The Role of a Doctoral Level Public Health Pedagogy Courses: 
Enhancing Associate Instructors’ Pedagogical Practices and 
Undergraduate Student Learning

Summary of Original Proposal

Catherine Sherwood-Laughlin, Alyssa Lederer, David Lohrmann, Kathy Finley (Department of Applied Health Science, School of Public Health-Bloomington); Valerie O’Loughlin (Medical Sciences Program, School of Medicine); Katie Kearns (Center for Innovative Teaching and Learning)

This investigation seeks to understand if a course about college teaching is able to effectively prepare graduate students for their teaching responsibilities and address departmental concerns observed in previous years. The Department of Applied Health Science (AHS), housed within the School of Public Health, has historically made efforts to ease new Associate Instructors’ (AIs) transition into the classroom during Orientation Week. However, evaluative findings have shown that while helpful, these efforts have been inadequate in preparing first year AIs to become instructors of record. To remedy this situation, AHS has partnered with the Center for Innovative Teaching and Learning (CITL) to develop and pilot a public health pedagogy course during the fall of 2013-2014. Briefly, first year AIs, who are also in the first year of their doctoral programs, will meet three hours per week for the first eight weeks of the semester to read and discuss pedagogy and SOTL literature, develop their syllabi and course materials, and learn about campus resources. Then the AIs will teach their own classes during the second eight weeks of the semester and the pedagogy course will transition into a forum for reflection, discussion, and peer review of materials.

By the end of the course, AIs will be able to plan, implement, and evaluate their own teaching and their students’ learning. Based on their experiences in this course, AIs will be asked to demonstrate how they were able to more effectively engage students in learning and evaluate their use of new and innovative teaching methods while at the same time they develop a deeper appreciation for the scholarship of teaching and learning. In this way graduate students will experience first hand some of the pedagogical expectations required of faculty in a university setting.
1.

a. Title of Project: *The Role of a Doctoral Level Public Health Pedagogy Course: Enhancing Associate Instructors’ Pedagogical Practices and Undergraduate Student Learning*

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d. Funding Level Requested: Phase II

e. Duration of Funding Period: Two Years
A. Purpose of Investigation with Specific Research Objectives

The Department of Applied Health Science (AHS), housed within the School of Public Health, has historically made efforts to ease new Associate Instructors’ (AIs) transition into the classroom during Orientation Week. However, evaluative findings have shown that while helpful, these efforts have been inadequate in preparing first year AIs to become instructors of record. Traditionally, the AIs attend a pedagogy workshop the week before the semester begins, and are implanted into teaching literally within days of their first class. It is too much to expect new AIs to absorb and apply what they learned in the workshop while trying to become acclimated to a new environment. We have also been unable to provide all of the content we believe is necessary due to the short duration of time. To remedy these concerns, AHS has partnered with the Center for Innovative Teaching and Learning (CITL) to develop and pilot a public health pedagogy course during the fall of 2013-2014. Briefly, first year AIs, who are also in the first year of their doctoral programs, will meet three hours per week for the first eight weeks of the semester to read and discuss pedagogy and SOTL literature, develop their syllabi and course materials, and learn about campus resources. Then the AIs will teach their own classes during the second eight weeks of the semester and the pedagogy course will transition into a forum for reflection, discussion, and peer review of materials. By the end of the course, it is hoped that the AIs will have learned how to plan, implement and evaluate their teaching. Based on their experiences in this course, AIs will demonstrate more effective ways to engage students in learning, exhibit varied teaching methods, and develop a deeper appreciation for the scholarship of teaching and learning. Finally, the graduate students will begin to understand the pedagogical demands of faculty in a university setting. The proposed investigation seeks to understand if the pedagogy course is able to effectively prepare graduate students for their teaching responsibilities and address concerns observed in previous years.

By the end of this investigation, the researchers will have:

1. Described the factual and procedural knowledge AIs need in order to effectively teach courses in the Department of Applied Health Science.

2. Determined the extent to which the AIs comprehend the scholarship of teaching and learning (SOTL) literature and apply what they learn to their teaching practice.

3. Documented the types and variety of teaching methods AIs use in the classroom and their ability to apply SOTL information and skills learned in the pedagogy course.

