Differentiating Boundaries: Research and Practice Doctorates

Karen Morin, PhD, RN, ANEF, FAAN
Kathy Moran DNP, RN, CDE, FAADE
Objectives

• Differentiate between research and practice preparation relative to generation of knowledge
• Clarify how each addresses a gap in knowledge about nursing education
• Describe similarities in skills needed to address gap in knowledge
Objectives

• Discuss the critical nature of collaboration between research and practice prepared scholars
• Compare and contrast methods used by research and practice scholars
• Compare and contrast products generated by research and practice scholars
What are your goals for this workshop?
Preparation Clarification

Research Doctorate

Practice Doctorate
Preparation Continued

**Research**
- Many credits research courses (22)
- Addresses a gap in knowledge – not known
- About generating new knowledge
- Theory courses

**Practice**
- Fewer research courses (9)
- Evaluates best evidence
- Addressing an existing practice problem – change in practice
- Has to have impact
- Is sustainable
- Outcomes measurable
External Forces

• External forces driving knowledge creation and use
  • IOM (2001) Crossing the Quality Chasm
  • IOM (2010) Future of Nursing
• Disciplinary need
  • Much of what we do is not understood
  • Need to understand why and what we do
Moving Nursing Education Forward...

- Research and Practice Doctorates must understand the changing health care and educational systems
  - Together they must have the foresight to understand what the health care needs of the population will be tomorrow
  - Education must prepare nurses to meet the needs of the population *today* and in the *future*
Addressing Gaps in Knowledge
What Contributes to the Gap?

- Limited evidence
- Sample sizes small
- Designs descriptive, correlational or comparative
- Single institution focus
- Outcomes varied, often not assessed
- Limited examples of use of evidence to influence teaching
Approaches to Knowledge Generation

- Seven complex lessons  (Morin, 2003)
- Minds for the future   (Gardner, 2006)
- Big data            (Roski, Bo-Linn, & Andrews, 2014)
- Boyer model        (1990, 1997)
  - Scholarship of discovery
  - Scholarship of integration
  - Scholarship of application
  - Scholarship of teaching
Seven Complex Lessons
(Morin, 2003)

- Detecting error and illusion
- Principles of pertinent knowledge
- Teaching the human condition
- Earth identity
- Confronting uncertainties
- Understanding each other
- Ethics for the human genre
Five Minds for the Future

(Gardner, 2006)

• Disciplined
  • Mastery of major schools of thought

• Synthesizing
  • Integrate ideas from different disciplines

• Creating
  • Uncover and clarify new problems

• Respectful
  • Appreciation of differences among human beings

• Ethical
  • Responsibilities as a worker and citizen

Big Data

• “Sophisticated and rapid analysis of massive amounts of diverse information” (Roski, Bo-Linn, & Andrews, 2014, p. 1115)
• Characterized by volume, variety, and velocity
• Type of analysis: pattern recognition
• Not without its issues
Changes definition of knowledge
Claims of objectivity and accuracy misleading
Bigger not always better
Loses meaning when out of context
Accessibility does not connote ethical
Issues of access lead to digital divide

Issues
(Boyd, & Crawford, 2012)
Scholarship – Boyer Model

- **Scholarship of Discovery [Research]**
  - Equates to conduct of research – research scholar activity
  - “Contributes not only to the stock of human knowledge but also the intellectual climate” (p. 9, 1997)
  - E.g., funded research projects

- **Scholarship of Integration [Research & Practice]**
  - “Seeks to interpret, draw together, and bring new insight to bear on original research” (p. 9, 1997)
  - E.g., professional development workshops
Scholarship – Boyer Model

- **Scholarship of Application [Practice]**
  - Applying knowledge to meaningful problems
  - “Theory and practice interact in such venues and improve each other” (p. 9, 1997)
  - E.g. consulting activities reflective of expertise

- **Scholarship of Teaching**
  - Bring new knowledge to students
  - E.g. New or revised curricula, innovative teaching materials etc
Time for a Break...
What Skills are Required to Address the Gap in Knowledge?

Think, Pair, Share

End

10 minutes
Similarities in Skills

http://educationaljargonsch.swikispaces.com/Creative+and+Critical+Thinking
Similarities

Concrete and/or Abstract Thinker

- Synthesizing information
- Understanding statistical analyses
- Being clear about the process
Collaboration
Collaboration Between Research and Practice Scholars

• Required to advance nursing knowledge generation and translation into practice (Murphy et al., 2015).

• Collaboration is a key element of doctoral nursing education (AACN Task Force, 2015).
Collaboration Between Research and Practice Scholars

- Knowledge/application of polarities and polarity management can increase collaboration
  - Leads to sustainable partnerships;
  - effectively leverages resources;
  - increases opportunities for research and scholarship among doctoral prepared nurses;
  - offers guidance in facilitating collaboration in academia and practice (Clingerman, Burson & Moran, 2018).
• Paradox theory
  • Provides a lens to discuss/manage polarized ideas (Lewis, 2000).
  • Healthcare and academic systems are filled with paradoxes, or polarities (Clingerman, et al., 2018).
Collaboration Between Research and Practice Scholars

- **Polarity Management**
  - Supports flexibility, resilience and dynamic decision making (Smith & Lewis, 2011).

