to the possible for change. This dissertation has helped me see the path.



## APPENDICES

## Appendix A

### Literacy Failure Analysis Assignment Sheet

#### Raid One: Literacy Failure Analysis

*Literacy is primarily something people do; it is an activity, located in the space between thought and text. Literacy does not just reside in people's heads as a set of skills to be learned, and it does not just reside on paper, captured as texts to be analyzed. Like all human activity, literacy is essentially social, and it is located in the interaction between people.*

– Hamilton and Barton, *Local Literacies*

#### Raid Overview

What is digital literacy (electracy) and how is it different than regular literacy? What does your reading say about this subject? As described in session, (Digital) Literacy is the ability to comprehend, analyze, and (re)produce information (in digital mediums). Can you think of a moment where you failed at doing this with a computer program? Since we learn best through failure--as is a theme in gaming and this course--can you think about a moment when you did not communicate effectively or failed to comprehend something digitally? Could you not figure out a game or articulate how the rules or mechanics worked? Did you create a digital presentation where it completely failed to get the information across?

Think about a moment while gaming, or any other moment of digital literacy, in which you failed at the task. Write about how that moment of failure changed you, your literacy habits, or approach to similar events. This is an informal writing assignment that should be told as a personal narrative.

#### Raid Instruction

I want you to think of a game--or a moment of digital literacy--at any point in your life, which has left an impression on you. How do your memories of this moment fit into the above definition of digital literacy? What were you comprehending, analyzing, and (re)producing? Think about the written or implied rules of the software. What skills were needed?

Beyond the skills needed to engage with the software, what social interactions were present? Literacy can be explained both through events and practices. Hamilton and Barton explain an event is an observable moment of literacy (interaction with a “text”). A practice is the surrounding factors that contributed to the actions of the event, whether it be rules/life lessons/experiences you bring to that event, or how the event is regulated.

Think of your literacy event and what practices surrounded it. What rules/influences did you have to follow? How were these broken or manipulated? How did these affect how you played/thought about your software? Do you associate a person or group of people with this software?

### Three Steps

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#### Step One:

- Choose a literacy failure event and tell the story to a peer while recording the audio.
- Try to keep story to five-minutes if possible.

#### Step Two:

- Listen to your audio recording of the literacy failure event.
- Write out the narrative (at least 500 words).
- Use as many details as possible surrounding Time-Place-Object Specificity.
- Be creative and write this as a personal narrative.
- Make sure you write about what you learned from this moment of failure.

#### Step Three:

- Write a brief 250 to 500-word analysis of the experience across modes.
- What was missing from the two modes? Which did you prefer?
- Which one best represents your literacy moment?
- If you had more time to do this, what would you have done different?

### Requirements

- Works Referenced (if needed)
- At least one image in the text (should include image source).
- If a video is made, make sure you reference all images that are used.
- Use bold, italics, different fonts, and colors for emphasis in your written work.

A note: This is more exploratory and experimental. I want you to interpret the assignment as you see fit. Some things are a bit vague on purpose. Do your best and try to enjoy it.

<b>Specialization Requirements</b>	<ul style="list-style-type: none"> <li>• <b>Warrior</b> - Write an additional <b>200 words</b> making the minimum word count <b>700 words</b>.</li> <li>• <b>Mage</b> - You must create a <b>video</b> instead of the audio recording. You may use any software you like, but Adobe Spark would work well. Make sure it is a mix of your voice, your image, and additional images.</li> <li>• <b>Bard</b> - Make sure to have at least <b>six</b> images with captions detailing each picture (must relate to event).</li> <li>• <b>Ranger</b> - Include at least <b>one extra picture</b>. Conduct research about the digital literacy you are investigating. Integrate at least <b>two quotes</b> into your piece. Make sure they are cited.</li> </ul>
<b>Formatting Expectations</b>	<ul style="list-style-type: none"> <li>• MLA format</li> <li>• Primary font should be easily readable.</li> <li>• Change fonts or colors for specific words, names, or phrases for emphasis.</li> <li>• Eliminate excess spaces between paragraphs and headings, as well as around pictures.</li> </ul>
<p><b>Submitting Raid</b></p> <ul style="list-style-type: none"> <li>• Make sure the narrative is titled: "Last Name - Avatar Name - Specialization - Raid One Narrative"</li> <li>• Your audio file should be placed in the Raid folder as well titled: "Last Name - Avatar Name - Specialization - Raid One Audio"</li> <li>• Your video should be linked at the bottom of the narrative.</li> </ul>	