4. Provided a pedagogical course model for college-level faculty in the public health discipline.

B. Previous Research Results When Applicable

Novice instructors tend to teach in the way that initially feels most comfortable to them or base how they teach on their observed teaching practices of others (Miller et al., 2010). Typically this means lecturing, which despite its widespread use is not how students learn best (National Research Council, 2000). Further, Boice (1991)
found that new faculty members’ teaching style, which mainly consisted of lecture, did not change over several semesters without intervention. Guided forums that provide novice instructors with the opportunity to think intentionally about their teaching and to interact with other instructors are necessary for critical thinking about pedagogical practices and for pedagogical growth (Golde & Dore, 2001; Austin, 2002; Wulff et al., 2004; Steinert et al., 2006; McDaniels, 2010).

A credit-bearing academic pedagogy course may provide an ideal environment for doctoral students to reflect on their teaching and to prepare doctoral students to become more effective future teachers and scholars. While pedagogy courses have been in existence since the 1970s, they have more recently become an integral component of graduate education (Marincovich, 1998; Schönwetter et al., 2008). Yet despite their widespread use, empirical research about their impact is lacking. Initially a survey of public health pedagogy courses at twelve of IU’s peer institutions garnered little information, as these schools either did not have a department of a similar nature to AHS, did not offer a doctoral program in a related discipline to Health Behavior, or had little focus on doctoral student teaching. Additionally, the documentation or evaluation of a public health pedagogy course could not be identified in the literature. Therefore there is a substantial need to evaluate a public health pedagogy course and disseminate findings to show how it can be most beneficial in doctoral student training and undergraduate student learning.

Dr. Valerie O’Loughlin and colleagues examined a pedagogy course at Indiana University-Bloomington in 2007. They found that doctoral students were more reflective, gained confidence in the classroom, and developed a greater understanding of their students’ learning compared to before having taken the course (Miller et al., 2010). We plan to build on Dr. O’Loughlin’s work to inform our course development and research design in order to develop a course specifically geared towards public health doctoral students. However, the context of AHS graduate instruction is fundamentally different from that of students in other discipline-based pedagogy courses, including Dr. O’Loughlin’s. Many participants in the previous research study were more advanced in their doctoral programs and took the pedagogy course concurrently while teaching course instructed lab sections in the natural and social sciences, in which they assisted professors with a highly structured and standardized curriculum. The current study’s pedagogy course would engage first year AHS doctoral students in their first semester in the eight weeks prior to commencing their classes, in which they serve as instructors of record and have substantial autonomy in classes of a more personal and sometimes sensitive nature, such as Personal Health, Stress Management, and Human Sexuality. These types of classes possibly require AIs to develop particular skills in comparison to other disciplines. Thus, the proposed research study would not only examine the AHS pedagogy course itself, but would also serve as a comparison to Dr. O’Loughlin’s course in order to determine if AIs’ needs vary between departments, and if these needs change depending on the timing of a pedagogy course in a student’s academic career.

C. Significance and Impact of Study on Undergraduate or Graduate Teaching and Learning and the Assessment

In the spring of 2012, the Department of Applied Health Science (AHS) had thirty doctoral students who served as instructors of record. These AIs educated over 2,000 undergraduate students in the spring semester alone. A similar number of students are reached in other academic terms. AIs in AHS have reported the need for more preparation; assuming that a pedagogy course leads to more effective teaching and improved student outcomes, the impact on both AIs and undergraduate student learning is monumental. Further, the doctoral students enrolled in the course will gain a strong foundation for their future teaching pursuits, which is especially
worthwhile since the majority of graduates from the department’s AHS doctoral program become employed at teaching institutions. Finally, little is known about the best practices for pedagogy courses in general. By disseminating the findings within the IU community, planners of other departmental pedagogy courses can learn from our findings and potentially modify their courses. By sharing our findings with other institutions, IU can continue to be a leader in the SOTL and programs such as Preparing Future Faculty among peer institutions and serve as a model among public health institutions.

