Experiential Teaching and Learning as part of a Blended Approach: Classrooms, Blackboard and Second Life Practices

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Abstract
This paper aims to illuminate teaching experiences of the tutors in a first year undergraduate module and explore the contribution of Second Life (SL) to students’ learning process from the perspective of a teaching assistant. The virtual world SL is being used as part of blended inquiry based approach, i.e. using physical classrooms, Blackboard, web-based resources, and SL in an Information Literacy in a higher education setting in the UK. I begin by describing the structure of the module and characteristics of learning activities that take place in class, including identifying the rational for conducting practical exercises in SL with the disciplinary goals. I also detail some of the interventions and strategies that were adopted, such as an exhibition space of nine SL mini-islands, designed for the students’ information problem activities. I reflect on the learning and teaching experiences with the evidence from: tutors’ interviews, chatlogs, in-world snapshots, and my own notes. I find the use of the structured group activity as a technique for dealing with the information problems, the use of reflection as part of the learning experience, furnishing and designing the mini-islands, and eventually conducting interviews in SL, as a means of understanding of the module tutors’ experiential teaching paradigms. I conclude this paper by indicating that the teaching approach used for utilising experiential learning thus has important pedagogic implications to develop new skills such as navigating, integrating and designing in-world as well as interpersonal skills such as presentation, interview and teamwork skills within socially rich contexts.

Key Words: Experiential teaching and learning, information literacy, inquiry based learning, virtual worlds, second life, virtual teaching

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1. Introduction
The study described in this paper consisted of using physical classrooms, a virtual learning environment (VLE), web-based resources and Second Life (SL) in a module for first year undergraduate students in a university in the UK. That is to say, the module is a campus-based class involving face-to-face sessions with the use of the university’s VLE - Blackboard - and interaction with other Web 2.0 resources such as reflective journals, e-portfolios and wikis, as well as the virtual
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The university provides a secure online environment in which students not only have flexible access to their courses via the internet but also have facilities that engage them in a process, which ultimately enhance their learning. The virtual world SL is being used as a part of a blended inquiry-based learning (IBL) approach, which I discuss in the next section. SL is a public 3-D virtual world released by Linden Lab and is inhabited by millions of users, called residents, all over the world. People are represented within SL by avatars, which are humanoid or non-humanoid 3-D characters that could be modified by users. People are using SL to communicate, to organise events, to establish businesses, to meet people and make friends across the world and to host many educational events including in-world classes, academic conferences, seminars, demonstrations, and exhibitions.

The module, Information Literacy (IL), is a core part of the level one-year of Information Management (IM) degree offered in the Information School in the university each year. For the academic year of 2011/12, the class was primarily led by the module coordinator (the MC), and 2 teaching assistants of whom I was one. I assisted purely with in-world sessions and my role was to assist the students with their learning activities that took place in SL and to answer their questions to provide support and minimize potential chaotic preliminary experiences with VWs. In addition, there was 1 internal tutor (TutorN) who covered the topics of “information” and “information behaviour” and 2 librarians who work in the same institution and a librarian (TutorP) who was geographically remote and worked in a different institution in the UK. The class consisted of 43 students of whom 22 were originally from outside the UK; 19 were female and 24 were male. The primary aim of the module was to enhance the information behaviour skills of the students and to help them to become information literate by focusing on both practice and theory of IL and information behaviour. In the reminder of the paper, I first discuss and give some information about theoretical teaching and learning approach that was taken for this class. Then I describe and give details of the activities that took place both in classrooms and SL. This includes identifying the nature of the blended delivery of this module. I draw the conclusion by evaluating the MC’s teaching paradigms and pedagogic implications within the experiential teaching and learning context.

