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Delta Omega
Honorary Society in Public Health
ASPPH Presents Webinar Series

Delta Omega Innovative Public Health Curriculum Award

Friday, January 26, 2018
2:00 p.m. - 3:00 p.m. Eastern
Method for Submitting Questions/Comments

Join the Conversation...

• You can ask questions in writing anytime during the webinar.

• Simply type them in the “Questions” field on the right side of your screen.
Today’s Presenters

Christina Rose Welter, DrPH
University of Illinois at Chicago,
School of Public Health
*Delta Omega Lambda Chapter*

Michael Stoots, EdD, MPH
East Tennessee State University
College of Public Health
*Delta Omega Alpha Pi Chapter*
Engaged Scholarship: Methods for Identifying and Researching Complex Change

Christina R. Welter, DrPH, MPH
University of Illinois at Chicago, School of Public Health
Doctorate in Public Health Leadership
Delta Omega Innovative Curriculum, January 26, 2018
Overview

1. UIC SPH DrPH Program in Leadership:
   1. Our program elements

2. Engaged Scholarship:
   1. Overview
   2. Key Features
   3. Assignments
   4. Lessons Learned
How do we build the public health system to address complex issues (e.g. inequities) in an *enduring* way, focused on greatest need with fewer resources?
Role of DrPH in Public Health

- Early focus on applied science and service upon which practice rests or from which it developed

- A resurgence of the DrPH in the late 20th century
  - A respond to the call to leadership
  - Build and use evidence
    - DrPH graduates should be prepared for evidence based practice and ... generation of practice based evidence (Framing the Future, DrPH for the 21st Century, ASPPH 2014)
    - Skills to identify and leadership to apply evidence-based interventions (Lee et al., 2009, Public Health Reports)
UIC DrPH Program Features

- Adaptive Leadership
  - Systems, organization and collaborative leadership in practice

- Contributing to the Evidence Base of Practice
  - through Practice-Based Research

- Oriented toward mid-career professionals
  - Follows principles of adult learning; experience based instructional format

- Systematic Reflection & Action Learning as key skills
  - Learning leadership vs. teaching leadership
  - Structured as a “reflective practicum”

- Cohort model and the learning community

- Competency based curriculum
Scaffolding of the DrPH Courses

Learning builds through coaching, learning communities, and systematic reflection

Integrate and adapt concepts and tools to areas of interest to the Dissertation (class) And Final Portfolio (class)

Specific methods and design courses (e.g. case study; Epi, biostats, questionnaire design, excel etc)

Learn Research Methods and tools: IPHS 503, 505 and 510

IPHS 512: Apply Adaptive Leadership and DrPH Principles to develop research and practice agenda

IPHS 501, 502 and 511: Build Knowledge and Understanding of Adaptive Leadership (self and as a process) and core DrPH Principles
Possible implications of building evidence from traditional paradigms

- Random assignment, controlled trials may be artificial or unrepresentative, taking out of consideration [of public health practice] by eliminating, equalizing, or holding variables constant

- May not deal adequately with the broader ecological understanding of causal webs and systems interventions

- Does not collect practice-based evidence that spotlights the realities and subtleties of implementation that account for success

- Does not gather the systematic learning and documentation that could inform future action and improvements

“We seek a more evidence based public health practice, but too much of our evidence comes from artificially controlled research that does not fit the realities of practice...[and] the challenge is that most of the evidence is not very practice-based.”

~ Lawrence Green, AJPH, 2006

~ Green, 2006; Schorr, 2016
Where does the research begin?

The “Pipeline” Concept of Disseminating Research to Get Evidence-Based Practice*

How, who, where is the research problem being defined?

“It is unreasonable to expect that people will change their behavior easily when so many forces in the social, cultural, and physical environment conspire against such change.”

~Institute of Medicine

“…almost two-thirds of all (research) articles describe interventions that focused on only one or two social ecological levels.”

