Minecraft, Teachers, Parents, and Learning: What They Need to Know and Understand

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Abstract

This article explores six effective principles for teachers to use to understand and apply *Minecraft* in today's classrooms. Video games have become one of the fastest growing forms of media for youth and adult consumers. *Minecraft*, a multiplayer online game (MOG), is one of the most popular video games to date. By allowing its players to build simulated, virtual worlds, *Minecraft* aims to foster creativity, control, and imagination. Yet while the affordances of playing *Minecraft* spark collaborative learning, critical thinking, and problem-solving skills among youth, one constraint still remains: there appears to be a disconnect between some teachers' and parents' understandings about the *Minecraft* world's mechanisms, uses, and benefits. Due to the success of *Minecraft* in the digital era and in some schools, studying this game is significant. For instance, students benefit from using *Minecraft* to enhance learning in STEM/STEAM (Science, Technology, Engineering, [Arts], and Math) and English Language Arts content areas. In addition, teachers benefit from using *Minecraft* to increase academic engagement with students and reinforce parental involvement. This article (a) provides an examination of educational research on the use of *Minecraft* in classrooms; (b) suggests educational benefits for students and practical classroom approaches for teachers from various disciplines; and (c) presents a handout for teachers to share with parents about what they need to know and use to support their children's literacy practices and learning while playing *Minecraft*.

Key Words: *Minecraft*, video games, learning, parent involvement, teachers, family literacy, teachers, student engagement, pedagogy, STEM, STEAM

Introduction

In this article, we explore how teachers can utilize *Minecraft* in the classroom to promote creativity and learning in ways that would afford more educational benefits for students. *Minecraft*, a digital "sandbox" and pixilated video game, allows individuals to freely create and manipulate their own simulated worlds, which enables them to have full control to design these worlds in intentional ways. With over 100 million users registered (including 6 million Xbox gamers) in more than 66 countries, more than 1 billion hours played, and over 130 million worlds created (Makuch, 2014), *Minecraft* is one of the most discussed video games for youth and adults (Junco, 2014) and adds to the high popularity of video gaming worldwide (Jenkins, 2006). We learned that *Minecraft* is not simply a video game that allows youth to build and create virtual worlds; *Minecraft* has now become an educational tool used as a vehicle for teaching critical content. Youth who play this game have the ability to take control and be active learners, thus enhancing their motivation for learning (Junco, 2014). It also acts as a supplement in today's classrooms—a popular learning activity in content areas such as science, math, history, engineering, architecture, and computer coding. *Minecraft* also helps students achieve the goals of the Common Core State Standards (Lorence, 2015; Magee, 2015). In fact, MinecraftEdu.com, a platform that is a replica of *Minecraft*, is made specifically for educational purposes.

Figure 1. Screen Shot of *Minecraft*

Figure 2. Screen Shot of MinecraftEdu.com

Situating and Positioning in *Minecraft*

Lewis Ellison, a former Title I reading/writing skills teacher and current researcher and teacher educator who has explored adolescents, adults, and families' digital literacy practices—particularly among African Americans (Lewis, 2011, 2013, 2014; Lewis Ellison, 2014a, 2014b, 2016a; Lewis Ellison & Kirkland, 2014)—and Evans, graduate student and former teacher with a background in teaching adolescents how to create digital stories, collaborated with Pike, a fifth grade math teacher who created Mathcraft, a *Minecraft* curriculum, to share their interests in gaming.We found that the more we talked openly about video games, played them, wrote about them, taught them, and shared them with youth, their teachers, and parents, the more we noticed that *Minecraft* was a popular game among both youth and adults. We have all felt the angst and confusion of teachers and parents who are curious about *Minecraft* but do not know the benefits of video games. The need for teachers and parents to understand students' digital literacy practices and the extent to which youth live in the virtual worlds of the 21st century is significant. Youth attend school all day, but text all the way home, then communicate on Facebook, send tweets to their peers, and play video games (Institute of Play, 2012). Today's youth do not separate their conversations between these worlds; rather, they extend them. However, some teachers do not yet understand students' fascination with the *Minecraft* world because they do not know what *Minecraft* is, how students actually benefit from the game, or how to apply it to their curriculum.

