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Minecraft's Sandbox: Play in a Virtual World of Creative Exploration

Callum Bayle-Spence

August 2020

Submitted in partial fulfillment
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Master of Arts in Child Development
Sarah Lawrence College

ABSTRACT

Minecraft has impacted the lives of children and adolescents for years, and continues to do so. This thesis explores the similarities between open ended play in the real world, using the metaphor of a sandbox, and play by creating and exploring in the virtual world of the game *Minecraft*. This thesis builds on a pilot study that investigated the experience of playing *Minecraft* with young adults. In the present study ten more interviews were conducted with players of a greater range of ages, offering the opportunity to consolidate experiences into broader categories and themes. The interviews illustrated that the experience of the game included social, emotional, as well as creative exploration, which facilitated friendships and enabled personal growth. It became clear that the game provides an invaluable space for children, adolescents and even adults to participate in play as external forces like school, work, and responsibilities discourage them from doing so. Lastly, this study occurred in the spring of 2020, during the start of the quarantine in the United States due to the COVID-19 Pandemic, which forced all the interviewees to be isolated in their homes. With no actual space for interaction, the game became a place to stay close and be able to “leave” isolation without actually leaving their homes. In a time of quarantine, where there is literally no physical space for play and connection, the game has provided both.

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I would also like to thank: My family, both by blood and friendship, for their love and support. My friends for all of their kindness and camaraderie, especially the friends I have met online as the times we have spent together have proven to me how powerful the game and the online space can be. You all, family and friends, have made me who I am today.

In memory of my Uncle Wein, my Grandpa, and my Uncle Roger.

TABLE OF CONTENTS

INTRODUCTION	1
LITERATURE REVIEW	8
METHODS	14
INTERVIEWS	22
CATEGORY 1 – Starting Off	22
Influential Media	22
Introducing New Players	25
Getting into the Game	27
CATEGORY 2 – Deeper into the Game	29
Friendships	29
Understanding Others	32
Pride in Experience	36
Fear	37
CATEGORY 3 – Collaboration	38
Sharing Workspace	38
Showing Other People Your Work	39
CATEGORY 4 – Play is Unique to the Player	41
Exploring, Inventing, and Freedom	41
Material Restrictions	42
Evolving Explorations	45
Customizing the Experience	46
CATEGORY 5 – The World Around	47
Mythologies	47
Inspiration from the World Around	49
Minecraft in Culture	50
COVID-19 AND QUARANTINE	52
ANALYSIS	55
CONCLUSION	59
REFERENCES	62

INTRODUCTION

I have been playing the videogame *Minecraft* since I was first introduced to it as a teenager nine years ago in 2011, two years after it was first released. This ongoing relationship is not unique to me, with many people continuing to play the game throughout their lives as well as today's teens picking up the game for themselves. The game has been a hit with children, myself included, and has had the staying power to become a household name. How does the game do this? The best way to answer this question is by describing what the game is.

Minecraft is an open ended game where the player explores a world composed of block-shaped objects. Most of these objects are simple cubes, oriented in different shapes to denote the environment. These cubes additionally have different appearances to represent different materials, so a mountain would be a mound of stone, dirt, and grass blocks. Simple things like those aforementioned cubes become the literal building blocks of the entire world of the game. These building blocks can then be re-oriented by the player into new structures. The player is able to interact with the world by both re-orienting and also exploring. The game randomly generates sprawling landscapes with trees, fields, rivers, oceans, and more. The randomly generated world gives the opportunity for new sights and encounters through exploration, and provides new materials for the player to interact and build with. The blocks that exist in the trees as wood and leaf blocks, or mountains as stone and dirt, can be gathered by the player to be re-oriented into new objects. The wood and stone for example could be used to create a house, and how that house looks would depend on the materials that generate randomly in the world around the player.

Image 1: A world was generated for this study, this is the player's view right next to the spawn. What can be seen are oak trees, grass, sand, and a small pond in the foreground, with a rose bush, more trees, the sky and the side of a snow-capped mountain in the background



The average player will begin the game by starting up the software, clicking “Singleplayer” and then “Create a World.” A world is then randomly generated, with the player spawning at a random location on the surface of it. This starting location is the “spawn” and if a player dies in the game then they will respawn there. What is immediately accessible to the player will vary greatly based on what is surrounding them in the landscape, and if they want to see other landscapes, structures, or materials then they will need to head off in any direction from the spawn. Not only is the world entirely unique due to the random generation, how the player interacts with it is also unique in both exploring the physical space as well as creating inside of that space.

Image 2: An aerial view of a forest, desert, and mountain. The forest consists of birch trees, while the desert is made up of sand, and finally the mountain is made up of different types of stone. All of these components to larger parts of the landscape are made up of blocks.



I, as well as many others return, to the game for that ability to create and explore, but how does the average player know to do that when they first start playing the game? There are non-player creatures in the game called mobs that populate the world, ranging from farm animals like sheep, pigs and horses to hostile beings like living skeletons and zombies. The latter category appears most prominently at night and provides the player a danger to avoid or intentionally box out by making a house. The presence of hostile mobs and the unknown of the world are the two main difficulties and challenges that the player will encounter, but there is no explicit objective. This lack of a goal is perhaps the game's greatest strength, where the game is a platform for players to make experiences for themselves. This open world denotes *Minecraft* as a game within the *sandbox* genre. Just as how one can reorient the objects and sand within a

sandbox to create new things, the same can be done inside the world of *Minecraft*. In fact the game could be considered a quintessential example of this genre in how the world bends to the player's hand like sand.

The sandbox is a perfect metaphor for how play occurs in the game. In a sandbox one can turn something as simple as sand into a castle, much like how a mountain in the game can also be turned into a castle. Sandboxes take an open ended material such as sand and create a space for people to transform that sand into meaningful objects through play. One 'plays' a game but the kind of play that occurs in the sandbox is a different variety than most games, which need rules. The only limitations in the sandbox are the present materials as well as the borders of the sandbox, but neither of those is exactly the same as the rules in a game like tag where it must be explicitly stated how the game functions. This unstructured form of play that can be more readily associated with childhood is defined by Stuart Brown who finds that play is best understood through personal experience (Brown, 2010). He does however outline several key aspects of play that are often present; apparently purposeless, voluntary, inherently attractive, free from time, diminished consciousness of self, improvisational potential, and finally continuation desire (Brown, 2010, p. 17). To expand, play can be seen as a unique phenomenon in that it is not done for a goal outside of the play itself, which lends itself to being voluntary. Going hand in hand with being voluntary, it is also attractive to partake in because it is enjoyable. Enjoyment allows for a lack of sense of time passing or of self consciousness. This freedom from consciousness is very similar to Csikszentmihalyi's (1999) concept of *flow*, where something is "worth doing for its own sake even though it may have no consequence outside itself," except play is explicitly enjoyable (p. 824). Lastly when engaging in play, unexpected exchanges can occur and allow for

improvisation, which among all the other parts of play fuels the desire to actively continue the play.

Minecraft involves all these aspects of play, even the way it functions as a game mirrors several of these properties of play. The use of randomly generated worlds very naturally causes improvisation on the part of the player, no matter how experienced they are with the game. The worlds are large and full to the brim with blocks ready to be explored and rearranged, making it very easy to want to continue playing the game. And not unique to *Minecraft*, video games are often built around the player losing consciousness of themselves so they can relate to the game world.

Jayne Gackenbach (2006) noted that while the virtual realms provided by video games are new to waking life, they have always been a part of dream life. She also observed how dreams could play a prominent role in development, affecting memory, preparation for future events, and creativity. Her work in general aims to investigate how dreaming can be impacted by video game play, in turn influencing development. These studies are still in progress, but suggest that *Minecraft* may serve an integrative function in children's overall development.

Minecraft is unique in that it facilitates a loss of consciousness by allowing the player to have complete freedom in the decisions and actions they can take within the world. This direct form of engagement very easily removes the burdens of time and frees up the player to have enjoyment in the play. Play as a whole can be an end in itself not needing an explicit purpose. *Minecraft* falls into this definition of play, even more so than simple games like tag or hide-and-seek, instead being a sandbox where play can exist without needing explicit goals or rules that limit the player.

The strengths of play in its spontaneity and freedom mean there needs to be time and energy that is committed to it. A child's time will otherwise be invested in things that have more explicit goals or material rewards. For adults with work and family, and even older children with school, there can be a huge deficit of play as they continue to age. One is expected to learn and to produce, which naturally leaves people less and less time to play as they grow older. Even further the nature of play is viewed as being so different from work and product-oriented activity that it can often be viewed as a waste of time. A facet of play that often exists for younger children is the notion of collaboration, which ties to its many other properties especially improvisation and continuation desire. It is easy to continue, transform and grow play with other people when their contributions build on each other, which can lead to unexpected events

As children grow older they reach the reality of entering social situations where others might frown on them for attempting to play, already working against one of the tenets of play in collaboration. Two of the three main options that *Minecraft*'s main menu presents at the start-up of the game are "single player" and "multiplayer." So by choosing multiplayer instead of single player there already is the acceptance that people will be in a world together and thus engaging and collaborating. Additionally, the prejudice against being older and thus less likely to play is gone because the virtual world allows for a reinventing of identity (Shaw, 2014). These two facets of the game not only remove the stigma against play at this and later stages of life, but also help to create a platform where play is readily engaged.

Despite how much an individual or peers might start to look down upon the notion of play, the impulses will still be there especially in a transition period like the teenage years. This discrepancy between a continued internal desire to play and the lack of opportunities to play will

only further distance these teenagers from the very notion of play (Singer, 1990). Middle childhood onwards serves as the beginning of the play deficit in most people's lives, yet at the very start of that period *Minecraft* has held a strong place in children's lives, providing the opportunity to engage in many of the activities associated with traditional play. *Minecraft* can be a vehicle for play, and in turn a way to revive play impulses after early childhood. This connection between *Minecraft* and play is not unique to this thesis, with several other authors and publications making similar connections between the game and play as well as encouraging creativity.

LITERATURE REVIEW

Minecraft itself has been researched in a variety of studies relating to creativity, as well as how the game can be a tool in the classroom. The researchers are interested in both how the game facilitates creativity, and also how that creative ability can be enhanced by outside factors such as parents and teachers who understand children's play or other forms of media.

One such study by Tisha Lewis Ellison and Jessica N. Evans, "*Minecraft*, Teachers, Parents, and Learning: What They Need to Know and Understand," works on bridging the gap between the experiences of children with the game and how adults are able to engage with them (Ellison & Evans, 2019). Specifically, it addresses how teachers can use the game within the classroom, and how the ability to do so is connected to how well parents can understand the benefits. Even further they state that creating this bridge can help parents begin to understand the rest of their child's involvement with the digital world.