~Golden and Earp, 2012
Systems Action Research

- Seeing perspectives and connections within and across sociological levels can expose opportunities. Systems Science (Freichs; Ison)

- Learning *in action* is required to build knowledge and capacity and leadership to create change (Pierce, James, Dewey)
  - Action research (AR) designs are characterized as involving a research and practitioner collaborations that work intimately to define current and future research agendas and promote shared learning

  - AR designs establish a **pre-understanding** of the context and situation:
    - Exposing social norms in how predominant ideology;
    - Making assumptions explicit identifies challenges and opportunities in what needs or could change and how
The Action Research Process

Pre-understanding

Stringer, 2014
Integrating leadership and scholarship: Background to IPHS 512 creation

- Acknowledgement that complex problems require unpacking and engagement to shape the inquiry to identify the levers of power, change & new ways of thinking and behaving; *leadership and inquiry is required*

- Need for enduring, systemic change, alongside immediate integration into practice

- Improve student readiness for the dissertation and research preparation in practice

*Leadership applied leads to a complex interplay from which a collective impetus from action and change emerges when heterogeneous agents interact in networks in ways that produce new patterns or behavior or new modes of operating.*

--Uhl-Bien et al., 2011
Course Objectives

1. Define different approaches and philosophies to researching complex social issues

2. Demonstrate adaptive leadership by practicing systematic reflection and systems thinking to gather, organize, integrate and synthesize information

3. Develop a researchable problem statement with proposed research questions that includes a persuasive narrative articulating the leadership arguments for why the problem should be explored, as further validated from multiple sources of information in practice and peer-reviewed literature

4. Apply social inquiry and systematic reflection tools to explore the proposed area of interest

5. Collect, analyze and integrate information to reveal underlying assumptions, themes, and relationships to more fully explain the adaptive nature of the problem and to identify a focus of research

6. Develop a conceptual framework that further explains the theory of changes, demonstrates integration of information gathered, and articulates pathway for research (i.e. guides design and measurement of future data collection).
Class overview: Three phases

Phase 1:
- Explore pragmatic, practice-based definition of opportunity/problem statements
- Apply systems and systematic reflection thinking and tools to explore the problem and expose mental models
- Learn approaches to test initial mental models and statements of the problem

Phase 2:
- Apply social inquiry and systematic reflection tools to explore the proposed area of interest: Further explore personal assumptions; Conducting individual and group dialogue
- Analyze information to begin to see themes and relationships

Phase 3:
- Analyze, integrate and identify areas of leverage to address social change
- Develop a conceptual framework that explains the theory of change, demonstrates integration of information gathered, and articulates pathway for research
- Develop research questions and early thoughts on measurement to operationalize concepts
# Class topics by Phase

## Phase 1
- **Week 1**: Philosophy of Science
- **Week 2**: The Problem Statement
- **Week 3**: Leadership and Systematic reflection
- **Week 4**: Leadership and Systems thinking
- **Week 5**: Approaches and processes to engaged scholarship
- **Week 6**: Coaching

## Phase 2
- **Week 7**: Asking critical questions
- **Week 8**: Conducting a Literature Review
- **Week 9**: Building evidence through dialogue and learning within communities of practice
- **Week 10**: Becoming a self-reflective scholar
- **Week 11**: Thematic analysis and integration
- **Week 12**: Workshop on Thematic Analysis

## Phase 3
- **Week 13**: Conceptual Framework
- **Week 14**: Theory of Change
- **Week 15**: Research Questions and Measurement
- **Week 16**: CoL and Coaching
ADAPTIVE LEADERSHIP: Theoretical perspectives framing the DrPH problem statement including Pragmatic, engaged scholarship; systematic reflection; and systems thinking;

Student expected theory, perception and passion about the problem (*Diagnose self & system*)

Gather information to ‘test’ student expected theory against unexpected perceptions

Integrate findings, find relationships and themes, and create a theory of change that reflects practice

Leadership Implications are identified that connect to decision-making at the systems-level

On-going literature review, conversations, and general information gathering

Community of learning and individual systematic reflection

Paper 1

Paper 2

Paper 3
Three assessments

1. **Communities of Learning:** Dialogue with others to promote systematic reflection and critical thinking.
   1. Weekly group facilitated discussion as a class
   2. Regular CoL meetings and discussion

2. **Reflection Exercises:** Self-reflection and understanding about concepts.
   1. Ten reflective journal posts.

