

Purposeful Play: Games Based Learning in School Library Learning Commons

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What is Game Based Learning?

Game Based Learning (GBL) is an instructional method¹ similar to Play Based Learning (PBL), in that students learn through play. The teacher selects games to work alongside what is being taught to support, or enrich learning opportunities. The main difference between Games Based Learning and Play Based Learning is that games are usually governed by rules, whereas open play does not necessarily have one 'right way' to engage in play. Ideally, in both PBL and GBL after students finish playing/gaming, teachers debrief the experience and tease out the learning that connects to what is happening in the class, or that will lead to an inquiry for the class to pursue. GBL can be very intentionally planned for certain outcomes, or can come from 'unstructured' free play. Game play is always somewhat structured since games in the classroom are usually selected by the teacher. Students' choices are limited to what the teacher has already evaluated and allowed in the class space.

Game Based Learning is often confused with, or grouped in the same category as Gamification. Gamification is the act of using game mechanics to add a gaming layer to non-gaming experiences². One of the most popular adult examples of gamification is a shoppers' rewards program like Air Miles or Optimum points. Gamification uses points and badges (extrinsic motivation) to engage the 'player' in the program. In the classroom setting, gamification often appears as behaviour based rewards programs. The danger of using Gamification more broadly in education is that it relies mainly on extrinsic motivation and excludes those who do not 'buy' into the program, or quit the program when they do not get points and/or badges as easily as their classmates. Another drawback of gamification in the classroom is that since the program relies heavily on extrinsic motivation rewards, after time, rewards need to be increased to retain student interest. It is important to note the difference, as each method of instruction seeks to engage learners in different ways. Game Based Learning is more suited to the Learning Commons as it is driven by the participants and can be used to leverage learning, especially inquiry.

¹ Coffey, Heather. "Digital Game-based Learning." Digital Game-based Learning. Learn NC. Web. 16 Nov. 2015.

² "Gamification." Merriam-Webster. Merriam-Webster. Web. 16 Nov. 2015.

How does GBL Relate to the Learning Commons?

Many of the key elements of Games Based Learning coincide well with the standards of practice for school library learning commons, especially those involved with designing learning environments to support participatory learning. When students play and think with games, they are engaged, active participants. If learning is enjoyable and challenging, learners will do it enthusiastically. Think of a video game that players are keen to concentrate on for hours. They do it because it's 'hard fun'.³

Engagement through game play does not always exist in isolation. Although stereotypes abound of the socially awkward gamer-loner, many games need and thrive on social use by many people. Collaboration in GBL occurs in person and virtually, through interactions in-game or on servers. This is part of the appeal for game use in schools: "school librarians use modern board games to provide rich game environments with strong content connections - as well as plenty of fun - and select certain video games to encourage teamwork and help develop critical thinking skills."⁴ Other "soft learning skills", such as problem-solving, initiative, self-regulation and independent work habits are also easily developed and honed thanks to in-school game play.⁵

Issues of security and good digital citizenship, key to participatory learning environments⁶ are practiced and played out when games are used in schools and school libraries. Tools are available to protect students in-game from irresponsible actions by other players, but when students take ownership of the game community and police it themselves, deeper learning occurs.⁷

Learning happens in spaces and places where students feel safe, welcome, and successful. The school library learning commons mirrors some gaming environments in this respect of tending to social and emotional development. Not all game spaces are inviting; Canadian research Jen Jenson has correctly noted that the video game industry is hostile to female creators and critics⁸ but schools can help alleviate the inequity with video game use: "Documenting and then deconstructing degradation and oppression makes it possible to mobilizing against it, creating strategies to contest it,

³ Ontario Library Association. *Together for Learning*. Ontario Library Association. Print. 2010. Page 33

⁴ Lipschultz, Dale. "Gaming @ Your Library." *American Libraries* 40.1-2 (2009): 40. *ProQuest Education Journals [ProQuest]*. Web. 3 July 2010

⁵ Colby, Denise. "Leveraging Game in School: Not just about Math and Science." *GamingEdus*. Web. 2015 October 2 <http://bit.ly/1O0FdSU>

⁶ Canadian Library Association. *Leading Learning* 2014. Print. Page 19

⁷ Maliszewski, Diana. "Six Stories to Show that 'The Easy Way is Not the Learning Way' in Minecraft - Part 1". *GamingEdus*. Web. 2014 March 18. <http://bit.ly/1mkI282>

