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## Interactive virtual learning environment activities assist student's skill development across curriculum levels and intraprofessional programs

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Beginning in 2008, nursing faculty in conjunction with simulation and technology partners (Institute for Digital Intermedia Arts), embarked upon a project to allow students a non-threatening environment in which to develop interview skills. A clinic was constructed on a virtual Second Life island. Utilizing multi-generational and multi-ethnic avatars, students had interview opportunities similar to real life clients. The Second Life virtual learning environment (VLE) was used by novice nursing students to conduct nutritional subjective assessments. Students complete interviews while volunteers, via avatars, responded with answers consistent with the standardized scenarios. When 90% of students indicated the VLE was a realistic and effective setting for skill development and requested additional experiences, a urogenital-sexual assessment was added. Each of the 23 virtual avatar clients had a urogenital-sexual history developed to match both age and ethnicity. Student satisfaction ratings were 75 to 95% positive with this activity as well. Data from independent reviews of videos of near 250 full face-to-face health history interviews from prior to and following implementation of virtual learning environment activities validated transference of learning from virtual environment interviews to human interviews. Results from this investigation supported the value of the virtual interview experiences in facilitating learning at Bloom's Taxonomy of Learning of application. Further, using Kirkpatrick's Model of Four Levels of Learning Evaluation, results support learning at behavioral change level which is level 3. Practice in the virtual environment did result in learning that was applied and difference in performance level was measurable. Based on these successes, the VLE experiences were expanded to the psychiatric course in the junior level. Selected avatars were enhanced with an evolving psychiatric case scenario. Avatar's appearances were changed to reflect symptoms. Students interviewed avatars using a psychiatric tool. Students reflected the virtual experience allowed them to identify the type of information they needed to obtain from clients. Experience with over 1000 students has yielded similar evaluation results that supports students find virtual learning environment suitable for multiple applications. Similar activities were then expanded into distance RN to BSN and MSN programs. Implementing the Unity environment allowed ease of use on multiple devices. Student responses continued to be supportive of the value of the VLE experiences. Some 145 participants from 6 professions and 4 campuses had scores on validated attitudes questionnaire that revealed significant positive changes in all 5 domains of teamwork attitudes categories. The categories of leadership, situation monitoring, mutual support and communication were significant with p values of 0.001 and 0.002. Information on this cutting edge work will be shared.

### Biography

Linda Sweigart began teaching at Ball State University in 2004 while completing her post-master's adult nurse practitioner. She teaches in the baccalaureate program and the distance RN to BSN and Master's programs. During that time she has piloted several technologies including leading the transition to computer based tests, use of mobile devices for student response, interactive classroom systems, and implementation of virtual learning environment simulations. It has expanded from pre-licensure baccalaureate students, to hybrid LNP to BSN, distance RN to BSN students and master's level courses. She was selected for the 2011 Health Information Technology Scholars (HRSA grant program). She is currently working with a multi-disciplinary, multi-institutional group on the use of virtual learning environment activities to promote interprofessional TeamSTEPPS education for healthcare students. She was a member of the BSU faculty team that successfully led to the School's designation as a Center of Excellence for nursing education.

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