**Must be in Quest Log sheet & Raid folder in GoogleDrive.**

Chris Stuart's Literacy Failure Analysis: [Click Here](#)

## Appendix B

### Tanked Presentations Assignment Sheet

#### Raid Overview

For this raid, you will embody a new startup gaming company in small teams to create a digital or analog game, a Kickstarter marketing campaign, and prepare for a presentation to four "sharks." The game is the central artifact, but you will work together to create a number of technical documents, videos, graphics, and a website. The process in which you work together to design and produce the game is much more important than the final artifact. We will engage in the iterative design process (continual revision, invention, and collaboration). The presentation portion of the raid is inspired by the popular ABC show Shark Tank—a two-minute pitch followed by roughly an eight-minute Q&A between the sharks and team. The team will be assessed on teamwork, creativity, rhetorical justification, completeness, and presentation.

There are four "roles" that each team needs to assign: 1) a **Project Lead** (or team leader) who will be responsible for keeping the team on task, ensure they meet deadlines, and the overall presentation of the project; 2) a **Game Specialist** that is the game visionary and designer; 3) a **Media Specialist** is responsible for logo design, posters, and the development diary; and 4) a **Technical Writer** that will focus on the manual, game design document, tutorial, and website. Based on the overall goal and composition of the team, these roles will shift, but the responsibilities of the team will still be the same. Ready?

#### Step One: Choosing your Team

Multiplayer games--Massively Multiplayer Online Roleplaying Games (MMORPGs) in particular--rely heavily on working within defined roles as part of a collective whole in order to conduct a raid or take on a large task that requires a large number of people. On a smaller scale, we typically refer to this group as an adventuring party or a team. In roleplaying games, you can adventure on your own, but it is a lot of work and a much higher chance of failure because everything rests on your shoulders. In battle royal or free-for-all games, there is a high probability of loss or failure and a slim chance of victory. Working collaboratively is important to the design experience which is why we are going to start here.

After the project is announced, the class will decide on potential roles based on interest and self-identified skills. This will be done ahead of class in a GoogleSheet and we will have an in-class discussion so we can clarify games everyone is interested in working on. Here is the suggested method of choosing a topic:

1. Choose/Define Skills.
2. Form Team Around Skills.
3. Game Specialist Pitches Idea.
4. Team Discussion.
5. Start Drawing Up Contract.

Other teams have decided to start with an idea and then forming a team based on the idea. Either way works well, and you will have plenty of time in class to decide on the team and project.

Remember, the roles are flexible, but here are the four key roles:

- **Project Lead** (or team leader) who will be responsible for keeping the team on task, ensure they meet deadlines, and the overall presentation of the project ( $\pm 20$ xp);
- **Game Specialist** that is the game visionary and designer;
- **Media Specialist** is responsible for logo design, posters, and the development diary;
- **Technical Writer** that will focus on the game design document, manuals, tutorial, and website.

If you only have three members, Typically the Game Designer will become the Project Lead as well. If you have more than four members, you can have secondary Game Specialists, Media Specialists, or Technical Writers.

After all the roles are set and the theme is chosen, fill out your **team contract** under your designated team folder on GoogleDrive. This contract needs to be maintained by the Project Lead/Team Leader.

## Step Two: Defining the Game

Sometimes the hardest thing to do on game night is choosing the game. For this project, I'm asking you to design a game, which some people find to be an easier or harder decision. There are many different ways to decide on a type of game, but let's talk a bit about different options you have for this class:

- **The Tabletop Roleplaying Game (TTRPG):** This is a pen and paper game that is tied to dice. One player is typically the dungeon or game master (DM/GM) and the other players are the player characters (PCs) that are going on the adventure. There are many variations to this genre, but Dungeons and Dragons is by far the most popular. *What is required?* This is a print heavy game that will require a lot of work

in InDesign. The player's manual will include the rules, how to build a story, character sheets, and the beginnings of a game.

