SECOND LIFE FOR TEACHER EDUCATION: Why, What and How

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ABSTRACT

The virtual world of Second Life (SL) is extending the boundaries of when, where and how learning can happen beyond the realm of the traditional classroom. The SL has helped to highlight the wider use of virtual worlds for supporting a range of human activities and interactions for social and educational purposes. One such potential implication is the use of SL for the real world of teacher education. This argument is based on fact that SL allows teachers to create new identities for themselves and have personalized learning experiences. Keeping in view that SL experiences help teachers to improve their teaching in real situations, present paper discusses about the concept and modalities of SL and its implications for the world of teacher education. The discussion mainly revolves around three points i) why second life is useful for teacher education, ii) what opportunities it offered for teacher education, and iii) how to use it for teacher education. As essence, paper suggests a number of globally applicable strategies to ensure and promote the use of SL for betterment of teacher education.

Keywords: Second life, SL, Teacher education, Second life for teacher education

BACKGROUND

Virtual worlds are generating much attention and interest among teachers, learners and researchers of the real world. The reason behind this interest is that virtual worlds offer a host of unique affordances for synchronous communicative acts. According to Schroeder (2008), virtual worlds are persistent, avatar-based environments, in which the users sense their presence and they can interact with other users being present, too. The difference between virtual worlds and virtual reality is that virtual worlds are persistent internet based social places, i.e., they keep existing and evolving regardless of whether an individual is logged into them or not. Also, the quality of social interaction distinguishes virtual worlds from massively multiplayer online role playing games (MMORPGs), as they do not have missions, levels of difficulty, and specific goals for the players to accomplish (Vasileiou and Paraskeva , 2010). The Virtual Worlds have the potential to extend the boundaries of when, where and how learning can happen beyond the realm of the traditional classroom (Schutt and Martino, 2008).

Researchers are of the view that with the help of virtual worlds, students can experience directly some physical proprieties (e.g., shape, size and time duration) of objects and events, change point of view to access new perspectives (Ferrington and Loge, 1992), and interact with objects to discover and study their hidden elements (Sonnet et al., 2004). Like real spaces, virtual worlds also account for the social nature of learning and help students to take visual, experiential, and self-directed learning.
Bronack et al. (2006) believe that virtual world’s support deep learning and can help learners make meaning in ways similar to those used outside virtual environments. Their belief is based on the experience that virtual worlds offer participants a sense of presence, immediacy, movement, artifacts, and communications unavailable within traditional Internet-based learning environments.

In sum we can say that virtual world activities can address different learning styles and have the potential to increase student motivation, collaboration, discovery, social interaction, and creativity (Jarmon, Traphagan and Mayrath, 2008) One such virtual world that presents enormous possibilities for teaching and training tasks is Second Life.

SECOND LIFE: Concept and Modalities

Second Life (SL) is a user defined three-dimensional (3-D) virtual world owned by its residents. In SL, virtual people can communicate by text and voice teleconference as well as exchange files and documents. Interacting with others and navigating the virtual world of the software is free of charge, but creating objects and building requires the acquisition of land from the developers or from other users. Second Life also has a thriving economy that currently boasts millions of US dollars in monthly transactions via the in-world unit-of-trade, the Linden dollar, which can be converted to US dollars at a number of online Linden Dollar exchanges. The Second Life host a number of advanced technologies (e.g. a unique in-world weather system, with realistic day–night cycle support) that place it well above all other virtual world platforms on the market today (Second Life, 2011).

Second Life offers a unique and flexible environment for distance learning, computer supported cooperative work, simulation, new media studies and corporate training. Talking about the features of second life, Gerald and Antonacci (2009) observes, “You interact with the Second Life virtual world through your avatar, which is your physical representation in the virtual world. You can customize your avatar’s appearance however you want him, her, or it to look. Your avatar can move: walking, running, flying, and even quickly teleporting to remote locations.

Additionally, you can use animations to jump, laugh, and dance. Second Life includes a number of communication and social networking tools: text and voice chats, instant messaging, and calling cards to easily connect with your friends, as well as groups to join and events to attend. You can import images and sounds into Second Life, and you can stream audio and video into Second Life.” The quality of interaction in Second Life distinguishes it from online forums and games. In Second Life, the users can generate content with ease and this appears to be an advantage for carrying vast range of educational projects.

The success, and wide reporting, of Second Life has helped to highlight the wider use of immersive worlds for supporting a range of human activities and interactions, presenting a wealth of new opportunities for enriching how we learn, how we work and how we play. In this way, Second Life, in common with other virtual world applications, has opened up the potential for users and learners, teachers and trainers, policy makers and decision makers to collaborate easily in immersive 3D environments (de Freitas, 2008). As conclusion, we can say that Second Life does not replace face to face communication, but it can be used as a supplement to traditional classroom environments, providing new opportunities for enriching existing curricula and enhancing interactions.
SECOND LIFE FOR LEARNING: Possibilities and trends

Three features of any virtual life: interactivity, physicality, and persistence (Castronova, 2001) offer a number of opportunities for social and educational purposes.

