

Evaluating educational interventions in Second Life, particularly education for information literacy

Discussion held on Infolit iSchool, Feb 14th 2008

Chatlog at <http://sleeds.org/chatlog/?c=234>

Discussion led by Sheila Yoshikawa (Sheila Webber in RL)

Starting point: there is no simple answer. A favourite quote of mine is from a good review of the literature about blended learning (i.e. learning which blends online and face to face delivery, which is increasingly usual in the UK) "There appears to be little value in another review which asks 'do blended approaches improve learning?' and which will predictably give an answer 'it depends'. (Sharpe et al, 2006: 8)

This highlights the fact that education is context-specific and there are many variables (educational aims, the learners, the teachers, the cultural context, and so forth)

A key point is: what is the focus of evaluation? is it on:

- student learning of information literacy;
- student learning of another subject;
- improving other aspects of the student experience (e.g. confidence, presentation skills, employability, access to classes from a distance or by people with disabilities)
- student perceptions of the class and institution (e.g. in the UK we may make improvements with the aim of improving responses in the national Student Survey)
- approaches to teaching (e.g. there may be a push towards Problem Based Learning because a university has adopted that as a preferred way of teaching) or the learning environment (e.g. Second Life)
- efficiency gains of some kind (e.g. doing things cheaper or quicker)
(and so on)

You may want to evaluate all of these aspects, but there will usually be an emphasis on a particular one. Identifying the most important questions for evaluation will help focus on essential data gathering, rather than more generalised "nice to know" data gathering.

The following draws on points from a discussion between UK educators held on Eduserv Island on 23 Jan 2008:

Measuring the impact of Second Life on learning. See <http://sleeds.org/chatlog/?c=219> and

<http://artfossett.blogspot.com/2008/01/thinking-about-learning-impact-of.html>

See also statements by MNK Boulos and Simon Bignall at <http://sl-sexualhealth.org.uk/?p=77#comments>

These educators (including me) had previously been asked the question via email, and these written comments are also likely to be published.

1) Do not rely on "metrics" to evaluate educational interventions: number of visitors (for example) does not indicate extent or effectiveness of learning. Similarly, length of time spent in a place may not equate with interest (person could be "away" or searching round in frustration for what they want).

Obviously this can be one useful set of information to give a rounded picture e.g. if there is a problem or puzzle that you want students to interact with in their own time. However need to think "does this data really tell us anything?"

2) There are differences in educational system and culture that may lead to testing and metrics being seen as more, or less, important. Although there may be lessons to learn from other countries, you also need to focus on what is appropriate to your country/ culture/ pedagogy.

3) *Action research* was mentioned by me and by Simon Bignall as a way of evaluating and enhancing the learning experience

In action research you need to: Identify the focus for change and the question to be explored (e.g. can I enhance understanding and interest in a model of the research process by engaging students in creating a 3D model in SL?); Plan the intervention; Take action; Collect and analyse data (from students, colleagues, oneself etc); Reflect and start the cycle again.

4) Involving students in evaluation is obviously one element: SL may offer new ways to capture their input. To add a reference here: Mayes (2006), talking about investigating e-learning, cites "six guiding principles for an ideal learner-centred methodology:

- "- Open ended methods (allowing unexpected issues to emerge).
- "- Mixed mode (eg diaries; observations; interviews; focus groups).
- "- Triangulated (more than one source of evidence used).
- "- Access beliefs and explanations and intentions.
- "- Talk about learning with learners.
- "- Authentic contexts."

5) You might carry out pre and post tests with some interventions (example was given in the Eduserv discussion: exploring a 3D model of Marx's 'base and superstructure' theory). HOWEVER, in discussing this approach, and the approach of carrying out "the same" activity in two different learning environments (e.g. SL and face to face) it was pointed out that:

a) there are lots of variables that might affect differences, so one has to be careful not to assume that differences are solely to do with the different environments;

b) a good teacher would design different interventions, tailored to the nature of the different environments – you wouldn't (or shouldn't) do exactly the same thing face to face and in SL.

6) "Success of SL can be evaluated from the quality of the products produced by the students who have mucked about." (quote from Cubist Scarborough)

At that point we were talking about SL being valuable when students could be creative and experiment (or "muck about." Cubist was noting that programmes can be evaluated through the assignments (created inworld and outside SL) and other records (e.g. chat logs and photographs) that might be used to assess student learning itself.

7) External indicators.

Someone mentioned how they had been able to use External Examiners' reports to support a case for using SL (in the UK all programmes at universities have one or two External Examiners – normally academics from another university – who audit the quality and procedures, particularly looking at assessments).

Also in the UK we have something called the "National Student Survey" (NSS) where 3rd year students at university answer a questionnaire about their satisfaction with various aspects of their programme. The scores from the NSS are used to produce rankings which potential students may use to decide which university to go to.

I was wondering whether some of these questions could be used in interview, discussion or questionnaire. In the UK this might be seen as good evidence: if SL potentially might increase one's NSS score. Examples of NSS questions are "As a result of the course, I feel confident in tackling unfamiliar problems" and "Staff have made the subject interesting"

Two quotes we could discuss:

"Assessing the impact of using SL/MUVEs is difficult. A lot of the earlier adopters are dedicated teachers, who would do a good job if asked to teach in a barn." (Rosie Luna)

"We can evaluate it and produce 'evidence' of effectiveness but it only has to be 'as good as what we have already' to justify it. It doesn't have to be better." (Milton Broome)

References/Resources

Bonk, C. (2006) *Blended learning: situations and solutions*. <http://www.trainingshare.com/pdfs/SFX1D28.pdf>
The presenter presents (in the 2nd half of this long PowerPoint) 12 "problems" that blended learning might address, with examples of solutions. An example "problem" is that students need to visualise content. I think it is useful to examine these problems to identify whether any of them were reasons for choosing SL as a learning environment; this could help you focus on what you need to gather evidence about (thus asking more specific questions in questionnaires or focus groups, examining particular aspects of the assignments).

Center for Collaborative Action Research, Pepperdine University. <http://cadres.pepperdine.edu/ccar/>

Glenaffric Ltd. (2007) *Six steps to effective evaluation: a handbook for programme and project managers*. Bath: JISC. <http://www.jisc.ac.uk/media/documents/programmes/digitisation/SixStepsHandbook.pdf>
This was mentioned by someone at the Eduserv meeting. It is about project evaluation (a guide for people who are funded by UK's JISC), which isn't the same as evaluating educational interventions, but the sections on planning and data gathering are useful.

Mayes, T. (2006) *L E X: The Learner Experience of e-Learning: Methodology Report*. JISC. http://www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/lex_method_final.pdf

Sharpe, R. et al (2006) *The undergraduate experience of blended e-learning: a review of UK literature and practice*. York: Higher Education Academy. http://www.heacademy.ac.uk/ourwork/research/litreviews/2005_06
A very useful critical review. Although it does not talk particularly about use of virtual worlds, it provides a pathway into the existing literature about elearning and blended learning. In particular Section 3 can provide a starting point to consider what the rationale is for using SL.

People seemed pretty much agreed that metrics were not the most important factor: however they do have some uses, more for marketing purposes (or to convince people who only understand numbers). Two services for measuring visitors etc. In SL are:

Maya realities: sells tools to measure traffic, exits and entrances, RL country of origin etc.
<http://www.mayarealities.com/>

SLMetrics – "see how many people visit your space, how much time they spend, who they are, and best of all, you can navigate through your statistics with an interactive visualization."
<http://www.slmetrics.com/login.php>

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