There is an art to the design, manipulation, and overall practice of video games like *Minecraft* that makes youth passionate about more than the device they hold in their hands. Hollett and Ehret (2014) describe how playing *Minecraft* reshapes the "social, relational space" in which adolescents use it and helps them understand this space of gameplay "as populated with agentive, affecting, and affected bodies—both human and nonhuman" (p. 2). That is, students are able to foster agency through this video game. Indeed, youth involvement with video games is often misunderstood by stakeholders (e.g., teachers, administrators, parents) as a practice that is irrelevant and time consuming. This dismissal may stem from a lack of information on how, according to Renzhog, Anér, and Leijo (2013), video games are the "forefront of innovations and digital services, predicted to be one of the most growing forms of media and expected to rise in sales to $82 billion in 2015" (p. 5). According to a 2008 Pew Research Center report, 97% of adolescents play video games, and among 13–17 year-olds, 59% of girls and 84% of boys play video games either online or via their phones (Lenhart, 2015; Lenhart et al., 2008). With this understanding, teachers can consider the educational benefits and possibilities of implementing video games like *Minecraft* to enhance students' learning across content areas.

As teachers come to understand the benefits of gaming for learning, they can also share this information with parents, using it as an opportunity to increase communication and partnership between home and school. The affordances of this work lends itself to other ways that research can support parents in understanding the educational benefits of gaming, whether situated in pedagogical practices or social practices in the home (Di Salvo, Crowley, & Norwood, 2008; Entertainment Software Association, 2014; Gee, 2003; Griffiths, 2002; Lewis Ellison, 2016b; Ulicsak & Wright, 2010; Wang Yu, 2009).

Relevant Literature: Video Games, Learning, and *Minecraft*

While some theorists claim that there is not enough scientific data to understand the relationship between video games and learning (Blunt, 2007), there is some evidence that recognizes the benefits to educational games and problem-solving in K–12 schooling (Young et al., 2012). In addition, there lies substantial research and practice from literacy researchers and theorists that there are concrete connections between video gaming and literacy learning (Conrad & Donaldson, 2004; Dezuanni, 2010; Gee, 2003, 2005; Griffiths, 2002; Shaffer, Squire, Halverson, & Gee, 2005). In fact, Gee (2003) reminds us that when we learn to play video games, we are indeed learning a *new* literacy and that video games contribute to learning in principled ways. Additionally, as Norton-Meier (2005) states:

> The video game has the potential to push an individual to learn and think cognitively, socially, and morally. Players actively create new virtual worlds; participate in complex decision making; and think reflectively about choices that were made, including the design of the game. (p. 430)

Video games like *Minecraft* provide vital benefits to youth, helping them to express and control their emotions, build strong social ties, and spark creativity, imagination, peer engagement, and teamwork (Alton, n.d.). These skills are beneficial in the classroom, especially as education moves toward using cooperative and collaborative learning models which focus on knowledge as a social construct (Pappas, 2014). Additionally, Gee (2003) states that to be an active learner, one must experience the world in new ways, create affinity groups with like-minded people, and use these elements to prepare for future learning. Gee (2000) describes affinity groups as having an "allegiance to, access to, and participation in specific practices" (p. 105); in this way, individuals in this space can "challenge players' taken-for-granted perspectives on the world" (p. 140). While the digital divide has further separated those who have access to technology from those who do not, Gee (2003) also identifies an "acceleration divide" that extends beyond access to identify the gap between adults' ideas about how youth should use "technology, texts, and games in integrated ways" (p. 23) and the ways in which youth actually use them.

