ABSTRACT
This column explores virtual worlds and their use in nursing.

Teaching and Learning in Virtual Worlds

I am learning to work in the operating room. The surgeon has asked me to pass the scalpel. Oops, I have contaminated my gown and dropped the instrument. The surgeon is yelling at me. I am about to cry. The anesthesiologist has just called a “time-out.” Wait, this isn’t the real world, it is a virtual world! I can have a “do over” and do this right!

Virtual worlds are becoming a popular way to facilitate learning when learning requires teamwork, collaboration, clinical judgment, and skill practice in complex health care settings. This column explores virtual worlds and their use in nursing.

VIRTUAL WORLDS: WHAT ARE THEY?
A virtual world is a two- or three-dimensional computer-based environment that simulates reality. The environment can include people (known in the virtual world as “avatars”) such as patients, family, nurses, physicians, or students and educators; settings such as an operating room or a classroom; and equipment that can be manipulated by the participants in the virtual world (Calongne, 2008; Skiba, 2007, 2009).

WHAT IS AN AVATAR?
An avatar is a representation of the person who is participating in the virtual world. The student or participant can create his or her own persona or assume a selected or assigned role such as patient, nurse, or physician. The participant can create or choose the dress, gender, age, race, and ethnicity of his or her own avatar. The avatar has the capability to move and make gestures, and thus can perform simulated functions such as washing hands, inserting a catheter, or participating in a team meeting.

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HOW DO I ENTER A VIRTUAL WORLD, AND WHAT CAN I DO ONCE I GET THERE?
To participate in a virtual world, the participant needs to be able to access the Internet through a high-speed connection. The links in the Sidebar can be used to enter several nursing- and health care-related virtual worlds.

Participants (using their avatar) in a virtual world can do just about anything that can be done in the “real world,” including communicating with other participants by either typing messages (as in an online chat) or talking using a headset with a microphone and Internet or telephone connection. Participants in virtual worlds can perform skills, engage in role-play, collaborate with an interdisciplinary team, enact case scenarios, hold case conferences, or...
conduct classroom activities. Participation in virtual worlds can be synchronous or asynchronous, as determined by the focus of the learning activity. Reflection and debriefing reinforce learning.

Virtual worlds are being used to orient staff to the clinical agency or to recruit students to a nursing school. Virtual worlds can also be used to give patients a tour of the hospital or prepare them for surgery or procedures. Patients discharged to an extended care facility can participate in follow-up teaching in a virtual world.

A classroom set up as a virtual world provides students and educators an opportunity to present information and learn from each other. Educators can also use virtual worlds to provide supplemental resources or enrich the learning experience.

WHAT ARE THE ADVANTAGES OF TEACHING AND LEARNING WITH VIRTUAL WORLDS?

Virtual worlds offer active learning experiences that are authentic yet safe. Scenarios can be standardized and reused with a variety of learners. Using virtual worlds extends the ability of educators to provide a controlled clinical experience that does not disrupt workflow at a clinical agency. Educators can use competency-based assessment and evaluation to ensure all participants attain learning outcomes.

HOW DO STUDENTS RESPOND TO BEING IN A VIRTUAL WORLD?

If students are required to create or dress their own avatar, a certain level of technical skill is required. Learning in a virtual world increases the opportunities for interaction and resource sharing. Also, there can be more real-world group activities. Students find that, as opposed to a classroom where educators and a few students dominate, the playing field is leveled in a virtual world. New norms of class participation emerge, but given time, most students, particularly the tech-savvy students, enjoy and benefit from the experience.

OK, now I’ve got it. After two more attempts with the scenario, coaching from my classmates, and feedback from my clinical instructor, I have learned to maintain a sterile field, work with the interdisciplinary team, identify the instruments, and maintain patient safety. I am ready to test my new skills in the “real world” practicum in the operating room!

REFERENCES

