3. The Virtual World Is Your Classroom: Teaching in Second Life

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CHAPTER 3
The Virtual World Is Your Classroom
Teaching in Second Life®

This chapter reviews general characteristics of MUVE learning activities for students learning alone or in pairs, small groups, or large groups. The chapter also includes a discussion of psychosocial issues related to MUVE learning. This chapter is for you if:

1. You have never experienced a MUVE learning activity.
2. You have experienced MUVE learning but would like to broaden your vision for what MUVE learning can offer.
3. You are interested in exploring the qualities and characteristics of MUVE learning that optimize student learning.

General Characteristics of MUVE Learning

Among MUVE learning activities, learning goals, numbers of participants, and the specific types of learning that take place in them vary widely. Despite this, MUVE learning activities of all types share some general common characteristics.

When I observed my first MUVE learning activity, the first impression was one of autonomous, active, dynamic, and student-centered learning. A MUVE learning activity focuses on students and student groups, who have great autonomy within the learning activity. The instructor’s role is very different from the traditional, hierarchical sage-on-stage model. Instead, the instructor focuses on learning activity design and creation of an effective learning crucible. Once the learning activity has been completed, the instructor is very active in the evaluation stage of the activity.

Example: The Evolving Instructor Role

When I first started teaching in Second Life®️, I was always present inworld for the learning activities I had designed. I served as discussion group leader and
led small student groups in hospital clinical rounds. I was accustomed to being the focus of the learning activity, with the student following along in an important but secondary role. Honestly, I took this for granted. As I continued to teach in Second Life®, this changed dramatically and not necessarily according to my plan. One day I was unexpectedly unable to be present at an undergraduate ethics discussion group scheduled to take place in Second Life®. I asked a senior student, one I knew well and trusted, to take over responsibility for leading the group. The student agreed to do so and the discussion took place. When I reviewed the discussion transcript for the activity, I was shocked. The discussion was significantly better than those at which I had been present. Student participation was more dynamic and the depth of sharing deeper. Student leadership was excellent, and the students had a much more animated conversation among themselves than in the groups I had led. From then on, I offered extra credit points for leading discussion groups. It was a better utilization of instructor time, as I was able to focus more on the evaluation and feedback part of the assignment. The groups performed at a higher level and developed leadership and group skills. It was a win-win improvement in the learning activity.

I experienced a similar situation with a graduate-level pathophysiology class. For this class, one of the assignments was clinical rounds (for a detailed description of this assignment, see Chapter 11). I led small groups in clinical rounds discussing clinical application of pathologies we were studying in class, illustrated by patients we interviewed as a group in the virtual hospital. Weekly rounds were only planned for the first half of the semester. At the end of the last scheduled rounds, I was approached by a student who said, “We have talked about it as a group and we feel that in Rounds we are really applying the course material. We know the scheduled assignments are over, but would you teach us to lead Rounds and continue the weekly assignment ourselves?”

Again, I was shocked. How many times do students ask for more work? I readily agreed and provided instruction and support for students willing to lead the activity as well as for those who volunteered to act in the patient role. In taking ownership of the activity, the students took on new roles beyond what had been expected. They supported each other in learning and performing these roles. An enhanced level of both group learning and group responsibility was evident as Rounds continued weekly for the remainder of the semester. Performance outcomes for Rounds participation continued to improve. By the end of the semester, leadership and case study construction (in the patient role) as well as teamwork outcomes had steadily improved. The group was performing at a far more advanced level than I had anticipated. The group independently took the assignment further, broader, and deeper than I
had imagined when designing the activity. Beyond learning activity design and implementation, I spent most of my time reviewing activity transcripts, giving feedback and suggestions for improvement.

In both these instances, my “director and dispenser of knowledge” role shifted. I experienced a new role that focused on creating a learning activity to serve as a crucible for learning. I was able to spend most of my teaching on feedback and coaching. The sage on stage had evolved into coach, mentor, and facilitator of learning.

Active, Engrossed Student-Centered Learning

There is a lot of talk about reimagining health care education. The two learning activities just described are excellent examples of such an imaginal shift. MUVE learning offers an opportunity for students to move beyond a passive learning environment where the student has little power and little agency. MUVE learning places students in a powerful, self-directed center of the learning activity, in a place where learning is active, engaged, autonomous, and focused on performance outcomes. This is reflected in the way students talk about Second Life®. They refer to these learning activities as “going inworld,” to a place where they are fully engaged in learning that is energizing and, they often say, fun. One student nurse researcher who investigated the phenomenology of student nurse learning in Second Life® referred to this phenomenon as “engrossment.” This refers to a kind of learning experience in which the student is totally focused and undistracted by multitasking or outside distractions, totally immersed in learning (Chamberlain 2014). This is similar to the concept of “flow,” in which a learner is immersed undistracted in the present (Shernoff et al. 2003).

