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3D virtual learning in counselor education:
Using Second Life in counselor skill development

By Victoria L. Walker, Regent University

Abstract

This article will present the process and the curricular and pedagogical lessons learned from adding a 3D virtual learning environment to an online course in a distance and hybrid education master's degree program. Based on student surveys, course evaluations, and faculty interviews, the author will summarize attitudes and expectations from the varied stakeholders and offer practical recommendations on the design and delivery of an effective virtual world learning environment in an online course.

The author is involved in developing 3D virtual learning environments and integrating their use in graduate level counseling courses in traditional, blended, and online master's programs. In the fall of 2007, the author began the process of incorporating the virtual world Second Life into an online counseling skills and techniques course in the Human Services Counseling Program at Regent University. The course objectives consisted of teaching graduate level students expertise such as clinical counseling skills and techniques. One of the critical competencies, the student's ability to demonstrate the basic counseling skills needed to be an effective counselor including attending, listening, empathy, warmth, and respect, was very difficult to teach and evaluate from a distance. In the past, program instructors have taught online and blended courses with the asynchronous learning environment Blackboard and the synchronous technologies, Skype and Instant Messenger. With the use of new learning environments, such as 3D virtual learning environments, the author hoped to provide the instructors and students with an environment more conducive to developing effective counseling skills. The author implemented the virtual learning environment – a simulated counseling facility and tested the virtual counseling facility's use as an innovative learning environment for simulation of student counseling sessions. This article will discuss the author's personal experiences as well as the empirical research collected during this case study. Given the potential for significant growth in the use of virtual learning objects, this article should provide useful information for instructors and administrators considering virtual environments as a means of teaching practical skills at a distance in online programs.

Keywords: 3D virtual learning; online distance education; counselor education; research study.

3D virtual learning in counselor education:
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By Victoria L. Walker, Regent University

During the past eleven years, the Human Services Counseling (HSC) Master's program in the School of Psychology and Counseling at Regent University grew from a small traditional program to a stimulating and competitive, program offering students either a hybrid format or an online distance education format. Masters candidates in the program come from Virginia, other states across the nation and countries around the world. The online format is particularly popular with business and church leaders because the convenient "anytime, anywhere" course design has removed many of the constraints of traditional face-to-face courses.

Despite student satisfaction with program, HSC faculty and the School's instructional designer were not satisfied with the opportunities provided to students for developing counseling skills, specifically noting a lack of realistic application of theory to practice. To alleviate this situation, the school developed a simulated counselor training facility in the 3D virtual environment Second Life.

This article will discuss the history and background of this pedagogical development. It was also present the process and curricular and pedagogical lessons learned from adding a 3D virtual learning environment to an online counseling skills course in the context of a Human Services Counseling Master's degree program. Based on student surveys and faculty interviews, the author will summarize attitudes and expectations from the varied stakeholders, and offer practical recommendations on both the design and delivery of an effective virtual world learning environment in an online course.

Distance Education

Distance education is not a new phenomenon; it has been around for well over 100 years. However, with the invention of the Internet in the 1950s and the World Wide Web (WWW) in the early 1990s, a new form of distance education took shape: e-learning or online education. Online learning through online courses or hybrid courses has enabled people around the world to have part or all of their educational experiences online. Today millions of students are taking courses using the capabilities of the Internet to complete assignments and communicate with their peers and instructors (Allen & Seaman, 2008, National Center for Education Statistics, 2003). For online human service and counseling programs, finding mediums that provide the best environments for completing counseling activities can be difficult, but choosing the right one can make a tremendous difference in student satisfaction and learning (Baggerly, 2002; McKeachie, 2006; Peters, 2003; Sherry, 1996).

