

Final Report: Technology Grant 2009
May 26, 2009

Project Title: Teaching health assessment to nursing students using web-based virtual clinical excursion modules.

Project Category: Programmatic, Multidisciplinary and/or Multicampus Teaching Improvement

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Final Report - Teaching health assessment to nursing students using web-based virtual clinical excursion modules.

1)Project Intent: .

This project addressed the use of web based tools offering virtual clinical excursions (VCE) for health assessment that offer flexibility in scheduling, individualized learning experiences, on demand access by students and recording of progress for faculty oversight and feedback. Web based health assessment tools allow students to experience pre-class learning and help manage cognitive overload experienced in traditional nursing classroom approaches. Aspects of web-based tools can also be incorporated into the classroom to engage students in critical thinking exercises focused on the “why” of doing more than the “how”.

VCEs are interactive case studies using visual and auditory modalities that engage the student with new content and its application to practice in a safe learning environment. VCEs can be used prior to classroom and lab as well as on demand by students providing immediate feedback on their decision making and mastery of knowledge.

2) Any changes in goals / objectives / deliverables: Yes, there have been changes. As is the nature of education, different teaching assignments occurred due to the size of the sophomore class. An additional faculty person was assigned to the assessment course and she and M. Hanson reorganized the course content over the summer. They were not available to review the software or engage in discussions about integration into the course yet remained supportive of the concept. In discussion with co-investigators, the PI determined that the best approach would be to engage students in the clinical groups assigned to B. Weatherford and D. Armstrong and one other (willing) part-time faculty on the same clinical day. The course content format did not introduce the concepts needed to understand comprehensive assessment and nursing diagnosis until approximately mid-semester. Students in the three clinical groups (approx 30 students) were introduced to the VCE concepts and invited to participate later in the semester to support their learning identified in the project. It became apparent that at the time in the course that would have been ideal to engage the students in the use of the VCE, it was after Thanksgiving and students were focused on their final demonstration exam and not in a place that additional, voluntary assignments had meaning for them. While the goals and objectives remain sound, the plan now is to integrate the VCE in the second sophomore nursing course. D. Armstrong is the course coordinator.

The project approach was modified to incorporate the case studies in the sophomore nursing course taught by D. Armstrong. The VCE concepts were introduced at the end of February after content was presented in concept mapping and clinical priority setting. Students were invited to participate in an evaluation of this learning method and 60 the 90 students signed up to participate. The PI entered all 60 students

into the modules and instructed them to practice and bring questions to the PI or D. Armstrong. The opportunity to work through a VCE with faculty coaching during open hours sessions was held over two weeks at mid-semester. Again, problems occurred with student follow up as this was not a required element in the course. One student even emailed to say she was too busy and would look at the cases over the summer.

3). Accomplishments:

a. Thus far: To date, the VCE purchase agreement has been completed (6/08) and six modules purchased. The PI learned the software over the summer and introduced to course faculty and co-investigators prior to the start of class (9/08). Three faculty learned how to use the software and their clinical groups were given access to the programs. As previously discussed, the actual use of the VCE did not occur in this course. Several students did express interest in the use of online learning methods.

An unanticipated benefit of having the VCE occurred when another nursing colleague requested to use the pediatric VCE cases for her project on problem based learning with senior students. Feedback was positive on ease of use, and the reporting feature of the software

Yet another opportunity has surfaced for the use of these case studies, this time as an imbedded component of the junior year medical/surgical clinical course. Students will engage in simulation , case studies and critical thinking exercises as a structured component of their clinical experience next fall. The PI is involved in planning the clinical activities and faculty have requested that the web-based case studies be used in this experience.

b. remaining: We still need to involve/engage students in this learning methodology and conduct an evaluation to present to faculty. The adoption of this teaching/learning method will occur slowly or not at all if faculty do not see results. The opportunity to implement the use of the web-based case studies in junior med/surg will finally allow their introduction to students in the clinical setting. The remainder of the case studies were able to be purchased and med/surg faculty are excited about their use.

4.) Anticipated challenges, issues or problems: The latest challenge caused by the environment of fiscal constraint has been used as an opportunity by UMD College of Nursing faculty. In order to reduce the costs associated with using part time clinical faculty, the junior year med/surg clinical experience of two days in the hospital will be changed to one day in the hospital and one day in the lab associated with simulation , online case studies, critical thinking. While the change is a challenge, the faculty participating see the case studies as an integral part of the success of this change.

This project has reinvented itself a couple of times but reflects the nature of adapting to technology and being flexible with the changes out of our control!

5.) Comments: While this project was delayed, we are all committed to see it to completion and feel we have a sound plan that can be accomplished. The College of Nursing has rapidly become engaged in using technology in our teaching this past year, in part due to the increased visibility of those with the technology grants talking about our projects. While this project has been slow to get off the ground, the enthusiasm from faculty has been maintained. Finding the best forum for the use of the case studies has

been a challenge. However, the format of the junior med/surg clinical experience lends itself very nicely to utilizing these case studies with students. An evaluation component of their use will be utilized.

The experience of this technology grant was reported to other UMD grantees at a recent meeting with the campus technology committee.

Submitted by:

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