Teaching/Training with 3D Virtual Worlds (in Schools)

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Fair Warning

• I am in beautiful, historic Antigua, Guatemala.
• My Internet will probably cut out at least once.
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Goals

• Not Death by PowerPoint! I’ll pause for questions and/or comments. Interrupt me and let’s have a discussion versus a lecture!
• First some introductions: 3D virtual worlds, me.
• Cover best practices and lessons learned in a “What Works, What Doesn’t Work” format.
• Compare and contrast: higher ed versus K-12, student teaching versus teacher training, Second Life versus OpenSimulator, etc.
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Introduction

3D Virtual World - Computer-based online community that is designed and built by individuals so they can interact, share, etc.

-- Plagiarized from the Techopedia website

Keywords (for me, anyway): Designed, built. Games-Based Learning plus a whole lot more!
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Introduction
Virtual Learning Environment, Immersive Learning Environment are the newer terms. You also see terms such as Massively Multiplayer Online (Role Playing) Game, etc. Lots of them out there! World of Warcraft to Quest Atlantis to Minecraft, but I’m talking about: Second Life and OpenSimulator. Another goal: Want to talk more about teacher training (PD).
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Second Life
Second Life

• Massively Multiplayer Online…Insert Your Favorite Description Here…Game?
• Introduced by Linden Labs in 2003
• Own currency and economy, intellectual property rights to everything you create
• Built-in 3D CAD and language/IDE
• Open to people 16 and up since 2010
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OpenSimulator
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OpenSimulator

• Massively Multiplayer Online...Insert Your Favorite Description Here...Game?
• Introduced in 2007, not an SL clone!
• Own currency and economy, intellectual property rights, etc., coming soon
• Built-in 3D CAD and language/IDE
• Open to kids of all ages
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Introduction

• Been using 3D virtual worlds since 2006: 3 years in higher ed, 5 in K-12/international

• 1 university, 1 college, going on 4 K-12 schools
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Higher Ed: Second Life: Student Teaching
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Higher Ed: Second Life: Student Teaching

Who Were We Teaching?

- Classes (500+ students inworld)
- Others: Freshmen – Seniors: Wide variety of English courses, including Business English (in our college plus others, global)
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Higher Ed: Second Life: Student Teaching

What Were We Doing?

• Teaching without textbooks (some e-books)
• Kids created/managed cybercampus, put on shows, made and sold real/virtual products
• Handled all management, pricing, marketing
• Learned programming via LSL, also CAD
• Active, learner-centric, English curriculum
• Hosted/visited students in other countries to practice English, virtual field trips
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Higher Ed: Second Life: Student Teaching

What Worked?

• Bridged the communications gap – digital natives knew what to do, even in English
• Overcame ASMeB – Antisocial Social Media Behavior – synchronous, anonymous (FUN!)
• Hit the sweet spot re: programming “payoff”
• Sheltered Instruction Observation Protocol to create Individualized Education Plans (IEPs) – Differentiation, Inclusion
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Higher Ed: Second Life: Student Teaching

What Didn’t Work?

• Trying to recreate classroom configuration or situation in virtual world
• Worrying about kids meeting SL weirdos (socialization, experimentation worked out)
• Assignments too open-ended (cohesive structure/theme needed, goals)
• Mixing English with others subjects
• Beginning classes in lab without “pep talk”
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Higher Ed: Second Life: Teacher Training
Higher Ed: Second Life: Teacher Training

Who Were We Training?
- Foreign professors, mostly teaching English;
  Korean professors, teaching English, Math
  and Computer Science

What Were We Doing?
- Mainly SL training for teaching English worldwide, also some Korean/Chinese
- Professional development otherwise not possible due to geography, languages
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Higher Ed: Second Life: Teacher Training

What Worked?

• Ensuring SL basics, then letting them go as individuals or in same-language groups
• Language teaching/learning (K and E)
• Koreans working with others (KNUE, e.g.)

What Didn’t Work?

• Trying to tie in SL PD with formal programs
• Putting different language speakers together in the real world
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K-12: Second Life: Student Teaching
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K-12: Second Life: Student Teaching

Who Were We Teaching?

- Classes (50+ students inworld):
- Information Technology in a Global Society – Three Strands: IT Systems, Social and Ethical Significance, Application to Specified Scenarios
- In Group 3, Individuals and Societies – provides technical education regardless
- Diploma Program opportunity for kids with low English skills, Special Needs Program
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K-12: Second Life: Student Teaching

What Were We Doing?

- Students maintained cybercampus and host students from other schools/countries
- E-textbooks provided content for IT lessons, ethical/moral and other discussions
- Projects/products: website, t-shirts, more
- Arranged college cybervisits for graduates
- Prepared for written exam (article responses, case studies)
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K-12: Second Life: Student Teaching

What Worked?