Growth in Online Education

Distance education dates back to the 1800s (Peters, 2003; Saba, 2003). With the introduction of the WWW in 1992, the doors opened to academic institutions to reach billions of people. The result has been remarkable growth in distance education during the past decade as

higher education institutions have benefited by using this new medium to reach and educate the public. In 2003, the National Center for Education Statistics (NCES) published a survey on distance education, where it was estimated in the academic year 2000-2001 that there were approximately 3,077,000 enrollments in distance education courses offered by all 2-year and 4-year postsecondary education institutions. This nearly doubled the number of students in distance education courses only three years earlier, in 1997-1998 (NCES, 2003; NCES, 1999). Allen and Seaman (2008) wrote, "Online enrollments have continued to grow at rates far in excess of the total higher education student population, with the most recent data showing no signs of slowing" (p. 1). Allen and Seaman reported a 12.9% increase in students completing online courses in 2007 over the previous year, with 3.9 million students claiming in fall of 2007 that they were taking at least one online course—a significant increase when compared to the 1.2% increase in total student population growth for higher education in 2007.

Distance education is not at all like traditional learning (Wedemeyer, 1981). The instructors and learners are physically apart, and this requires teacher-student communications through alternative means, whether that is print or electronic. Different resources are needed to assist in educating the student. Further, faculty must assist in facilitating the learning process and students must become self-directed autonomous learners (Garrison, 2003; Moore, 1993). Moore (1983) wrote that distance is not geographical distance; it is also the psychological or "transactional distance" relationship between the instructor and the learner. Moore wrote that "there is now a distance between learner and teacher which is not merely geographic, but educational and psychological as well" (p. 155). Online distance education introduces the opportunity to use multiple new technologies and environments to educate students, and to assist in alleviating some of the psychological and educational barriers that exist in distance education.

With the development of new mediums for educating, it is important that universities develop new attitudes towards innovative technologies and media as these new digital medium may offer many pedagogical benefits (Peters, 2003). Media act as "carriers" as learning is not occurring in a specific geographical location (p. 87). Choosing the right media is imperative. Peter said that "because each medium influences and changes the pedagogical structure, the question as to which carrier media to use for distance education is not only a practical or technical issue, but also a pedagogical issue" (p. 87). Technologies that enable the creation of virtual learning environments may offer a suitable and pedagogically useful medium for education.

Counselor Education

Human service professionals (HSP) working as counselors, social workers, or in similar occupations all need effective communication and counseling skills referred to as "helping skills". A primary goal for training persons in human service careers is developing effective helping skills (Duggan & Adcock, 2007). "Communication skills are so important for the HSP that the Council for Standards in Human Service Education (CSHSE) identifies effective communication strategies and skills as one of the 12 skill sets that entry- and mid-level human service workers use daily in their jobs"(Duggan & Adcock, p. 56). Human service educators are challenged to develop training that will provide students with opportunities to learn these skills and techniques in realistic environments. As students need to develop their skills, educators teaching online counselor education courses have the added dilemma of locating mediums and environments that will be conducive to learning and practicing these skills from a distance.

However, the counselor education profession has been very cautious about adopting distance education and newer technologies in the instruction of counselors due to ethical considerations and other concerns (Duggan & Adcock, 2007; Granello, 2000; Matthews, 1999). Technology limitations caused some questions to be raised, while some experts feared using technologies may lead to privacy issues for the students and clients (Granello, 2000). Others felt the quality of counselor education was superior in a traditional classroom (Duggan & Adcock, 2007).

The use of computers in counseling and psychology professions has existed for decades (Granello, 2000). In the 1960s, computers began to be explored as a useful technology in the profession; however it was not until the 1980s that they were considered for counselor training. Computers have been used for various professional and training activities including dilemma counseling, treating depression, and vocational guidance.

