

# Pedagogical Strategy for Teaching Innovation and Business Concepts to Graduate Nursing Students



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## Introduction/Background

Today's health care environment is increasingly complex, emergent and unstable<sup>1,2</sup> where ethical issues abound<sup>3</sup>. Future nurses need transformational leadership skills to better understand the complexity of the health care system and find innovative solutions to problems.



## Our Challenge

How to better engage a heterogeneous group of master's level nursing students in a learning activity that will boost their ability to:

- make ethical decisions consistent with the Code for Nurses<sup>4</sup>,
- Innovate,
- develop "soft" leadership skills (e.g., team communication, decision-making, strategy development, and tactics)<sup>5</sup> and
- think creatively and critically<sup>6</sup>.

Our answer was the Innovation Leadership Project for APRNs (ILPA; adapted with permission from an innovation game used at Kaiser Permanente, with permission).

## Objectives

How well did ILPA assist graduate nursing students to:

1. develop critical thinking and innovation skills?
2. use ethical decision-making and problem-solving?
3. develop their "soft" leadership skills?
4. acquire about innovation and business concepts?

## Methods

- ILPA introduced to autumn 2016 sections of a core course in the Master's program: Innovation Leadership in Advanced Nursing Practice
- Gauged students' response to ILPA and their perceived learning outcomes in four domains:
  - Critical thinking and innovation skills,
  - Ethical decision-making in a healthcare setting,
  - Leadership skills (e.g., team communication, decision-making, strategy development, and tactics) and
  - Basic business terminology and skills in healthcare.
- Nine item survey was developed (Table 1.). Students who completed the study were entered into a drawing for a \$100 Visa gift card.
- IRB approved.

## Sample

- N7403 Innovation Leadership in Advanced Nursing Practice, 3 Sections (n=90)
  - Response rate (n=33, 36.6%)
    - Traditional master's students (n=8, 24.2%)
    - \*Grad entry (n=25, 75.8%)
  - Formal Project Management Experience
    - None (n=20, 60.6%)
    - Some (n=11, 33.3%)
    - A Lot (n=2, 6.1%)
  - Formal Business Courses taken
    - Disagree/Strongly Disagree (n=23, 69.7%)
    - Neither Agree/Disagree (n=2, 6.1%)
    - Agree/Strongly Agree (n=7, 21.2%)
    - No response (n=1, 3.0%)

\*Grad entry students with a baccalaureate degree with a major other than nursing who will earn a Master of Science in nursing. At the midpoint of the program, students take NCLEX before proceeding in the program.

## Analysis

- Kruskal-Wallis test to examine group differences between section, type of student (traditional vs. graduate entry), formal project/business management experience/education.
- None of the tests for group differences were statistically significant, indicating that there is no evidence of group differences in the survey scores.

The reliability of the 9-item survey as measured by Cronbach's alpha was 0.94.

## Results/Findings

- Participants lacked confidence in their knowledge of business skills
- Participants had confidence in their knowledge of evidence-based practice and ethics

Table 1. displays the mean and standard deviation of responses to survey questions (1-5 point scale with 1 = strongly disagree 5 = strongly agree).

As a result of participating in Innovation Leadership Project for APRNs, I have an improved ability to:	N	Mean	STD
1. identify and solve a unit-based clinical problem.	33	3.7	1.0
2. identify the perspective of internal/external stakeholders (those who worked together on the unit) involved in solving a unit-based clinical problem.	33	3.8	0.8
3. make ethical decisions involving a unit-based clinical problem.	33	3.9	1.0
4. use pertinent evidence related to solving a unit-based clinical problem.	33	4.0	1.0
5. appraise multiple factors (e.g. equipment, education, staffing, roles, expenses, supplies, etc.) in developing a project to address a unit-based clinical problem.	33	3.8	1.0
6. create a project budget that accounts for costs, cost savings or revenue.	33	3.5	1.0
7. use a variety of communication strategies within a team.	33	3.8	1.1
As a result of participating in Innovation Leadership Project for APRNs, I am more likely to:			
8. use project planning skills in my current or future practice.	33	3.7	1.1
9. participate in work projects more confidently based on what I have experienced in Innovation Leadership Project for APRNs	33	3.5	1.3



## Innovation

## Quotes from Students

- "I feel like this course provided me with great knowledge about the business side of healthcare and implementing projects for clinical based problems. I learned a lot about communication, finding evidence, and appraising factors needed for the project."
- "I really enjoyed the aspect of the innovation project where we were allowed to brainstorm ideas (fictitious or not) for possible solutions to our clinical problem. I thought this was a great exercise in creativity-something that is vital for an innovation project...."
- "Another important take home message that resonated with me was total cost...thinking about the implications of spending a small fortune for a proposed solution and determining if the investment was cost effective."

## Limitations

- Response rate of 36.6%
- Self-report may have been conflated with course/faculty evaluation.
- Different course instructors across sections with various delivery modalities.

## Discussion/Future Directions

- Factors that build confidence of Master's level students' business skills.
- Continued course evaluation and revision.
- Consideration of faculty experience and knowledge of business skills.
- Teaching and measuring innovation and business skills.

## References

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- Graphic 2: Thoughtpreneurs: The Poison of the Student Startup Scene. Retrieved 2.1.18 from <https://hackemooon.com/thoughtpreneurs-the-poison-of-the-student-startup-scene-c571402b2ee7>

- **Measures/Data Analysis**

- Qualtrics Survey Software is an online survey software survey tool.
  - Qualtrics Survey is a hosted solution supported centrally at OSU by OCIO giving administrators total control over the survey environment.
  - Only OSU authenticated users can log in to create surveys or view the responses.
  - Users can be assigned to roles so users can be authenticated for viewing or modifying survey questions or viewing the responses.
  - The Qualtrics system is secure and HIPAA/FERPA compliant approved.
- Descriptive statistics, bivariate tests, mean plots and Chronbach's alpha.....