



The Magic of 3D Immersive Environments

David Davis . www.fdlrstech.com . david@fdlrstech.com

Look for additional information and resources under "Handouts" at www.fdlrstech.com.

The world is changing. We are moving from a multimedia MTV generation to a visual spatial cyberspace generation. This presentation gives a brief history of cyberspace games and the coming metaverse.

Glossary

- MetaVerse : Fully immersive 3D virtual spaces where humans interact (as avatars) with each other (socially and economically) and with software agents in a cyber space that uses the metaphor of the real world without the physical limitations. From the book "Snow Crash" by Neal Stevenson. (Wikipedia)
- RPG : Role Playing Game. Players typically take on fictional characters such as elves, vampires, dwarfs, wizards, etc.
- MUD : Multi-User Dungeon, Domain or dimension, a multi-player computer game that combines elements of role-playing, hack and slash style computer games and social chat rooms. Usually text-driven where players read descriptions of rooms, objects, events, other characters, and computer controlled creatures or non-player characters (NPCs) in a virtual world. (Wikipedia)
- MOO : MUD Object Oriented - a text-based online virtual reality system in which multiple users (players) are connect at the same time. Object oriented means that users can perform object oriented programming within the server that changes how it behaves to all the users. Examples include creating new rooms, objects, and new interfaces.
- MMORPGs : Massively Multiplayer Online Role Playing Game.
- Avatar : Computer representation of a user. Can mean "incarnation".

Example 3D Worlds

- Webkinz : <http://www.webkinz.com/>
- JumpStart Virtual World : <http://shop.knowledgeadventure.com/Departments/New-JumpStart-World.aspx>
- Edusim : <http://edusim3d.com/index.php>
- World of Warcraft : <http://www.worldofwarcraft.com/index.xml>
- Second Life / Teen Second Life : <http://www.secondlife.com>
- Google Earth : <http://earth.google.com/>
- Spore : <http://www.spore.com/>

Visual Spatial Skill Impact

- Visualization
- Spatial Orientation
- Visual Memory
- Visual Tracking
- Mental Rotations
- Perspective Coordination
- Patterning

Skill Development

Use a concrete / representational / abstract (CRA) system to help students with visual spatial skill development. Start with hands-on activities like clay modeling or making paper dioramas & communities. Move to drawing, map making, puzzles, computer modeling, and visual spatial training software. Then move to using numbers to control spatial orientation.

Drawing & Painting

- Draw 3D : <http://www.draw3d.com/lessons.htm>
- The Draw Squad : <http://www.drawsquad.com/>
- Sketch & Smudge : <http://www.sketchandsmudge.com/>
- Art Rage : <http://www.ambientdesign.com/artrage.html>

Modeling

- Make It Software : <http://www.yourchildlearns.com/owlmouse.htm>
- Diorama Designer : <http://www.tomsnyder.com/products/product.asp?SKU=DIODIO>
- Community Construction Kit :
<http://www.tomsnyder.com/products/product.asp?SKU=CCKCCK>
- BlockCad : <http://web.telia.com/~u16122508/proglego.htm>
- LEGO Factory : <http://factory.lego.com/>
- Google Sketch Up : <http://sketchup.google.com/>

Visual Spatial

- Jungle Chess : <ftp://ftp.paec.org/pd3/scs95.exe>
- Neighborhood Map Machine :
<http://www.tomsnyder.com/products/product.asp?SKU=NEIV20>
- Merry Motors : <http://merry-motors.albymedia.qarchive.org/>
- Visual Shapes : <http://visual-shapes.caltrox-educational-software.qarchive.org/>
- PhotoPuzzleFX : <http://photo-puzzlefx.tanseon-systems.qarchive.org/>
- Overkillix3D : <http://overkill.qarchive.org/>
- Lexia Cross Trainer :
<http://www.lexialearning.com/forschools/products/crosstrainer.php>

