The Multi-School
Minecraft Server Project

An After School Club Proposal

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Connected Play, Connected Learning

It's barely 9:15 in the morning and already two students have fallen down a mine shaft, one burst into flames when he swam through lava and another just killed his best friend with a pork chop. It's going to be a messy morning but one packed with learning.

This is learning with Minecraft.

Minecraft, the "Lego style" building block game has inspired millions of video gamers to build, create and share. It has also inspired educators world wide to use the game's open-ended structure to teach critical thinking, teamwork and more.

Schools from US to Australia have created "Minecraft Clubs" where educators use the game as a catalyst for student learning in math, literacy and beyond.

Students and their Minecraft "avatars", ready to explore.
(Exploring Minecraft Unit, Earl Haig PS, 2011)

The Multi-School Minecraft Server Project will link several TDSB Minecraft Clubs in a shared virtual world, giving students a supervised, safe space to play and learn together.

The TDSB is known for its innovative, research-based programs that engage students, reflect their lived experiences and ensure high achievement for all. The Multi-School Minecraft Server Project will continue this tradition of innovation while breaking new ground in the area Games Based Learning.

This proposal outlines the goals of the project and what supports the TDSB can offer to make the Multi-School Minecraft Server a reality.

Project Goals

The goals of the Multi-School Minecraft Server Project are twofold:

1. Build the skills of students underachieving in literacy, numeracy and social development through the open-ended, inquiry-based play and activities both inside and outside the Minecraft video game.

2. Build teamwork skills and community awarenesss with students in other TDSB Minecraft Clubs through online projects, building challenges and more.

Minecraft Club Format

In early 2012, Agnes Macphail P.S., Highland Heights Jr. P.S and Duke of Connaught PS will each start their Minecraft clubs for students in grades 4 – 8.

The clubs will meet regularly to play Minecraft. Inspired by their in-game activities students will document their adventures (via journal writing, multi-media creation, etc), carry out inquiry-based research projects, complete mathematical challenges, scientific experiments and much more. Students will co-author materials and document their activities through a shared wiki or moodle.

While each club will run independently, the students and their characters, or avatars, will share a single virtual world. Under teacher supervision, students will meet online and work together to build their shared world, while learning valuable media literacy and online safety skills.
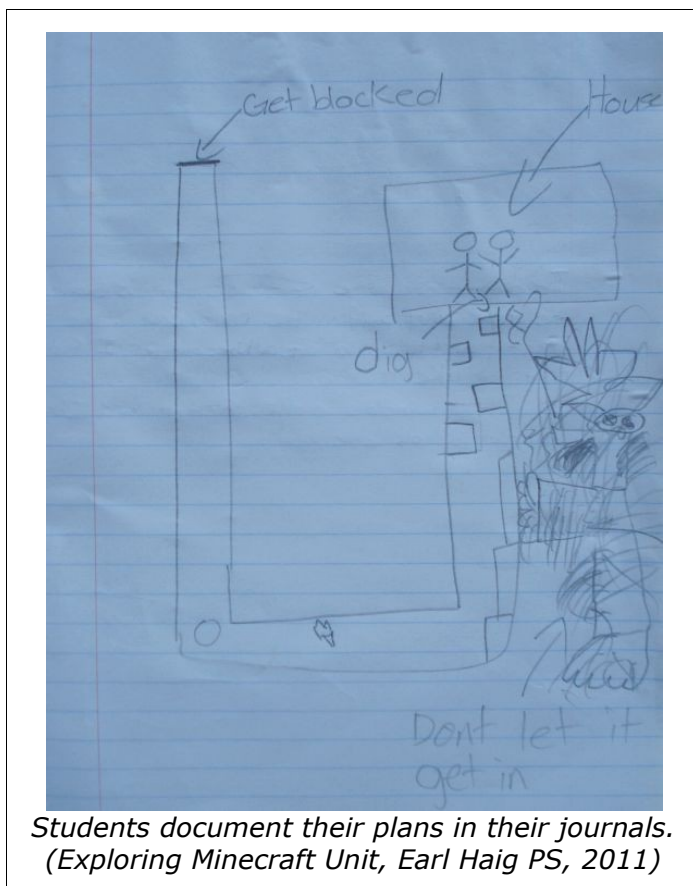
Students document their plans in their journals. (Exploring Minecraft Unit, Earl Haig PS, 2011)

Our Strengths: Partnerships

The TDSB Multi-School Minecraft Server Project is fortunate to already have several stakeholders ready to assist and make this project happen.

They include:

 – TDSB teachers – A growing number of teachers have used their personal funds to purchase Minecraft student accounts. They have explored Minecraft, documenting the experience in their own online Professional Learning Community, located at: http://gamingeducators.pbworks.com.

 – EDGE Lab, Ryerson University – This trans-disciplinary research lab has offered space on their server to host the Minecraft virtual world and bandwidth at no cost to the TDSB.

Our Needs: IT Support

The Multi-School Minecraft Server Project is ready to launch. In the short term, we would benefit greatly from the support of the TDSB in the following ways:

- dedicated support from the TDSB IT department. The server will be created and maintained by the project's Technical Lead, Liam O'Donnell, but assistance from the TDSB will be needed for initial connection with the hosted server and support with any technical issues that might arise.