- **The Party Game:** The party game is typically for 3+ people and has the intention of socializing, laughing, and goofiness, but trivia games also fall into this category. There are many different types of party games but some of the more popular ones are Cards Against Humanity, Apples to Apples, Quelf, You Don't Know Jack, Pictionary, Headbandz, and more. ***What is required?*** This can be digital or print. If you make something digital, you would use Adobe XD, Unity, Tabletop Simulator, or other digital app/game software. You could also do everything in print which will require a manual, examples of play, printed components, and box art.
- **The Board Game:** These are the popular single to small group games we all grew up with. Sorry, The Game of Life, Monopoly, Scrabble, Battleship, and others. Board games have been around for thousands of years and it is a popular and recognizable genre. ***What is Required?*** You will need to heavily prototype this game with printed components and boards. You will also need to make a comprehensive manual to help players play and understand the game.
- **The Minecraft Mod:** These games can be any number of genres, but they are required to have a designated play space, NPCs, command blocks, and CodeBuilder coding. These games typically resemble narrative, puzzle, or skill-based games.

### Step Three: Game Expectations

When making your game, there are many things to consider. Here are some general guidelines:

#### All Games:

- All games should have some type of commentary or reason for development. (i.e., reflects parking on campus; censorship; brings awareness to an industry; etc.). *Should be articulated as an inspiration/exigence for the game. State on your website.*
- You should have a specific audience in mind.
- The manual, tutorial, and game development document should cover the mechanics, components, and rules of the game.
- All games should be at least a 15-minute play experience.
- All images/artwork need to be documented and explained in the game design document.
- At least four (4) 3D printed elements (except Minecraft games)

#### Card Games

- You should have printable prototypes of all your cards.
- The manual, box art, and card/board components should be in a completed state.
- Cards should be fully explained with examples on site and game design document.

## Board Games

- The board and other components should be prototyped.
- The manual/site should have all components fully explained and shown.
- The box art and directions should be explained and shown
- The tutorial should show all rules and playability.

## Minecraft Games

- The game needs have enough structures to make it seem like an intentionally designed game.
- NPCs and command blocks can help with coding actions to make the game feel less like a Minecraft reskin.
- The box art and manual should share the Minecraft aesthetic and show all codes used.
- The walkthrough should show how to solve puzzles or complete skill challenges.

## 3D Printing

- You should have at least four (4) printed components
- The 3D print can be dice, organizers, game pieces, awards, or trinkets.

## Step Four: Technical Documentation

Every game has technical documentation both behind the scenes for internal documentation as well as public documentation that is either on their website or packaged with the game. Every game, regardless of genre, will need to have certain documents, but others are more flexible depending on the game your guild creates.

### What is required:

- **Development Diary:** This is a video representation of all the hard work you put into designing the game and your tutorial/walkthrough. Components that should be included: interviews, timestamps, behind-the-scenes development (include InDesign), process builds and designs, concept art, narration, images, playtesting, and time-mapping. This can be all one video or a short series. (Well-edited videos should be about 10 minutes with great technical work // The average video should be about 15 minutes with good editing
- **"Kickstarter" Website:** You need to create a "Kickstarter website" which will feature all your resources and documents, but it will also explain the design process, the game purpose, and the teammates. The website will also be used for presentations. You can use Spark, Weebly, Wix, Sway, or Wordpress. Should be one long page with artwork, text, and headings.



- Spark Template [HERE](#)
- Kickstarter Guide [HERE](#)
- Running a Successful Kickstarter [HERE](#)
- **Game Manual:** Regardless of the game genre, you need to have a manual explaining the rules, how to play, and what components there are. Depending on the genre, this may be included in a larger document. This should be done in InDesign but could be done in Word if previously approved. See "Student Examples" for help.
  - [EXAMPLES](#)
- **Game Design Document:** The game design document (GDD) is a technical document that outlines the entire planning and production of your game. The examples and template provided will not work for all games, but the structure and organization are strongly suggested and recommended. As long as the relevant information is included (below) you can organize it how you see fit. Remember, most of this should be copy and pasted from other documents. This **must** be done in InDesign with images/video of it being worked on in the Development Diary. Here is a quick overview: [HERE](#).