The authors assert that one of the main benefits of the game itself, as well as video games as a whole, is that they provide children full agency in something that deeply matters to them. This level of engagement can result in fostering teamwork, creativity, social bonds, and even learning when the game is brought into an educational context. The authors cite Junco (2014) to explain how part of the reason the game *Minecraft* is such an effective tool is that it is "multimodal," meaning the combination of "graphics, images, symbols, and 'visuospatial reasoning skills' helps learners create and manipulate objects in a virtual world," and in turn build cognitive skills similar to those used in "constructing three-dimensional models, building complex structures, and drawing" (Ellison & Evans, 2019, p. 29). This consolidation of research on what in video games can help children learn, is shown to be in *Minecraft* and is then opened

up to several points for parents and teachers about what the game is and how to use it in the classroom, specifically referring to the Common Core State Standards as well as STEM, STEAM, and ELA. Finally they note that while some students might be opposed to playing the game in school, believing it to be a waste of time instead gravitating towards traditional modes of learning, it is important to stress how “learning is fluid and experiential”, just as Minecraft is in letting players move around the blocks in the virtual world so freely (Ellison & Evans, 2019).

Another study, “Learning mathematics through Minecraft,” by Beth Bos, Lucy Wilders, Marcelina Cook, and Ryan O’Donnell specifically outlines the ways that Minecraft can be used to teach concepts outlined by the Common Core State Standards. After introducing the game, they illustrate an example of the game’s utility as a teaching tool. A teacher asked students to design a “coastal community,” that needed a couple of buildings that were each described in terms of the math concepts perimeter and area (Bos et al., 2014, p. 56). The game gave the children a way to relate to these concepts that was not just personal, but also comprehensive as they understood how certain perimeters and areas would denote very specific sizes. They came to these realizations because there were many ways to build in the game. For example, in situations like building a square house with a specific area, the total size would always be the same, because of mathematical restrictions. In having all the children discuss their buildings, the game taught the children that math concepts are consistent but can be applied in a variety of scenarios.

The authors then go on to note that Minecraft is played in a variety of contexts, and introducing Common Core lessons can be a great way to teach children concepts in a way that is organic. The authors outline specific in-game activities that relate to traditional requirements of

the Common Core State Standards going from kindergarten to grade 5. For example for grades 1 and 2 there are activities that relate to addition and subtraction where children practice creating towers with different amounts of blocks (Bos et al., 2014, p. 58). For older grades the activities introduce multiplication by using the same bases for towers but asking children to estimate the amounts of blocks by counting the base and the height to then multiply (p. 59).

In their book *Plugged In: How Media Attract and Affect Youth*, Patti M. Valkenburg and Jessica Taylor Piotrowski detail all the ways that media impact children, with a chapter specifically dedicated to video games. Minecraft comes up prominently because of how it appeals to both boys and girls, ranking in the top five games for both groups according to data gathered by Valkenburg (Valkenburg & Piotrowski, 2017, p. 207). They note that the game “lacks levels” in the sense of having specific goals and “rewards” that incentivize progression, instead allowing the player to come up with their own goals (p. 206). They also note how “extensive” the social functions of the game are, and how that is assisted by the multitudes of YouTube videos that give more prompts for interacting with the game. They propose that the game appeals to both boys and girls because of this versatility where they “can express and exploit their own interests and exercise individual creativity” (p. 207). They note that Minecraft is an anomaly because boys and girls each have a largely different interest in games.

A study by Jorge Blanco-Herrera (2019) further investigates Minecraft’s impact on creativity, dividing participants into three groups: the first participated in other forms of media, while the other two played the game in two separate ways with all participants attempting a drawing exercise testing creativity afterwards. Of the two groups that played Minecraft, one was instructed to be creative during their play while the other was left alone. The drawing exercise

tasked participants to imagine a species from a planet very different from Earth, with the metric for creativity being how different these aliens were from humans. The group that was given the instructions to be creative while playing Minecraft scored the lowest. Blanco-Herrera and his colleagues postured that perhaps the participants had used up their creativity so to speak, or that the invitation to be creative ended up being a limitation on their play of the game and consequently the test (Blanco-Herrera, 2019). The idea is that Minecraft is very open ended and the suggestion to be creative actually limits the scope of actions that the player would take, and in turn impacts their ability to consider all options for drawing during the creativity test.

Blanco-Herrera, along with Douglas Gentile and many other contributors wrote chapters in the book *Video Games and Creativity*, edited by Garo Green and James Kaufman, (2015) wherein the game is cited several times as a notable example of how creativity is inspired. Bowman, Kowert, and Ferguson cite Huizinga and Caillois to define play as something engaging that can come in many forms, going on to highlight Minecraft as “characterized by its lack of rules and free-form play” (Green & Kaufman, 2015, p. 44). They go on to describe how games can be tools for “creative expression,” specifically pointing towards the recreation of an entire continent from the fictional world of the *A Song of Ice and Fire* series by George R.R. Martin, which is one of several examples of other media influencing players to create enormous large-scale recreations that will be discussed further later (Green & Kaufman, 2015, p. 50). Hamlen and Blumberg discuss what cheating means for games as far as how players view what is fair and is not fair, explaining that creating rules around these cheats is another form of creativity (Green & Kaufman, 2015, p. 84)

Other researchers focus on what inside the game allows for greater amounts of creativity, or what allows it to be so free flowing. Blanco-Herrera, Groves, Lewis, and Gentile note that players encounter almost no hostile mobs during the day so they have the chance to build in preparation for the constantly spawning monsters at night, and then the next day they get to fix and improve their base for the next night. They find that this gameplay loop naturally fits the “ideation/evaluation” process, which is one where an idea has time to form in the head and then be created to then be tested by external forces or perception (Green & Kaufman, 2015, p. 155). The game does this by allowing players separate spaces for making ideas during the day when there is no danger and having them be tested at night by dangerous mobs (Green & Kaufman, 2015, p. 155). Finally, Cook notes that Minecraft’s randomly generated worlds are composed mostly of familiar landscapes like forests and oceans, with rarer structures and landmarks being sparse. He explains that this mirrors a typical creative process, where a person will often be working on what is familiar, with moments of ingenuity and breakthrough (Green & Kaufman, 2015, p. 229).

Minecraft has been studied in many fashions, especially how it can facilitate creativity or be a tool for creative learning. Ellison and Evans illustrated the many ways that the game allows children to interact, and in turn learn in a variety of new ways by using the game. They also observed how much teacher and parent participation in engaging with the game could facilitate learning. Bos et al. listed more specific examples of how the game can be brought into the classroom, specifically to build skills detailed by the Common Core State Standards. Both sets of authors noted how this is very often a process of bringing children’s recreational interest in Minecraft into the classroom, as many already play the game. Valkenburg & Piotrowski affirm

this idea by demonstrating how the game has a wide appeal to all children. Green & Kaufman compile several studies on how creativity is facilitated by the game; a lack of rigidity that allows of the widest array of exploration, space in the world for both exploring ideas and having them be tested against hostile entities, and finally diverse landscapes that mimic the varying levels of productivity that the player can have.

METHODS

This investigation builds on a pilot study interviewing four of my friends about their experiences with Minecraft. That study began as a reflection on my own experiences with the game in the context of creativity. I found that for me it was not only a creative medium, but also a place that I had made very real connections to other people and experiences that stuck with me for the rest of my life. Those connections and experiences kept driving me to keep playing and in turn keep creating new things with my friends. The things I created did not even need to be strictly collaborative, there was something special to being able to create buildings that I was proud of in digital worlds that my friends also inhabited. I could not figure out the exact words to describe this feeling, so I reached out to four friends whom I had played the game with to learn about their experiences. Those experiences were heavily individual, but across the few interviews themes started to form. The themes then fit into larger categories: **social sphere, roleplaying, world feels real, exploring and inventing / freedom.**

Social sphere described all the ways that the game was a space for the interviewees to interact with their friends and personally grow from those interactions. The themes in this category are: *influential media, collaboration, specific times, understanding others, friendships, and knowledge of how other's build*. Under *influential media*, I included all the times that other media like YouTube videos influenced the interviewees to play the game, or play it a certain way. *Collaboration* referred to how often they worked together with friends to build things or reach certain self-chosen goals within the game. *Specific times* is a broad category that illustrated how clear some of these memories spent with friends could be despite years having passed since they happened. With *understanding others*, there were a couple of stand-out examples where the

interviewees came to new realizations of how to interact with friends, such as a player distinctly remembering destroying a friend's build. That player mentioned this experience as something that was a marker where they realized how much their actions impacted their friend and vowed to keep that in mind in the future. *Friendships* as a category includes powerful accounts of how friendships were born and built in Minecraft. Three out of the four interviewees are friends I met online, and all of our reflections detail specific moments of how Minecraft helped those friendships blossom. Finally there is *knowledge of how other's build*, which covers remembering and praising explicit details of friends' builds as well as using friends' builds as inspiration for one's own builds.

Roleplaying contained just two themes, *personal growth* and *emotions tied to the game/world*, as it covered similar ground to the previous category but specifically detailed experiences that were defined by roleplaying within the game. Roleplaying within the game is inhabiting a certain role during the play. For one player filling the role of an enforcer on an online server started out as a place of confidence building, but then illustrated how it could let power get to his head. His conclusion was that the game allows you to roleplay as what you would like to be, and in doing so you form who you are inside and outside the game. Memories like this are what came together in the theme of *personal growth*. *Emotions tied to the game/world* reflected another aspect of roleplay, that despite "playing" the role or simply acting in a fictional setting, this attachment could allow for real emotions and feelings of pride. One of the interviewees detailed emotions connected to in-game roleplay such as the excitement surrounding encounters with others and pride from working hard to earn a house in the game. Only two of the four described these experiences so it seemed that roleplaying was unique, but a