The virtual world of SL boasts all these and some other features. Discussing about the possibilities to use second life for education, Gerald and Antonacci (2009) argue that in Second Life, you can also own your own land, and many colleges and universities have their own private island, which provides privacy and security for their educational activities. Research has uncovered development, teaching and/or learning activities which use Second Life in over 80 percent of UK universities (Kirriemuir, 2007). At least 300 universities around the world teach courses or conduct research in SL (Michels, 2008). New educational institutions have also emerged that operate exclusively within Second Life (Erard, 2007), taking advantage of the platform to deliver content to a world-wide audience at low cost (Cowan, 2008).

Several projects have taken place in Second Life in order to provide training of some sort to learners, e.g. tourism management education, international affairs studies, bioterrorism preparedness and response training courses, industrial and organizational psychology, medical training (Kay and FitzGerald, 2008). Boulos, Hetherington and Wheeler (2007) point out that within Second Life and other virtual worlds educational communities are growing quickly, as teachers begin to see the potential of 3-D virtual environments to enhance the learning experiences of their students. Teachers are also interested in widening access for geographically remote students—distance learners. Second Life is proving to be ideal for those studying at a distance from their parent institution, and entry into the virtual world seem to be a great leveler, proving a very popular and equitable method of interaction. With the help of SL, educators are creating real time interactive activities for the support of experiential, project-based, and community supported learning.

There are two main drivers that explain why virtual worlds like SL may become pervasive new learning tools of today and tomorrow (de Frietas, 2008). First driver relates to the wide uptake of virtual worlds among young users. It is expected that over the next five years the majority of young people under 18 coming into tertiary education will have avatars and be using these kinds of applications daily and therefore have different expectations about how education may be delivered to them (Virtual Worlds Management Report, 2008).

The other major driver relates to how we learn. Recent work in the gaming area has demonstrated how whole brain activity occurs when learners are playing games as opposed to limited brain activity when learners are learning in formal ways, and this supports constructivist approaches to learning (Kato et al., 2008).

There are three major educational uses of Second Life. First, for courses dealing with gaming, online communities, and emerging technologies, students can study the Second Life technology itself.

Second, faculty can use Second Life as a communication medium, focusing on delivering in-world lectures, making presentations, and conducting discussions. Third, faculty can use Second Life as a learning space for in-world learning activities, such as role playing, interactive simulations, and educational games (Gerald and Antonacci, 2009).
The virtual world of SL offers lot of educational possibilities but it all depends on why and how we use it, as observed by Bronack et al. (2006), “Virtual worlds are uniquely situated to serve as rich environments for engaging students in meaningful communities of practice. But, like all instructional technologies, 3-dimensional virtual worlds for learning are only as effective as the vision and the pedagogy that guide them.”

SECOND LIFE FOR TEACHER EDUCATION: Purposes, Promises, and Implications

The world of teacher education is guided by educational theories and pedagogical practices. The trainee teachers study different educational principles, policies, strategies, methods, etc., and afterwards, they are expected to practice this knowledge in real classroom situations. For practice, the teacher trainees are placed in real schools where they teach and learn different teaching skills under the supervision of their teachers normally referred as teacher educators. But finding enough schools and supervising teachers is becoming a challenge now for teacher education institutions. Putnam and Borko (2000) observe that as demands on teacher time and accountability increase, it has become more difficult to find enough classrooms and supervising teachers. Finding classrooms where teacher candidates are free to try techniques learned at university may also be difficult.

The virtual world of SL can help to overcome this situation by allowing facilitators, experts and trainees to communicate and act in the virtual environment for practicing teaching skills. Besides practice teaching, there are many other areas of teacher education, where, we can use SL. Talking about the utility of virtual worlds for the real world of teacher education, Mullen, Beilke and Brooks (2007) observes, “Virtual environments hold the distinct (if not sole) capability to allow preservice teachers to do exactly that by creating new identities for themselves, taking on the personae of others, and thereby understanding the other’s perspective. As a metaphor for the situated and socially constructed reality in which we live, virtual environments offer the student the ultimate freedom not only to “free one’s mind,” but also to create one’s world.”

Considering these promises, attempts have been made in different parts of the world to conduct studies and experiments about the use of SL for teacher education. Kerres (2007) conducted a study to test didactical settings, ideas and advantages of Second Life. The researcher created different virtual classrooms, a didactical environment, infeasible rooms and integrated role-playing elements. It was observed that SL offers more possibilities for students’ group work, provides active learners support, and boasts group-dynamic processes. In other side, students' higher immersion navigation and avatar's control was identified as hurdles for using SL. The difficulties were also reported during voice-chat and creating groups and communicating with tutors. This research suggested that tutors and detailed instructions are essential to utilize the full potential of SL for teaching and training.

