5-2014

Student Characteristics, Prior Experiences, and the Perception of Mixed Methods as an Innovation

Sydney E. Brown
University of Nebraska-Lincoln, sydney.e.brown@gmail.com

Follow this and additional works at: http://digitalcommons.unl.edu/teachlearnstudent

Part of the Curriculum and Instruction Commons, and the Higher Education Commons

http://digitalcommons.unl.edu/teachlearnstudent/40

This Article is brought to you for free and open access by the Department of Teaching, Learning and Teacher Education at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Theses, Student Research, and Creative Activity: Department of Teaching, Learning and Teacher Education by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.
Student Characteristics, Prior Experiences, 
and the Perception of Mixed Methods as an Innovation

by

Sydney E. Brown

A DISSERTATION

Presented to the Faculty of 
The Graduate College at the University of Nebraska 
In Partial Fulfillment of Requirements 
For the Degree of Doctor of Philosophy

Major: Educational Studies 
(Instructional Technology)

Under the Supervision of Professor Delwyn Harnisch

Lincoln, Nebraska

May, 2014
Student Characteristics, Prior Experiences, and the Perception of Mixed Methods as an Innovation

Sydney E. Brown, Ph.D.
University of Nebraska, 2014

Adviser: Delwyn L. Harnisch

There are persistent challenges to teaching mixed methods and innovative solutions are sought in order to address the needs of an increasingly diverse global audience seeking mixed methods instruction. This mixed methods study was conducted to gain insights to course design by more fully understanding the relationships among graduate student characteristics and prior experiences with research approaches with the perceived characteristics of the innovation of mixed methods.

Quantitative and qualitative data was gathered using a self-developed survey. Correlational analyses were done between measures of quantitative, qualitative, mixed methods, and overall prior experience and the perceived innovation characteristics of relative advantage, compatibility, results demonstrability, trialability, and visibility.

Qualitative data collected through open-ended question items was analyzed for themes and then merged with quantitative data. The analysis of interview data extended these findings. Results showed prior experience with research approaches was positively related to the perceived characteristics of mixed methods and the more specific the prior experience, the stronger the relationship.
Analysis of responses to open-ended survey items confirmed the influence of prior experience. Participants with higher levels of prior experience with mixed methods identified different benefits of mixed methods than those with lower levels and they were more inclined to cite the need for a course in order to use a mixed methods approach.

Analysis of interview data revealed that teachers were most valued for their expertise, but participants did not directly relate that expertise to their own learning. Socially-centered activities helped participants calibrate their thinking through validation or by exposing weaknesses, but student-centered classroom activities were not highly valued.

The findings of this study demonstrate that graduate students may not understand how student-centered course designs help them learn. Implications for the design of mixed methods courses are discussed and the roles of teachers and students are addressed.
ACKNOWLEDGEMENTS

This project would never have been completed without the support of faculty, family, friends, and colleagues, but I would like to give special acknowledgement to my sons, Nick and Erik, who never once complained, but who instead chided me when my determination faltered, saying, “Quit? That’s not how we do things.”

To the collective “we” composed of my parents, sister, extended family and dearest friends who routinely embrace daunting aspirations, see them through, and insist that others do the same, I say thank you for your expectations, belief, and support.

To Dr. John Creswell, I will be forever grateful for taking me to the International Congress of Qualitative Inquiry. It was there that I first conceived of myself as someone who could possibly become a scholar one day.

To Dr. Delwyn Harnisch, as my advisor and committee chair, you have encouraged me to pursue my ideas, but more importantly, you have given me a vision of the kind of leader and mentor I would like to be: caring, supportive, yet always pursuing and encouraging excellence within myself and from those with whom I have the privilege of working. Thank you.

To Dr. Al Steckelberg, Dr. Theresa Catalano, and Dr. David Brooks, thank you for your patience, encouragement, and lessons learned.

Eva Bachman, without your timely and extensive knowledge, navigating the bureaucracy of the graduate program would have been impossible.