Counselor education programs have increased their use of technology recently (Berry, Srebalus, Cromer, & Tackas, 2003; Granello, 2000; McFadden & Jencius, 2000) with many educating students via online programs. In addition, various administrative counseling organizations and accrediting associations have developed guidelines to assist in using online technologies for counseling activities and educational purposes. The National Board of Certified Counselors (NBCC), the American Counseling Association (ACA), the Association for Counselor Education and Supervision (ACES), and the Council for Accreditation of Counseling and Related Educational Programs (CACREP) have each developed ethical guidelines for using the web for counselor education and online counseling. "Despite this growth, programs that educate counselors, human service professionals, and social workers lag behind other professions in utilizing new technologies in online education programs" (Karper & Casado-Kehoe, 2005).

Online Counselor Education

With the increase in online counseling programs, there is an increasing in the need for technologies that can assist in training student counselors from a distance. Learning in online counselor courses typically includes instructor assigned readings and presentations, role-playing activities, peer and instructor feedback and student reflection (Baggerly, 2002; Kagan, 1973). Several technologies have been adopted over the past few decades for training and supervising student counselors. Watson (2003) noted that email, chat rooms, and online video conferencing have each improved the counselor education process. However, what is also needed is access to an environment that enables students to meet, discuss, role-play, practice, complete activities, and which enables instructors to present didactic examples and to supervise students without interference.

Active learning strategies through role playing and group work practice are important, as they help to improve skills. Therefore, finding methods that enable such opportunities is important. Baggerly (2002) emphasized the need for the practice such of role-playing as it enhances active learning, arguing that "pedagogical principles in counselor education call for active learning strategies to engage students in the developmental and collaborative processes"(p. 1). Accomplishing such a task in a distance education course can be difficult as educators are limited to the currently-available technologies and mediums to produce environments in which such active learning can take place. 3D virtual environments can provide a suitable location for completing educational activities such as counseling skills practice, counselor supervision, and group activities that have proved difficult to produce in other environments.

3D Virtual Learning Environments

In the past two decades, a flourish of new innovative technologies and the World Wide Web provided the foundation for many of these tools. With so many new technologies, there has been a change in how we communicate, socialize, and educate. Course Management Systems, Learning Management Systems, instant messaging services, blogs, wikis, Voice-Over Internet Protocol (VOIP), video websites such as YouTube and Google Video, Twitter, Virtual 3-D Worlds such as Second Life, and many others in the dizzying array of social networking and communication technologies have entered the scene. Virtual environments, which are often referred to as Massively Multiplayer Online Games (MMOs) or Multiple-User Virtual Environments (MUVEs), are one technology that may offer many opportunities for educators and students to complete educational activities in simulated environments.

Course Management Systems (CMS) used by many colleges and universities offer suitable locations for posting course materials, interaction in asynchronous discussion boards, email, and chat rooms; however, these applications do not offer the benefits of a virtual environment (Kemp & Livingstone, 2006). Despite research that shows that richer multimedia presentations support learning of more in-depth topics, there is little use of multi-media in courses located in CMS (Kemp and Livingstone). Lecturers most commonly use CMS as document depositories, although instructors may use some of the other capabilities such as discussion boards or white boards. In addition, most CMS do not easily support using multi-media content.

Second Life, a virtual environment produced by Linden Labs, has captured the largest number of colleges and universities including notable institutions of higher education such as Cornell University, Harvard, Duke, Ohio State, University of California, Davis, and Berkley, Virginia Tech, and MIT. Harvard, for example, began offering a law course on Second Life in fall of 2006 (Foster, 2006). At this time, hundreds of institutions of higher education and individual educators are active in virtual learning environments including commercial environments such as Second Life and There.com, with some scholars studying things such as group behavior, economics, and video game development (Foster, 2005; Foster, 2007).

3D virtual environments such as Second Life offer counseling educators the opportunity to provide immersive simulated environments for their students to develop and practice their skills. More specifically, they offer an environment that will allow students to develop their skills by practicing and interacting with other students and their instructors in customized cyber-counseling labs, as well as classrooms that simulate those environments in traditional education and commercial facilities. By using Second Life, instructors are able to create learning activities which emulate learning experiences that students may have otherwise only had by means of face-to-face interaction.