D. Outcomes from the Work and How They Will Contribute to the Assessment of Student Learning

As a result of the pedagogy course and as a graduate student learning outcome, we expect that AHS AIs will be able to enter the classroom with more scholarly approaches to teaching and learning, making them more effective instructors and leading to improved undergraduate student outcomes in the department and nationally. This study will also assist us in determining if there are differences among disciplines where new or alternative pedagogical approaches may need to be considered in public health classrooms. Finally, this research study will allow us to examine an innovative course model, one that has not been implemented in the past, which will provide evidence to inform the Department of AHS’s faculty and administration about future doctoral students’ teaching preparation.

E. Research Methodology, Including Data Collection and Analysis

This project would use a rigorous multi-method evaluation model. Each individual component is listed below and would be conducted with Katie Kearns, CITL Senior Instructional Consultant, who has and will continue to collaborate with the investigators on this study.

- To measure the impact of the pedagogy course on enrolled AIs, including areas such as comfort level and preparedness related to teaching and knowledge of pedagogical strategies, a survey would be conducted before the course begins, another survey would be given directly before AIs begin teaching their own classes, and then a post-test would be administered at the end of the semester pedagogy course to assess the objectives of the pedagogy course and the AIs experiences in their own classes. The AIs will also be required to develop their teaching philosophy statement when the course begins and revise their statement at the conclusion of the course to be included in their portfolio. Quantitative mean values for each questionnaire item would be compared between the pre- and post-test and paired samples t-tests would be conducted to assess if improvements occurred. Additionally, the pre-post teaching philosophy statements will be analyzed to determine change over time related to the AIs’ exposure and skills development related to the scholarship of teaching and learning information they learned.

- During AIs’ eight weeks of teaching the pedagogy course facilitators would conduct teaching observations. These findings would allow for triangulation with the other assessment methods listed. Additionally, there are taped AI teaching observations from previous years in which AIs did not take a pedagogy course. The new and previous observations would be compared for additional data regarding the impact of the course on AIs’ teaching strategies.

- The end-of-semester course evaluation would be supplemented with additional quantitative and qualitative questions to have more extensive summative findings about the course, AI outcomes, and potential improvements needed for future pedagogy course offerings.
• As a course assignment, AIs will be asked to develop an annotated course portfolio that documents their work and reflections throughout the semester. The portfolio will contain their course syllabi and course schedule, microteaching and reflection, their reflective teaching journal, the pedagogical strategy research paper, and their final teaching philosophy statement. The portfolios would be analyzed by examining emergent themes to better understand AIs’ growth throughout the semester.

• In-depth interviews with AIs who were enrolled in the pedagogy course and willing to participate would be conducted after the completion of the course. Interviews would be led by CITL staff members to ensure their objectivity and to avoid any possible conflicts of interest. Interviews would obtain more in-depth information about previous findings and allow for other strengths and areas for improvement to emerge that were not previously captured in the other assessments. Interviews would be transcribed and examined for qualitative themes.

• These interview findings would also be compared to the interview findings from Dr. O’Loughlin’s course and examined for similarities and differences. Conclusions would be drawn related to the parallel or divergent needs between Medical Sciences and AHS. If possible, these findings may be extrapolated to other fields.

• Course evaluation forms for the classes AIs taught would be examined to better understand undergraduate students’ learning outcomes. Further, these course evaluations would be compared to first year AIs’ course evaluations the previous year when there was not a pedagogy course to assess if there are differences between these two groups.

F. Means by Which You Will Measure the Success of Project

The pedagogy course will be successful if it is able to meet the first two research objectives previously provided. It is hoped that the AIs will have learned how to plan, implement and evaluate their preparation efforts in the pedagogy course and their own teaching experiences. Based on their experiences in this course, AIs will demonstrate more effective ways to engage students in learning, exhibit varied teaching methods, and develop a deeper appreciation for the scholarship of teaching and learning. Finally, the graduate students will begin to understand the pedagogical demands of faculty in a university setting. We have proposed a rigorous evaluation plan to measure these objectives. This is why, regardless of the outcome of the pedagogy course, we anticipate our research study will be successful. Because of our multi-method evaluation framework, we will gather an in-depth understanding of the course as well as what assessment methods are most useful in analyzing its impact, benefiting future evaluation efforts and recommendations for best practices for pedagogy course assessment efforts for all disciplines. We will also be successful if we disseminate the findings through the various forums listed below. This is crucial to our success, as the intention of this project is to provide valuable information about AI teaching preparation and experiences which will directly benefit the Department of Applied Health Science and students in AHS courses, but also the SOTL and public health disciplines more broadly.
G. Manner in Which Results Will Be Disseminated