Pedagogical Synchrony

One of the most valuable aspects of MUVE learning is the way it facilitates a strategic link between learning activity methods and desired performance outcomes. For example, a learning activity that focuses on communication should involve communication! Students learning about communication would not just listen to a lecture about communication or write a paper about communication but actually demonstrate communication skills. In a MUVE communication learning activity, students perform communication skills and evaluate their performance using the learning activity transcript and the grading rubric. Students can then use these data to articulate specific plans for performance improvement. In subsequent learning activities, they can demonstrate
skill improvement based on comparison of self and peer evaluation from the two MUVE learning assignments. Using a MUVE learning activity enables an instructor to synchronize learning objectives and objective evaluation outcomes with their teaching method.

Another simple example is the contrast between a student who reads about cell structure and another student in a MUVE who, in his or her avatar form, enters a huge three-dimensional model of a cell to explore it and learn about cell function. A cell is a structure in a spatial environment, with depth, geometry, movement, and dynamic exchange between its parts. A student walking through a three-dimensional cell in a MUVE learning activity experiences its architecture, moving from one part to another as cell processes do. Using their own physical presence, movement, and senses, the students’ spatial and kinesthetic intelligences are activated. In this example, pedagogy and activity are synchronized to optimize learning. (For a description of a learning activity on Genome Island, see Chapter 6.)

**Situated Learning**

In Chapter 1, the importance of situated learning was discussed. MUVE learning activities are situated within environments similar to those where learning will be applied after graduation. The learning activity context is used both to support learning in the present and also to support translation into future practice.

Imagine nurse practitioner students practicing client interviews in a school lab. Typically, there is a large space and fifty students divided in pairs scattered over a crowded room. In a MUVE learning activity, nurse practitioner students (in their avatar form) walk into a hospital or clinical waiting room, greet their patient (practicing important interpersonal skills of compassion, developing a relationship, and decreasing patient anxiety), welcome them to the interview/exam area (developing the patient’s confidence and trust in the therapeutic relationship), and complete the interview (Where do I stand? How do I frame this question? How do I end the interview? What happens next?). By carrying out the learning activity (interview a patient) in a context similar to the one they will experience after graduation (a clinic, hospital, or office exam room), student learning is ideally situated. This not only makes the learning more complex (students have to address issues such as where to stand) but also supports transfer of learning into future practice. The learning is not located in a classroom; it is located in a (virtual) place similar to environments where it will be applied in the future. For these reasons, it is likely that such learning will be more easily transferred into practice after graduation.
Multidimensional, Dense Learning

Another characteristic of learning in Second Life® is the multidimensional quality of MUVE learning experiences. MUVE learning activities constitute dense learning where a wide range of objectives are engaged at the same time. Rounds, the MUVE learning activity mentioned previously in this chapter (and described in detail in Chapter 11), provides an excellent example. During the Rounds activity, students achieve the following performance outcomes:

1. Collect and articulate content knowledge (facts about diseases, lab values).
2. Apply content knowledge (how do these facts apply to the patient they are interviewing?).
3. Demonstrate interpersonal communication skills both with the patient and with each other.
4. Perform teamwork skills that include conflict management, leadership, prioritization, task organization, time management, and building team morale.

In the flow of the learning activity, these objectives are demonstrated simultaneously. This results in dense learning. A lot is going on in only thirty minutes. This is an example of contextualized, multidimensional, and dense learning that not only is highly efficient but also more closely approximates the way that the learned skills will be practiced in postgraduation clinical experience (see Figure 10).

Psychosocial Phenomena in MUVE Learning

A number of important psychosocial phenomena characterize MUVE learning. One of the most important is the phenomenon of disinhibition that students often describe after working in Second Life®. Students report feeling less inhibited during MUVE learning activities. They report less peer pressure, fewer social inhibitions, and a lower sense of perceived risk when offering opinions or trying out new behavior. An example of this occurred in my own experience working with a very shy and withdrawn introvert in a class I was teaching largely in Second Life®.

Talking Story: Teaching beyond the Screaming Extroverts

Education research has demonstrated that more learning activities are geared toward extroverts than introverts (Cain 2013). I had never much thought
about this until teaching a course that focused on developing multidisciplinary teams. This class included students from nine different disciplines, including one art student. This student epitomized the opposite of the interactive, engaged, and socially dexterous nurses I was used to teaching. The art student was a loner, a radical introvert, and obviously painfully shy. She neither interacted in class nor engaged any of her classmates socially before or after class. She answered most of my questions with short, awkward sentences or, when possible, with a nod. She only spoke in class when directly asked a question, and when asked, she looked visibly uncomfortable. Any time I met with her outside of class to discuss this, she sat staring at the floor, mostly in silent tears.