Virtual environments represent a new form of learning environment that can involve synchronous and asynchronous learning opportunities in an environment that can provide a simulated learning situation, rather than simply replicating a traditional classroom. According to Peters (2003), when interacting with a virtual learning space, "what is 'real' is only the digital learning environment, with the monitor's screen as the interface" (p. 89). If that virtual space is created into a "stage" for pedagogical actions, it becomes "real" for the learner (p. 89). Herz (2002) argues that these environments facilitate learning that goes beyond the technology.

Counselor Education in 3D Virtual Environments

There has been an underutilization of simulation and gaming technologies in counselor education and practice (Greenidge & Daire, 2005). While technologies such as email, discussion boards, chat rooms, VOIP, and video conferencing serve adequately for some learning applications, there are limitations in their capabilities to simulate "face to face" counseling scenarios in realistic environments, as well as settings in which the instructor can supervise without distracting them. In a virtual environment, students can practice counseling skills in simulated counseling labs as instructors observe from a different room or from behind a one-way mirror. Groups of students can meet, discuss, practice, and provide each other feedback—all while interacting in a simulated immersive environment. Despite the growth in the development of 3D virtual environments, simulation, and other gaming technologies, as well as growth in their adoption in other academic programs, they have been underutilized in counselor education (Greenidge & Daire, 2005).

Gaming technologies such as 3D virtual environments like Second Life create digital representations of the real world. For counselor educators and instructional designers, such technology enables them to create realistic counseling facilities, avatars or virtual beings that they can interact with. It also enables them to produce realistic distressed and mentally ill avatar clients, as well as environments that assist them in understanding their client's illnesses. Ultimately, according to Greenidge & Daire (2005), "simulation and gaming technologies provide unlimited opportunities for the presentation of scenarios, clinical environments, multicultural populations, client demographics, and client disorders"(p. 1).

Counseling Skills and Techniques Course

The Counseling Skills and Techniques course is one of two required counseling skills courses in the HSC program. Fulltime students enroll in this course during their first semester in their program. All courses in the HSC program are 7 weeks in length. The course is taught online using the Blackboard Course Management System. In the past, the instructor used the Blackboard chat feature for instant chatting and the asynchronous discussion board with small groups of students to practice counselor to client interviews. However, both the instructor and students found it frustrating when it was found that not everyone's typing skills were up to standard. In 2006 the course instructor started using Skype for both its chat and speech capabilities. Skype provided audio and one-way video, a huge improvement over Blackboard chat capabilities; however, the activity still lacked a more "authentic" experience for students. For example, the practice activities still lacked the visual element of a counselor training facility.

At Regent's School of Psychology and Counseling, on-campus students have five counseling labs and a psychology clinic for practicing and skill development. The HSC counseling skills course lacked environments such as these for distance education students. The students read about counseling techniques in their textbooks, reviewed assigned articles and case scenarios, and watched videos representing best practice methods. Despite these tools, the instructor did not have a way to model to students the skills she taught outside of packaged video vignettes that came with student textbooks, and which did not always demonstrate what she wanted. The instructor felt that students needed to have her model the skills needed, and to provide immediate feedback to students when they practiced their skills in role-playing exercises. The current method of requiring students to review videos of counseling sessions and

read textbook examples in order to promote their understanding of complex counseling procedures was not as successful for online students as it was for on-campus students. In addition, the instructor noted that student-submitted taped counseling sessions of their role-playing practice exercises were not up to par with those of campus students who had the advantage of seeing role plays demonstrated with a professor's instant feedback and critique.

Pilot Study

This pilot study was designed as an attempt to provide human service educators with a viable method for assisting students in developing their counseling skills from a distance. The purpose of this research was to develop and test a 3D virtual counselor training facility designed to provide distance education counseling students with a simulated environment for practicing their counseling skills. A 3D virtual environment offers students an opportunity to practice their skill development activities and obtain feedback from their peers and instructor from a distance. For counseling courses, said Delwiche (2006), "MMOs have instructional promise because they immerse students in complex communities of practice, because their immersive nature invites extended engagement with course material, and because they encourage roleplaying" (p. 162).