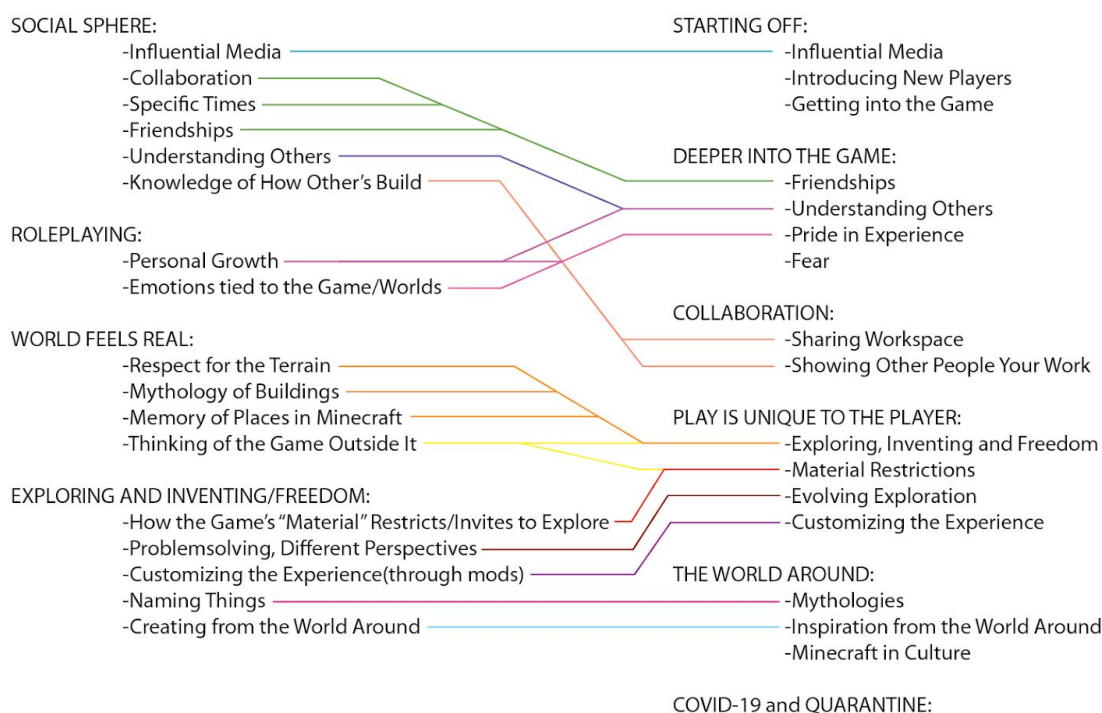
reflection of the earlier themes connected to the category of the social sphere that exists within the game.

The **world feels real**, or rather the world feeling real, illustrated the various ways that the world was inhabited in a sense that the interviewees were directly respecting and being influenced by the digital terrain as if it was physical. Within this category were the themes of: *respect for the terrain, mythology of the buildings, memory of places in Minecraft, and thinking of the game outside of it*. Across the interviews it was clear that the interviewees had a *respect for the terrain*, where they would go out of their way not to disturb the “natural” way that areas were being generated. The architecture of the world functioned in a way where it transcended from simply representing things like a forest or a mountain to instead *being* and *feeling* like them in the players’ eyes. Some of the interviewees would even create their own *mythology of the buildings* that they built, like one imagining stories behind a “magic tower” he built. Similar to the respect for the terrain there was also a clear *memory of places in Minecraft*, where players could remember specific mountains or other fixtures of the world that they encountered from past worlds that they played in. Much like one might think about an upcoming vacation, there was also *thinking of the game outside of it*. Several quotes detailed experiences of being in specific parts of their home towns or cities and thinking about what to do next in the game.

Lastly there was the category of **exploring and inventing/freedom** about how the game has a boundless world that is created in a way that it invites exploration. The themes within this category are: *how the game’s “material” restricts/invites exploration, customizing the experience(through mods), problem solving/different perspectives, naming things, and creating from the world around*. While there is a technical limitlessness to the game, *how the game’s*

material restricts/invites exploration explains how materials that are immediately available to the player facilitate directed creativity. Alternatively, the player might explore further to find the material they want, either way there is a feedback loop between exploration and creativity facilitated by the overall freedom provided by the game for the player to do whatever they want within the world. Even outside the standard confines of the game, some players started *customizing the experience(through mods)*, either using the in-game options to alter the gameplay or instead using modifications(or mods) to add new content. Similar to the experiences in collaboration, there were also *problem solving/different perspectives* where working as a group also meant negotiating how to work with one another. The confine of working in tandem with another person became a source of inspiration and brought about new ways to explore the game for the interviewees. Next *naming things* played a key role in not only giving importance to the game world, but also presented a way to create ideas around the experiences in the game. On the flipside there were many who were *creating from the world around* taking inspiration from popular media, or even creating buildings and areas that came up in their own lives.

These broad categories and individual themes were clarified and revised by the ten interviews in the present study. On the next page is a table, with the pilot study on the left and the current study on the right,

Table 1 Categories and themes

that details these shifts and ways that those original categories and themes are informing the current categories and themes, which will be detailed and connected to selections from the interviews in the **analysis** section.

The present study adapts the interview format from the pilot, focusing in addition on different amounts of experience with the game as well as a larger variety of ages. On the next page are the differences in the questions and a summary of the participants, with the pilot on the left and the current study on the right (Tables 2 and 3).

Table 2 Interview Questions**Pilot Study:**

When did you start playing?

What got you into the game?

Can you give me more of your history that led to this?

What are your first experiences?

Other memorable times?

Tell me more

How about now?

Does Minecraft come up in other places in your life?

Tell me more

Current Study:

Where did you first hear about the game?

Is that what got you into it? If not what did?

What was the first time you played like?

Did it change with more sessions of play? How?

What are some other memorable times?

Did you play with other people? If so, how did you know them?

Did the game come up in (or relate to) other parts of your life?

Do you still play the game?

With whom do you play?

Do you have recent instances that are memorable to you?

Does the game come up in those same parts of your life? Or other parts?

Table 3 Participants

(Numbers have been given to the participants for reference. All names have been changed)

Participants:	Age:	Time Spent Playing the Game:
Participant #1	21	9 years
Participant #2	21	7-8 years
Participant #3	21	8-10 years
Participant #4	23	9 years

	Participants:	Age:	Time Spent Playing the Game:
#1	Cole	6	3 years
#2	Nathan	9	3-4 years
#3	Travis	9	5 years
#4	Elijah	9 1/2	3 years
#5	Graham	10 1/2	4 years
#6	Bryan	17	6 years
#7	Keegan	20	8 years
#8	Stella	20	8 years
#9	Vincent	22	1 month
#10	Jay	23	8-12 years

The current study was initially planned to occur on or around the Sarah Lawrence campus in sit-down meetings with the researcher and interviewee. The questions are listed above, and

aimed to get the full details of all of the participants' experiences with the game without leading them to conclusions about it. The interviews were planned to span anywhere from 30 minutes to an hour, especially depending on the age of the participant. These interviews occurred between the months of March and June. The first two interviews happened in person, but in March the COVID-19 virus reached the United States and everyone had to quarantine. With everyone having to stay at home, the interviews moved online to video calls between the researcher and participant. After a couple more interviews, it became clear that the pandemic and quarantine were allowing specific interactions with the game, so another question was added to inquire about that specifically.

The questions posed aimed to detail three major time frames: when and how the player got into the game and what that was like, any memorable experiences after that, and whether they were currently playing the game. There were also questions to establish who the interviewees played the game with at each of these stages. Finally, there were clarifying questions to understand if and how their play with and relationship to the game changed over all of these sessions of play. Just as COVID naturally came up in interviews, more often than not the researcher would not have to ask many of the questions as the interviewees would supply a great deal of specific details.

The pilot study had 4 participants between the ages 21-23 with around 7-10 years of experience playing the game. The current study builds on this by not just having more interviews, with 10, but also has a broader age range of 6-23 years and a larger experience range of 3-12 years. There is an outlier in the current study of the interviewee who just started the game, with just 1 month of experience, as well. What is interesting is that counting the pilot and

present study together it seems there are two “groups” of engagement. The first group is comprised of the 17-23 years olds, which all, besides the outlier, started playing that game when they were 11-13 years old. The second group, made up of the 9-10 year olds and the 6 year old, all got into the game much earlier at 4-6 years old. See Table 4 below.

Table 4 Groups of Participants across the Pilot and Present Study

(“Time Spent Playing the Game” has been abbreviated to “Experience”)

Participants:	Age:	Experience:	Age Started:
Cole	6	3 years	3
Nathan	9	3-4 years	5-6
Elijah	9 1/2	3 years	6
Travis	9	5 years	4
Graham	10 1/2	4 years	6

Participants:	Age:	Experience:	Age Started:
Bryan	17	6 years	11
Keegan	20	8 years	12
Stella	20	8 years	12
Participant #1	21	9 years	12
Participant #2	21	7-8 years	13-14
Participant #3	21	8-10 years	11-13
Participant #4	23	9 years	14
Jay	23	8-12 years	11-15
Vincent	22	1 month	22

This difference in age-groups, as well as the new categories and themes, will be discussed further in the next chapter. All the names have been changed(including those of people mentioned in interviews) to protect the privacy of the interviewees. **Transcription of the interviews is available from the author by request.**

INTERVIEWS

CATEGORY 1 – Starting Off

The first interview was with Keegan, a 20 year old college student, who had played the game since middle school. Near the end of the interview while I was summarizing my take-aways, they interjected with a strong and firm “it's never stopped being a part of my life”. They made it a point to relate how much the game is a part of their life, which started with their watching people play it on YouTube. They watch a variety of channels including “Shepsquared and Joey Graceffa and Achievement Hunter,” the middle of which inspired them to make their username in Minecraft “Keegan Graceffa.” It was not just YouTube, they recalled “that era when like Minecraft was like everywhere on shirts and everything,” even “going on like Amazon looking up Minecraft shirts and putting a bunch of posters in [their] room,” where Minecraft was prominent enough to be the topic of commodities. They discussed how they still watch many of the same channels and series today, as it is very much still “a part of [their] life” in many ways. It seems the presence of Minecraft in culture is one part of presence in their own life and could be connected to how the younger group of interviewees started playing the game at an earlier age than the older group.

Influential Media

Another interviewee, Graham, a ten-year old, had the same experience of encountering Minecraft on YouTube first, with that exposure being what inspired him to actually get the game. It was a different situation from Keegan, who was a die-hard fan of specific channels and sought them out, instead Graham had just seen Minecraft all over his YouTube page and decided “why

not try it out”. Even with an approximate ten year age difference in ages between the two interviewees, Minecraft still had a huge presence on YouTube. In fact there were so many Minecraft videos that Graham learned he had to distill them to find the content he wanted:

“I have my sources on YouTube. The way I do it is: I think what happened was I chose at the— when I started watching minecraft stuff on YouTube I chose two or three YouTubers who actually played with other YouTubers and then I used them to branch out and that way um I figured out like who was a good YouTuber and who wasn't with the supply that I had and then I used that to effectively branch out and find all of the YouTubers like for example mumbo jumbo”
— Graham, #5, 10 years old

The game was important to Graham to the point where he invested time to be diligent about what he watched in relation to Minecraft. Inversely, his interest in the game caused him to develop the skills to be discerning with what he watched. This ability to find content relating to personal interests in Minecraft could be found across several interviews. Nine-year-old Elijah also followed a very specific type of Minecraft videos by “The Dark Corners” that relate to scary stories and mysteries about the game.

