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Cybergogy as a framework for teaching design students in virtual worlds

Scott Chase



Lesley Scopes



eCAADe conference
Prague, 12-14 Sep 2012

Project themes

- (Architectural) Design T&L
- Virtual environments (design & learning)
- **Content and Language Integrated Learning**
- Fragility of environments

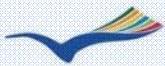
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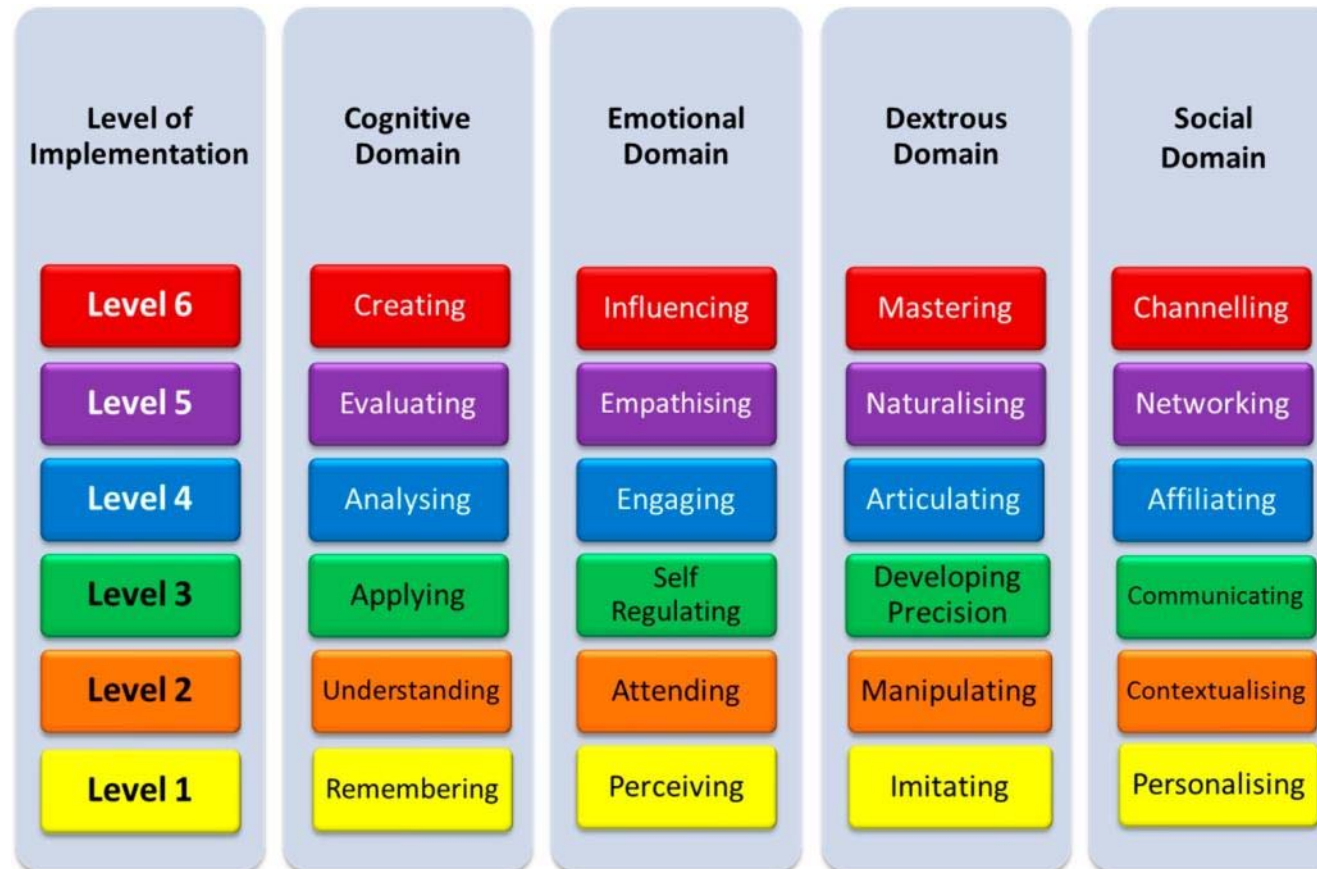
Second Life islands