2. Inquiry Based Learning (IBL) Approach

The central pedagogic approach for the module was IBL and it suggests that the students engage with the module more deeply. The aim of adopting the IBL approach in this module was to stimulate students’ curiosity and engagement. The main characteristic feature of the approach is identified by Khan and O’Rourke as involving the students with their discipline through self-directed inquiries with a collaborative and engaging way. In essence, it is learning and teaching approaches that are based on student-led inquiry and a deepening students’ engagement with
the discipline. With this approach, the students are expected to learn and build knowledge through guided exploration and investigation of the questions or problems that are established with the open ended structure either by the tutor, the student, or by negotiation among them. The MC aims to convey this by encouraging the students to develop their own arguments in order to gain the value of being information literate along with using a mix of technologies. The emphasis on this module explores existing knowledge and discovering the discipline, yet the IBL approach is associated with SL activities by focusing analysis of the students’ own information behaviour, by identifying ways in which they can become more information literate, and by interacting with others to explore their information behaviour and needs in SL. Arguably, it is possible to infer that SL took a limited part in this mode of IBL. This is because all three environments, classroom, Blackboard and SL, play a role in the activities and the module is a campus-based class with weekly face-to-face sessions. Likewise, the role of IBL perhaps is limited and ‘information-oriented’², since the ultimate focus was primarily on exploring an existing knowledge and interacting with others.

3. Details and Description of Activities

3.1. Week 1

The first part of the introductory session included presenting aims of the IL module, a model of IL i.e., SCONUL (Society of College, National and University Libraries), which attains the quality in library services in higher education and national libraries across the UK and Ireland, Seven Pillars of Information Literacy Model³, and the mode of working, i.e., lectures presented by the MC and others. Also included were individual and group exercises, the use of the university’s VLE and SL in the module, exploring the concept of IL. This included creating exhibits, interviewing in SL, exploring meanings of IL in a virtual world, and lastly information about assessment and asking for registration for SL. The last part of the introductory session included practical individual exercises during which the students demonstrated their areas of strength and weakness in IL. For the practical activity, the students sought to illustrate their IL skills in successfully finding, using, and evaluating information by giving a short presentation in the classroom face-to-face. Besides, the students formed groups and had 60 minute SL tutorials arranged during the week. The attempt was to facilitate students to personalise their avatars and contextualise themselves in the environment using the communication channels available, i.e. local chat and instant message (IM). In SL tutorials, the students began to develop their basic SL skills such as communicating, moving on the island, manipulating their avatars’ outfits, and practising wearing objects and rezzing items, i.e. dragging items out of their inventory folder onto the ground. Image 1 provides a glimpse of the orientation tutorials.
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3.2. Week 3

The MC presented a session regarding mind mapping in order to develop the students’ ability to evaluate the effectiveness of search and retrieval strategies. It was emphasised that these techniques could be helpful in key aspects of IL, in particular identifying and planning. In the practical exercise session the students formed 9 groups each of 4 or 5. Each team was allocated an information problem comprising one of the following.

- Is the “Google generation” really bad at searching for, and evaluating, information?
- How reliable is Wikipedia?
- Should Facebook users be concerned about their privacy and safety on Facebook?

As there was only one computer lab, i.e. limited number of computers, in which the SL viewer was installed, 9 teams were separated into 3 groups. While 3 teams were working on their task in the computer lab, the other 6 teams worked on their information problem in the classroom. The teams alternated with each other after they had finished their work. In the lab, teams were introduced to the exhibition task. In other words, each team was given a mini island by the MC for their information problem activities. The intention behind giving the students a mini island was to give them a sense of ‘ownership’, to provide a challenge by which they might improve their concentration, to enable them to learn teamwork skills through the activity, and eventually to engage them more effectively. The students practised auditing their team’s skills by positioning a house on their mini island.
and adding any other objects that might be relevant to their task. Furthermore, some “freebie locations” in SL, in which some items are freely available, were introduced in order to encourage them to visit and take some objects and furniture for their islands. Image 2 offers a glimpse of each team’s mini island.

