Project Name

Impact of a Cloud-Based Program on SLOs in an Online Health Assessment Course

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Campus Delhi, College of Technology at

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Tier Tier Two

Project Team

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Overview Summary

Using the ShadowHealth tool, students will interact with a virtual patient in a hospital setting conducting health history and system-based assessments. Student learning outcomes were evaluated through the use of grading rubrics, module summaries, and written transcripts of student activities within the program.

Outcomes Summary

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Project Abstract

SUNY Delhi is proposing to utilize a 2013 Innovative Instruction Technology Grant (ITTG) to test the effectiveness of the use of ShadowHealth, a one-of-a-kind digital clinical experience (DCE), on student learning outcomes in a health assessment course. Health assessment skills are vital to professional nursing

practice, and have traditionally been taught in the practice setting. The use of an interactive DCE could greatly improve the practicum health assessment experience for students in terms of learning outcomes, satisfaction, retention, and course completion.

The SUNY Delhi online RN to BSN program curriculum currently includes a health assessment course with a practice requirement completed through an appropriate agency in the student's community. Students are required to secure a preceptor with appropriate credentials who is approved by the program's practicum coordinator. Students have difficulty locating a qualified preceptor who is willing and able to dedicate 45 hours of time, particularly in rural areas. This burdensome process also includes a number of required forms and a contractual arrangement with the agency. In addition, there is a valid concern that assignments are not thorough and complete. The use of a DCE could help to address these issues associated with a very important component of the nursing curriculum by providing students with options that allow more time for active, engaged learning.

The 2012 Horizon Report in higher education (2012-2017) identifies emerging trends specifically related to technology. The two priority trends are: "People expect to be able to work, learn, and study whenever and wherever they want to" and "cloud-based technology". Students are continually trying to balance work, family, and school; having access to a virtual experience allows the flexibility of not having to be onsite for the practicum experience. The use of cloud-based technology is another trend that provides students with accessibility to information from a global perspective.

The use of ShadowHealth provides students with options that allow more time for active, engaged learning and less time on non-learning activities and expenses associated with practicums (travel, onsite presence, use of personal days/vacations days, childcare obligations). It will also help to ensure that students are completing the full set of requirements for the assessment practicum. Prior to the use of ShadowHealth, student experiences varied in practice settings and types of patients. Assessment and evaluation of the experiences were based on preceptor's feedback. The digital clinical experience will provide consistency for student learning and evaluation.

A significant benefit of utilizing the DCE in the health assessment course is that it will provide evidence that students have completed learning activities and evaluation methods. The software works by students typing questions to collect a health history. Tina Jones, the virtual patient, gives oral and written responses in each module based on body systems. There are 3,000 possible responses to student's questions that are matched up with a database of 50,000 questions. Students can also view lab results, physical findings, and the patient history. They will perform physical examinations on various structures. Students will receive immediate feedback on their performance and educators will receive individual student transcripts, student performance, and course-wide performance on modules benchmarked against nationwide performance.

To ensure clinical accuracy, Tina Jones™ was developed and reviewed by content experts ranging from physicians, nurses, and medical and nursing educators. Content from standard assessment textbooks such as Bates' Guide to Physical Examination and History Taking, national nursing and medical education standards, and evidence-based findings are reflected in this program. This correlates with the standards and regulations set by the accreditation agency, the National League for Nursing (NLN,) to ensure the rigor, currency, and integrity of the curriculum. The systematic plan for evaluation of the nursing education unit emphasizes the ongoing assessment and evaluation of student learning outcomes, graduate competencies and NLN standards. NLN requires that evaluation results are shared with communities of interest. This correlates with the SUNY Learning Commons initiatives.

In order to measure the effect of the DCE on student learning outcomes, SUNY Delhi proposes to collect relevant student data from session 1 and session 2 of the fall semester 2013. Student demographic information will be collected at the beginning of each session. The demographic information will include age, gender, ethnicity, educational background, current employment status, years of clinical experience, and clinical practice settings. During weeks one through seven, data will be collected which include weekly graded

assignments, weekly module summaries, and written student transcripts of the interactions between the students and the virtual patient. This data will be analyzed and will result in successful student learning outcomes and competencies identified by an increase in assignment grades and grade point averages compared to student grades from previous sessions with real-life practicum experiences. Student retention rates will increase as students will no longer rely on the variables of meeting the requirements of attaining a real life preceptor. Student satisfaction rates will improve based on the flexibility, accessibility, and engagement in consistent active learning experiences. Student transcripts of activity in the ShadowHealth program will be reviewed, analyzed, and will meet > 90% of the criteria. The weekly module summary reports generated by ShadowHealth will demonstrate a class average of 90% or greater in meeting the essential critical elements of the assigned assessments. These benchmarks will demonstrate successful learning outcomes using a cloud-based program in an online health assessment course.

Reports and Resources

- [Final project report](#)
- [Mid-project report](#)

Instructional Design

- Online Education