Empowering Students and Faculty to Close Research Knowledge Gaps

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Objectives

Upon completion of this presentation, the attendees will
• Compare traditional and accelerated BSN students
• Examine challenges faced by faculty
• Network with peers

Overall: The purpose of this presentation is to share two course designs that helped faculty who are teaching research to close the nursing research knowledge gap between students in two baccalaureate nursing tracks and from different generations.
Background

• Nursing students enter higher education with different knowledge backgrounds and knowledge gaps
  - knowledge gap vs. research gap

• The traditional (TBSN) students are
  - novice to academic learning
  - attending college after high school (generation Y, and Z)
  - non-traditional
    - minority, or first-time college attendee, older students, generation X and “Baby Boomers”)
  - professionals perusing different career
    (Doggrell, & Schaffer, 2016; Griffin & Haugabrook, 2017; Nicholas, 2008)

• The accelerated (ABSN) students have
  - spent four years in higher education
  - a baccalaureate degree
  - been exposed to research terminology
  - a head start in learning about nursing research
    (Doggrell, & Schaffer, 2016)
Background

• **Expectations** for nurses in the contemporary healthcare

• The faculty often face **challenges**
  - select **learning objectives** based on **21st century themes**
    (communication, collaboration, creativity, critical thinking, entertainment, active learning…)
  - help students overcome anxiety
  - demonstrate **clinical/practical application** of abstract concepts

(Day-Black, 2015; Fowler, 2014; Miecznikoski, 2014)
Method

Comparative analysis:
- face-to-face classroom vs. online learning environment

Design:
- 15-week interactive and innovative lecture content
- practice sessions
- unit tests

Subjects:
- 16 TBSN and 22 ABSN students

Tool:
- External standardized testing for results validation
Online Class

F2F Class

Online Class:

- Lecture: Search for Evidence
  - Readings: 2 chapters (35 pages)
  - Chapter 1: Reading and Critical Evaluation of Research Articles
  - Chapter 2: Finding and Reviewing Evidence in the Literature
  - BB Collaborate: Session assignment 1 will be held on 03/23, Tuesday from 7 PM to 9 PM. To link, click on the BB Collaborate tab.

  *Assignment 1: due on 03/29 or earlier. See grading rubric for details. Review the PPIs prior attempting the assignment.

- Lecture: Writing a Problem and Purpose Statement and Clinical Question
  - Readings: 2 chapters (35 pages)
  - Chapter 3: Research Problems, Research Questions, and Hypotheses
  - Chapter 4: Theoretical and Conceptual Framework
  - BB Collaborate: Session assignment 2 will be held on 03/28, Tuesday from 7 PM to 9 PM. To link, click on the BB Collaborate tab.

  *Assignment 2: due on 03/29 or earlier. See grading rubric for details. Review the PPIs prior attempting the assignment.

- Lecture: Quantitative Research
  - Readings: 4 chapters (117 pages)
  - Chapter 5: Measurement and Data Quality
  - Chapter 6: Statistical Analysis of Quantitative Data
    - BB Collaborate: Session assignment 2 will be held on 03/28, Tuesday from 7 PM to 9 PM. To link, click on the BB Collaborate tab.

  *Assignment 3: due on 04/02 or earlier. See grading rubric for details. Review the PPIs prior attempting the assignment.

F2F Class:

- Lecture Objective: Introduction to Research and Key Concepts (2 hrs)
  - Pre-Class Readings:
    - Chapter 1: Introduction to Nursing Research and EBP Environment
    - Chapter 2: Key Concepts and Steps in Qualitative and Quantitative Research
  - Practice Session (30 min): The Great Grape Experiment

- Lecture Objective: Search for Evidence (2 hrs)
  - Pre-Class Readings:
    - Chapter 3: Reading and Critical Evaluation of Research Articles
    - Chapter 4: Finding and Reviewing Research Evidence in the Literature
  - Practice Session (30 min): Guest from the Health Science Library
    - Class Questions and Comments (5 min)
    - Share search strategies that you have used to find these 2 articles. Do you need to find new articles? Explain why “Yes” or “No”. After this module, what you can do to improve your search for evidence.

- Lecture Objective: Ethics in Research (2 hrs)
  - Pre-Class Readings:
    - Chapter 5: Ethics in Research
  - Practice Session (30 min): IBR forum group review
    - Class Questions and Comments (5 min)

- Lecture Objective: Writing a Problem and Purpose Statement and Clinical Question (1.5 hrs)
  - Pre-Class Readings:
    - Chapter 6: Research Problems, Research Questions, and Hypotheses
    - Chapter 7: PICO(T) template exercise
  - Practice Session (1 hr): PICO(T) template exercise
    - Questions and Comments (5 min)

- Lecture Objective: Quantitative Research Design and Sampling (2 hrs)
  - Pre-Class Readings:
    - Chapter 8: Quantitative Research Design
    - Chapter 9: Sampling and Data Collection in Qualitative Studies
  - Practice Session (30 min): Matching
    - Class Questions and Comments (5 min)

- Lecture Objective: Measurement (1.5 hrs)
  - Pre-Class Readings:
    - Chapter 10: Measurement and Data Quality
  - Practice Session (50 min): In groups, discuss surveys and scales
    - Class Questions and Comments (10 min) or Review Exam 1

  *Alerts! *Assignment 1 Due

  - Alerts! *Online Response Monitor Test 1 (Chapters 1, 3, 4, 5, 6, 7) Test: 50 questions 50 minutes

  - *Alerts! Find a survey with a scale from EBSCO, ProQuest, or other professional healthcare organizations sites related to a topic of interest and bring it to class.
  - Be ready to discuss the survey and its levels of measurement in class.
The mean values of the external standardized testing grades were not statistically different for the two programs.
- t-test, p=>0.05

For the ABSN $\mu=86.82$, SD=4.37, minimum value= 79.5, maximum value=94.5.

For the TBSN $\mu=87.53$, SD=4.49, minimum value=79, maximum value=95.

The results suggested that both tracks have reached similar levels of knowledge despite the different educational background, class delivery, and prior knowledge acquisition related to research concepts.
Conclusions

• Significant, multinational **impact on teaching** nursing **research** around the world

• TBSN students benefit from in-class **face-to-face** lecturing and hands on activities

• ABSN students enjoy more **independent, self-driven learning** and content with practical implications.

• An interesting conclusion: the TBSN students had **slightly higher** mean and maximum values in comparison with the ABSN students

• Recommendations: to close the research knowledge gap, teach nursing research in a **face-to-face** environment for students who are **novice** to academia and **online** for those with **prior knowledge** in research
References


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