![Image 2 - A glimpse of teams’ mini islands](image2.png)

### 3.3. Week 4

In the practical session, as they had done in the previous week, 6 teams continued to work on their information problem task in the classroom, and 3 teams were introduced to the Opinionator exercise in the computer lab. The Opinionator is a 3D tool that enables the students to express their opinion regarding given information by moving onto it. A pie chart then appeared in the middle showing what percentage of students had chosen each option. The MC, another lecturer from a different university (TutorP) and myself - who all presented in SL - asked entirely in text-chat if what was given was data, information or knowledge. The students were then asked to move onto the Opinionator and to type into text-chat why they had chosen that option. They continued to work on their exhibition task in SL for the remaining time after which the teams alternated. Image 3 illustrates the Opinionator activity.
3.4. Week 5

All teams finished their information problem activity and prepared a PowerPoint presentation to be uploaded into SL in the classroom and they then worked on their exhibition on the mini islands in the computer lab. Furthermore, the students uploaded their presentations onto their islands, prepared some brief information about their presentation and put this onto a notecard, which is a text document, in SL, and prepared questions to put into a multiple choice quiz ball in SL. Image 4 provides an example of their work.
3.5. Week 6

The MC introduced some interview techniques for an effective interview and the students formed groups, which consisted of an interviewer, an interviewee and an observer, and practised face-to-face interviewing in the informative session. The MC and a lecturer (TutorG) from CollegeG in USA formed a project for students’ interview activity. The intention for the MC was to involve a small number of the college students to be interviewed. Likewise, TutorG attempted to give CollegeG students an experience of connecting in real-time with a peer in the UK using a VW. For this purpose, the MC initially created a Facebook group page for the module students and interviewees who were willing to participate from CollegeG in order to enable them to socialise and get to know each other.

Two different activities took place in the practical session. While 6 teams were learning more about an information behaviour project and completing a questionnaire, 3 teams practiced interviewing in SL after which teams alternated. The students were ultimately asked to analyse interview transcripts in relation to real life “information behaviour” research models, and reflect on their performance as interviewers. Image 5 illustrates an example of students’ SL interviewing which was rehearsal for their SL interview activity.

![Image 5: Rehearsal interviewing in SL](image_url)

3.6. Week 7

The MC presented detailed information regarding IL models and the research process and ethics in the informative session. In the practical session, the students were introduced to a model and asked to complete a questionnaire. There was no practical SL activity in this week. However the students were allocated a potential interviewee. The initial attempt was to involve the college students to be
interviewed yet interviewees were mostly recruited by the MC through her personal contacts. This is because interviews did not take place at the scheduled time and the CollegeG had the Thanksgiving Holiday. The students were then asked to contact their interviewees for their SL interview task by email. In addition, the MC gave a presentation regarding the module in a virtual conference that took place in SL. She introduced the pedagogical approach that was constructed for the module, the rationale for using SL, the information problems that the students worked on, SCONUL 7 Pillars Model, and Modes of IBL. She then took the participants to visit the students’ works on the island. Image 6 provides an example of the MC’s presentation.

3.7. Week 12
There was no actual lecture or practical session so the module ended for the autumn semester. Meanwhile, the exhibition was visited by the students and TutorG from the college in the USA. Image 7 gives an example of their visit to the exhibition area.
In the following section, I present the findings from both observations in the classroom and SL, from the interviews, and illustrate how I approached the data and end up with the scope of experiential teaching.

4. Experiential Teaching

Experiential teaching is a concept that was obvious in my interpretation of the data both in terms of the learning outcomes and teaching activities. I argue that everything the tutors attempted to employ both in the classroom and SL was somehow associated to experiential teaching. Generally speaking, it is an approach that promotes learning by doing, which has been described as a promising learning style. In this approach the experience, as a key element of the teaching, is placed at the centre of the learning process. This approach is based on the work of Dewey (1913), Piaget (1952), and Kolb (1984) with the underlying Neo-Vygotskian social constructivism assumption of learning ‘as the process whereby knowledge is created through the transformation of experience that is construction of knowledge involves learners to be actively engaged as participants in the process of learning. Kolb’s argument is important as it relies upon an engagement with social interactions and experience drawn from the physical world. What I mean by the learners’ experience differs from Kolb’s context, in which experience is entirely linked to lived experience, rather harmonise with the understanding of experience which may be relate to virtual experience, tasks and activities between peers. Learning by experience is not a new idea and Bruner (1997), who is credited as one of the pioneers of constructivism, argues for the importance of learning by doing yet learning through immersive experience developed from the premise that
there is potential for students to develop new abilities and knowledge by the immersive experience.\textsuperscript{6} There is an argument that traditional teaching is largely mediated through written text or spoken word. However, teaching with VWs seems to form a different path in which the students have the sense of immersion, which is a feeling that transports us to another place, of learning through experience.