Results would be disseminated both locally at Indiana University and nationally. Results would be provided to all AHS graduate faculty during a scheduled faculty meeting to make decisions about the design of the experience for future cohorts of AIs. Additionally, results would be presented to CITL’s Preparing Future Professors Faculty Learning Community, a forum where current professors share resources to enhance departmental pedagogy courses and work to improve AI teaching preparation. We would also submit a proposal to the Edward C. Moore Symposium on Teaching Excellence-IUPUI and to the Academic Public Health Caucus of the American Public Health Association for the 2014 Annual Meeting. To increase our scope, we would develop and submit a manuscript to a peer-reviewed educational research and/or public health journal that documents our process and findings.

H. Reflective Teaching Practices

An essential part of the pedagogy course would be a teaching journal that AIs use to document their teaching reflections as well as the annotated course portfolio that asks AIs to keep track of their thinking throughout the semester. Further, AIs will be encouraged to use classroom assessment techniques once they begin teaching to provide continuous input from undergraduate students. These methods should provide AIs with numerous opportunities to reflect upon their teaching practices. Additionally, the in-depth process and summative assessment techniques that would be used throughout the pedagogy course would allow the course facilitators to examine their teaching practices and make improvements for upcoming class sessions and future courses.
References


Indiana University 2013 SOTL Grant Proposal

Budget Narrative

Budget Items

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<tr>
<td>Research Coordinator</td>
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<td>Interview Transcriptions</td>
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Budget Narrative

Research Coordinator
Alyssa Lederer, MPH, CHES, is currently a third year doctoral student in AHS, has been the AHS AI Instructional and Training Coordinator for two years, and developed and proposed the pedagogy course to AHS under the direction of Dr. Sherwood-Laughlin. As the Research Coordinator, she would be primarily responsible for serving as the liaison between the research team, developing the assessment tools, and performing the quantitative and qualitative analysis. The amount listed is at $20.00 an hour (125 hours total), which is standard hourly compensation for a position with these types of responsibilities.

Interview Transcriptions
The most time-consuming component of a research study can be transcribing interviews. Obtaining professional transcriptions for the interviews would make this study feasible to complete in the given timeline. New England Transcripts is the transcription company highly recommended by the Department of Applied Health Science. The expense listed is a quote from the company for 10 one hour interviews. The company’s turnaround time is 2-3 days, and interviews can be transcribed individually over time or collectively upon the completion of the interviews. Utilizing this service would hasten the ability to conduct the analyses and disseminate the study findings.

Printing
This covers the cost of printing pre- and post-tests, the interview transcriptions, and other materials through IU’s Maxi Document Service Center.

APHA Annual Meeting
The American Public Health Association (APHA) Annual Meeting is the preeminent conference in the field of public health. As discussed in the dissemination section, this budget item would pay the cost of airfare from Indianapolis to New Orleans (the conference location) ($350.00 plane ticket), the $215.00 registration fee, $500 for hotel accommodations (4 nights @ $250.00 per night, split with another conference attendee), and per diem (4 days @ $65.00 per day)
## Indiana University 2013 SOTL Grant Proposal

### Research Plan and Timeline

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<th>Date</th>
<th>Research Task</th>
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| May-June 2013               | Develop assessment instruments  
Submit IRB proposal               |
| August 26, 2013             | Pedagogy course begins  
Pre-test assessment will be conducted |
| October 21, 2013            | AIs begin teaching their own classes  
8 week post-test assessment will be conducted |
| October 21-December 9, 2013 | Analysis of pre/post-test data  
Observations of AIs take place |
| December 9, 2013            | Pedagogy course ends  
Course Portfolio due  
Overall Doctoral Course Evaluation will be given |
| January-February, 2014      | Interviews will be conducted with consenting AIs  
Analysis of course portfolios |
| March-April 2014            | Qualitative analysis of interviews |
| April 2014                  | Findings provided to the Department of Applied Health Science |
| April 2014                  | Edward C. Moore Symposium on Teaching Excellence-IUPUI |
| May-July 2014               | Pedagogy course revisions will be made based on findings |
| August 25, 2014             | Fall 2014 revised pedagogy course begins |
| September or October 2014   | CITL Learning Community presentation |
| November 15, 2014           | American Public Health Association Annual Meeting |
| December 2014-February 2015 | Develop manuscript to submit to peer-reviewed journals |
Title of Study: The Role of a Doctoral Level Public Health Pedagogy Course: Enhancing Associate Instructors’ Pedagogical Practices and Undergraduate Student Learning