Video games like *Minecraft* are only one of many sources that support learning and literacy, but we must also point out that such sources generally help to "situate meaning in worlds of experience…that is ultimately shared, collaborative, social, and cultural" (Gee, 2010, p. 189). Today's students are no longer observers in video games but are placed in positions where they can be creative and make decisions that actually affect and change the gaming world (Barab et al., 2010).

Processing *Minecraft* Multimodally and Pedagogically

Minecraft is particularly significant to learning because youth learn to process information in different ways. For instance, *Minecraft* offers multimodal (multiple modes of meaning) texts that allow youth to read images that carry meaning beyond the words in a text to the realms of embodied movement and interaction (Dourish, 2001; Streeck, Goodwin, & LeBaron, 2011), as well as visual images, sounds, and music (Kress & van Leeuwen, 1996, 2001). In *Minecraft*, there is limited use of written language, but the game offers multimodal modes including graphics, images, symbols, and "visuospatial reasoning skills" (Junco, 2014) that help learners create and manipulate objects in a virtual world. In enhancing cognitive ability, this skill has significance similar to constructing three-dimensional models, building complex structures, and drawing (Mervis, Robinson, & Pani, 1999).

While researchers are beginning to collect data about *Minecraft* and its impact on students' learning, pedagogical practices on gaming in the classroom are also slowly being better understood and used by teachers. Research has described how *Minecraft* is used in various content areas such as social studies, math, science, and English Language Arts (ELA) to stimulate the creative minds of today's youth (Kenkel, 2015; Risberg, 2015). For instance, Pike, a former third-grade teacher and parent from the Western U.S., became curious about *Minecraft* after he watched the game for the first time, and he subsequently started using it to teach Common Core math, science, computer science, and ELA. Pike mapped out his lessons based on the benchmark assessments his students took three times a year. He ultimately created a curriculum called Mathcraft, which helped raise his third grade students' scores from 18% to 84% in one academic school year. He taught students in multiple grades to use *Minecraft's* game blocks as hands-on manipulatives to create and solve math problems (see Figure 3).

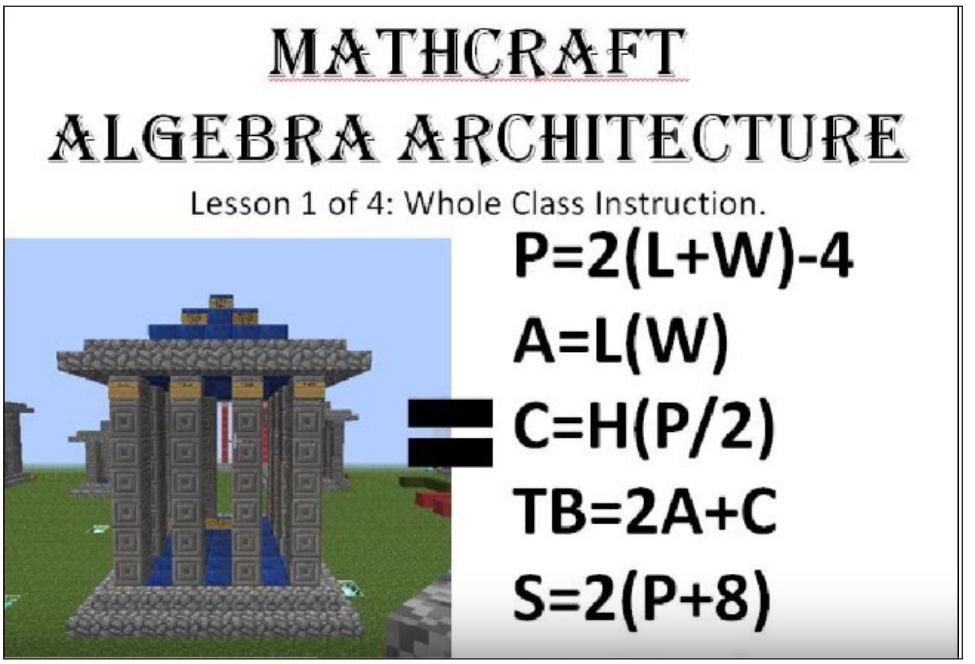

Figure 3. Mathcraft Algebra Architecture

Saez-Lopez, Miller, Vázquez-Cano, and Domínguez-Garrido (2015) tested the educational effectiveness of MinecraftEdu.com (a "school-ready remix" of *Minecraft*) among sixth- to eighth-graders in a unit of history and architecture. Study participants were school students from the United States and Spain.