⁸ Jenson, Jennifer and De Castell, Suzanne. "Tipping Points: Marginality Misogyny and Video Games". *Journal of Curriculum Theorizing*. 29.2 (2013) Web. 24 December 2015

and to actively intervene and begin to change it”.⁹ This has already begun to happen in certain classrooms.¹⁰ Some students who do not meet with success in school find their niche in playing video games, and acknowledging their expertise in the school space legitimizes their talents. Students have a wealth of knowledgeable experience with games. The notion of what constitutes learning expands and includes those traditionally excluded: “Like reading and thinking, learning is not general but specific; like reading and thinking, it is not just an individual act, but a social one. As for learning being specific, video games teach us that a good game teaches the player primarily how to play that game, and then, to be able to generalize to games like it.”¹¹

GBL embraces notions of play, and play reduces barriers and increases accessibility. Language acquisition, processing and comprehension abilities and other issues that traditionally may hinder students are minimized with GBL because the fun reduces the fear involved with learning new things - an example can be found at <http://www.gamingedus.org/2015/03/the-story-of-r/>

GBL invites creativity and innovation, depending on the game or tool used, when students have the freedom and support to follow their passions in directions that inspire them, be it allowing different ways of expressing learned content via games¹², writing game-linked fan fiction, creating YouTube video channels and instructional videos¹³, or designing new modules to be used in conjunction with the game. The use of Games Based Learning supports the fifth standard of practice in *Leading Learning*, as well as the other four to create an effective school library learning commons.

What is the most popular game currently used for GBL?

The use of video games in the school library learning commons and public libraries is not new to Canada, but one game in particular has become popular in homes, schools and both public and school libraries: Minecraft. Picture a sandbox in a park or kindergarten; many children can play in the same space, while not actually playing in the same way. The sandbox has no real rules - the users of the space engage with it

⁹ Garfinkel, H as quoted in Jeson, Jennifer, and De Castell, Suzanne. “Tipping Points: Marginality, Misogyny and Video Games”. *Journal of Curriculum Theorizing*. 29. 2 (2013) Web. 24 December 2015.

¹⁰ Colby, Denise. “Skin Deep: a discussion about choice in MinecraftEdu with Grade 4-5 girls” *GamingEdus*. Web. 17 June 2014 <http://www.gamingedus.org/2014/06/skin-deep-a-discussion-about-choice-in-minecraftedu-with-gr-45-girls/>

¹¹ Gee, James Paul. *What Video Games Have to Teach Us about Learning and Literacy*. 2007 Print. Page 7

¹² OLA. *Together For Learning*. Ontario Library Association. Print. 2010. Page 30

¹³ Parker, Richard. “2 Views of 20%” *GamingEdus*. Web. 21 April 2015. <http://www.gamingedus.org/2015/04/2-views-of-20/>

on their own terms. Minecraft is the same. In the Minecraft world, players can choose to play by themselves or with others; they can choose to dig holes to the centre of the earth or build majestic castles. Minecraft users have created worlds devoted to their favourite fantasy and science fiction novels and movies, as well as worlds where players can engage in games of capture the flag, or First Person Shooter (FPS) style adventures. It is the flexibility of the game that has drawn so many people to it - it appeals to a wide variety of gamers and educators. Teachers are drawn to using this game because as a tool, it can be used in many ways when incorporating Game Based Learning into curriculum programming.

There are many examples of how teachers have used Minecraft to help teach concepts relating to Math, Science, and Social Studies.¹⁴ Minecraft players often engage in media consumption and creation related to their gameplay. YouTubers like [Stampylonghead](#) and [ExplodingTNT](#) have turned their videos about their gameplay experience into money making YouTube channels. Minecraft itself did not come with a user manual; a wiki was created by users, along with countless blogs and other wikis and websites that augment the Minecraft gameplay experience. The game is very customizable, with different, free, user-made modifications that can be added to the game as well as various user-made avatar banks for players who want a more unique look to the character they play than the generic Steve or Alex avatars that come with the game. Minecraft has the potential to be a great game to include in a school library setting because of its versatility and the ease with which it can be incorporated into subjects being addressed. For more information about how to play Minecraft there are many websites, (such as [minecrafteu.org](#)), YouTube videos, and books¹⁵ to consult. However with the growing numbers of Minecraft players available, all educators might really need to do are ask a student, patron, or fellow staff member. The use of Minecraft in schools has been rapidly spreading throughout the education community, especially by word-of-mouth.