- **Polarity principles**
  - Predict polarity outcomes
  - Leverage dynamic tension between poles
  - Knowledge of polarities and polarity management enhances collaboration
Polarity Map: Research and Practice Scholars

Time for a Break...
How do these Scholars Address a Gap in Knowledge About Nursing Education?
1. What has your experience been?
2. What issues have you encountered at each stage?
3. How does each approach address a gap in knowledge?
Methods Used by Research and Practice Scholars

- Problem
- Research question
- Review of literature
- Significance
- Framework

- Methods [design, sample, setting]
- Human Subjects
- Data analysis
- Findings
- Dissemination
What is the Problem Statement?

- **Who** the problem involves
- **What** the issue is
- **When/where** it is occurring
- **Why** it is important

Takes time...
Developing the Practice Question

- P = Population
- I = Intervention
- C = Comparison
- O = Outcomes
- T = Timing
Developing the Research Question

- Addressing a gap
- What is not known about a topic/issue
- Can be a question
- Often a hypothesis
Review of the Literature

Systematic
Thorough
Rigorous approach
Synthesize
Interpret

Where the literature is congruent
Where and how it differs
The overall message

Literature Review
Determining the Organizing Framework
Aligning Design, Method, and Evaluation with the Clinical Question

- The project aligns the scientific approach with the appropriate design, methodology and evaluation.
- **Key factor:** Congruence between the project aim(s) and study design with the data collection and analysis plan.
- The design choice for the project is always driven by the clinical question.
Types of Designs

Research
- Quantitative
  - Noninterventional
  - Interventional
- Qualitative

Practice
- Quality Improvement
- Program Evaluation
- Policy Initiatives
Differentiating QI from Research

QI
• Focus on improving system
• Making it more cost-effective
• Increase in productivity
• Continual gains
• Knowledge is specific to the organization
• Have a limited audience
• Improved outcomes

Research
• Process of generating new knowledge
• Test a hypotheses
• Results focused on generalizability
• Scientific framework
• Control of variables
• HSIRB review

IRB depends on Institution
Human Subjects

- What distinguishes research from QI in terms of IRB?
  - IRB – Research scholar responsibilities
  - IRB – Practice scholar responsibilities
Data Analysis

- Quantitative
  - Pre-test/post test
  - Repeated measures
- Qualitative
  - Themes
Data Reporting Problems in the Scientific Literature

• Examples
  • Failing to include the number of eligible participants
  • Inaccurately reporting missing data points
  • Failing to report all pertinent data
  • Failing to report negative results (Marco & Larkin, 2006)
Data Reporting Problems in the Scientific Literature

• Examples
  • Allowing research sponsors to influence reporting of results
  • Inappropriately labeling graphs
  • Reporting percentages rather than actual numbers
  • Using and reporting inappropriate statistical tests (Marco & Larkin, 2006)
Findings

• Does it make a difference?
• What are the similarities?
Developing a Scholarly Product

- Integrates/demonstrates the Essentials and the effectiveness of the discipline.
- An effort to build the bridge between research and practice.
The DNP Product

- All DNP projects should:
  - focus on a **change** that impacts healthcare outcomes either through direct or indirect care
  - have a systems or population focus
  - demonstrate implementation in the appropriate area of practice
  - include a plan for sustainability
  - include an evaluation of processes and/or outcomes
  - provide a foundation for future practice scholarship *(AACN, 2015).*
Actualized DNP Model
(Burson, Moran & Conrad, 2016)

Advanced Nursing Knowledge
DNP Skillset

Evidence Based Knowledge

Innovative Advance Practice Roles

Generation of Practice Based Knowledge

Patient Population
Outcomes
System Policy

Actualized DNP Model
(Burson, Moran & Conrad, 2016)
Must be Done Within the Context of Outcomes

• **Practice**
  • Institute for Healthcare Improvement (IHI) (2018) – Triple Aim
    • Improve patient experience
    • Improve health of populations
    • Decrease costs

• **Education**
  • Address relevant education issues [e.g. NLN priorities]
DNP Scholar Exemplars

1. What components of the DNP Essentials are evident?
2. Is there evidence to support the project (organization, literature)?
3. What is the innovation that is proposed? Is it based on the evidence?
4. Is there knowledge generated from the innovation?
5. How is the project evaluated? What outcomes are identified?
6. Is this work sustainable?
7. Is there a plan for dissemination?
PhD Scholar Exemplars

• Addresses a significant disciplinary question
• Is not simply a learning process
• Follows a consistent format
• Research proposal
Dissemination
How Can We Guide our Students in the Development of Meaningful Work?
Take Away

• Maintaining currency about health care and education issues
• Ask yourself: Does current education allow students to move into areas that are developing?
• Making certain students and faculty understand each contribution
• Think creatively – we know the system
• Make a difference irrespective of doctorate
Encourage Students & Faculty to...

- Be creative
- Be fearless
- Be a trailblazer
  - Not to settle
  - Or be complacent
    - The future of healthcare and education is in the balance
Carpe Diem!
References
Cited and Suggested

References

Cited and Suggested