The authors sought to understand students' outcome improvement with MinecraftEdu.com; analyze students' motivational, learning, and engagement levels when playing *Minecraft* in a history classroom; and assess the attitudes from the respective school communities (students, teachers, and parents) regarding the implementation of MinecraftEdu.com in history. While teachers' attitudes were moderate and parents thought game-based learning was negative and a waste of time in the classroom, some did conclude that the use of this tool outside the classroom might be better. However, students appreciated the implementation of MinecraftEdu.com in their classes because it afforded them the opportunity to be in control and be active participants, protagonists, and creators in their virtual worlds. The researchers concluded that there was an increase in creativity and learning in teachers' implementation of MinecraftEdu.com in their classes (Saez-Lopez et al., 2015).

In addition, an eighth-grade social studies teacher from the Midwest used *Minecraft* to prompt students to write a constitution for colonies to elicit governmental and economic policies for slaves and Native Americans. Students used *Minecraft* to create a two-dimensional map to "...build town halls, blacksmith shops, churches, and farm land and later connect roads" to other virtual colonies (Colias, 2015). Furthermore, Short (2013) described how he used three-dimensional (3-D) images in *Minecraft* in college settings. Such practices provided pedagogical strategies for students to learn biology, ecology, physics, and chemistry to (a) create 3-D maps of the human body (biology); (b) form biomes through a map generator to display temperatures, heights, and water color (ecology); (c) use *Minecraft* blocks to develop how the earth structures are built using water, color systems, and gravity (physics); and (d) design a 3-D periodic table of elements to highlight 3-D images of mathematical functions in the *Minecraft* world. Another way of processing and situating video games like *Minecraft* is by examining the potential video game learning has for students with special needs.

Video Gaming, Learning, and Students With Special Needs

Research indicates how play is a significant mediator for learning and socialization (Piaget, 1951) and how computer/video games promote engaged learning and motivation for students (Habgood, Ainsworth, & Benford, 2005; Ke, 2008; Ke & Abras, 2013). In addition, techniques in video games such as virtual simulation and problem solving are also key components for active learning (Gee, 2003). While there is limited research on the effects of *Minecraft* and learning among students with special needs, research has acknowledged that web-based games provide significant results for motivation and comprehension for these children (Rezaiyan, Mohammadi, & Fallah, 2007). While

more research is needed on the role of computer video games for students with special needs and their learning, Ke and Abras's (2013) study explored the design features of three prealgebra video games used to create engagement and learning for students with special learning needs. They found that the design of the games *Lure of the Labyrinth, Ker-Splash,* and *Lemonade Stand* used vital components to promote engagement and learning for these students. The following principles describe six effective principles for teachers to use to understand and apply *Minecraft* in today's classrooms for all students.

Principles

Within this vein, we frame this article as a guide for teachers to use in their classrooms as instructional models for STEM, STEAM, and ELA-related unit lessons. By providing answers to six key questions, we provide pedagogical approaches teachers can use to not only acknowledge today's digitally savvy students' funds of knowledge (knowledge students acquire from their family's historical and cultural backgrounds; Moll, Amanti, Neff, & Gonzalez, 1992), but also to create possibilities and affordances for students to support their knowledge and learning across and beyond school borders.

