Embedding 3D simulation into curriculum: Developing, integrating and sharing web-based resources for simulated learning

Marcus McDonald (from Assoc.Prof Jenny Sim)
SHS
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Strategic objectives addressed:

The 2013 project addressed the following RMIT strategic objectives:
• enhancing the student cohort experience
• redesigning curricula around new learning spaces
• designing or redesigning sustainable offshore programs
• redesigning programs for flexible delivery modes, including Open Universities Australia

The 2011 and 2012 LTIF Second Life projects created new learning spaces by using Second Life as the virtual learning platform to better prepare students for their clinical and industry placements. One major advantage of Second Life is the flexible mode of delivery with its 24/7 access. The learning objects created are reusable thereby providing the sustainability for this form of learning. The virtual learning platform also has the potential to facilitate educational collaboration between overseas education institutions. The 2013 project created a web-based learning and teaching (L&T) resource supporting academic staff to embed 3D simulated learning into curriculum and to design curricula that are flexible, sustainable and suited for offshore delivery. The project therefore aligns with RMIT goals of being global and connected.

Internal order number: 360391
Project leader contact details:
Email: Marcus.mcdonald@rmit.edu.au
Phone: 57602
**Project team members:**

- Assoc Prof Jenny Sim School of Medical Sciences, Medical Radiations. **Now with University of Auckland**
- Dr Brett Gordon, School of Medical Sciences, Exercise Science (Left RMIT, completed tasks)
- Dr Jennifer James, School of Health Sciences, Discipline of Nursing & Midwifery (withdraw from project in early 2013)
- Dr Tony Zhang, School of Health Sciences, Chinese Medicine
- Ms Suzi Mansu, School of Health Sciences, Chinese Medicine
- Associate Professor Jennifer Martin, School of Global Studies, Social Science and Planning, DSC
- Dr Charlotte Sale, Andrew Love Cancer Centre, Geelong
- Dr Jennifer Harlim, Research Assistant,
- Mr Joe Bird, fact checker

**Acknowledgment:**

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1 Executive summary

This project aims to support RMIT academic staff in the adoption of simulated learning in their curriculum. The study builds on our 2011 and 2012 LTIF projects by bringing together the academic team’s experiences, expertise and resources developed these past two years through the creation of a web based resource for simulated learning. For 2013, the Research Team focused on developing a web based resource on simulated learning, integrating our findings and resources and sharing our experiences and expertise with the RMIT academic community. The website consists of a comprehensive list of resources including an education framework for designing simulated learning. The site will detail the pedagogy underpinning simulated learning, references and links with synthesis into digestible form, with examples of how different disciplines across SEH and DSC Colleges successfully embedded Second Life into their curricula. Instructional tutorials on Second Life participation will be available in readiness for staff use. One major resource will be the availability of digital videos that showcase how Second Life was used to assist students in their learning. Self-reflection of performance (via role play clips) promotes systematic reflection of their competence (Kong et al. 2009) which in turn enhances student learning. Aside from serving as a resource for academic staff, another major objective of the website is to provide a forum for a community of practice of virtual learning. The project has attracted attention from the University committee on Work integrated learning. It is envisaged that the site will be integrated into official RMIT learning and teaching resources.

2 Outcomes

The projects outcomes are for the most part the web site and it’s assets. The website is in its final phase of construction. The content is written and links curated. The site is with EduTAG as they are building the interface and editing the video. It is anticipated this will be complete in March 2014. As EduTAG are contributing in kind, the process may be deprioritised and take longer. The LTIF will be informed if this is the case.

It is also anticipated that the site and its contents will help inform the Universities stance and direction on Work Integrated Learning in the area of 3DSLEs. A meeting to this effect was held with Meaghan Botterill.

In the absence of central support for Virtual worlds, it is hoped that this site will provide a best practice guide and help inform future policy at RMIT University.

Several Literature reviews were done as part of this project. They are centred around the application of the following educational frameworks as they specifically apply or afforded by the use of virtual worlds; Constructive Alignment, Constructivism, reflective learning, situated learning, interdisciplinary learning in health/medical education, general virtual world literature and discipline specific to those disciplines involved.

Two papers are in the writing phase. One regarding the staff needed to use SL in an institution with no central support. The other is on the affordances of the triple role, role play and transformative learning.