Principal Investigator Name and Department:
Catherine Sherwood-Laughlin, Department of Applied Health Science

Co-investigators Names and Departments:
Alyssa Lederer, Department of Applied Health Science
David Lohrmann, Department of Applied Health Science
Kathy Finley, Department of Applied Health Science
Valerie O’Loughlin, Medical Sciences
Katherine Kearns, CITL

Year/Semester Awarded: 2013
Phase (1, 2, or 3): Phase II
How many undergraduate students were subjects in your study: None
How many graduate students were subjects in your study: N=7

Executive Summary: Please briefly describe the key findings of your study in one paragraph or less, similar to an abstract for a research article.

Public health doctoral education typically does not include teaching preparation, and new faculty members often report feeling unprepared to fulfill their instructional responsibilities. Not only is this problematic for public health faculty members’ success in academia, but skilled instruction is crucial to undergraduate and master’s students’ increased interest in the public health field and their proficient future public health practice. Graduate student pedagogical training can fill this knowledge gap. The results of this study reflect a doctoral-level academic pedagogy course that was implemented in the School of Public Health, specifically the Department of Applied Health Science in 2013 and its impact on doctoral students’ pedagogical learning and undergraduate teaching. The pedagogy course focused on intensive pedagogical training in the first 8 weeks of a 16-week semester and then served as a forum for reflection and feedback during the second 8 weeks, when the enrolled graduate students served as either instructors of record or graduate teaching assistants for introductory health courses. The results are based on an innovative multi-method evaluation including pre-, mid-, and post-course comparative surveys; a content analysis of reflection papers from students’ course portfolios; the evolution of students’ teaching philosophies using an established rubric; and in-depth interviews several months after the pedagogy course’s completion. In tandem, the evaluation revealed that the pedagogy course was effective in preparing doctoral students to teach health-related courses, greatly enhanced their teaching self-efficacy, and aided in their development as scholarly teachers. Having a forum for peer brainstorming and support was considered essential. Participants reported positive perceptions of the course and described it as essential for their teaching practice. This multi-method evaluation was crucial in garnering a comprehensive understanding of a discipline-specific pedagogy course’s utility.

Budget Narrative Report: Please describe how the funding was allocated.
• Research Coordinator was primarily responsible for serving as the liaison between the research team, developing the assessment tools, and performing the quantitative and qualitative analysis.
• Interview Transcriptions from an outside source was necessary to address the most time-consuming component of a research study, therefore obtaining professional transcriptions for the interviews would make this study feasible to complete in the given timeline. Utilization of this service did allow
the research team to conduct the analyses and disseminate the study findings based on the project timeline.

- Printing covered the cost of printing pre- and post-tests, the interview transcriptions, and other materials (posters, handouts, etc.) through IU’s Maxi Document Service Center.
- Attendance at the 2014 APHA Annual Meeting, which is the preeminent conference in the field of public health. These funds were used to cover the costs for the Research Coordinator to attend the conference.

**Narrative:** Please discuss the outcomes of your SOTL Project and the plans you may have for continuing this work. When writing the narrative please consider the following questions.

The planned outcomes that were met include the following:

- Described the factual and procedural knowledge AIs need in order to effectively teach courses in the Department of Applied Health Science.
- Determined the extent to which the AIs comprehend the scholarship of teaching and learning (SOTL) literature and apply what they learn to their teaching practice.
- Documented the types and variety of teaching methods AIs use in the classroom and their ability to apply SOTL information and skills learned in the pedagogy course.
- Provided a pedagogical course model for college-level faculty in the public health discipline.