1. What is *Minecraft*, and why is it so popular?

According to Mojang, LLC, the creator of *Minecraft*, this video game is about placing blocks and building structures simple or grand and working together or alone to create wonderful, imaginative things (Mojang, n.d.). *Minecraft* has a "three-dimensional Lego-like environment in which the user can build and interact with a virtual world" (Bos, Wilder, Cook, & O'Donnell, 2014, p. 56). *Minecraft* allows players to use their creativity to build worlds using pixelated blocks without any limitations. It also allows players to develop their own creative spaces, explore the creative spaces of others, and interact with players on various multiplayer public servers that are specially designed for Minecrafters with specific subinterests. These servers provide Minecrafters opportunities to engage and create with other *Minecraft* enthusiasts from all over the world.

In *Minecraft*, there are two modes in which youth operate: creative and survival. While creative is more open-ended, survival involves surviving a zombie apocalypse by finding shelter and food, outmaneuvering monsters and spiders, and so forth. Additionally, there are other survival subgames created by players, which involve competitive and collaborate play. Overall, *Minecraft* has no agenda or rules, as there are no instructions, no winners or losers, and no levels to reach and surpass. Therefore, the main objective of the game is to

freely create sustainable worlds according to players' own standards and then do whatever one desires.

It is also important to acknowledge that teachers should be aware that *Minecraft* does allow for actions/building/tearing down that would defy the laws of physics present in the real world. It is recommended that if teachers notice students engaging in such practice, they can use the moment as a teachable moment—possibly prompting the student or whole class to consider or actually try out how this practice might work (or fail to work) in the classroom.

2. How can I apply *Minecraft* in my classroom while meeting the Common Core State Standards?

Certain school districts have found that *Minecraft* assists students in not only *consuming* content but in *creating* content in alignment with the Common Core State Standards (CCSS; Magee, 2015). Both *Minecraft* and the CCSS are bourgeoning in schools and other academic sectors, like digitally-geared nonprofit organizations and webinar providers. *Minecraft* can be used in the classroom to effectively teach information in content areas like mathematics. Bos et al. (2014) states that the creative mode of *Minecraft* can be used to teach mathematics, particularly, "to explore such concepts as algebraic patterns, measurement, perimeter, area, and volume" (p. 56).

Some of those concepts are explicitly stated in the CCSS for mathematics (CCSS. Math. Content. 3. MD. D. 8; CCSS. Math. Content. 3. MD. A. 1; 2). The specific domains listed under Mathematics CCSS that overlap with *Minecraft* concepts include geometry, measurement and data, algebraic thinking, expressions, and equations (CCSS. Math. Content. 4. MD. A. 1; 2; CCSS. Math. Content. 5. MD. A. 1). Thus, with effective planning and preparation, playing *Minecraft* "becomes an opportunity to explore mathematical ideas within an online community" (Bos et al., 2014, p. 57).

3. How might I use *Minecraft* to teach STEM, STEAM, and ELA-related content areas?

There are a vast amount of tangible school-related projects and practices that teachers can use to modify in their classrooms. Below are just a few practical approaches teachers can use to teach with *Minecraft* in the classroom.

STEM

In an effort to teach students about the cell structure, teachers can create an animal cell in *Minecraft* and allow students to move through each living organism and describe the shape and structures of each cell part and its role.

(Note: a more in-depth explanation of this lesson is located in this link: http://minecraftedu.tumblr.com/post/117511692581/stephen-elford-minecraftedu-featured-educator)

Most school and public libraries are providing ways to foster an interest in STEM-related subjects, both inside and outside of the classroom, some by offering STEM programs such as Minecraft Building Clubs to students. Students can participate in building competitions to learn how to survive the world of *Minecraft*.