For most, YouTube was a place to watch ongoing series and videos about specific features of the game, both of which can give new ideas on how to play the game. Another nine-year-old, Travis, watched a YouTuber named Magma, who does both long-form series and specific informational videos, and from this Travis had learned a wealth of knowledge about the game that he readily shared with me. He also cited specifics from the game that these videos showed to him, like the use of one new coral block, which is yellow and shaped like a bowl, as a nest for chickens. Interviewee Stella is a twenty-year-old like Keegan, and she also followed specific channels, in this case they were “Smosh and Tobuscus”. She specifically got an idea from Smosh to make a giant glass dome underwater for her friends to fight in. The channel gave her ideas of things she could build that would have the utility of being places to gather and have

fun with her friends. Her first time playing the game was actually on an online server that is an adaptation of the competition in the novels/movies *The Hunger Games*. Keegan also played on these online servers after watching several YouTubers participate in them. There are many ways that YouTube is a facet of all player's interactions with the game, with specific threads that can be tied between them. What one engages with can be highly individualized, as is the case with Elijah, and in this way the content available on YouTube can be diverse and reflect the variety of pursuits possible in the game.

YouTube or some other online video sharing service came up in almost every single interview, but the oldest of the interviewees at 23, Jay had a different perspective on how those mediums should influence his play. He distinctly remembered a point of contention between him and his friends in looking up how to do certain things on Minecraft. His friends asserted that it was the most efficient way to go about things, while he objected that he would "rather figure out how to craft this stuff" on his own. He keeps this philosophy today for Minecraft, and other games, only conceding that at one point he had to look a YouTube video up on how to use a specific contraption in the game. He clarified that he does not "think that's bad or good. That's just [his] philosophy," which reflects how much the external experience of the game can be customized and catered to the individual. There is no one way of interacting with the media outside the game, whether it is YouTube, Facebook video or the streaming service Twitch. There is a community that exists outside of the game that helps players get into it.

Introducing New Players

Another support system that exists outside the game is how experienced players help and play with new players. Several interviewees detailed experiences of introducing new people to the game. Keegan recounted two separate occasions of introducing friends:

“It's, it's really fun I feel like I think for me I have a lot of enthusiasm about it and that kind of makes it apparent to people especially like when they haven't played it before. And so they're kind of like well like I want to see you know what game it is to make you act like this yeah cuz like like especially if you know me like I don't I don't say like I'm in like not excited person like I don't get like “woah!” about a whole lot of things so whenever people do see me like you know kind of freaking out about something like that they're like okay well like let me go check this out like. With my friend Taylor I got them to start playing again or like with Molly I've I've gotten her recently to kind of start playing it. And it's it's kind of harder to get someone because you can't force someone to have the same enthusiasm as you but it is it's super fun like when you can get someone to like see the good in it” – Keegan, #7, 20 y/o

They spoke about how they know their excitement for the game is palpable, especially when compared to how they react to situations more broadly. They cited how “especially because I have a lot of younger siblings like I'm used to taking care of them and so I just automatically like put myself into that role like you– I like to be a teacher and show people how to do things,” and how this natural ability to lead others through the game is something they were used to. Travis also noted about himself that “I just when somebody needs help on a game I just help them and then sometimes they have these really cool creations,” adding that he liked to do the same in class by helping his friends with math homework. For both of them, habits of helping others manifest in the game.

The self being a part of the play in this way seems to go against one of the properties of play brought forth by Brown, specifically the diminished consciousness of self. The key word is consciousness, meaning it is much more about whether the player is focused on themselves

instead of the game/play. Keegan described earlier in the interview how they can get quite scared by caves, as many hostile mobs can live inside of them. They noted that despite this fear they “also tend to take the like protective role, someone else is playing then I’ll be like well hold on let me go do this and like let me protect you from this skeleton shooting you,” which seems to directly reflect a lack of that consciousness of danger to the in-game self that caves usually presented to them.

Seventeen-year-old Bryan had a similar experience of introducing people to the game, although not so ingrained in a natural inclination to lead/protect others. Due to the pandemic, a large portion of his class came together to get a server for people to keep in touch. Many of these peers were new to the game, and he affirmed that despite this newness

“they were able to connect to it very quickly because of everyone that was around them being there to experience it with them like the whole part that now their friends are part of their experience I think that helps a lot to build a connection between them in the game and I think that goes all the way back to like you know memorable things. They’ll remember playing minecraft with their friends, I think.” – Bryan, #6, 17 y/o

He also added that the prevalence of the game in popular culture meant that he

“could not find a single instance where I had to like explain something at like a baseline level that a new player would have to understand... they had seen enough of the game by now or like heard enough about it to where they understand like what the whole point is, what the base steps are and what the tools are” – Bryan, #6, 17 y/o

So just as noted before in how Keegan could learn about the game and see so much Minecraft merchandise around, Bryan’s classmates knew enough about the game without ever having played it before. This universal knowledge seems to be a great help for new players, and is perhaps why there is that younger bracket of interviewees that have all started the game at an earlier age.

Another instance of introducing new players is Graham helping his own mother, who had recently gotten in the game after seeing how much he played it. This already demonstrates the idea Keegan discussed of how they can tell their enthusiasm is something that made others want to try the game out. Graham noted that he does help her but also lets “her do her own thing” because he wants her to be able to do what she chooses. Graham was illustrating the notion that true play needs to be *voluntary*, as Brown (2010) states, by letting his mother play on her own without his direction. The way he helped his mother is much more on the practical side; for example he had heard she was searching for more arrows, so he took it upon himself to make an automatic generator of arrows, which he then showed her how to make. He was not directing her to where she should go, only responding to what she encountered by her own direction. There are several different ways of leading players into the game, which seems to vary greatly based on who the experienced player and who the new player is. What begins to become clear is that the freedom of the game’s play allows for getting into the game from many different angles.

Getting into the Game

On the flipside there are several accounts by the interviewees of being introduced to the game. A surprisingly large number of them are specifically by family, where an older cousin introduced it to Jay, Elijah, and Bryan while six-year-old Cole was introduced to it because of his older brother, Nathan. It is almost as if the game is passed down as a torch from generation to generation. Bryan recounted how he would ask a lot of questions directed at his older cousin when he first played. Again, this is like the situation with Graham’s mother where instead of being directed by the experienced player it is instead the new player initiating any help from the

outside. This is a process very reminiscent of Jay's notes on using YouTube, where it is an optional resource instead of a necessary guide for engaging with the game.

The last interview was conducted with Vincent, a 22 year old, whose memories of being introduced to the game are quite fresh as he only started playing a month back when friends urged him to get the game. His experience varies greatly from the other interviewees, where instead of going on his own path, he found himself following his friends. He noted how this can actually be helpful as the dangers in the game made exploration difficult, although his friends often had to double back and find him as he often got lost due to his inexperience. He continued that often his friends would explain things to him, but clarified that he was not "missing out" because he "still [goes] into it with fresh eyes when" he had to do it for himself. He also spoke about how this is a natural state for him:

"I guess I'm more experienced in this where I'm just kind of tagging along and so it's a different experience in that but I feel like I also end up the same with minecraft play as I am as a person. So it's not really that different, I would be doing the same thing in any other game as Minecraft. I'm the type of person to stop and smell the roses. My girlfriend, we were hiking, she commented that she looked away for a second and when she looks back I'm nowhere to be found and I'm like I'm like fifty feet behind them. And I am very much the same way in Minecraft my friend constantly have to find me, I stop and look around rather than follow as Minecraft... I think I would enjoy it less if I had the same level experience as them really I think so because I know my friends have a lot more experience and kind of can can meet it and so I think I would be a much more useful player if I was as good as them, but it would be like three leaders and that wouldn't be fun. I think I would be a better team leader, and it'd more enjoyable game for them but for me I don't particularly mind just doing my own thing what progress, I just kind of look at the fish"
 – Vincent, #9, 22 y/o

So for him he enjoyed being able to be the same way in Minecraft as he is in the rest of his life. He did still try to learn other parts of the game, like the way to make certain tools, by playing on his own. As a whole it seems that Minecraft offers the opportunity to just be "you" especially in the context of working with others. To extrapolate, the freeness of the play means that novice

and experienced players can play side-by-side without the gap in their experience preventing them from direct engagement. The world of Minecraft is open to all experiences at once.

CATEGORY 2 – Deeper into the Game

Friendships

At the core of many of these introductions to the game is friendship, where new and old players wanted to play the game with someone they know. Vincent picked up the game to play with friends, as did Keegan's two friends. Friendship can be a powerful force to accompany starting the game, but it also has a clear place for many in the way that they experience the game's world. As Vincent noted, he was able to do different things with friends than when he was on his own. For many the game can be a way to build and grow friendships. Jay recalled a specific moment where he played Minecraft with a friend, creating a basketball court together in the game:

“And this is a friend I really enjoy enjoyed, appreciated and we hadn't connected in a while and it was a new way for us to connect and I wasn't as into basketball and but I was into the making of the court and yet I was really able to bond with him in a new way by helping him make this basketball court” – Jay, #10, 23 y/o

Minecraft became a common ground for Jay to reconnect with a friend. He had the inverse happen where friends would build train stations with him because that was what was his interest.

Stella had a similar experience where she details how not only was it a friend that got her into a game, but how often Minecraft would naturally show up while her friendships developed.