Cybergogy components



Taxonomy of Learning Domains



Second Life classes

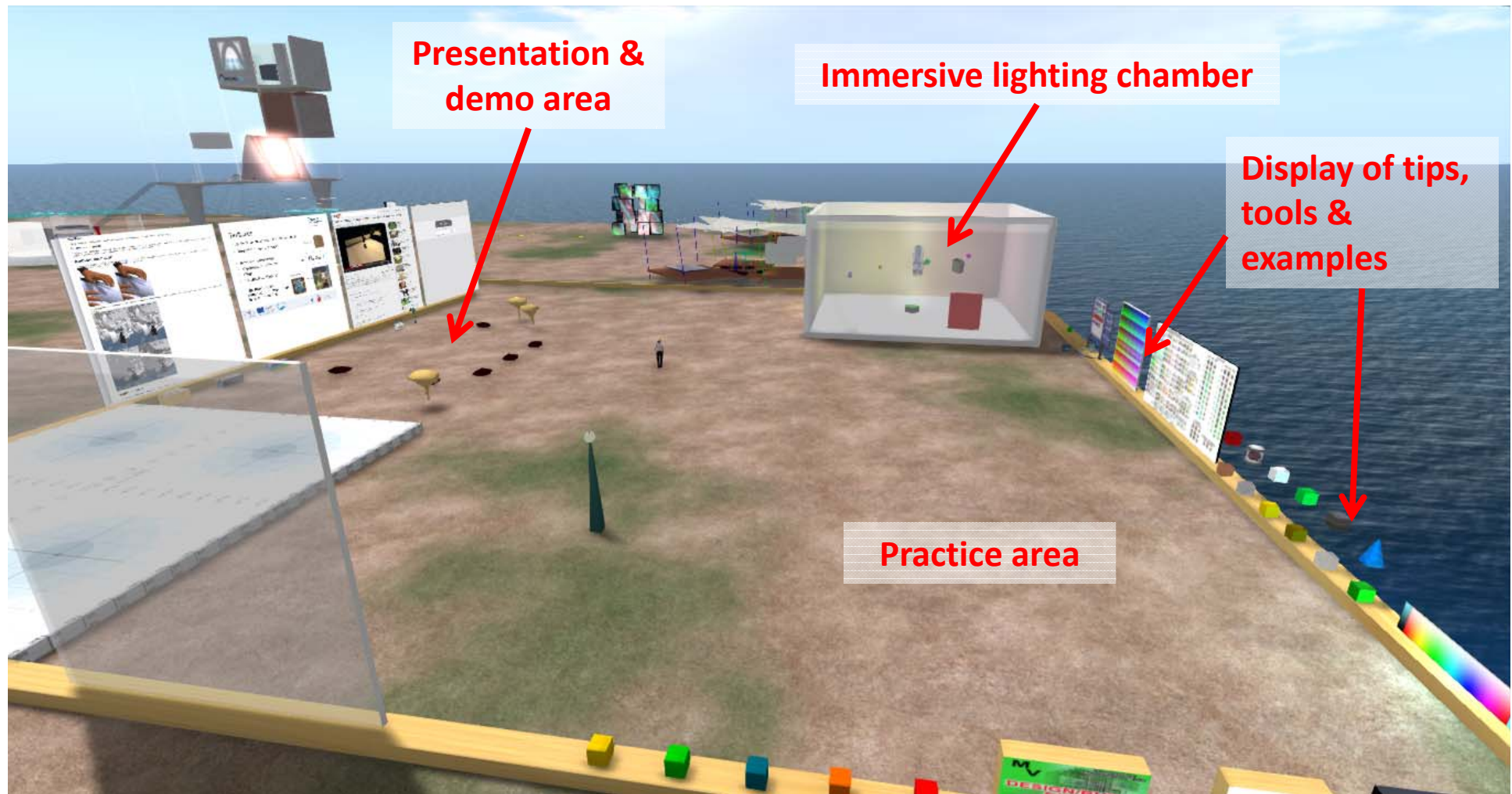
- 1 hour induction class (teachers)
- 10 hour building class (teachers)
- 4 hour building/presentation class (studio students, Slovenia)
- 2 hour class on lighting techniques, linked to lighting design course (Slovenia)

instructor, students, mediators, observers

Lesson plans

Time Allocated	Topic	SL Activity/Learning Archetype/ Additional Resources	Learning Domains Addressed	Learners RL Activity	Assessment Archetype
<i>Introduce</i> 10m+15m	<i>(details omitted)</i>				
<i>Develop</i>	Building Techniques:	Simulation Archetype <i>Language Mediators support students during the following tasks</i>			
10m	<ul style="list-style-type: none"> • Prim Linking 	Leader demonstrates linking/unlinking prims. Learners imitate tutor.	Cognitive Lv1&2	Attend to following 5 demonstrations	Formative Q&A to check for remembering and understanding (Cognitive) and Imitation (Dextrous)
10m	<ul style="list-style-type: none"> • Permissions 	Leader demonstrates object permissions. Leader advises Learners how setting permissions over objects can limit or permit users interaction. Learners (in pairs) imitate leader.	Emotional Lv1 Social Lv3	Take notes for reference as required	Observation of practical output
25m	<ul style="list-style-type: none"> • Textures 	Leader in-world presentation, demonstration. Learners imitate Leader.	Dextrous Lv1	Formulate questions in note form for summative Q&A	Based in the Emotional Domain, Learners are questioned regarding their feelings of the activity and perception of their abilities/satisfaction. Group forum is encouraged for peer feedback
10m	<ul style="list-style-type: none"> • Building to Scale 	Leader presentation: Avatar size, camera issues, Mouselook	Cognitive Lv2		
25m	<ul style="list-style-type: none"> • Presentations in SL 	Leader Presentation: 3D objects, slideshows, Uploading images, media on a prim, Chat, voice or text	Cognitive Lv2		Formative Q&A

Building class area



Building class



Building practice



Immersive lighting chamber



Lighting Q&A



Issues

- Mixed student cohorts, many with inadequate SL experience, caused delays
- Weak use of emotional and social domains in learning outcomes
- No evident (English) language comprehension problems
- Lack of body language as feedback
- Difficult avatar identification in unstructured virtual space

Conclusions

- Which technologies work best
- ‘Belt and braces’ approach to teaching with technology
- Learning curve for SL and similar 3DiVWs higher than novices anticipate
- More time required for induction and building classes
- Use of 3DiVW environment best integrated into curriculum and supported
- Detailed, adaptable lesson plans mapping Learning Archetypes & Learning Domains to learning activities

Outcomes

- Packaged content for course delivery in Second Life and similar 3DiVWs
- ‘Learning Objects’ for Cybergogy and architectural lighting design
- Best practice guidelines for design students and practitioners in 3DiVWs