The Virtual Environment

Second Life was chosen for several reasons. The most important benefit was the ability to develop a learning environment that would meet the specific needs of the instructors and students. Kemp and Livingstone (2006) concluded that "any all-purpose learning technology must meet the basic requirement of letting educators insert their own teaching materials" (p. 2). When evaluating virtual environments, most are ruled out by this requirement. Only Second Life and Active Worlds offer ways to develop and present materials and create environments based on the needs of the creators rather than the company owning the system. The relatively low cost for the school to build and maintain the environment was a huge benefit. The free account for instructors and students was also big plus.

A simulated counseling facility was developed in the virtual environment Second Life. In addition, training materials were developed for the instructor and students. The instructor and students also received training and support with accessing and using the Second Life training facility. The counseling facility had three floors. The second floor housed five counseling labs. Each counseling lab had two couches, tables, a lamp, an animated tissue box, other appropriate décor, and a one-way mirror.

Methodology

The research question for this study was "Do students perceive the use of a 3D virtual environment for role-playing is an effective tool to use to develop their counseling skills?" Prospective student participants were informed of the objectives of the study, and were asked to participate in the use of the virtual environment for their role playing activities. They were also asked to complete a survey regarding their experiences. Students who chose not to participate had the option to use Skype and other tools for completing practice activities.

Students were sent an introduction letter requesting participation and instructions for creating a Second Life account and logging into Second Life. In addition, a tutorial explaining

basic movements and activities in Second Life was provided. Students were instructed to complete the Second life Orientation Island tutorial. Students were introduced to the counseling training facility in Second Life during the second week of the course. Students met with the instructor and instructional designer using Skype on one evening during the first week of the class, and they discussed the purpose of the research and posed questions about the Second life environment. During the second week of the course, the instructor asked students to sign up for a date and time to practice their role playing activities with a classmate for each of the course units.

Students who agreed to participate in the study completed an attitudinal survey and a nine question student perceived learning instrument. Survey items included demographic data, student perceived learning questions, and questions about student perceptions and experiences.

Results

Students were willing to share their experiences and opinions about the use of the 3D virtual environment in their course. Males made up 66% of the class and ages ranged from early 20s to over 50. Almost half of the students considered themselves to be computer literate. Time for acquisition of a degree of comfort with the virtual environment was two to three weeks and this was consistent across computer literacy levels. On average students logged in three times per week. The majority of negative responses came from those who self-reported as very computer illiterate.

When reviewing learning outcomes, students who reported the most learning overall were also those who reported the highest degrees of affective learning. This lends additional support to the psychosocial aspects of virtual environments such as Second Life. The implication is that the Second Life experience impacted the relational aspects of the learning experience to a greater extent than the cognitive ones.

User perceptions of the Second Life experience were mixed. The perceived learning results indicated that students reported slightly more learning in this course than they would have had it been offered entirely face-to-face; however, this may have been the result of a few students having rated their learning as significantly higher, while the majority of students reported the same level of learning when compared to other technologies for practice, including Skype. This implies that the Second Life experiment did not detract from the overall learning. Student responses confirm students want the increased opportunities for live, media-rich interaction afforded by Second Life in order to enhance their understanding and application of the course content, but that they do not want the technological or learning curve challenges to overwhelm the course content. Students reported a need for a visual component to model skills and a virtual world may assist in serving this need .