STEAM

Based on the virtual worlds students build in the *Minecraft* game, students can take those skills, creativity, and imagination to bring the virtual worlds to life using arts and crafts. A school in the United Kingdom orchestrated "STEAM Week" to allow students to recreate *Minecraft* into STEAM, calling it "Bridgecraft." Teachers can utilize this practice for elementary to high school students to design and build big algebraic and geometric shapes to include in "their world." Educators posted photos of the shapes with the student creators on the school's blog and showcased them as an exhibit throughout their school. (For more information on Bridgecraft in action, view this link: http://uked-chat.com/2014/07/08/feature-how-one-school-turned-minecraft-into-steam/)

The STEAM conference provides activities for teachers, researchers, parents, and middle and high school students to encourage learning through project-based workshops at various college universities. Many of these workshops are led by students. Teachers can encourage the attendance of all stakeholders to explore and learn from STEAM workshops in physics, music, Robotics, and more (for more information, see http://www.steamconf.org).

Teachers can also participate in an online arts integration and STEAM conference over the summer to learn how to implement STEAM-related curriculum with students. Information on this conference can be found here: http://artsintegrationconference.com/.

ELA

In order to enhance students' reading comprehension and visualization skills, students can use *Minecraft* to recreate different settings and scenes from literature they are currently reading and use the game to offer predictions on what might happen in the texts. This information can help students integrate information in multimedia formats and better understand various topics and issues (CCSS. ELA-Literacy. RI. 6.7).

Teachers can log on to MinecraftEdu.com for helpful ways to use *Minecraft* in the ELA classroom to support learning through writing (journaling),

graphic organizers (concept webs), diagrams (illustrations), and readers theater workshops (scriptwriting using *Minecraft* characters). More information to target ELA-themed subjects are found on this site: http://services.minecraftedu.com/wiki/Examples_by_Subject.

4. How do I support students with special needs and their gaming practices?

Choosing the right kinds of video games are fairly important for all students, especially students with special needs. Murray, Silver-Pacuilla, and Helsel (2007) recommend avoiding overly complex video game instructions for students with special needs. Teachers and families are encouraged to identify the kinds of skills the students need to improve for effective learning with video games to occur. Teachers can provide a mentor teacher and/or peers as well as time accommodations for students to reinforce their learning, interactions, and engagement on the computer.

5. What do I do if I have disengaged students who do not want to learn with *Minecraft*?

Stephen Elford, an early adopter of MinecraftEdu.com and a math and science teacher of 12- to 18-year-olds, taught an "Animal Cell 01" lesson (see https://www.youtube.com/watch?v=kBUesxvMw74), during which he experienced difficulties with one female student who refused at first to engage in *Minecraft* to learn. In fact, the student preferred to learn via textbooks. The student made comments such as "stupid," "I hate games," and "I don't like it. I would just prefer to just do this stuff [referring to a textbook]," and initially refused to engage in the lesson. The above cited video/audio demonstrates a live discussion between Elford and the student and his attempt to have the student work with the game and the textbook. For students who are more skeptical or disengaged, it is important to state in the beginning of the lesson that learning is not linear or static, but fluid and experiential and that by moving things around and throughout, as within *Minecraft* play, critical thinking is developed.

6. What kinds of resources are important to use *Minecraft* in classrooms?

While there are many educational games that teachers may use in the classroom, very few have been highly popularized and satisfactorily educational for all students. However, *Minecraft* teaches students valuable skills that can be used across various content areas in the classroom. Due to the increased interest in *Minecraft* among school-aged students, teachers should know about resources that provide them with information on how to use various types of technology like *Minecraft* as educational tools.

Websites like MinecraftEdu.com not only provide educators with a version of *Minecraft* specifically tailored to the field of education, but also provide lesson plans and information on how the game can be used to teach concepts in various content areas. The site also includes forums for educators to communicate and prepare lesson plans. In addition, edWeb.net is a free professional social network site for educators to share ideas, information, best practices, and technology support. EdWeb.net also provides a Web 2.0 platform, including wikis, webinars, and blogs for collaboration and has offered many webinars on game-based learning communities including *Minecraft*.