“I was gonna say for the most part but like yeah pretty much they're all friends I've made, like I met someone in school and then like we both decided to play Minecraft together so you already have to be like a certain level of friends to play Minecraft together unless you know you're added to a group chat with somebody else and they're playing, but I think then after that it sort of bonds

you together even more. Like a friend of mine we're planning on playing like later" – Stella, #8, y/o

"I think it sort of starts with like, I you know, you introduce yourselves you'll become like a little bit friends you know like especially if you meet someone in school you sort of like get launched into a really close friendship really quickly especially if you're like the only two people in that a class that you know or like it's the beginning the year or something. But I think that with Minecraft like if you meet someone and you guys are kind of friends and you know you like them and you mention like "oh yeah and I was playing Minecraft" and they say "oh I love minecraft" then you say "we should play together" and it's sort of like, it's it goes past like "oh we're acquaintances"" oh were we're friends on Instagram" we're from, like "we text each other sometimes now," it's like they have my skype they have my minecraft account like that's I think it's a little of an intimacy that's like only achievable through Minecraft" – Stella, #8, y/o

For her Minecraft is an intimate space that is almost like a stage of friendship that allows people familiar with each other to become closer. The way she generalized this exchange speaks to what other interviewees have noted of Minecraft appearing very often in everyday interactions. She specified how she used the applications Skype and Discord to be able to speak with friends while playing. Bryan also mentioned that Discord plays a prominent role in organizing his classmates together. Stella gave a concrete example of this process of how she met and bonded with a person who would be her roommate next year:

"Most recently, I have a friend, we met like right before college started like we we sort of met each other through the roommate website and started texting through that and all throughout freshman year we never actually saw each other in person we were just like, like they're a very very close friend of mine and even then and like we just never saw each other in person. And then beginning of sophomore year, so the beginning of this year, I like we were texting and I think they had just broke up with their girlfriend and it just sort of like turned into "let's hang out let's play minecraft" and like it evolved into now they're gonna be my roommate next year and we are, we got a realm and we're paying for it together and it's like, it's our child. And so like I think that without minecraft, without the internet, without like all of that connections, like that is a person that I wouldn't be close to and I don't really know where my life would be right now is they weren't in it, you know" – Stella, #8, 20 y/o

So clearly the game has had a marked effect on her relationships and friendships, and on the flipside of all these positive interactions is the potential for negative exchanges as well. While recalling a former friend that she spent a lot of her experience in Minecraft with, she notes “it’s stupid for a game to be ruined by any one person,” reflecting an understanding of the game’s strength in her life. This ability for the game to at once impact relationships greatly while also being immune from the tumultuous parts of them seems to reflect the key properties of play in continuation desire, inherent attraction, and diminished consciousness of self. In the way that one might think it’s silly to have a game like Tag (wherein one person is “it” and has to chase and tap or “tag” another player to then make them “it”) be ruined by one person, Stella’s attitude is similarly resolute.

Bryan detailed an experience he had with some of his classmates and friends on the Minecraft server. Specifically he had seen a video where people would take out “hits” on people somewhat like an assassin and you would gain something if you successfully killed them. He and friends organized this a couple times on their server, and for one of their classmate’s birthday they had everyone have a “hit” on them. When the person joined everyone killed them, but afterwards Bryan and his classmates “called them and then [they] said happy birthday and it was really sweet”. When questioned about how this can happen in good fun, he responded that it relies on mutual trust. He explained that you can enjoy the “hit” game because you know that your friends will return your stuff afterwards. He later noted how he enjoys Minecraft both as a solo experience but also as one where he could continue to make friends and meet new people.

“Yeah, there are very few games that I would play by myself, I can still play Minecraft by myself and have a good time because of what we discussed earlier about like building our own happy place but I think I have a much more enjoyable and memorable time when I’m with my friends or making new friends because they’re bringing in their friends from their schools.”

– Bryan, #6, 17 y/o

All of the friends thus far have been met in the real world, often in school, but Travis spoke about meeting people online and them becoming his friends. He mentioned how one build is with one of his “really good friends on it, his game name is Link zero of 12, from “The Legend of Zelda,” of course, and he and he's actually really nice... And he’s pretty decent at commands and stuff.” When I asked more about how he plays with this friend he added that “he is actually really nice, he's he's just as nice as my real friends I actually know in like school,” clarifying that an earlier detailing of another build that is special to him was built with this friend. He started this by saying he likes to play with this friend because he can build in the way he wants to. He also mentioned how often random people online would help him out in public servers, and he in turn helped anyone he saw who needed help. This community that helps one another seems similar to Bryan’s detailing of the group of his classmates that could trust each other.

Understanding Others

The interactions in the game are not perfect, and with friendship and connection comes disagreement and negative emotions like anger, sadness and regret. Jay recalled how along with all the times he spent building with friends, there were also times when people would cause a lot of destruction towards what he was building. Those acts would make him angry enough to retaliate in kind. He talked about how these disputes were with a close friend and how the intensity of them made another friend want him and this adversary both off his server. He went on to say:

“You know dramatic stuff can happen but I think especially like in high school I guess was all going down and I'm sure that I'm not the only case with that I'm sure there's other friendships that have been muddled and I don't know if you have any of those experiences...” – Jay, #10, 23 y/o

And when asked about how you get past that in the friendship he said:

“I don't remember how that's why I don't have a response. I think it just came down to like whether I saw redeemable qualities about that person outside of this game and that we could enjoy you know the game in other capacities together or just enjoy other games right and just try out other things because there's just so much open endedness in Minecraft that can lead to this destruction versus other games it's controlled” – Jay, #10, 23 y/o

He detailed how eventually he realized “oh yeah you know what like if he kills me like I have other games I have other, you know, parts of my life.” He is still friends with this person but has been able to talk things through with the friend who “admitted to me that he likes to blow things up just like flat out,” and being able to acknowledge and accept that has allowed them to stay friends and keep playing the game together.

Another disagreement that Jay brought up is of an entirely opposite subject, instead focusing on construction instead of destruction. He was building a large scale airport with friends and he remembers there was a dispute on the placement style of lights. He did not even remember what he was in favor of, just that both sides were very passionate because of the time they invested into building the airport where it's something “they take pride in.” He went on to say:

“I guess I guess I kind of separate people from the experience, I mean obviously like if I'm laughing with someone we're having fun in the game, *yeah* I feel close to them, I think from that perspective yeah, like that simply is an understanding but I guess it's in the same way like this is how I view this. This is like the classic example, I love just throwing a ball back and forth with someone, am I actually learning something about that person? Not really, but like I feel like I'm closer to that person just because we're enjoying throwing the ball back and forth. I think and I know it doesn't seem like this should be, you know, that good of a comparison, but I think it is, in that way I perceive it in the same way like I just play Minecraft and we just have fun, I think it's the same thing although and that kind of seems weird because you think like you know if you spent a lot of time to build this really cool thing together that that would bring an even greater level of closeness then you just feel like wow we did this but I think I never completed something that impressive with someone else to be able to say that maybe if I did, I might feel different. And I hope you find people who do because I bet there are.” – Jay, #10, 23 y/o

Images 3 & 4: An airport and airplane that Jay had built by himself similar to the one he made with friends. Light-emitting blocks were placed along the sides of the runway, and additionally make up the “1” near the bottom.



He showed an ability to reflect and distance himself from the experience when he knew that the emotions were high. He also acknowledged that these emotions are likely the breeding ground for closer relationships, as was seen in the many instances of friendships being built in Minecraft. The analogy of his time playing with throwing a ball back and forth is especially interesting for this study on play. Much like the sandbox metaphor he is illustrating something not just about Minecraft but about play in general, that at the end of the day the content of the play can be incredibly simple, where no information is shared or intentional effort is put into becoming closer, but somehow by doing that play together you become closer.

Stella actually had an experience where she was on the giving end of one of these destructive encounters, where she kept messing with her friend who was just getting into the game. She had convinced her friend to play on the same server where she made the glass dome mentioned earlier, but let the power of controlling the situation get to her head.

“Like we would fly up and then spawn monsters and they would start doing that and it was like a really fun game but while we were still building it, I was an admin or mod on the server, whatever it’s called and so I, you know the power went to my head and I was just like blowing stuff up and it wasn’t really an issue but like I was playing with a friend of mine, my friend Mabel, who we’re still best friends, obviously this didn’t ruin anything, but well a little bit because like she kept like building stuff that was not working on like whatever we were working on she was just like having fun and I kept blowing it up and she was like “stop blowing my stuff up or else I’m never playing Minecraft with you again!” and I’m like “pshh” and I kept blowing it up and we’ve never played Minecraft together since then” – Stella, #8, 20 y/o

She stated that after that she realized that “Okay, I don’t want that to happen again, I’m going to be a nice person now,” in a moment of blunt self reflection. As Jay noted, the game and real life friendships can be viewed as separate, but the aggressions and arguments that happen within the game will still have lasting power. That potency was something that changed Stella to make sure

that the game was not just a power trip, and instead something she and her friends could enjoy equally.

Pride in Experience

It is clear that across several examples, living and investing in the world can lead to the highs of friendship and the lows of arguments, but there are several other ways that emotions can be embedded in the experience. Stella remembered how recently while playing with a friend she was able to take down several enemies from a great distance with a bow.

“I discovered I’m a really really good archer for some reason, I just like, I could nail a zombie from like, I don’t know. 300 blocks away, or whatever it is. And like that was just really fun being able to like feel like I’m good at something when I’ve never like picked up a bow in my life, like it’s really cool I can feel really accomplished about something in a game, which you know like I don’t really like feel a lot.” – Stella, #8, 20 y/o

It was a clear point of pride to be able to have this special skill, reflecting how the game has importance in her life. She even went as far as to juxtapose that feeling with a lack of that pride in other areas of her life. To a lesser degree nine-year-old Nathan recalled how he and his friends fight each other with pieces of meat in what they call the “meat wars,” of which he happily states he is the “standing champion”.

In a similar light to this pride, Jay recalled a specific time where on a server he visited his friend’s area. The friend had built a statue with the rarest and by extension most valuable material in the game, diamond.

“At first I thought like “oh that’s silly, why would he use the diamond for a block?” but it was just like it’s to show the wealth of our people. you know that just stuck with me. The idea you know the diamond is the most valuable resource in this game so, it was interesting” – Jay, #10, 23 y/o

When I asked what he meant by “our people,” he clarified with emphasis “*his* people,” reflecting how this moment was powerful for Jay because the stylistic choice by his friend reflected a certain commitment and attitude towards representing his area. It is hard to tell exactly what emotion this evoked, it likely was just awe, but what is clear is that it left an impact on Jay.

What emotions the game evokes can be a spectrum, changing based on what is happening, who the player is, and who they are playing with. Keegan even mentioned how their aunt has a chart that she uses for her children with pictures of the mobs in Minecraft to describe different emotion states. As Ellison and Evans (2019) noted in their observations of how Minecraft can be used in the classroom, the game can mean a whole lot for the children that play it.

Fear

Just as pride, and many other positive emotions can be attributed to the game, so too can negative emotions outside of just anger. Fear plays a key role in several of the interviewee’s experiences. Vincent mentioned how having friends helped him explore, contextualizing it in the fact that nighttime could easily be a source of worry in finding safety. Vincent’s fear of the night is shared by Keegan especially, where they would often stop playing the game earlier on because of how much the darkness at night and caves would present danger. Keegan relayed that over their many years of playing, they only recently had gotten over these fears because their desire to protect their friends was greater than this fear. Like Keegan, many had to learn how to deal with the night and its dangers, as Blanco-Herrera, Groves, Lewis, and Gentile note it can be a way to grow as a creator/player in the game (Green & Kaufman, 2015, p. 155). Many of the interviewees dealt with these problems by learning how to avoid them and beat them. Elijah

stood out because he actually sought out the night and enjoyed fighting the hostile mobs. The enjoyment of fear actually permeated throughout how he played the game, with his personal goal being to find a mythical entity called *Herobrine*. Fear and the way that dangers are present allow the world to be dynamic and it seems it can facilitate a sense of accomplishment when that fear is surpassed. Conquering fear is a source of pride as seen with Keegan, and it can even be a bonding experience for people like Vincent.