What is the Teacher Learning and Leadership Program and how does it relate to GBL?

The Ontario Ministry of Education has helped to “spread the word” of innovative practices like Games Based Learning through its Teacher Learning and Leadership Program (TLLP). The TLLP, to quote one of the key partners, “provides funding to experienced teachers for professional development and leadership enhancement

¹⁴ Miller, Andrew. “Ideas for Using Minecraft in the Classroom”. Edutopia. 13 April 2012. Web. <http://www.edutopia.org/blog/minecraft-in-classroom-andrew-miller> (and many other examples)

¹⁵ Dikkers, Seann. Teachercraft: how teachers learn to use minecraft in their classrooms

experiences and for sharing their learning with others.”¹⁶ The TLLP seeks to support teachers in the classroom by allowing them to pursue research into what they feel is most valuable and interesting in their professional development. In the 2013-14 school year, there were three projects involving gaming; for example, Adele Stanfield and her team from the Hamilton Wentworth District School Board (HWDSB) investigated “using technology to implement game-based learning and gamification to support struggling learners in the junior classroom”. In 2015-16 there were three accepted proposals and all specifically mentioned Minecraft as a tool, from Toronto District School Board (TDSB), Hamilton-Wentworth District School Board (a joint project with TDSB), and Grand Erie District School Board (GEDSB). The Toronto District School Board project, “Digging into Minecraft with Inquiry”, used school library personnel frequently as part of their TLLP on GBL. While continuing to support the Ryerson-University-sponsored multi-school Minecraft server, the TDSB TLLP team also sought to engage more educators in professional discussions about GBL and as well as to develop a small cadre of TDSB staff (teachers, teacher-librarians, and instructional leaders) to explore the benefits and challenges of engaging students in GBL.

How can the School Library Learning Commons Support GBL?

One of our findings that have been consistent, both before and after our involvement with the TLLP, is the important role the school Library Learning Commons and school library professionals can play in supporting GBL. The first area in which the Learning Commons can support GBL is with hardware and technology considerations. School library learning commons are often the leading space in the school with the most access to technology. Using GBL, especially Minecraft, means that learners will need to access the game using some sort of device, be it iPad, desktop computer, or computer gaming console. These resources are often accessed through school libraries. This accessibility may also lead to developing partnerships with teachers and teacher librarians as they navigate the initial planning for game based learning opportunities.

The second area involves modeling learning behaviours. It is important that teachers and school library professionals play or at least know the basics of how the game is played before introducing it to students. However, expert knowledge of the game is not needed; in fact, it is almost better if students are allowed to be the experts and share the knowledge they have gained through research and experimentation. The key role for facilitating Game Based Learning is the ability to navigate issues that arise from the curriculum, being able to scaffold emerging inquiry questions, and guiding students

¹⁶ OTF, “Teacher Learning and Leadership Program” *Ontario Teacher’s Federation* Web. Accessed 26 December 2015.

through the social consequences of digital actions, as well as the research cycle. Often, play can be messy, especially when working in a digital space that can lead to conflicts around digital citizenship, but the way to learning is not always the easy way.

The third sphere of influence involves the people that help operate the Learning Commons making the connections between games and learning explicit. Minecraft is a tool that can be used in a variety of ways. It is a great vehicle for inquiry and digital citizenship. When wielded by a professional with a firm understanding of curriculum and assessment practice, Minecraft can be used to create engaging experiences that connect students to the curriculum in ways that are more relevant and memorable to them. It takes an educator to lead students in naming the learning inside the game and bridging it to the learning outside of the game. When used critically, Minecraft can be used to explore big ideas and questions in the curriculum beyond finding the volume of a rectangular prism. Like so many things in teaching, when creating rich experiences for students, educators need to carefully consider the outcomes they wish to achieve, along with the product. While Minecraft does have many knowledge and understanding applications that are immediately discoverable, it takes experience, and professional knowledge to make meaningful and rich instruction and practice happen. Minecraft is a sandbox game. The 'sand' is the tool; imagination is the catalyst. It does not matter who owns the sandbox, it is those who are in it that decide how it is going to be used.

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