- a single contact within the IT department, who understands the project and can help resolve any technical difficulties quickly and effeciently.

In the long term, provision of dedicated space and bandwidth on a TDSB server would be ideal.

A student draws on background knowledge, creating a plan of inquiry for in-game investigations. (Exploring Minecraft Unit, Earl Haig PS, 2011)

Precendents and Research

Game Based Learning Precedents

While the Multi-School Minecraft Server Project will be the first of its kind in Canada, students around the world have had learning success with Minecraft. Some examples are:

MinecraftEdu (http://minecraftedu.com/) Minecraft's official educational platform. Tools here are specifically designed for teachers to use Minecraft in their classroom.

Minecraft in Schools (http://minecraftinschool.pbworks.com) An online hub for many after school Minecraft clubs, with the goals of supporting students struggling with literacy and numeracy. There are lesson plans, tech support and much more.

Morrowcraft, (http://morrowcraft.wikispaces.com/) A single-school multiplayer Minecraft server for students of the Elisabeth Morrow School in the USA. Grade 7 students work together to build, create and investigate in Minecraft.

Massively Minecraft (http://socialmediaclassroom.com/host/MassivelyMinecraft/) An online community for educators using Minecraft with their students

Game Based Learning Research

In recent years, there's been a dramatic increase in research around the role of video games in education.

Some positive findings include:

> *"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". Turning hard work into hard fun requires helping students relate their work to their own lives and the culture in which they live."*

Together For Learning: School Libraries and the Emergence of the Learning Commons, Ontario School Library Association, 2010 (p. 33)

Game Based Learning Research (con't)

> *"Most students already have some experience with personal computers and electronic games before they reach the junior grades. Those who do not have access to current technologies outside the school are at a significant disadvantage. The school plays an important role in providing equitable access to the tools, information, and new forms of learning on which all students will increasingly rely as they advance through the grades and plan for their future beyond school."*

Literacy for Learning: The Report of the Expert Panel on Literacy in Grades 4 to 6 in Ontario.

> *"If children (and adults) are playing video games in such a way as to learn actively and critically, then they are:*
>
> *1. Learning to experience the world in a new way*
>
> *2. Gaining the potential collaborate with a new affinity group*
>
> *3. Developing resources for future learning and problem solving in the semiotic domains to which the game is related*
>
> *4. Learning how to think about semiotic domains as design spaces that engage and manipulate people in certain ways and, in turn, help create certain relationship in society among people and groups of people, some of which have important implications for social justice."*

What Video Games Have to Teach Us About Learning and Literacy, Dr. James Paul Gee. (2003) Palgrave McMillan (pp 37-38)

Team Bios

Denise Colby is a teacher with the Toronto District School Board. She has been a teacher-librarian at Highland Height Jr. P.S. for 8 years and is currently the Literacy Coach for SE6 Family of Schools. She is a member of TACIT (Technology and Curricular Integration Team) and had been the co-facilitator for teacher-librarians in the NE3 Family of Schools for 6 years. Denise has presented at the OLA Super Conference on Kindergarten programing in the library, and promoting the library within the school.

Diana Maliszewski is the teacher-librarian at Agnes Macphail P.S. She is the editor of *The Teaching Librarian*, the official magazine of the Ontario School Library Association. Diana's writing credits also include articles in *The Canadian Journal of Library and Information Practice and Research and School Libraries*. She maintains an education-themed blog, "Monday Molly Musings", (http://mondaymollymusings.blogspot.com) as well as blogging about the benefits of gaming at home at http://familygamingxp.blogspot.com. In 2010, she completed her Masters of Education degree from the University of Alberta in the Teacher-Librarianship via Distance Learning program. Diana has presented at conferences and workshops all over North America on topics such as gaming in education, graphic novels, popular culture, professional learning communities and children's literature. In 2008, she was awarded the Follett International Teacher-Librarian of the Year Award from the Canadian Association of School Libraries for her contributions to the field of school librarianship.

Liam O'Donnell is an award winning children's author, TDSB teacher and gamer. In 2011, he used Minecraft to engage grade 4-6 students at Earl Haig PS working to build their literacy, numeracy and social development skills. Since 2003, he has written about the educational potential of alternative literacies like video games in education journals (*Reading Today),* magazines (*Today's Parent)* on his blog "Feeding Change" (http://liamodonnell.com/feedingchange) and elsewhere. He is the creator of the Graphic Guide Adventures and Max Finder Mystery graphic novel series for middle grade readers and used in schools across North America. He is also the two time recipient of the Educational Publishers Association's Distinguished Achievement Award for Excellence in Educational Publishing.

The Experiential Design and Gaming Environments (EDGE) Lab is a trans-disciplinary research lab devoted to researching learning, play and social innovation with an emphasis on autonomy and user-initiated design in the context of lived experience. EDGE lab leverages the insights of local, national and international researchers from social science, humanities, engineering, and digital technology for applied projects with institutional, community and industry partners. (http://edgelab.ryerson.ca/)