• Using viewers in native languages, making all assignments “language neutral”
• Hands-on, visual aspect of just about all work (learning styles)
• Experiential opportunities, meeting people
• Sense of freedom and openness (to a degree!)
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K-12: Second Life: Student Teaching

What Didn’t Work?

• Same lessons as with higher ed: recreating classroom experience inworld, for example
• Assuming that students didn’t need prep for project-based learning (being in charge)
• Students too shy to train teachers (students!) but there’s still hope to make this a service
• Pretending it’s not FUN! (It is, just don’t tell!)
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K-12: Second Life: Teacher Training
K-12: Second Life: Teacher Training

Who Were We Training?

- Computer Science and other teachers at IB schools (China and Mexico)
- Administrators to a limited extent

What Were We Doing?

- Mainly providing PD possibilities otherwise not available (budget, language barriers)
- Training teachers how to use SL and other 3D virtual worlds (Minecraft, Quest Atlantis)
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K-12: Second Life: Teacher Training

What Worked?
• Especially in China, teachers enjoyed FREE PD, formed lasting relationships with others
• In Mexico, guest tours seemed to work best

What Didn’t Work?
• Success varied by subject: Art, English teachers loved it as well as Science, but others weren’t convinced (inc. Math!)
• Usually didn’t evolve past novelty status (big disappointment with ITGS, for example)
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If you’re interested in getting your own Second Life cybercampus, contact Carol Pfeifer of the New Media Consortium:

carol@nmc.org
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K-12: OpenSimulator: Student Teaching
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K-12: OpenSimulator: Student Teaching

Who Were We Teaching?
- Classes (200+ students inworld)
- Middle Years Program (MYP) Technology – Shift from Digital Literacy made long ago; Art, Music, Science, Humanities soon
- Primary Years Program (PYP) Information Communications Technology (ICT) - switch from Digital Literacy to IB Design Cycle
- Latest: Computer Workshop – 9th/10th Grade
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K-12: OpenSimulator: Student Teaching

What Were We Doing?

- Teaching Computer-Aided Design, Project Management, Programming
- Teaching task-based lessons with other tools
- Changing Technology, other classes to inquiry-/task-based versus lecture-based
- Using skeleton lesson plans, students achieve according to their own abilities
- Other non-techie skills in the process
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K-12: OpenSimulator: Student Teaching

What Worked?

• Simple Instructions/Skeleton Lesson Plans
• Three C’s – Connect, Communicate, Collaborate (and #4: Cooperate – Project Management)
• IB Design Cycle: Investigate, Design, Plan, Create and Evaluate (also Attitudes!)
• Problem-Solving/Task-Based Education
• Everything is project-based, NO TESTS!
K-12: OpenSimulator: Student Teaching

What Worked?

• Reciprocal guidance, “guide on the side”
• Changing viewer interface to student primary language
• Constructivism, esp. Social Constructivism
• Self-reliance, adapting to change skills
• Scratch and S4SL for programming basics
• Wide variety of other tools: Audacity, PhotoShop, Google Sketchup, etc.
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K-12: OpenSimulator: Student Teaching

What Didn’t Work?

- Assuming productivity the first week!
- Calling it a GAME! Use “immersive learning environment” instead! Also, e-/textbooks
- Overcoming, but still dealing with active versus passive role (not Asia specific!)
- Trying to jump right into LSL (Scratch first!)
- Trying to explain, esp. re: assessment, in advance (if you can, just do it!)
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K-12: OpenSimulator: Teacher Training
K-12: OpenSimulator: Teacher Training

Who Were We Training?

• Mostly Computer Science teachers who were going to use OpenSim in IT classes
• Other teachers got involved, especially during: projects, events such as the OSCC

What Were We Doing?

• The Big Idea was to get K-12 students and teachers involved with CAD, projects, etc.
• Another goal: More cross-curricular classes
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K-12: OpenSimulator: Teacher Training

What Worked?

• Biggest success was training teachers and students simultaneously with exercises

• Guided tours, hypergridding in general

What Didn’t Work?

• As with Games-Based Learning in general, some teachers still just don’t get it (lecturers)

• Focusing on programming versus the fun stuff such as designing and building
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“OpenSimulator: School Quick Start Guide”

OpenSimulator:
School Quick Start Guide
First Edition: June 2011
If you’re interested in getting your own OpenSimulator cybercampus, contact Snoopy Pfeffer of Dreamland Metaverse: snoopy.pfeffer@yahoo.com

Or the folks at Kitely: http://www.kitely.com/
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Virtual Islands for Better Education (VIBE): https://sites.google.com/site/virtualislandsbettereducation/
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MOSES Project: http://openvce.net/moses
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OpenSimulator Community Conference:
http://conference.opensimulator.org/
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Follow my Scoop.it page:
http://www.scoop.it/t/3d-virtual-worlds-educational-technology
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Thank you for your attention, real or not! ;)

Any other questions/comments?

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