CATEGORY 3 – Collaboration

Sharing Workspace

While detailing one of his earlier builds, Jay brought up what he feels might have started a focus on the details of builds in general.

“I was on a server and I remember I built a pretty simple house and I was with a couple of my friends and these friends of mine were very brilliant people and my house was definitely the simplest and I was slowly working on and I didn't have as much time to work on the server as my friends did. And I remember at one point my friend said to me “what are you gonna do with your house is that it” well “I’m gonna do it” “well we're gonna like make it better for you if you can't make it good” and I just remember feeling like really sensitive about that because I think “oh I enjoy my house” I thought it was good but to them it wasn't sophisticated enough in architecture. So I just wanted to bring that point out. That that exists like in the Minecraft world like this some people are able to create some really complex structures.” – Jay, #10, 23 y/o

He mentioned this in the context of his first house, which he explicitly described as “Frank Lloyd Wright-ian” in viewing how it is shaped. He indicated that observing his own builds, he was better able to stand by the decisions he made around how they were built. He acknowledged that he can build much better now, and looked at those more simple builds with a positive light much like he would “an old essay.” Bryan also highlighted this shift in playing where you start to look at other people’s builds:

I think the biggest reason why that changed happened was because I started seeing all the cool things that people were doing around me um I know uh actually I just remembered my cousin showed me like this little world where him and friends had built a small little village and I thought that was really cool. Also when you learn more about the game you learn more about like the materials you can get, the things that you can build with, and also I think being online makes it really easy to see other people's creations and when you see other people's creations you're like 'wow I want to do something like that too.' ” – Bryan, , #6, 17 y/o

Seeing what is possible is a way to grow for many, where it gives ideas of what *can* be done in the game, not what *should* be done. This is very reminiscent of how new players were able to experience the game in their own way, even with a more experienced player present.

Another tangent of working with others goes beyond building, and instead relates to specialties in interacting with the game. Travis mentioned in his interview that he encountered a rare variant of the panda in the world, which is something he only learned because of his friend. He explained how he often likes to mine and focus on minerals, while his friend specializes in animals. Just as Stella was happy to be able to be an archer, it seems players can also learn to work in specific roles when working in conjunction, and in turn have pride in that specialty. Again, there is no “right” way to play Minecraft, and it is very easy to work alongside people of different skill sets and experience levels.

Showing Other People Your Work

As mentioned earlier Graham learned of his mother's plight in wanting arrows so he constructed a generator that he showed her how to recreate in her own Minecraft game.

“She's been thinking asking me like how can i get a lot of arrows really quickly so i thought about that and i decided to construct a skeleton farm using one of the skeleton spawners and the concept is really simple skeletons spawn in from the spawner they fall into the water streams which pushes them down into a hole where they drop into a tiny little chamber sorry or you can or you can kill them with your fist or have a magma block there so that they just die automatically basically and so when you kill with your fist you get all exp which is very good and when you have the magma block there it's completely automatic but you don't get any hp. i actually built

this on my creative world because I have to actually show my mom yeah so she can build it in her world So and i put in way too many chests i figure like you've got I know my mom has tons upon tons of iron so so i figure she'll be able to craft like five or six hoppers because of the way the hopper minecart works six hoppers in a minecart that's that's all you need iron for in the entire farm” – Graham, #5, 10 y/o

He detailed several ways that the generator could operate using a complex system. He made this contraption on his own and recognized that what he made for himself might not be suited for his mother, in particular noting that the amount of chests connected to it was too much for what she was trying to do. These kinds of considerations of how other people build play a huge part in how people create in the game. In the same way Bryan looked at other builds and was inspired, it appears that players begin to realize that their own builds will also be viewed by others.

Nathan detailed a specific house he built using a prop head of the main enemy in the game, the Ender Dragon. He had made it in a way where it looked like the actual dragon was popping through the side, and he delighted in how his friends responded to it, believing it to be the real thing. It seems that showing the building to friends to get this reaction was a huge part of the joy in making this house. In a similar way Cole built a giant sheep out of wool, and said his next build idea was a giant sheep with a giant game character head. He noted that he wants to do this because he knows his older brother is good at making those heads, and this is something they can make together. Being able to build in conjunction with others requires an understanding of one's own strengths as well as the other party's strengths.

CATEGORY 4 – Play is Unique to the Player

Exploring, Inventing, and Freedom

The world of Minecraft is open ended in a way that allows for a very wide range of experiences, illustrated by how all ten interviewees have such a variety of interests and anecdotes about the game. This freedom is essential to how the game is able to be a space for play, where there can be an apparent purposelessness as well as improvisational potential. There is no single route for how one can play the game in a single instance, nor is there a single way that players grow over time.

The freedom of the world is particularly compelling to Bryan, who noted how the game offered control and variety unlike his everyday life:

“I think it was cool to run around because, you know, I didn't really see too many things often I mean as a kid it's like “okay I go to school, I go home” and that's like all the things I have exposure to, having that kind of world to just run around and was really, I think, liberating. For the most part I got to see a lot of new things, it was really, was really cool. Yeah, I think that was a lot of the appeal for it.” – Bryan, , #6, 17 y/o

This quote highlights a powerful feeling for Bryan of being able to have the ability to explore, which contrasted the tedium of his everyday life. The teenage years have been noted to be one of the biggest areas of decline of play due to outside pressure, and Bryan outlines that limitation. Bryan's responsibilities took away control of his life, which Brown (2010) would note that “learning how to stay playful in age-appropriate ways while taking on those responsibilities is one of the most important tasks of this age” (p. 110). For him he was stuck in the cycle of going between home and school, but the open-ended world of Minecraft allowed for exploration that was “liberating” for him. While not explicitly stated by others, it is clear that there is a huge

relevancy of the game for the other interviewees that have grown past their teenage years.

Perhaps this relevancy is due to how it allowed them to be able to play while also dealing with the responsibilities and pressures of adolescence (Brown, 2010).

They first interacted with the game as a teenager and continue to play it, as Keegan said it is a permanent part of their life. This liberating quality in the ability to explore is perhaps one of the biggest parts of why it stays in people's lives. It is a place of freedom and play when there are none in other parts of their lives. The claim that Minecraft is "characterized by its lack of rules and free-form play" by Bowman, Kowert, and Ferguson is reflected well in the experiences of these interviewees (Green & Kaufman, 2015, p. 44). Stella also meditated on why the game's ability to change makes it not just potent, but also something that can stay with you for all your life:

"Cause even if you change, the game is so adaptable that you, you know, I at first all I wanted to do was build a little hut and like keep myself away from zombies and now I want to, you know, build this big dome and kill all my friends, or like discover something and like go through all these dungeons and stuff and that's something I never would have wanted to do when I was just starting out" – Stella, #8, 20 y/o

Material Restrictions

What is interesting on the flipside of that infinite ability to explore is that a player will not be able to explore everything by virtue of the world being something that needs to be traversed. They have the potential to go any direction, but they must choose one as they do not have endless time to explore. They are then constrained to a specific set of materials that is available to them in the regions they end up in. Keegan for example remembered a house they really enjoyed because it was created right next to what they called an Enchanted Forest. The

trees were a specific color, and in turn they had a specific variant of wood to work with. For Keegan this restriction of material based on location is something that enhanced their creativity and enjoyment of the game.

Graham in particular related how the rarity or presence of materials influenced what he builds. He commented on how his initial goal in playing was “always to become at least self-sustainable enough to be able to focus on bigger projects than just getting food or getting wood”. He continued that he liked to have “a humongous stockpile of common resources and then having like odd resources also be sort of readily available,” so that he can make what he wants. He put thought into what is both odd/rare but surprisingly necessary for those “bigger projects,” making sure to allow himself a full range of options for building. Having that range has allowed him to organize the many different types of blocks in Minecraft into specific aesthetics. He noted how “all of the stone variants looked good except for...diorite” conceding that “it's kind of good when it's polished but...usually just crack it into andesite which looks much better”. He discussed how the most common stones can be used together, preferring to convert one for a consistent look across all of them. He later noted that diorite, a white stone, fits into a white “palette” that he worked with. These considerations of form are very similar to what one might expect from someone who works with physical media such as a painter or sculptor. Graham even noted that this is the case where learning to budget materials helped him with a physical art project:

“It's very good to know how to be resourceful. I try to make things that might actually like be practical like a raft. Once I built a tiny little raft out of popsicle sticks, I was really proud of it” – Graham, #5, 10 y/o

These restrictions on material are paramount to one of the main modes that the game can be played, “Survival,” wherein the player must gather materials in the world. The main alternative mode is “Creative” where players have access to all the materials in the game. Elijah noted why he prefers survival over creative:

“Well, um, I barely do creative. I do lots of survival...Because I like surviving than just having all the materials. I mean it’s fun when you want to have like a big mansion or something, but it’s also like fun when you actually get to have lives kinda” – Elijah, #4, 9 y/o

Keegan and Jay each shared this notion that they prefer being able to be in survival because you have to gather your materials. Keegan said they almost view it as “cheating” to be in Creative mode while Jay strictly stated that he did not want to play in servers where others were playing in Creative while he was in Survival mode.

While survival limits what materials you have access to at a given time, there still is a very large variety of combinations of what can be used at once. Jay noted how Minecraft had appealed to him because “it's like Legos in real-life,” comparing the game to a children’s brick toy that can be connected and assembled into larger structures. He felt like Minecraft was something he “graduated” into from playing with Legos because “the limits of you know Legos. Like I don't have the exact piece I want, whereas in minecraft I'm just can go in creative mode and find exactly what I need”. Graham shared this attitude of the game being helpful in its ability to be infinite. He enjoyed how in Minecraft even if you put a lot of effort into something, if it did not work you can just start again:

“Honestly the best thing about projects in minecraft is that even when you're building um something huge something like monumentally huge it's gonna both serve a very very essential purpose as well as as well as look very awesome if you don't like it or if it doesn't work you can still just tear it down or blow it up or whatever you want to do with it and then just break your scaffolds and start again” – Graham, #5, 9 y/o

Evolving Explorations

Exploring is the first and most basic part of the Minecraft experience. Whichever world you start out in, in order to interact with the world you must move around and traverse the landscape. Just as a player has a huge amount of paths laid out before them to explore in the digital world of the game, they also have many paths of what to do when they are done exploring. Vincent explained that if he “were better [his] looking around would be more technical,” as opposed to his aimless exploration of the world’s terrain. He illustrated two things for himself; first that the game is about exploring new things whether it is the terrain or new builds, and secondly that after exploring there is a second stage of exploration that relates to something concrete. Graham looked ahead in a similar manner, planning on how he would beat the main boss of the game, the Ender Dragon. He explained his plan in strict detail, the type of weapons and armor he would bring for both getting to the boss as well as facing it. It could be extrapolated that he is at the very end of one stage of Minecraft that could be around creating armor and weapons, with the next stage being that battle with the Ender Dragon.