If teachers want to extend learning across borders with their students and incorporate *Minecraft* into their school curricula, it is recommended that they first play the game and learn its components. In this way, teachers can better understand how digital technologies affect student achievement and promote success in creative and innovative ways that are safe yet challenging for all learners. Some action steps to consider to initiate further learning:

- Watch Jane McGonigal's TED talk, "Gaming Can Make a Better World" to understand the benefits of playing online games: https://www.ted.com/talks/jane_mcgonigal_gaming_can_make_a_better_world?language=e
- Watch Stephen Foster's TED talk, "*Minecraft*: Keep Calm and Code On" about *Minecraft* and coding and the advantages it has for our future: https://www.youtube.com/watch?v=mn4RHIxriEY
- Subscribe to www.edWeb.net to participate in asynchronous and synchronous webinars about *Minecraft* and other video games, and sign up for the Daily Digest to receive relevant posts about professional learning from various edWeb learning communities.
- Share articles like this one and links to online sites such as https://education.minecraft.net/ and www.edutopia.org with other teachers and parents (see Appendix. Minecraft Cheat Sheet for Parents), then offer to host discussions (perhaps at Parent–Teacher Association/Organization meetings or family literacy night) on ways to make *Minecraft* more learner-friendly in the classroom and at home.
- Skype/invite a teacher currently implementing *Minecraft* into the classroom (individually and/or collaboratively with students) to share relevant in-class approaches.
- Watch one of the classroom links from Table 1 using *Minecraft* as a practical tool with students and discuss with students ways in which their individualized learning can be enhanced.
- Consider starting a *Minecraft* group for teachers as part of a professional development day.
- Investigate some of the other helpful resources included in Table 1.

Table 1. Resources for Using *Minecraft* in the Classroom

Webinars • http://home.edweb.net/mathcraft-use-minecraft-teach-common-core-math/ • http://home.edweb.net/mathcraft-combining-minecraft-with-math-for-exponential-learning/ • https://www.commonsense.org/education/webinars
Websites • http://mathcraftplc.com/ • http://www.edutopia.org/blog/minecraft-in-classroom-andrew-miller • http://www.minecrap.com/minecraft-sites/
Video Lessons* • https://www.youtube.com/watch?v=88Cg8sqalpM • https://www.youtube.com/watch?v=4R8bPo9fxWU • https://www.youtube.com/watch?v=Q7XwEbo-Ni0
Books Dikkers, S. (2015). *Teachercraft: How teachers learn to use Minecraft in their classrooms*. Pittsburgh, PA: ETC Press. Gallagher, C. (2014). *An educator's guide to using Minecraft® in the classroom: Ideas, inspiration, and student projects for teachers*. San Francisco, CA: Peachpit Press. Whale, D., & O'Hanlon, M. (2014). *Adventures in Minecraft*. London, UK: Wiley Press.
Student Work* • https://www.youtube.com/watch?v=Ea7RFPjC1sw • https://www.youtube.com/watch?v=WWs1JDQan3k • https://www.youtube.com/watch?v=BIfr2em9yR8

* School-based information was provided by Pike.

Conclusions and Implications

In this article, we described six principles that teachers need to know and understand about *Minecraft*. While *Minecraft* is just one way to actively engage teachers with students' in-school practices, this article demonstrates how *Minecraft* is relevant in and out of the classroom. By implementing *Minecraft*

into the classroom curriculum, it provides a space in which students can freely play and maneuver *Minecraft* and foster creativity, control, and imagination. While today's youth will continue to reinvent themselves within video games like *Minecraft* in this ever-changing, increasingly digital society, it is equally vital for teachers to become more digitally savvy as a way to understand, educate, and stimulate today's students.

