"We've Flipped!" Innovative Teaching Methods: The Flipped Classroom

Session Objective

- Participants will be able to explore innovative uses of technology utilizing a “flipped” classroom format to enhance and foster student self-efficacy in learning, development of critical thinking skills, and diagnostic reasoning.

WSU Program

- Predominantly face-to-face program
  - NP, AGNCPNP, AGAONP, AGONG, NOL, NE
  - MS and DNP
- Core nursing courses offered face-to-face one semester with alternate semester hybrid (4 synchronous meetings per semester)
- NP focus courses offered face-to-face
  - Student population preference
  - Flipped classroom implemented in the NP focus courses
What is a Flipped Classroom?

- Typical lecture and homework/discussion elements of course are flipped
- Active student learning
- Personalized guidance and interaction of faculty and students
- Changes what students are responsible for when they enter the classroom
  - Students expected to come to class prepared to actively participate in activities related to current content
  - Shift from learning content during classroom time to working toward clinical application of content

“5 Reasons Flipped Classrooms Work” - Millard 2012

- Increases student engagement
- Strengthens team based skills
- Offers personalized student guidance
- Focuses classroom discussion
- Provides faculty freedom

What is the evidence supporting a “flipped classroom”??

- Originated for use in high school science classes.
- Limited evidence on use in higher education.
- Graduate student performance in learning CV, respiratory, and renal physiology:
  - Tune, Sturek, & Basile (2013)
- The enhanced flipped classroom, student recorded lectures
  - Talley & Scheer, 2013
- Use in undergraduate nursing education to improve satisfaction and performance:
  - Missildine, Fountain, Summers, & Gosselin, (2013)
- Use in Graduate Nursing Education
  - Crits & Knight (2013)
**How it works – before class**

- iPad Mini pilot program
- Useful in classroom and clinical experiences
- Nearpod
- Pages
- Evernote
- Multiple apps for use in the clinical setting
- Lectures pre-recorded
  - Tegrity, Adobe Presenter, Voice-over powerpoint
  - Other options: Camtasia, SoftChalk, YouTube, Wikis
- Ability to review content for clarity

**How it works – in class**

- Maximizes use of face-to-face student-faculty interactions
- Classroom activities
  - Synchronous on-line quizzes on iPad
  - Nearpod
  - Case studies – instructor and/or student-led
  - EBP review of pertinent research
  - Development of management plans
  - Workshop approach (gyn lab, suture lab, MSK and physical assessment development)
- Guest speaker content presented in standard lecture format

**Student Evaluations**

- Love it or Hate it
  - “I prefer the standard lecture format”
  - “there were too many technology problems with getting the lectures ahead of class time”
  - “too much material at once”
Student Evaluations

- "We get more out of class because we come more prepared!"
- "Appreciated having lectures pre-recorded to allow class time for case studies and other activities."
- "It was great to have the "flipped classroom". Even though it was more work to prepare for class, I felt more confident in the material because of having the lectures and readings."
- "Interactive case studies allow the student to remain more focused during the class time. Given participation is required to make plans of care..."
- "Pre-recorded lectures allow time for review of content and preparation of questions prior to class.

Faculty perspective

- Intensive preparation
  - Lecture AND interactive activities
  - Always need to be a couple weeks ahead
  - Learning new technology
  - Noticed a difference in overall class testing scores compared to previous years
    - Possibly related to which students are preparing prior to class
    - Need to reinforce critical content
  - Flipped classroom shifts more responsibility to the student for learning

Future plans

- Immediate on-line quiz available with pre-recorded lecture to identify content areas of concern
- Consistent recording format
- "Personal response system"
  - Use of immediate polling with use of apps (Neapdool & others)
- Workshop development
References & Resources