3 Project outcomes and impacts

3.1 Develop a web-based resource on 3D simulated learning

This is in the final stages of completion. The production has been slow due to only using the EduTAG internal support. Additionally funded projects, or projects with additional fund allocated can be completed faster.
3.2 Demonstrate how various disciplines (across SEH and DSC) embedded 3D simulated learning into their curriculum via an educational framework;

This is integral to the project. As the team members were from across portfolios, schools and disciplines this was easy to achieve. All academic team members were to submit video assets to be included a single examples or show reels. All staff involved met this obligation in the time required to be handed to EduTAG. This inclusion should allow a greater deal of relevancy to any staff new to Virtual worlds and wanting to use it for role-play.

3.3 Provide examples of how digital role-plays can be used to enhance student learning;

The synthesis of the literature reviews into easily digestible content should go a long way to achieving this goal. The references are given to aid further inquiry by the reader. This has not been tested at this stage. It is envisaged though that this will be a useful section.

3.4 Promote interdisciplinary learning through the use of simulated learning;

The project itself was integrally interdisciplinary. The guides describe the strength that can come from this approach. It will be relevant to any discipline that wishes to use a virtual world for role-play. The projects which informed this one have shown that you can even achieve a aspirational level of interdisciplinary interaction and not be constrained by current real world habits or legislation. Too, as mentioned before, the site has attracted attention for inclusion into the RMIT University Learning and Teaching resources and inform sections of WIL policy.

3.5 Maintain a community of practice for RMIT academics to share knowledge and expertise on simulated learning.

Since the use of virtual worlds in teaching is not centrally supported at RMIT University, assets that are not being currently used for a project may become lost. This project, sets about paving the way to future endeavours and to facilitate new activity. By having the guide and a point of contact for staff interested in SL and its uses, we begin in a small way, the community of practice. There are many associations and groups external to the university that may assist in this way, but this project has given it a local context, with people experienced in the procedures and affordances. It is also hoped that this will also facilitate the use of learning spaces in better and new ways, hopefully allowing redesign of curricula to take advantage of this.

4 Dissemination strategies and outputs

Inherent: As mentioned. The nature of this project and its resultant site, is by it’s nature a dissemination tool. It will, in some form be integrated or referred to in the RMIT university page on teaching and learning. Discussions with the e-Learning Strategy and Innovation Group have concluded the most advantageous outcome would be to have the Projects site stand alone and for selected parts to be featured in the RMIT University Teaching and Learning resource page. This should help traffic become aware if they are actively searching for this type of information.

Forum: There will be intended presentations at the L&T forums held about RMIT during 2014. Of specific interest will be the SHE and DSC forums (dates to be confirmed) as they were involved in the project. Here a presentation will be held to outline the use and content of the site. If there are informal “station” based exhibits as well, one of these will also be sought. Perhaps too a poster.

[RMIT UNIVERSITY]
With the primary interest being the use of VW at RMIT, activity will be restricted to RMIT, unless another interested institution arises.

**Papers:** There are several planned papers for 2014 that are all informed by this project.

**Site launch:** Once the site is ready and can be made public, there will be a site launch. The nature of which has yet to be decided.

**Social Media:** Once the site is live a targeted social media campaign will be initiated using FaceBook and twitter. Special attention will be directed toward those users or groups involved in educational technologies and virtual worlds, plus the RMIT University Twitter. It is hoped by using social media contacts outside RMIT University that other institutions that do not have central support that are using second life can benefit from our experience.

## 5 Evaluation of project outcomes

The goal of this project was to form an asset based resource. The impact will not be able to be judged until the asset is integrated into the larger university reference resources. Dissemination is of utmost importance. Once the resource goes live, it will be disseminated as widely as possible according to the strategies outlined in section 4.

If it is the wish of the LTIF Panel, there could be a follow up report on this section later in 2014.
Appendix A

Please find attached with this document the document 3Droleplay_website_DRAFT.pdf. It is the draft of the site with some final text in situ. If the LTIF so request I would be glad to update this section when the site goes live. UPDATE: The url is http://emedia.rmit.edu.au/roleplay3d/ please keep in mind that it is being updated and may change often.