Finally, I suggested we meet in Second Life®. She agreed, and for the first time I was able to engage this student. She answered questions clearly and at length. We began to understand each other. Although she did not change her behavior in class significantly, her engagement in the Second Life® learning activities increased over the semester. Her classmates noticed the change, which could be quantified by counting the frequency and length of her contributions in the learning activity transcripts.

Experiences like this have occurred frequently throughout my years of teaching in MUVE environments. One of the common comments students make in evaluations of courses that used MUVE learning is that shy students participate more actively in Second Life® than they do in face-to-face classes and, furthermore, that the MUVE environment helps overcome personal or cultural factors that work against active participation in learning activities.
Imagination and Real Learning in MUVEs?

The role of the imagination in learning and its power to affect both student learning and translation into future practice cannot be overstated. I first became aware of this in a quite dramatic way after one of my first Second Life® learning activities, designed for teaching medical ethics.

Talking Story: The Bus Wreck

One of the early discussion groups I did in Second Life® (and, according to my current standards, not a very good one) was an ethics simulation that focused on clinical triage decisions made by first responders at the site of a bus crash. Students had to decide whom to treat first, how to prioritize resources, and how to recognize the ethical dilemmas the situation presents. There was a great deal of discussion, difficult choices, and lots of disagreement. As the teacher, I was dissatisfied with the learning activity, but the students liked it and reported getting a lot out of it.

The following week, I got a weepy message on my answering machine from a student who had participated in the activity. “Please call me right away,” she said, and I returned her call immediately. Her report of what had happened to her that day gave me one of those spine-tingling moments in which I realized the power of a MUVE learning activity. On her way home after class, she had come upon a pedestrian who had been hit by a car. No medical help had yet arrived on the scene. She described to me her hesitation about stopping. She was only a first-year nursing student, but she reported that she remembered the bus crash MUVE learning activity and the way that the simulation had walked the class through the process of decision making in a difficult situation. That memory gave her the courage to stop. She delivered lifesaving care to the injured person, who as a result of her care survived the accident.

This report was stunning to me. The student did not have any firsthand experience with stopping to render aid. The only experience she had was a virtual world simulation experience. The world in which she had learned was not real, the learning activity was not real, but the learning was real. The learning activity, which took place largely in the imagination of the student, transferred seamlessly into a real-life situation, not only on the skill level (how to prioritize and triage problems) but also on the psychological level (moving beyond fear, insecurity, and self-doubt to accept responsibility for care). This story illustrates the power of learning that takes place in a student’s imagination to translate into actual performance of skills. One of the important aspects of MUVE learning is its use of this imaginal capacity to both enhance effective learning and facilitate transfer of learning into future practice.
Learning as an Energetic Phenomenon
(Is It OK for Learning to Be Fun?)

It is always interesting to notice the initial reaction of both students and faculty to MUVE learning activities. At first, they think Second Life® must be a game. For students, there is often a sense of guilt (I am having fun! Is this OK?) and faculty judgment (Your students are doing WHAT?). It is ironic that learning that is energizing and fun is immediately suspect! Is this legitimate learning? One of the fascinating aspects of MUVE learning is how often students report that these activities are not only effective and useful but also fun and energizing (“I always feel better after my group does clinical rounds in Second Life®”). After teaching hundreds of learning activities in Second Life®, one of my most indelible observations concerns the role of the learning collective, what I and my students call the “Group Brain.” In small group MUVE learning activities in particular, students learn to explore and learn as a group, to support each other’s learning, and to use team members to learn, teach, and improve the quality of both individual and group performance. This occurs within the context of a highly energizing, fun activity.

How Can MUVE Learning Improve Evaluation? Evaluating Student Performance vs. Student Knowledge

Performance Outcomes in MUVE Learning

A serious issue in nursing education is the difference between learning about a thing and learning the thing itself. It is not enough to talk about the importance of communicating with patients about dying and end-of-life wishes. Students need the opportunity to perform this crucial interpersonal skill. It is problematic that instructors do not have the means to evaluate students on the rare occasion that students are able to have such a conversation in the clinical setting. On the rare occasion that a student’s clinical assignment includes the opportunity to have this kind of conversation with the patient, the instructor is rarely present. Because transcripts from each MUVE learning activity can be used to quantify performance, evaluation of skills such as talking with patients about end-of-life issues is possible, with self-evaluation and suggestions for improvement included. If students have an opportunity to practice skills like these in a safe place, a virtual world, and get specific feedback on their performance, they feel more secure with their skills with actual patients in the future. In this case, performance outcomes replace “learning objectives” to produce performance-focused learning.
Peer Evaluation in MUVE Learning Activities

One of the most important aspects of one-on-one and group MUVE learning activities is the opportunity for peer evaluation. After a learning activity in which two students take turns practicing a skill such as interviewing or taking a history or systems review, the partners have a unique opportunity to do both self and peer evaluation. Each student can print out the chat box transcript and use the grading/evaluation rubric for the assignment to evaluate both his or her own performance and that of the partner as well. Students can offer objective and highly specific feedback that includes both positive feedback and suggestions for performance improvement in the future. If the learning activity is repeated, students can take their performance improvement goals back into a simulated situation and, again using the activity transcript, assess their performance and compare it with the previous performance evaluation, thus substantiating the improvement in their performance.


