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Can Technology Increase Student Engagement and Learning in the Classroom?

Cara M. Gallegos, PhD, RN
School of Nursing, Boise State University, Boise, ID, USA

Purpose: The purpose of this study was to determine the impact of technology on student engagement and learning in an undergraduate nursing research course, and to describe nursing students’ confidence in their research and evidence-based practice (EBP) skills.

Background: EBP is an integral part of clinical decision-making for nurses, yielding quality patient outcomes, as well as reducing variations in patient care and cost. Despite these clear benefits, EBP is not the standard of care practiced consistently across the U.S. This is partially due to barriers such as inadequate EBP understanding and skills and resistance by healthcare workers (Melnyk et al., 2014). To combat these issues, baccalaureate nursing programs typically require completion of a research course in order to establish competencies in EBP and research (AACN, 2008). Establishing such competencies requires not only skills, but is also dependent on one’s self-confidence to use skills effectively (Bandura, 1993). Therefore, cultivating student self-confidence in EBP and research skills is essential to prepare future nurses with the tools necessary to improve the quality and safety of the healthcare systems in which they will work (Melnyk, et al., 2014). Unfortunately, demonstrating the significance of a research course to baccalaureate nursing students has shown to be difficult, making it challenging for faculty to engage nursing students in learning these important skills (Halcomb & Peter, 2009). Using mobile technologies, such as the iPad, could potentially promote student engagement through active and collaborative learning (Diemer et al., 2012).

Methods: This study used a descriptive design to describe student confidence in specific EBP and research skills, and the impact of mobile device use on student engagement and learning. Following IRB approval, 58 students in an undergraduate nursing research course at a public university in the Northwestern U.S. completed an online 16 question likert scale survey.

Results: Preliminary results suggest that students reported increased confidence in mobile technology use, a substantial number of students agreed that using a mobile device in their research class helped them develop skills that they can apply to academics (89.7%), apply course content to solve problems (82.8%), and participate in course activities that enhance learning (89.7%).

Implications: Requiring a stand alone baccalaureate nursing research class is essential to developing student confidence in research and EBP skills, as well as in applying this material to solve problems. Establishing such pedagogical approaches to improve nursing student engagement in research and EBP courses is essential to future healthcare system improvement. However, further studies should be implemented to evaluate mobile device use further, as well as student skill proficiency in practice after graduation.

Title:
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Keywords:
Neared, technology and undergraduate nursing

References:


**Abstract Summary:**
In the classroom, technology can distract students. However, when used appropriately, technology can be used to increase student motivation and learning. The purpose of this study was to determine whether the use of Nearpod, an interactive web based program, increased student engagement and learning.

**Content Outline:**
Introduction: Benefits of EBP and a description of the typical undergraduate nursing student

Main point 1: Engagement

Main point 2: Use of technology in class
- Nearpod

Main point 3: Description of the study

Main point 4: Results

Main point 5: Description of implications and discussion

Conclusion: Lessons learned and take-away points

**First Primary Presenting Author**

**Primary Presenting Author**
Cara M. Gallegos, PhD, RN
Boise State University
School of Nursing
Assistant Professor
Boise ID
USA

**Professional Experience:** 2013- present - Assistant Professor, Boise State University 2009-2012 - Assistant Professor, University of Wisconsin Eau Claire Developed and taught both undergraduate and graduate (DNP) research and evidence-based practice courses Author of 1 article related to academic-clinical partnerships Author of 2 chapters in an evidence-based practice book

**Author Summary:** Dr. Gallegos received her doctorate from the University of New Mexico in 2010 and has been teaching for the past 8 years. She has successfully used technology to improve engagement and learning in her undergraduate research class for the past two years. She has presented several posters an podium presentations describing her results.