When asked "What was the most beneficial part of Second Life?", one student stated that "actually seeing a counseling room and people when you were practicing your counseling techniques" was the most beneficial part, and another reported it as being "the virtual reality of a clinical setting". When asked, "What value, if any, does Second Life add to this course instead of using Skype, Wimba, or another online conferencing tool?", several students reported that they felt Second Life was beneficial while others felt that Skype or Wimba were good alternatives. One student stated she found Second Life beneficial because she had the "visual aid of an avatar

in a clinical setting and could use the avatar for role-playing". Another student stated the avatar added an additional dimension. When students were asked if they felt they learned more because Second Life was used in this course, most students responded that they did not. However, a few students felt it did not hurt their learning, and one student stated that "the ability to gesture, communicate, and to take on a character and also the stimulating clinical setting were very helpful and have great potential."

Students were asked "What was the most difficult part of your Second Life experience?". Several reported that the most difficult part was technology issues, while several other students reported incompatible graphic cards, slow Internet connections, and sound card issues. One student stated that his "computer and the SL technology were not compatible," and another student expressed difficulty with "running [Second Life] without it slowing my computer to a halt". Despite computer issues for some students, they wanted to use the technology and sought ways to access the environment. One student needed to update her graphics card and a few others used another compatible computer, such as that of a friend or family member, to participate.

The instructor, an innovative and early adopter of new technologies, was eager to use the environment in her course. The instructor reported she found the virtual environment pedagogically useful and stated it offered much potential. Despite several technical issues students encountered while using the environment in the course, and other bumps in the road such as several Second Life system issues, the instructor was excited to use the environment in her next counseling skills course.

Implications

There are many benefits for both educators and students using virtual environments for education. For educators, virtual environments offer an opportunity to create customized experiences for Online Distance Education students not available in any other online environment. Instructors can assist students, enable students to work with their peers, model correct procedures, provide immediate feedback for students, and encourage student ownership in the learning process. Once graduated, students will have the experience of using many new technologies. For counseling students, having such experiences will allow them to work in digital counseling facilities offering services to clients who may find it difficult to locate a counselor, or may be uncomfortable going to a traditional counseling facility. In addition, students will be keenly aware of the technologies that their clients are using.

For those interested in using a virtual environment for educational purposes there is much to be considered. Some advice is often helpful. Build your environment to meet the needs of the program or course that will use it. It is best to specify the specific assignments or activities for which the environment will be used. Make sure instructors and students are committed to using the environment and encourage flexibility when technical problems occur. The assistance of an instructional designer is very helpful, as this will enable the instructor to focus on teaching. Having an in-house builder to create needed items, maintain environments, and provide assistance is most helpful. Academic institutions should consider purchasing an island and securing areas where learning activities are taking place to avoid problems with persons wandering into a class. Set up guidelines for students discussing expectations while in the school environment, and warn students about possible inappropriate content they may encounter in areas of Second Life meant for mature audiences. Syllabus and other course materials will need

to display university and course policies and expectations. Instructors should provide a link from their web-based course system or send student a Uniform Resource Locator (URL) that will take them directly to the school's location in Second Life. Finally, there might be students who have problems accessing Second Life. This may occur if they have older or incompatible hardware or software. We recorded problems with students who used Vista, had a computer located too far from their wireless router, had an older computer, or needed to update their computer's graphic card or their graphic card driver. We encouraged students who had these problems to investigate the issue or used a relative's, friend's, or campus computer. Several students became much more computer literate during this course then they had been prior to starting the course.

Conclusion

Virtual environments may offer counselor educators a solution to assisting students in developing effective counseling skills in online distance education courses. The ability to create a virtual environment that simulates a counseling lab, classroom, or other area of a traditional training facility provides educators and students with a tool they can use when developing and practicing their communication and counseling skills and techniques. There are still many questions about the use of virtual environments in education. Little research has been completed on the benefits of using the virtual environments in educational endeavors, and no substantial research has been completed proving academic benefits of using such technologies in education. Further research is needed regarding using virtual environments in education. Due to the relative success of this experiment, the researcher will continue to explore using Second Life in the education of counseling students at other universities, as well as other counseling skill development, in order to validate and strengthen the argument that using 3D virtual environments in counselor education is a beneficial endeavor for both students and educators.

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