By the end of the course, it was hoped that the AIs will have learned how to plan, implement and evaluate their teaching. Based on their experiences in this course, AIs will have demonstrated more effective ways to engage students in learning, exhibit varied teaching methods, and developed a deeper appreciation for the scholarship of teaching and learning. Finally, the graduate students understood the pedagogical demands of faculty in a university setting. We sought to understand if the pedagogy course was able to effectively prepare graduate students for their teaching responsibilities.

**Initial findings**

1. **What were the most significant findings of your study?**

   **Survey:** Research Question: How did the pedagogy course prepare the AIs to develop teaching skills?

   By the end of the semester, the majority of participants reported higher mean scores for almost all survey items. For most items, the greatest change in means was between the pre-course and mid-course surveys (e.g., developing a course syllabus and learning objectives, assessing student learning, using multiple teaching strategies, knowledge of academic and health-related resources, and likelihood of presenting SoTL findings at a local conference). Although trends showed increases among almost all statements over time, five items had statistically significant increases. Three of these significant items related to general teaching skills. At the beginning of the course, participants rated “I can effectively assess students’ learning” at M = 66.00, whereas at mid-course M = 79.57, and at post-survey M = 88.14. Mean ratings also significantly increased for “I am knowledgeable about university academic support resources for students.” The mean increased from M = 55.86 at pre-course, to M = 89.71 at mid-course, to M = 92.71 at post-course. The survey item “I feel comfortable using multiple teaching strategies when I teach” significantly increased from M = 75.57 at pre-course, to M = 84.29 at mid-course, to M = 87.29 at post-course. Additionally, there were marginal significance for mean increases over time for “I can effectively develop a course syllabus,” and “I feel comfortable teaching my own course.”
Participants also gave the two discipline-specific items significantly higher scores over the course of the semester. Participants reported $M = 72.88$ at pre-course compared to $M = 81.86$ at mid-course and $M = 91.14$ at post-course for “I feel comfortable teaching sensitive health-related topics.” For the item, “I am knowledgeable about university health-related resources for students” participants’ mean scores transitioned from $M = 57.14$ at pre-course, to $M = 92.86$ at mid-course, to $M = 94.00$ at post-course.

Based on the post-course survey feedback, the majority of participants believed the pedagogy course was beneficial for their teaching. Of the seven participants, six strongly agreed or agreed in the post-course survey that the course structure (first eight weeks intensive content; second eight weeks weekly discussion forum) was useful for their learning/teaching. Six participants strongly agreed or agreed that they believed the course effectively prepared them to teach. Five participants strongly agreed or agreed that the course improved their teaching, and six participants strongly agreed that they would recommend the course to first year graduate students instructors in the department.

The following question was posed in the post-course survey: “This is the first semester that H750 has been offered. Do you believe that H750 should continue to be offered in future years?” Response options were yes, no, or maybe. All seven participants responded “yes.” Participants were asked to explain their response in an open-ended question. Common themes included the course providing time and space for participants to prepare materials for teaching and providing the opportunity to gain teaching self-efficacy. For example, a participant wrote: “Without [the course], most who are new to teaching would be lost and ineffective as ‘teachers’. This class allows the tools to not only teach but to teach well.” Another participant wrote: “I don’t know how previous AIs taught without this course. This course has provided me with self-efficacy, equipped me with a myriad of resources and support. It is a foundational course that all AIs should take.” Participants reported multiple and different course components in response to the question “What do you think was most valuable about the course?” However, almost all participants referenced the structured forum for peer and instructor dialogue and feedback.

**Areas Still Investigating for significant findings:**

**Teaching Philosophy Statements:** *Research Question: How did the course affect the AIs’ professional growth over time?*
Elements that improved over time: articulation of teaching methods, increased motivation to teach, assessment of one’s own teaching

**Reflection Papers:** *Research Question: What were the GSIs’ perceived challenges and strengths as new instructors?*
Challenges: Now an authority figure, balancing dual roles
Strengths: Time and space to prepare teaching materials, learned effective teaching and learning methods

**Semi-Structured Interviews:** *Research Question: What were the lasting impacts of the course?*
AIs felt camaraderie among the cohort; course structure was beneficial, appreciated introduction to SOTL, and to think intentionally about teaching.
By utilizing the multiple research methods, we were able to gather detailed information that cannot be explained by just one method or source. This multi-method approach adds deeper understanding of the AIs' academic, cognitive, and emotional and learning experiences in the course:

**Academic:** SOTL and other teaching resources to provide the foundation in which to grow professionally

**Cognitive:** AIs thought about methods on how to teach in public health courses and how to assess student learning

**Emotional:** Learned skills on how to develop empathy towards teaching and addressing sensitive topics

**Learning experiences:** Skills acquired in the course to deliver public health topics in the classroom, e.g. how to answer difficult or sensitive questions from students

### 2. Were there unexpected findings? What surprised you?

While participants were initially somewhat positive about pursuing a teaching-focused academic career, their interest decreased (per post-course survey responses) as they learned about teaching through the intensive, initial eight week experience. Their interest in a teaching-focused academic career did not change during their actual teaching experiences during the second eight weeks of the semester. While the reason for this change is unclear, there are several possibilities. Given that participants took the pre-course survey in just the first week of their entry to the doctoral program, they might have been open-minded to many career possibilities. However, over the next several weeks, they might have been exposed to more research opportunities or been subjected to messages regarding the prioritization of research as a foundation of the doctoral program. It also is possible that participants did not initially understand the sometimes difficult and time intensive nature of teaching and after eight weeks of training, their responses might have reflected a more realistic understanding. The stable mean between the mid-course and the post-course surveys could be explained by the fact that AIs' teaching experience reaffirmed this newfound understanding and students may have viewed their teaching responsibilities as a complement to a more research-focused position.
The AIs commented that this course assisted them in the preparation to teach sensitive subjects in courses such as human sexuality, personal health, stress management, women's health, and men's health. The resources provided in class (e.g. health center) enabled the students to feel supported by the department and university when teaching the sensitive topics often found in public health courses. Finally, the course seems to be more impactful for AIs than graduate assistants. This is likely due to the fact that the GAs did not have primary teaching responsibilities during the course of the semester, but would be teaching in subsequent semester. This could also be because they may be more interested in research than teaching.

Reflection on the process

1. How did the study differ from what you proposed?
   We believe that as a result of the pedagogy course and as a graduate student learning outcome, it was expected that AHS AIs would be able to enter the classroom with more scholarly approaches to teaching and learning, making them more effective instructors and leading to improved undergraduate student outcomes in the department and nationally. We also believed that this study would assist us in determining if there were differences among disciplines where new or alternative pedagogical approaches may need to be considered in public health classrooms. Finally, we also expected to examine an innovative course model, one that has not been implemented in the past, which would provide evidence to inform the Department of AHS's faculty and administration about future doctoral students’ teaching preparation. For the most part, the present study did not differ from what we proposed with some exceptions. One method we proposed as an evaluation tool that was not implemented was to conduct teaching observations which would allow for triangulation with the other assessment methods. Additionally, taped AI teaching observations from previous years in which AIs did not take a pedagogy course would be compared for additional data regarding the impact of the course on AIs’ teaching strategies. The observations were not included with the study because not all AIs were observed due to scheduling conflict and time constraints. Otherwise, the study was implemented as explained in the grant proposal.

2. What methodological approaches did you use?
   Four methods were utilized: 1). A Pre-, mid-, and post-course survey to determine the ways the pedagogy course prepared the AIs to develop general and discipline-specific teaching skills and the desire to pursue Scholarship of Teaching and Learning (SoTL) activities. 2) A comparison of pre- and post-course teaching philosophies based on an established rubric to assess the AIs’ professional growth over the course of the semester. 3) A content analysis of course portfolio reflection papers to explore the AIs’ perceived strengths and challenges as new instructors. 4) Semi-structured interviews several months after course completion to supplement previous findings and examine the AIs’ lasting strengths and challenges.

3. What methodological challenges did you encounter?
   We did not encounter any methodological challenges during the course of this study.