Research is slowly creating wavelengths on the impact and effectiveness of *Minecraft* and other games in education, but more is urgently needed to understand how gaming in homes, schools, and communities can actively support children's learning. Situating research methods and frameworks around *Minecraft* and home/school, such as youth participatory action research (Bautista, Bertrand, Morrell, Scorza, & Matthews, 2013; Burke & Greene, 2015), can encourage all stakeholders to galvanize partnerships between parents and teachers to prepare today's children for this digitally mediated world in which they live.

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Appendix. *Minecraft* Cheat Sheet for Parents

Parents are important stakeholders in learning and understanding *Minecraft* with their children. It is relevant that parents know there is more to it than just allowing their child to play with video games, and there are ways to support their learning at home and at school. This cheat sheet offers suggested practices and strategies for parents who are interested in becoming *Minecraft*-literate. The pages that follow may be printed out and shared with families.

Questions About *Minecraft* and Parental Engagement With Answers/ Recommended Strategies/Resources

1. What is *Minecraft*?

Minecraft can be described as a video game very similar to LEGO blocks in which children can build, create, and tear down blocks in creative ways. There is no wrong way to play as children have the ability to create whatever they choose.

2. How can *Minecraft* be used with the family?

One way that *Minecraft* can be used with the family is for parents to allow their children to demonstrate how to play the game and create opportunities for family members to connect and reconnect with one another about the practices that are important to them. Some useful recommendations are as follows:

- Watch how your child plays *Minecraft*.
- Ask your child questions throughout about the worlds they create and why.
- Ask them to teach you how to play *Minecraft*.
- Play *Minecraft* with your child.
- Watch webinars and videos about *Minecraft* with your child.

3. How can parents engage in *Minecraft* at their child's (children's) school and in the community?

There are many ways that parents can engage with their children in school and in community spaces to learn more about *Minecraft*. For instance, Jim Pike, also a parent, openly provides ways for parents to engage in learning *Minecraft*. Parents may consider the following:

- Seek out workshops at your child's school to learn how to navigate *Minecraft* with your child.
- Attend an in-class lesson when your child's teacher will be implementing *Minecraft* in the class, and play the game with your child.
- Volunteer time to assist the teacher and children with *Minecraft* approaches.
- Ask the teacher/administrator for the ability to learn and play *Minecraft* after school with other parents.
- Allow each student to share their understanding and skills and teach *Minecraft* to their parents.

4. What are the dangers associated with *Minecraft* and safety steps to take?

- When playing video games like *Minecraft*, parents need to understand how the digital environment works, be aware of what their children play online, and monitor their activities on a daily basis.
- Parents should know that *Minecraft* can be set up to allow children of all ages to play the game with age-appropriate content.
- There are also several forums, message boards, blogs, and other websites that allow *Minecraft* players to communicate with strangers. Parents should be aware of these websites and look for "profanity-free *Minecraft* servers." Parents can ensure that their children are practicing proper Internet etiquette and cyber safety. For additional information see the following links:

  http://www.21things4students.net/21/cybersafety/

  http://www.makeuseof.com/tag/6-internet-safety-games-kids-cyber-smart/

  http://www.pbs.org/wgbh/pages/frontline/digitalnation/resources/parents/#t2
- Parents are also encouraged to require their children to use safe place sites such as www.kidkam.com when searching for online *Minecraft* videos, rather than using other sites such as YouTube. KidKam.com offers 100% screened videos, free accounts for parents and teachers, parental control features, and there are no message boards.
- Common Sense Media www.commonsensemedia.org is a free website that helps parents, teachers, and children to make productive media choices online.

5. I have an autistic child. How is *Minecraft* beneficial for my child?

It has been noted that video games such as *Minecraft* are very beneficial for children with special needs. New websites have been created to focus specifically on children with autism. For instance, http://www.autcraft.com/ is a website that offers a way for children and families to play *Minecraft* on its website server.

Further Resources for Parents:

A Parent's Guidebook to Minecraft® by Cori Dusmann
Minecraft for Parents by Cody Wagner and Erica Wagner
Minecraft for Dummies Paperback by Jesse Stay and Thomas Stay