Within the context of VWs, immersive experiences of the learners, their use of multiple media, and activities between peers lead to ‘transactional’ learning\textsuperscript{7} that is learning based upon transactions, i.e. tasks, activities. It is from this perspective that VWs are a good example of providing an environment wherein the tutors could configure the environment to augment existing (generic) teaching practice, i.e. lectures, with the ability to foster optimum learning process. To support this idea, for example according to White\textsuperscript{8} teaching and learning in VWs is ‘an experience’. Teaching in these contexts provides less emphasis upon the schedule of the module and more emphasis upon sequencing learning experience, meta-reflection, peer assessment and group work. It is therefore the task of the tutors to equip the students with necessary skills so as to develop an understanding of their knowledge structure based on personal experience and through experimentation.

In literacy, immersive experience that drives sustained engagement in VWs emerges in a number of ways. Interactions with people from different cultures and countries as well as manipulating with identity and objects in VWs and sharing experience with others concurrently in 3D virtual environments are just a few examples. Here I focus on some explicit examples in which blended experiences of the physical and virtual incidents emerged.

Data Excerpt#1:

The link with SL there was getting the students to think about what they had just learned and try to apply it…………the ultimate objective is that the students are able to carry out a research interview in SL………so the focus is particularly on the basis they need to carry out the interview.

The intention here was to display the MC’s objectives to bring SL into the classroom. This data is indicative of evidence in linking the classroom and VWs. The MC chooses the verbs of ‘think’, ‘apply’, ‘carry out’, which are mostly associated with the cognitive dimension of Apply within Bloom’s revised taxonomy, to explain as an endeavour to make sense of enabling the learners to put what has been learned into practice, i.e. to apply and contextualise what they have learned theoretically. The data therefore suggest that the MC anticipated that experiential approach of the teaching pedagogy might promote skills and better understanding of the subject with the activities implemented both in the classroom and SL. The data also indicated that the MC expected her students to conduct an interview in-world to understand information behaviour of the interviewees, who
were seeking information for SL activities, by implementing interviewing techniques. A great number of scholars recognise that SL has the capacity to conduct this sort of activity. In this point, conducting an interview activity in SL would be an example of evidence of ability to gather the data and apply their understanding of the information behaviour models.

Another example could be seen with the exhibition activity. The MC aimed with this activity to enable her students to improve their communication and presentation skills. Here it is noteworthy that the TutorP stated that perhaps there could have been a stronger link between the students’ mini-islands and the concepts of information but the MC finds this would have been more difficult in a limited time and the class were not up for that. Drawing implications from the above understanding, the common terms identified repeatedly as characteristics of immersive experience within the data are exploration, performance, presence, reflection, experimentation and abstraction in which these terms include the sustained involvement of the students in their learning process.

As I focused on the experiential teaching paradigms, I found the followings as a means of understanding of the MC’s experiential teaching mechanisms.

- The use of the structured group activity as a technique for dealing with information problems
- The use of reflection as part of the learning experience
- Furnishing and designing the mini islands
- And finally conducting interviews in SL

5. Conclusion

I view these findings as a starting point to indicate that the teaching approach used for utilising experimental learning has important pedagogic implications to develop new skills such as navigating, integrating and designing in-world as well as interpersonal skills such as presentation, interview and teamwork skills within socially rich contexts. However, it is worth noting that the analysis of Duncan et al.\(^9\) regarding implementation of VWs in education over 100 published academic papers show that the major focus of studies about the educational application of VWs is not based on experiential space in VWs, rather VWs have been used as simulation of space. This suggests that there is a trend, as an increasing interest in educational implementation of virtual spaces to reproduce reality using avatars, objects or tasks such as a virtual campus or classrooms in the form of the curriculum whilst experimental teaching paradigms could be utilised successfully.
Notes


Bibliography


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