Connections to the field and dissemination of the findings

1. What changes were made in the classroom based upon those findings?
   The student enrollment is primarily AIs who will teach during the last 8 weeks of the fall semester (the semester in which the AIs take the pedagogy course) and a smaller number of students enrolled in the course are GAs and are not teaching a course during the semester. Based on the results that revealed that this course did not fully meet the expectations and needs of the GAs during the semester
in which they complete the pedagogy course, the instructors of the course made modifications to the
course requirements, specifically the written requirements which then allowed the GAs to meet these
requirements through the lens of a course assistant and/or what they perceived they would do once
they were the instructor of record in a subsequent semester. The students also stated that they did
not believe the readings were emphasized during the class and were left wondering just how relevant
the readings were to the course outcomes. The instructors integrated the readings throughout the
course in subsequent semesters. Finally, the results revealed that the students would like to have
more opportunities to learn about active learning strategies and practice them during the course. The
instructors provided more time during the course to practice the active learning strategies through
the microteaching requirement and demonstrated examples by guest speakers and the instructors.

2. What existing or emerging work does this study connect with?
New faculty as teachers
Preparation and development of doctoral students as scholarly teachers
Pedagogy course design
Influence of pedagogy courses on graduate students
Preparing future faculty
Type of courses doctoral students teach
Teaching sensitive subjects
Teaching effectiveness
Multi-methods approaches to evaluating effectiveness of pedagogy courses

3. In what ways have you already disseminated the results?
Presentations:
health courses: Lessons learned from a multi-method doctoral –level pedagogy course study.
(Poster session). Society for Public Health Education Annual Conference, Charlotte, NC.
new public health instructors: Results from a multi-method evaluation of an academic pedagogy
course. (Poster session). American Public Health Association Annual Meeting. Chicago, IL.
development and multi-method evaluation of a doctoral-level pedagogy course for graduate
instructors. Poster presentation at the Lilly International Conference on College Teaching, Miami
University, Oxford, OH.
pedagogy class: lessons learned from a pilot course and research study. Presented at the E.C. Moore
Symposium on Excellence in Teaching, IUPUI, Indianapolis, IN.
Presented at the American Public Health Association annual conference, Boston, MA.

Published Manuscript
evaluation of a doctoral-level public health pedagogy course for graduate student instructors. College
Teaching, 64 (1), 19-27.
4. What plans do you have to further this work?

Manuscripts/Research in progress:

Reflection Paper/Teaching Philosophy Manuscript

Research Question 1a: What factors do graduate student instructors believe affect their development as effective teachers? Approach: Reflection paper content analysis (completed).

Research Question 1b: How do these persist over time? Approach: Interview thematic analysis looking specifically for the previously defined categories, noting if anything new comes up not previously discovered in the reflection papers (complete during fall 2016)

Research Question 2: What impact did H750 have on graduate student instructors’ development as teacher-scholars? Approach: Reflection papers and in-depth interview mixed methods analysis (completed July 2016)

Course Requirement-Final Teaching Reflection Paper- Students are required to review their teaching journals and reflect back on their 8 weeks of teaching and respond to the following questions: What was the teaching/assisting experience like for you? What were your strengths? What challenges did you face as a new instructor/assistant in AHS? How do you think you grew throughout your teaching experience? Based on this reflection and your H750 experience, what are some areas with respect to your teaching that you would like to improve upon moving forward? How might you go about making these improvements? Teaching Philosophy Statement-AIs will compose a “statement of teaching philosophy” that draws on what was learned in the course and from their own teaching experiences and perspectives. This document will be understood as an initial draft of a document that will be updated and revised throughout one’s career.

In-depth Interview Manuscript- development of a qualitative code book, content analysis has been completed
Students were interviewed by a CITL graduate student and responded to the following research question: What impact did H750 have on graduate student instructors’ development as teacher-scholars?

Comparison of SPH-H750 and MEDSCI-M620
The H750 interview findings will be compared to the interview findings from Dr. O'Loughlin's course (M620) and examined for similarities and differences. Conclusions would be drawn related to the parallel or divergent needs between Medical Sciences and AHS. If possible, these findings may be extrapolated to other fields.

Additional Future Research and Considerations

- Increase the sample size through a multi-year analysis of the course. Data has been collected during the fall 2014 and 2015 semesters and will be collected fall 2016. This will increase the sample size to approximately 35 students.
- Investigate the role of discipline-based (public health) pedagogy courses vs. more generalized pedagogy courses in the teaching and learning of AIs.
- Continue the examination of best practices for the training of future faculty in public health