Gao, Noh, and Koehler (2008) examined quantitative differences in turn-taking during role-playing activities between a face-to-face activity and a SL activity. No differences were revealed in the amount of communication; however, in SL, students took more turns, and had more concept-related discussions. On the other hand, they had shorter, less elaborated exchanges than in the face-to-face activities. Whereas, Cheong, Yun and Chollins (2009) utilized SL as a venue for teaching practice for 150 students who were required to teach a lesson to their peers. Self-reports by the participants showed that they believed SL to be a viable method to help them practice their teaching skills outside of the standard classroom.
While, Stanley (2009) reported that British Council has decided to set up an island in the Main Grid for Language Learning. In this island, learners can listen to audio clues and get help from teachers through streaming media.

Garcia (2009) reported about MUVEnation, a peer learning teacher training programme for the use of virtual worlds in education. The objective of this programme was teachers’ training in the virtual worlds for education and field research about virtual worlds for education. 107 participants from 26 different countries were admitted to this programme and each one of them completed all the course activities. The research indicated that use of virtual worlds in education demands teacher’s training needs analysis. On the basis of their study, Mahon et al. (2010) concluded that using SL for a simulation of classroom management is promising. According to them, SL is a worthwhile venue for virtual learning in teacher education because it provides a way for students to have a highly personalized learning experience that enables them to improve their understanding and confidence related to classroom management.

Vasileiou and Paraskeva (2010) conducted a study by using the Second Life for teaching role-playing instruction to practitioners. After designing and implementing a 3D virtual learning environment in Second Life according to cognitive apprenticeship methods, they taught role-playing instruction to fifteen primary and secondary school teacher educators, using as a case scenario a rhapsody from Homer’s Odyssey. This exploratory study indicated that teacher training in instructional techniques is possible through a virtual learning environment; learning in a 3D virtual learning environment may have positive effect on learner engagement; technical and operational issues in 3D virtual learning environment can negatively affect student engagement, but not decisively; and in a 3D virtual learning environment educators could create a social presence through an avatar, an online persona, and feel safe enough to socialize, exchange experiences or express overtly their opinions.

Ashby (2010) reported that West Virginia Department of Education has created a space within the Second Life for use in teacher training. This virtual space is intended to showcase aspects of teaching in West Virginia that are unique to that particular state. In this virtual space, visitors can interact with avatars controlled by West Virginia Department of Education officials, watch films in a movie theater, and participate in teaching games like a scavenger hunt for objects related to state teaching standards. The scavenger hunt requires users to travel through virtual recreations of typical state classrooms, beginning with vintage areas and moving into modern facilities equipped with technological amenities required by the Global21 program.

A cross-continental study was conducted by Cheng, Zhan and Tsai (2010) to explore the feasibility of using Second Life to provide field experiences to pre-service Mandarin teachers in a program of teaching Chinese as a Foreign Language in Taiwan. This study also investigated pre-service teachers’ insights of teaching Chinese in such a virtual environment, as well as the difficulties these teachers encountered when integrating Second Life in teaching Chinese. The study found that the more teaching experience the pre-service teachers gained in teaching Chinese in Second Life, the more positive an attitude they would develop toward adopting Second Life in teaching Chinese virtually, and in contrast, the less frustrations they would have for technical challenges when teaching in Second Life.

On the basis of above discussed studies, experiments and views, one can conclude that SL has potential implications for the real world of teacher education. The studies further indicate that SL is helping teacher education in two ways.
First, it is offering opportunities for existing and prospective teachers to learn and practice new teaching skills and techniques in virtual world without worrying about place, time and even without the presence of any supervisor or mentor. Second, it is helping them to learn and understand the knowledge and skills necessary for teaching ‘digital natives’, as these learners are on the rise in educational institutions, and teachers are expected to understand their learning preferences and teach them in a different way by using technologies (Misra, 2010).

In this backdrop, it seems justified that teacher education institutions must think and come forward to explore and utilize the potential of SL for betterment of teacher education.