Elijah remembered how he would sometimes see things his friends did, or things on YouTube that he tried out. Particularly things having to do with a material called redstone, that can be placed as a sort of wire to send signals between specific blocks. He studied what was done and repeats it, saying “I do it, I just don’t understand it, like I copy what they do but I don’t understand it,” reflecting a desire to reach a different stage of exploration/understanding but not being there yet. Graham on the other hand had some experience with redstone, and readily used it to create complex things like generators of certain materials. That is not to say that Graham is at a more advanced level, as progression in Minecraft is not linear, and being unable to do a

specific task is not a reflection of a lack of experience. Bryan's note earlier about viewing other people's builds is also presented as a step up from simple exploring. He noted how the two are connected in that he still explores to find where he wants to create the structures that he is learning to build.

The multimodal nature of Minecraft as stated by Junco (2014) becomes more clear here, where there are many ways to delve into the game world. Experimenting with any of the components of the game requires different skills and interests. One could try out the pistons that Vincent is interested in, or instead look at redstone like Elijah, or even focus on fighting the enemies in the game like Graham. Another theory comes up here, with Cook's idea of the world's exploration mirroring personal exploration of the game (Green & Kaufman, 2015, p. 229). This is demonstrated in the way that exploration can function at the terrain level of the player moving around as well as on the skill-level where a player might be trying out new ways to combine blocks.

Customizing the Experience

With these new explorations come self-imposed challenges that allow for a focus on what the player wants to improve. Travis brought up an interest in the gamemode Skyblock, where a player starts on a small airborne platform floating in the sky and must use sparse materials to progress through the game. He explained his own investigations on how to best do this, sharing that you can rely on foxes to carry particularly rare materials to use when doing certain challenges. In a different form of customizing the experience, Graham went as far as using in-game commands to change the way that items behave, for an alteration of how he experiences the game.

As Hamlen and Blumburg (2013) note, how one alters the game can be a form of creativity, where figuring out how one as the player wants the game to work is a continuous process of testing things out (p. 84). Travis detailed how he used certain texture packs to make specific parts of the game more visible. This allowed him to better keep a look out for mobs and his own creations. Vincent's experiences as a new player further explain the benefits of these modifications. He stated how he "can't focus on during the game as much because there's always a night coming" and he knew that he'll be killed during it. Vincent went on, that part of this is how easy it was to get lost and how he wished he could have arrows pointing back to safe points like his bed. In this case Travis's solution would be perfect for helping Vincent be more able to engage with the game, where dangerous mobs and important structures would be highlighted. Some players do not touch these settings, and that is part of the freedom to customize. What functional state the player enjoys engaging in the game with is entirely up to them.

CATEGORY 5 – The World Around

Mythologies

As mentioned previously Elijah is interested in finding a mythical being named "Herobrine" that is described in a way as if it is haunting the game. This being looks like a player character with white eyes, and was "around" as a subject of discussion even when I first played the game 9 years ago. The myth of this dangerous and hauntingly threatening figure persisted throughout the years to be a huge part of Elijah's engagement with the game:

"Yeah, everybody's like "How to Spawn Herobrine" and it never works and I always try it, it just never works. And people say he's real and I'm like "I want to see him" but I copy everything they do and it never works. So I don't think as much any more, so when I was little I was really obsessed with spawning him and stuff. So I always trying to do that." – Elijah, #4, 9 y/o

Elijah was reflecting on how much he used to look it up on YouTube, and how it was something he very actively pursued before. He detailed another time when a friend of his perpetuated the mysterious figure by pretending to be him:

“I remember when I was first playing Minecraft with my friends and then someone had to leave him said he had to use the bathroom and then he wasn't he was actually. So we were in like a big hotel and in his so like a big hotel room and he said he had to use the bathroom so he left and then it he just changed his name and character and pretended to be Herobrine and put on the skin and started scaring all of us. And I was like “I told you, he is real!” But then he came out and told us.” – Elijah, #4, 9 y/o

So while the existence of this creature is uncertain, it seems that it is the belief and exchange of experiences that allows it to continue to be a fixture of playing the game. Elijah related that “when I feel bored one day and I want to wake myself up, kind of, I try finding him and like scaring myself. I like that feeling it's weird just, I like it”.

Travis had a somewhat similar experience, where he entered “666” into the code that determines how the world generates, and how it was haunted:

“I thought because normally six six six were supposed to me and just like somebody made up a secret monster and stuff well apparently they're not kidding because I put in less the code and it was normal for the first time and then all of a sudden suddenly nearly everything being started floating up in the air moving I just doing my thing and then I go to my house and I come back and then all of a sudden my whole houses lift it up over there there after that if I had my pets started all the sudden rain started making fire this was a single-player or multiplayer multiplayer, then all all tamed things everything friendly would start catching on fire every single thing”
– Travis, #3, 9 y/o

While not denying his personal experience, Travis's encounter with a haunted world is very reminiscent of the stories surrounding Herobrine. The two together illustrate a sort of mythology that exists outside the game. YouTube channels like “The Dark Corners” continue to pass on these mysteries as well. Through these myths the game literally exists outside itself in a concrete form. Especially, there is an attraction for children to create fear for themselves inside and

outside the game. Perhaps the game can be a safe space to explore these fears as they have the control to customize the game as they see fit.

Inspiration from the World Around

In the opposite direction, several of the interviewees intentionally brought parts of their world, either actual physical places or things from media, into the game. Just as in Bowman, Kowert, and Ferguson's example of people building the world of the *Song of Ice and Fire* books, Jay and Graham each pulled off different media for their own builds (Green & Kaufman, 2015, p. 50). Jay was in a swamp biome and found it would be perfect place to build a specific planet from the *Star Wars* series:

“okay so you know in these games like the Wookies built this giant wood structures that are just these giant platforms and I remember I was in a swamp biome which I thought was the closest to Kashyyyk. And I don't really know if Kashyyyk was really that but like I would build these giant platforms that would go up to these tall places and so yeah I think even across biomes I would build places that were secure. I was always interested in building, I haven't done this yet, but building like a water house that's has a glass dome it's like it's safe because it's underwater, so no one could get to you. Although a glass dome probably isn't that safe but it feels safe, you know, away from people, undiscoverable, a secret lab underground.” – Jay, #10, 23 y/o

He connected his interest in building *Kashyyyk* to both the natural landscape he encountered of swamps in Minecraft as well as his own natural desire to make secure bases. Graham noted that he was aiming to make a “Hobbit Hole” presumably inspired by *the Hobbit* series, also in a swamp. Both of these show an attention to detail that is not just about recreating the buildings from media, but doing so in environments that mirror where they would actually be.

The recreations do not stop at media, players can also pull from their own lives and experiences as a source of inspiration. Jay recreated the church from his hometown:

“I guess I just made the decision because I thought it was a beautiful place and I think I just wanted to be reminded of it and to help myself because I feel like I know every inch of it and it's

a very cool buildings. I could work, it's a big building, it's a big church complex, I thought you know I guess even it's like to prove to myself that I know all the structural components of it. But again also just to remind myself that this is a beautiful thing and I think like you know things that we're interested in we want to build and understand in different ways and to be able to represent in whatever way we can especially cuz I'm away from that, it's in New Mexico and I live in New York now, right. So I have a different way of representing it, I think you know even if I still lived in New Mexico I might have done that but you know, yeah" – Jay, , #10, 23 y/o

Just as there was a desire to create what could not be seen in adapting works of fiction, Jay wanted to recreate his church because it was a place he could no longer see as often. The world of Minecraft then becomes a portal to reach different places and be able to *be* there in a pretend manner that is assisted by the digital space of the game. Jay never actually got around to making the church, but did make his childhood home, which had been sold and thus was inaccessible to him:

"Well, actually so with the church I didn't get that far on it and I still have ambitions to create it but I didn't get that far in the project. I, my mom's the home my mom grew up in I actually did model out completely and I remember when it was sold. I came there the summer before it was sold and I took a bunch of pictures, every way and I used those pictures to help me make sure that I did it correctly and like I had it in my memory too but like you know I needed to double check and you know there were some architectural things like "how am I gonna do this?" this doesn't make sense in Minecraft world like the showers we had like how am I gonna make this faucet work." – Jay, #10, 23 y/o

Again, he was recreating something that cannot be readily visited. He went on to discuss what it was like to show the recreation to his mother and grandfather. While it was still something that he found held "pride" for him, he also could tell that they did not fully get it.

Minecraft in Culture

As noted in Keegan, Graham, and Bryan's interviews, Minecraft is ingrained in culture in a way where you encounter it and know specific details even before you start playing. Of course this is only on the side of the younger generations or those actually playing the game, as the

relatives of Jay were unable to understand the importance or depth of the game for him.

Graham's mother playing the game does demonstrate, as Lewis and Evans noted, that having a parent that understands the game can be a great way for the game to have the space that it needs for children to experience it and grow. Keegan noted how it was a way to connect with people, much like how Stella had noticed this in how friendships are made. Keegan even got an iconic tool in the game, the diamond sword, as a tattoo on their arm. This had led to many conversations with others that allowed for the sharing of experiences as well as playing together.

Bryan noted a very specific experience where Minecraft came up in his computer science class:

"I'd say that talking about minecraft or like game in general have been really good explanations as to how baseline systems work, searching and sorting algorithms and stuff like that, that's very like a niche application for it but it was still something that could relate to all of us because– you know not all of us– but a lot of us because we have the same experience with computers and stuff like that...Yeah it's just really funny when you hear like your really like old professor talk about Minecraft for some reason just like randomly bring it up during his lecture, it's funny to see everybody's like heads perk up. Like 'did I just hear what I think he said'" – Bryan, #6, 17 y/o

What was striking to Bryan is how well the example of Minecraft landed, despite it being a surprise. It seemed like it was something the professor could reliably use as an example, working off the idea that most of the class would be familiar with the game.

COVID-19 AND QUARANTINE

With Jay's experiences recreating cherished places in Minecraft, it is clear that the game is a place of meaning for the player. While comparing Minecraft to Legos, Jay also spoke about how in Minecraft he can actually explore and exist in his builds. These ideas directly relate to how often the topic of quarantine has come up in reference to the game. Before and after it became an interview question, it consistently came up where interviewees would note for themselves how their play had increased because of quarantine. Stella in particular mentioned that *that night* she had coincidentally planned to play the game with her friend. Minecraft provides a space that is meaningful and can be inhabited, just as Jay noted. Bryan's class held their high school graduation in the game because of the exact same reasons. This phenomenon is not unique to Bryan, as several other schools have held virtual graduation ceremonies in Minecraft led by students who even recreated their schools/campuses in the game (BBC, CBS, Anderson, Ceres; 2020). The graduations range from grade school, to high school, and even college.