Information to be included in GDD:

- Title Page
- Table of Contents
- Change log (dates of things completed and changed in testing)
- Short & Long description of game. Key features. Unique features.
- Story with characters and setting (if narrative based game)
- Gameplay section explaining Primary Design Elements (key features); Mechanics; Dynamics (how players see and use mechanics); Level/Board design; All instances of code.
- Aesthetics (Show components with callouts to explain how to read and use each component [board included]).
- List of all artwork with links to said artwork. Include author when possible (Author name - Name of Piece - Hyperlink) Can be a chart
- User Interface or System (what does the player see?) and Controls if applicable
- Target Audience and social purpose/commentary
- Marketing information (posters, tutorials, videos, etc)
- Development Plan post presentation (if you were to work on the game further, what is your 12-month plan? Examples at the end of Diablo Pitch)

Below are examples of the game design document.

- [DOOM Example](#)
- [Diablo Pitch Example](#)
- [Game Design Document Help](#)
- [How to Write a Game Design Document](#)

- **Treatment Sheet:** This is a 1-page document which shows the "sharks" what they would be investing in. Think of it as a quick sales sheet which fully explains the game, the purpose, and your audience.

### Step Five: Marketing Materials

On the day of the presentation, you need to have a number of marketing materials and artwork to represent your game.

- **The Game:** The delivered game with artwork (depends on what genre you are making).
- **Box Art:** Printed box art (front and back) or cover art.
- **Posters:** Every game needs to have at least two advertising posters. One poster should be like a movie poster and the other should include information to highlight the key features of the game.
- **Game Tutorial/Walkthrough:** This tutorial should be an edited 5-15min video explaining to the player how to play the game. [XC, creatively work a tutorial into the game without interfering with the level and "story"; 20XP] // Walkthrough should be a near full playthrough of the game with commentary. Don't have to show all repetitive elements of the game or puzzles.
  - Tutorial Example: [HERE](#)
    - emphasis on mechanics, rules, and setup.
  - Walkthrough Example: [HERE](#)
    - playing a round or two of the actual game with some explanation of setup and play.
- **Company Logo:** A company logo should be created and displayed on all materials.
- **Business Cards:** A business card with the company name, logo, and website

### Step Six: The Presentation and Final Submission

The presentation should be broken into **THREE** parts for a total of 10 minutes:

1. Up to two-minute pitch of game.
2. One-minute to pass out materials to sharks.
3. Up to eight-minutes for Q&A from sharks.

### Submission Guidelines

- The Company Page should be displayed on the business card and treatment sheet as a shortened URL.
- Gaming Packet - This should be a zipped folder of everything needed to print and play the analog game: game board, cards in printable format, manual, front and back of game box, an image of ALL components (markers, dice, etc.,). ([card templates](#))

- All FILES (the game packet, URL to website, videos, marketing materials, and the game design document) should be in your team folder in a folder called "Team Name - Final Files"
- The game trailer/walkthrough should be embedded on the company site **AND** the mp4 file should be uploaded to the final folder.

## STUDENT EXAMPLES

1. **Green Guild Inc** (Minecraft)
2. **Dimension Games**
3. **Pic Perfect Gaming**
4. **BCM Games**
5. **Picnic Basket Games**
6. **Perimeter Games**
7. **Kovac Games** (Minecraft)

## Tentative Schedule

Schedule	Agenda	Schedule	Agenda
<b>Feb 11</b>	Raid 2 Intro & Team Formation	<b>Mar 31</b>	Advanced Video Editing / Development Diary
<b>Feb 13</b>	Game Development & Rush Workshop	<b>Apr 2</b>	Beta Testing – Class Presentation
<b>Feb 18</b>	Extended Game Design Discussion	<b>Apr 7</b>	Game Design Day
<b>Feb 20</b>	Game Design Document Overview	<b>Apr 9</b>	Game Due
<b>Feb 25</b>	Photoshop (Image Manipulation) Basics	<b>Apr 14</b>	Presentation Prep
<b>Feb 27</b>	Media Specialist Overview	<b>Apr 16</b>	<b>Presentations</b>
<b>Mar 3</b>	InDesign Basics		
<b>Mar 5</b>	InDesign Extended / Technical Overview		
<b>Mar 10</b>	How to run a playtest		
<b>Mar 12</b>	Individual team meetings		
<b>Mar 17</b>	<b>Spring Break</b>		
<b>Mar 19</b>	<b>Spring Break</b>		
<b>Mar 24</b>	Alpha Test 1		
<b>Mar 26</b>	Alpha Test 2		

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