Technology Integration in Nursing Education: A Case Study in Higher Education

Melissa Stec, DNP, APRN, CNM, FACNM, FAAN

Distinguished Educator
Objectives

1. Identify traditional evidence based teaching pedagogies that may be enhanced using technology
2. Conceptualize the integration of technology tools in the classroom
3. Demonstrate the translation of technology integration in the classroom to practical application in nursing practice
4. Evaluate the moderators of success in integrating technology
PEDAGOGY

their technology
Problem Based Learning

Collaboration

Crossover/Integrated Learning

Context Based Learning

Meta-Cognition

Didactic Learning

Differentiated Instruction

Crossover/Integrated Learning

Feedback

CO-OPERATIVE LEARNING
Learning Style

- Unimodal, bimodal or multimodal
- **V:** Visual (images, charts, maps)
- **A:** Aural (oral lectures, listening)
- **R:** Read/Write
- **K:** Kinesthetic (hands on activities)
Technology
Content
Knowledge

Pedagogical
Content
Knowledge

Pedagogical
Technology
Knowledge

http://oer.educ.cam.ac.uk/wiki/Pedagogy_and_ICT_a_Review_of_the_Literature
The SAMR Model for Technology Integration

**SAMR**

- **NO TECH**
  - **SUBSTITUTION**: Tech acts as a direct tool substitute, with no functional change.

- **ENHANCEMENT**
  - **AUGMENTATION**: Tech acts as a direct tool substitute, with functional improvement.
  - **MODIFICATION**: Tech allows for significant task redesign.

- **TRANSFORMATION**
  - **REDEFINITION**: Tech allows for the creation of new tasks, previously inconceivable.
Goals of Technology Enhanced Pedagogy

• Engagement
• Collaboration
• Interactivity
Engagement
Collaboration

01 Obesity
An Epidemic in the United States
- More than 1/3 of adults are obese
- Costs $147 billion healthcare annually
- Leads to conditions such as diabetes, stroke & cardiovascular disease

02 The Problem
Clinician-Patient Engagement
- Addressing weight and lifestyle issues
- Collaboration between healthcare providers and patients

03 Solution
My Fitness Pal Tracker
- A digital tool to help track and monitor weight loss
- Fosters a supportive environment for weight management

04 EBP
Social Cognitive Theory
- The social cognitive theory is based on the knowledge that self-efficacy of patients is increased in an active environment
- Intervention focuses on weight loss and maintenance

05 Integration
Adapting Solutions into Practice
- "Health behavior is complex and the results of specific strategies are often not immediately evident in clinical settings"

06 Outcomes
Improved Weight Loss Management
- Patients report positive change in weight and lifestyle
- Improved functional outcomes
- Increased overall quality of life

Integration of weight loss applications and self-care tools into daily practice is essential (McCombs & Lane, 2010).
Interactivity
Model for Successful iPad Integration

Drivers
- Benefits of Technology
- Portability & Flexibility
- Facilitator of Learning
- eBooks
- Nursing Apps
- Technology in Clinical Nursing Practice

Moderators
- Emotional Response
- Professor's Use
- Communication
- Learning Curve
- Learning Preferences

Speed Bumps
- Limits of Technology
- Dependence on Technology
- Headache/Eye Strain
- Distraction
- Monetary Concerns
- Technical Difficulties
References