Quarantine has had people incredibly isolated from everyone in their life. Sherry Turkle (2011) once noted about children of the 21st century, who were often alone due to divorced parents or parents working 24/7, that technology has provided a vital place to find community and work through isolation (p. 178). In a similar way Minecraft has been an essential place for children to stay in contact and not be entirely isolated from their social links. After the graduation, Bryan's class went on to get a Minecraft server and use it as a way to keep in touch. As mentioned previously, the application Discord played a key role in those interactions. Bryan described that his class already used the group calling and messaging service to discuss

information relating to schoolwork. A second Discord channel was made for everyone on the Minecraft server, and on there people could hop in and out of calls. In a similar way people went off to do their own things with people they were friends with. This division between school work and social life somewhat mirrors what one might expect in a physical school. Students spend some of their free time doing school work together, but also use it as a space to interact and socialize. The way that this dynamic gets created in the digital sphere shows a resourcefulness on the children's part as well as the potency of the digital sphere.

Bryan's class being in a single server meant that even though people were off playing with those they were familiar with, everyone was still in the same "world" and would come across one another. Even while playing in different sections, people would hop into group calls and talk. Bryan recounted how he became closer to people he would not have if not for the server.

"Right, yeah yeah, and then like once they get facilitated you know we'd have these things where we'd get together and it'd be like "Oh!" and the cool thing about having such a small school is that there's no one that, everybody kind of knows each other already it's just a matter of like "oh I don't spend as much time with around you as I do with other people," so that definitely makes it easier for them to like have a conversation and like, you know, get talking to each other."
 – Bryan, #6, 17 y/o

There were prominent events that brought people together like the "hit" game as well as the one classmate's birthday. There was also an arena that one person made, and many people came together to fight in it for fun. Bryan explained, laughing while recalling those duels

"Yeah, I'd say so while we were in the server it was just a regular survival server for at one point, people would go off and they have like partnerships and they live together or whatever. After we got settled in, we'd actually made a kind of arena so that we'd all establish a time and then watch people just duel it out in the middle." – Bryan, #6, 17 y/o

This joint world allowed an increased level of comfort in being able to build and directly work with people he knew, while also facilitating explorations in making new connections with people. The split between the two Discord servers, the first being used for schoolwork and the second for recreational activities, felt akin to the division between in-school studying and afterschool hanging out. Discord provided a *way* to make those connections online, but it was Minecraft that provided the *place*. In fact, when asked, Bryan confirmed that having the game as a consistent talking point made it easier for people to get to know each other and feel comfortable hopping into calls.

ANALYSIS

Throughout the course of these interviews five broader categories have come to light: **starting off**, **deeper into the game**, **collaboration**, **play is unique to the player**, and **the world around**. What is quite remarkable is how the last category feeds into the first, where the presence of the game is what facilitated many to get into it.

Within **starting off** there are the themes of *influential media*, *introducing new players*, and *getting into the game*. *Influential media* plays a role in both introducing players to the game, as well as shaping their perspectives as they enter the game. The media are not restrictive, as the player has a wealth of choices for what media they want to engage in. For *introducing new players*, many demonstrated how often there was a passing on of their own experience to new players, and how that could be empowering. On a personal level of *getting into the game* there was the indication that for several of the interviewees, despite direction from media and more experienced players, there was the space for them to explore and have their experience heavily individualized.

Once players got **deeper into the game** they detailed several experiences that brought forth the themes of: *friendships*, *understanding others*, *pride in experience*, and *fear*. *Friendships* played a role in every single one of the interviewee's interaction with the game, demonstrating very clearly how much the game is a social experience. Friendships were built inside and outside the game with the medium being a helpful common ground to feel closer. As these friendships developed players would face the challenges of *understanding others* and by working through disagreements and impasses they were able to grow as people. The ability to overcome challenges like disagreements also applied to what happened in the game, with several having a

clear *pride in experience* that was connected to the social realm that developed around the game. What they could do and how they grew were things they were able to share. Another hurdle that many players grew from surpassing was the innate *fear* of the dangers within the world. The achievements in the game connected to the social realm that was developing, and together they built a lasting connection between friends as well as with the game itself.

Collaboration was a huge part of all these interactions, with the specific themes of *sharing workspace* and *showing other people your work*. Once the social realm becomes a part of the game you have several players *sharing workspace* and in turn there is the potential for comparison. While there was the idea that on an individual level players had preferences and styles they wanted to build in, there was never an overarching feeling of what is “good” or “bad” to build. Seeing other builds was something that was more often a source of inspiration of what could be possible. On the flipside there were instances of the interviewees *showing other people your work*, learning to keep in mind how other people might perceive or might delight in what is created. It was clear that having people who could recognize the effort behind the work, as well as the emotional significance, were key points to help flesh out the game world further.

It became clear that **play is unique to the player**, meaning every single experience with the game is heavily individual, demonstrated by the themes of: *exploring, inventing and freedom, material restrictions, evolving exploration, and customizing the experience*. Several of the interviewees explained how *exploring, inventing and freedom* were essential parts of what allowed them to get into the game and the three worked together to feel a sense of agency that continued throughout their play. Being able to explore the game world and have a sense of freedom allowed for a very intimate and special connection for the players that fueled further

exploration and invention. Specifically the *material restrictions* of the way the world is structured became a restriction that actually facilitated creation by offering a challenge. Exploration of the world is a key part of the game but there comes a point where this changes into other types of engagement with the game in *evolving exploration*. Instead of just exploring the “physical” world of the digital landscapes, the players started exploring what was possible for them to be able to do within it. Even beyond the actual play in the game there were ways that the players were *customizing the experience* to suit what would best allow them to further engage with the game.

Finally there was **the world around** and how it impacted the game or was influenced by the game, which came together in the themes of: *mythologies*, *inspiration from the world around*, and *Minecraft in culture*. A few of the interviewees detailed how certain stories and legends would be shared and in turn become *mythologies* that added to the game world while also existing outside of it. Interviewees brought *inspiration from the world around* into the game from both media and their own lives. They invested great time and effort to recreate these places as faithfully as possible because these recreations were something that could be inhabited and visited in a special way that the game facilitates. Lastly, there was a clear presence of *Minecraft in culture* especially during the teenage years, and as something that was potent because it was something that could be shared and understood.

Another topic worthy of bringing up is the earlier divide noted between the players ages 6-10 and those 17-23. First off, it must be noted that the interview lengths varied greatly between ages, with the younger group ranging from 30 minutes up to 1 hour and 15 minutes, and the older group ranging from 30 minutes to 1 hour and 20 minutes. This might be an obvious statement but

it must be noted that the major difference in content was that while both groups spoke about many experiences and an inclination to play more, only the older group spoke about it in a nostalgic fashion where they noted how it was shaping them. For people like Keegan and Stella it was clear how the game shaped them and was part of their lives. The previous studies detailed in the literature review spoke of several ways that the game is being included in classrooms, and it seems appropriate to use the power of the game in how it connects to children.

The ease of getting into the game, as well as the way that the game challenges players to further grow within the game and within themselves allows for players to truly *play*. While play is hard to come by, justify, and make space for as teenagers, the game creates a space that allows it.

CONCLUSION

The way that Minecraft has been a staple of how people have stayed connected during quarantine is a reflection of what Minecraft has consistently provided for the interviewees and other players; a space to be online that can be truly lived in and filled with emotion. This space is essential for people to be able to use Minecraft to stay connected, as Bryan, Graham, Elijah, and Stella have done. It allows Jay and Graham to create things from fantasy and things from their memory that they want to be able to actually visit. It allows Travis and Elijah to create mythologies and stories outside the game that, while scary, are ultimately entertaining and another way to feel inside the world. This draw to the game then allows many parts of the game to be explored and shared between friends and communities. That exploration is what allows it to be such an impactful space, because it is unique for each person they can truly be themselves in it. It is also why such deep friendships can be formed in the game, and inversely friendships can be made from sharing a common interest in the game. Finally, that space is able to exist because it is a new form of play that is unique to Minecraft and the digital space, yet carries all the aspects of traditional play.

The properties of play outlined by Brown(2010), as I mentioned earlier, are as follows: “apparently purposeless (done for its own sake), voluntary, inherent attraction, freedom from time, diminished consciousness of self, improvisational potential, continuation desire,” and all are shown to be a part of Minecraft by the variety of experiences detailed in these interviews p. 17). Minecraft has no explicit goal, so while individual players may choose to make their own goals, the game itself has no imposed purpose. The interviewees and players in general all seek out the game on their own, speaking towards a voluntary participation and inherent attraction.

Time does not come up explicitly in any of the interviews, but the older participants all highlight how they have continued to play the game throughout their lives. The game is quite literally timeless for some. As noted above, especially in the case of Keegan by becoming braver to protect friends, the game is a place where the players can bring in aspects of themselves into the game. The way that the game is passed from generation to generation does lend itself to comparison between more and less experienced players, and what could be called enhanced consciousness of self in contrasting with others, but as Graham notes, you can just redo builds. The “self” in Minecraft is something that is continuously built from the player’s self that exists outside the game. That “self” in the game is then able to feed back into that outside self, bolstering it with new experiences and connections.

The game can get difficult; you can view yourself as a below-average builder, you can die and lose your stuff, which all do have an impact because of how deep the player can get into the game, but that player can still step back into their own life. Being able to go back and forth between the real world and the world of the game is another facet of pretend play that comes together clearly throughout the interviews (Brown, 2010). There are those hurdles, but players keep coming back because the game is familiar, and their experience with it is not defined by one failure, or one friendship turned sour. This is continuation desire in action, where players keep coming back, sometimes over months and years. Finally, the improvisational potential of the game is two-fold. First, the player is able to build off of and is surprised by the world, noted by many interviewees of searching for stand-out terrain to build in. Second, the player is able to engage with friends and the larger community, seeing what is possible and being able to try things out for themselves. The game has offered a space for play and a space for connection that

is completely unique in their lives. In a time of quarantine, where there is literally no physical space for play and connection, the game has provided both.

“I like places with a nice view. A lot of the time I'll find this like really cool formation in like the side of a mountain that's like you know “this would be the perfect place to build a house.” A lot of the times my friends will go for like these huge projects where they'll be like “yeah we're gonna build this giant mansion.” I think for me it's like, I just want somewhere that's small and cozy that I can just you know put down, it can be like my happy place or whatever, building on small islands is also really cool, being next to water is really cool” – Bryan, Interview 5

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