PROMOTING SECOND LIFE USAGE FOR TEACHER EDUCATION: Proposed strategies

A large number of researches conducted world over confirms that lack of knowledge is one of the most common barrier that prevents the use of existing and emerging technologies for teaching learning purposes. This observation is also relevant in case of SL. Instead of the growing popularity and usage of SL, there are still a number of teacher educators and teacher education institutions who are not familiar with the potential and use of virtual world for training of teachers. They need to know about how to use SL for various teacher training activities like field teaching, classroom management, etc. Besides, some teacher education institutions lack infrastructure and technical expertise to create their campuses in SL. Considering this scenario, we can assume that majority of teacher education institutions will be more than happy to learn about the SL supported training possibilities, and will welcome technical support and guidance to have their presence in SL. The following strategies will be helpful for them in this endeavor:

Establishing a consortium of teacher education institutions in SL
The teacher education institutions from different parts of the world can come together to establish a teacher education consortium in SL. This consortium will be a collaborative effort for ensuring the utilization of SL for teacher training purposes. This consortium will help teacher education institutions across the countries to learn about SL and its utility for teacher education. Related to SL, this consortium will provide technical support and organize seminar, teacher training workshops, etc. Those teacher training institutions who would like to utilize the services of this consortium will be required to become its members. The membership of consortium will allow them to take benefit of the offered services as well to organize their own teaching and training activities in SL. This consortium will run individual and joint activities and every member will be free to plan, propose and conduct useful teacher education programmes. In a way, this consortium will help teacher education institutions to collaborate and act together for ensuring maximum utilization of SL for betterment of teacher education.

Training Teacher Educators for Using Virtual Worlds
The teacher educators are vital component of any teacher education system. They ensure effective implementation of teacher training activities and supervise teacher trainees. They are also responsible to plan different teacher training activities and utilize emerging technologies to train teachers. Being a new modality, utilization of SL to train teachers mainly depends on teacher educators. In present scenario, teacher educators are expected to explore and seek possibilities to train teachers in the virtual world of SL. Therefore, it is supposed that teacher education institutions must take initiatives to train teacher educators about SL.
To achieve this objective, teacher education institutions can organize ‘virtual world usage for education’ training programmes for their teacher educators on regular intervals. Besides, teacher education institutions can also depute their teacher educators for a week or two to get training in those educational institutions and corporate houses that are utilizing SL for educational purposes. We can hope that these trained and skilled teacher educators will ultimately pave the way for effective and innovative use of virtual world of SL for teacher education purposes.

**Including virtual worlds usage in teacher education curriculum**

The existing curriculum(s) of teacher education across the globe mainly relies on traditional form of teaching where teacher trainees learn their lessons in their classrooms and practice them in other classrooms. This system has served well but now we have reasons to think beyond it. The reason is that technologies are becoming part and parcel of teaching learning process and the coming generations of teachers are expected to teach in technology mediate teaching learning settings. Facing this situation, the teacher education institutions of today are supposed to train their trainees to teach in both real and virtual worlds. The teacher education institutions can accommodate these demands by including the component of virtual world training in existing curriculum(s). This move will help teacher education institutions to teach and train their trainees about virtual worlds. After getting this training, it will be easier for trainees to practice their skills in virtual worlds like SL.

**Sharing Experiences and Best Practices Regarding Use of SL For Teacher Education**

In different parts of the world, initiatives have been taken to use SL for teacher education. The results, experiences and practices gained from these initiatives can play significant role to promote the use of virtual worlds for teacher education. For this purpose, institutions are expected to share their experiences about use of SL. After knowing about these experiences and practices, it will be easier for teacher education institutions to carry similar or new initiatives to train their teachers. Dissemination and distribution of relevant information will also motivate teacher education institutions to come forward and take benefit of SL for training teachers. The teacher educators will be another beneficiary from this initiative as it will help them to share their experiences and concerns about use of SL with fellow educators. It can be expected that sharing of ideas and practices will contribute a lot to promote the use of SL for teacher education.

**CONCLUSION**

The utility of SL for the real world of teacher education manly revolves around the fact that it incorporates a sense of copresence ("body language") and enhances spatial representation among teachers with the help of multiple forms of communication and powerful building/scripting tools. The virtual world of SL provides a way for teachers to have a highly personalized learning experience that enables them to improve their understanding and confidence (Mahon et al. 2010). Their participation in field experiences via virtual world helps them to become more empathetic, as observed by Mullen, Beilke and Brooks (2007, p.26), “One understands another (or “the other”) by putting oneself in the other’s shoes. In other words, we “simulate” how we would feel, what we would do, how we would react to certain experiences and situations.”

In other side, Turkle (1995, p. 200) points out that simulations in virtual environments “provide rich spaces for both acting out and working through. There are genuine possibilities for change, and there is room for unproductive repetition.” While, Hayes (2006) suggests that virtual worlds as learning environments for adult education have strengths and weaknesses which have yet to be studied and illustrated.
In midst of these debates, we can hypothesize that virtual world of SL offers more possibilities than threat for the real world of teacher education. Considering this view point, the researcher hopes that proposed strategies will be helpful to promote the role and scope of virtual worlds in teacher education programmes and pedagogical processes.

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