3. **Building scholarship:** Creation of a problem statement and theory of change: Synthesis and integration of lessons learned
   1. Three papers building on each other ending with research questions and a theory of change
### Examples of final paper questions

#### Example changes of problem statements

<table>
<thead>
<tr>
<th>Before method</th>
<th>After method</th>
<th>Differences</th>
</tr>
</thead>
</table>
| There are gaps in the availability of robust population level chronic disease data to support community health assessment and chronic disease surveillance activities. Healthcare administrative claims data are a promising source of chronic disease information to help fill part of this gap. All Payer Claims Databases (APCDs) are an emerging source of population level administrative claims data. However, there is a paucity of case studies among states with APCDs demonstrating the usefulness of healthcare administrative claims data to enhance community health assessment in the area of chronic disease. | Public health has limited data on the functioning of the healthcare system, healthcare resource utilization and the trajectory of chronic disease. This is a barrier for public health in becoming more influential in guiding effective population-level and policy-level chronic disease prevention interventions and integrating with and shaping the healthcare system to become more prevention oriented. | • Early version focused on what technically could be done with claims data to support community health assessment and surveillance. Long term systems change was unlikely to result; a single-use case was proposed.  
• The later version considers how data can be used to facilitate leadership in public health using data and connects to more policy relevant issues such as healthcare reform in which system change can occur. |
Lessons learned

Lessons learned:

- IPHS 512 is as much of a philosophy of thinking and learning as it is a method to build a research agenda.

- Students do not have time to systematically reflect in their employment; building this practice in remains challenging.

- Students continue to desire ways to apply evidence-building in practice. How do we integrate academic level concepts within practice; How does practice integrate with academic paradigms?
Contact information

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Thanks to Delta Omega for this Recognition and Award
Project EARTH: An Innovation in Education and an Education in Innovation
Project EARTH:

Employing Available Resources to Improve Health
Six years in 20 minutes = 110 days per minute

Day 1
With the support of the Niswonger Foundation and the Hope Through Healing Hands Foundation, our students began to do international field placements:

- Silas Tolan in Sierra Leone;
- Beth O'Connell in Rwanda;

Both dealt, in part, with water, specifically, building “bio-sand water filters.”
East Tennessee State University
Eastman Valleybrook Campus
What Are We Trying To Accomplish Here?

We are trying to prepare our students for success in the workforce.

...so that they can make a real difference in the health and well-being of the people of this region and beyond.
A full 15 week course designed to teach the Essential Skills, Strategies, and Expertise Necessary To Improve and Advance Low-resource Settings

That might be useful:

- To support rural communities that lack basic services;
- Following displacement due to a natural or man-made disaster;
- For Peace Corps volunteers, mission workers and others working around the world;
PROJECT EARTH ESSENTIALS Course
Rus Pump:

Moving water without electrical power and free from hand-carried diseases
ESSENTIALS Course Outcomes

Cross-cutting skills

Technical Skills

Professionalism
Communication skills
Team-work
Problem solving
Creative Thinking
Innovation
PROJECT EARTH

SKILLS “Experiences”

• Provide Shorter-term Knowledge, Immersion-Learning and Leadership Skill Experiences
PROJECT EARTH

SKILLS “Experiences”

- The “Adobe Experience”
- The “Tortilla Experience”
- The “Refugee Experience”
- The “Otzi Experience”
- The “RE:CYCLING Experience”
- The “Pioneer Experience”
PROJECT EARTH

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• The “Pioneer Experience”
The Doctoral Seminar

The "Adobe Experience"

The "Tortilla Experience"

The "Refugee Experience"

The "Otzi Experience"

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PROJECT EARTH

SKILLS
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What Are We Trying To Accomplish Here?

Cross-cutting skills

Technical Skills

Professionalism
Communication skills
Team-work
Problem solving
Creative Thinking
Innovation
The Doctoral Seminar Course
Hands-Free “Washing Machine”

For Diapers, Medical Waste and other potentially contaminated products
Teaching Cross-Cutting Skills

• How we teach...
• Where we teach...
• Provide students an opportunity for Virtual International Living and Learning Across Global Environments
  • Create a “Village” where students could:
    a) See, first hand, the challenges that people face in rural and developing areas;
    b) See how their “ESSENTIALS” innovations could meet important community needs; and
    c) Work together to solve “real world” problems in a real-world setting
The Launch of the Niswonger VILLAGE at Valleybrook
Project EARTH: An Innovation in Education and an Education in Innovation
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Thank You!

This webinar has been recorded and will be available on the webinar event page on the ASPPH website soon:

https://www.aspph.org/event/asp tph-presents-delta-omega-innovative-public-health-curriculum/

Contact: sweiner@aspph.org
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Public Health and Global Health Education
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