Using the MUVE learning activity transcript, students have an opportunity to review the transcript and evaluate themselves against specific criteria (Oh, no! I forgot to ask about allergies.). Similarly, in one-on-one or small group activities, students have an opportunity to evaluate each other and include positive feedback and suggestions for improvement. Students submit the self and peer evaluations to the instructor, who can add his or her own third evaluation and suggestions. When a student receives objective feedback from these three sources based on the learning activity transcript, the feedback is very powerful. This 360-degree evaluation can be particularly powerful in tracking performance improvement (see Figure 11). Because the feedback from a MUVE transcript is objective and specific, the student can use it to improve performance in a follow-up activity. Performance improvement can be tracked over time in activities that recur frequently throughout the course (discussion groups, rounds, etc.).

Portfolio Evaluation

Many nursing instructors express dissatisfaction with current methods of evaluating student academic performance. The limitations of and dissatisfaction with multiple-choice tests as a way to evaluate learning is a serious issue in nursing. Although teaching methodology has evolved considerably, the way students are evaluated has largely stayed the same. MUVE learning offers a different way. The triad of self, peer, and instructor evaluation is an
example of a major improvement in evaluation of student performance outcomes. The objectivity and specificity of a MUVE learning activity transcript make the evaluation process easier and more useful than more subjective forms of evaluation. Because the evaluation includes self-evaluation and peer evaluation, the feedback is both easier for students to assimilate and more powerful because it is data driven.

**Talking Story: A Final Exam in Second Life®**

One of my most exciting experiments in Second Life® occurred when I taught a small group of clinical nurse specialist (CNS) students in a clinical pathophysiology class. Because there were only ten students in the class, I experimented with doing final exams in Second Life®. Each student scheduled an appointment to meet me inworld. The exam began with me telling the student about the patient he or she would be working with during the exam. I presented just a general overview of the patient and his or her presenting disease. Then I asked general questions about the disease and his or her priorities for caring for the patient, based on what the student knew so far. Soon, a nurse
(avatar) approached us and said that she was the student nurse caring for the patient that day and that she had some questions about the patient’s care. The student nurse asked the CNS student some questions about the patient’s care that necessitated an integrated and deep knowledge of the disease pathology. This aspect of the final exam also involved interpersonal teaching and role development aspects of CNS knowledge and skills. The student then thanked the CNS student and left the area. Next, the patient arrived. The middle portion of the exam involved the interaction between the CNS student and the patient. This necessitated therapeutic relationship skills and the demonstration of interpersonal, interviewing, and intervention skills. After this discussion, the patient left the area, and a member of the interdisciplinary team (social worker, physical therapist, or respiratory therapist) approached and a discussion of the care plan ensued (this demonstrates both care-planning mastery and interdisciplinary team skills). Finally, a physician arrived, asking the nurse to review the anticipated plan of care and treatment.

At the end of the hour-long exam, the student and instructor left the area and proceeded to a private but less formal environment to debrief and discuss the experience. I asked the student for his or her perception of the strengths and weaknesses of the exam. I then offered some initial positive feedback and identification of weak areas. The exam ended after an hour, and I subsequently reviewed the transcript against the exam content and skill proficiency criteria for specific grading and feedback.

When I asked the students what they thought of this final exam, several comments recurred frequently: “This was the hardest exam I ever took,” and “This was the first exam from which I actually learned something. . . . I wish all exams in nursing were like this.” The exam required a lot of trust between the students and the instructor. It was a step outside our comfort zones. As a whole, the students reported that although they felt it was very hard and a bit intimidating, it really gave them an ability to show their stuff. As an instructor, I was amazed at how quickly, clearly, and objectively I could evaluate not only content knowledge but also role mastery and content application. Communication abilities, role, and interdisciplinary skills were also clearly evident. Not only was the exam in context, but I could also see the extent to which the students’ knowledge translated into performance.

Reader’s Roadmap: Where Are We?

This completes Part I. Now Part II begins, which offers specific examples of the types of learning possible in MUVE.
CHAPTER REFERENCES