Finally, to the faculty and graduate students who made time in their schedules to participate in this research, thank you.
Table of Contents

Chapter 1—Introduction ............................................................................................ 1

  Purpose of the Study ............................................................................................ 2

  Research Questions .............................................................................................. 3
    Quantitative .................................................................................................... 3
    Qualitative ...................................................................................................... 3
    Mixed ............................................................................................................. 3

  Foundations .......................................................................................................... 3
    Philosophical Assumptions ............................................................................ 3
    For Whom is this Research Useful?............................................................... 4

  Theoretical Model ............................................................................................. 4

  Significance of the Study ..................................................................................... 7

Chapter 2—Review of the Literature ......................................................................... 10

  Teaching Mixed Methods .................................................................................... 10
    Selection Process ........................................................................................... 11

  Historical Review of Teaching Mixed Methods ............................................ 12

  Summary of the Teaching of Mixed Methods ............................................... 24

  Innovation Adoption ............................................................................................ 26

  Map of the DOI Literature ............................................................................. 27

  Selection Process ........................................................................................... 27

  Technology Adoption ............................................................................................ 29
    Technology Acceptance Model ........................................................................ 30

  DOI Applied to Technology Adoption .................................................... 32

  Technology Acceptance Model 2 .................................................................... 33
<table>
<thead>
<tr>
<th>Chapter Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unified Theory of Acceptance and Use of Technology (UTAUT)</td>
<td>38</td>
</tr>
<tr>
<td>Summary of Technology Adoption</td>
<td>40</td>
</tr>
<tr>
<td>Use of DOI in Education</td>
<td>41</td>
</tr>
<tr>
<td>Faculty Adoption</td>
<td>41</td>
</tr>
<tr>
<td>Using DOI to Better Understand Student Perceptions</td>
<td>41</td>
</tr>
<tr>
<td>Synthesis of the Literature</td>
<td>43</td>
</tr>
<tr>
<td>Summary</td>
<td>47</td>
</tr>
<tr>
<td>Chapter 3—Method</td>
<td>49</td>
</tr>
<tr>
<td>Two Points of Mixing</td>
<td>49</td>
</tr>
<tr>
<td>Mixing 1: Merging to Enhance</td>
<td>49</td>
</tr>
<tr>
<td>Mixing 2: Extending the Usefulness</td>
<td>51</td>
</tr>
<tr>
<td>Summary</td>
<td>51</td>
</tr>
<tr>
<td>Target Population</td>
<td>52</td>
</tr>
<tr>
<td>Quantitative Phase</td>
<td>52</td>
</tr>
<tr>
<td>Data Collection</td>
<td>52</td>
</tr>
<tr>
<td>Independent Variables</td>
<td>52</td>
</tr>
<tr>
<td>Dependent Variables</td>
<td>54</td>
</tr>
<tr>
<td>Survey Design</td>
<td>56</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>57</td>
</tr>
<tr>
<td>Correlations</td>
<td>57</td>
</tr>
<tr>
<td>Qualitative Analysis</td>
<td>58</td>
</tr>
<tr>
<td>Mix 1: Enhancing the Quantitative Findings</td>
<td>58</td>
</tr>
<tr>
<td>Qualitative Phase</td>
<td>59</td>
</tr>
</tbody>
</table>
List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>The Five Phases of Innovation Adoption</td>
<td>5</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Where this Study Fits in the Map of Mixed Methods Research</td>
<td>9</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Relationships Among the Articles on the Teaching of Mixed Methods</td>
<td>13</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Where this Study Fits in the Diffusion of Innovations Literature</td>
<td>28</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Technology Acceptance Model</td>
<td>31</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Technology Acceptance Model 2</td>
<td>36</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Theory of Acceptance and Use of Technology Model</td>
<td>39</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Visual Representation of this Sequential Explanatory Study</td>
<td>50</td>
</tr>
<tr>
<td>Figure 9</td>
<td>Variable Map Depicting the Relationships Among the Study Constructs</td>
<td>56</td>
</tr>
<tr>
<td>Figure 10</td>
<td>Scatterplots Depicting Variable Relationships</td>
<td>73</td>
</tr>
<tr>
<td>Figure 11</td>
<td>Qualitative Prior Experience and Result Demonstrability</td>
<td>74</td>
</tr>
<tr>
<td>Figure 12</td>
<td>Relative Advantage and Mixed Methods Prior Experience</td>
<td>75</td>
</tr>
<tr>
<td>Figure 13</td>
<td>Compatibility and Mixed Methods Prior Experience</td>
<td>76</td>
</tr>
<tr>
<td>Figure 14</td>
<td>Mixed Methods Prior Experience and Relative Advantage + Compatibility</td>
<td>77</td>
</tr>
<tr>
<td>Figure 15</td>
<td>Mixed Methods Prior Experience and Result Demonstrability</td>
<td>78</td>
</tr>
<tr>
<td>Figure 16</td>
<td>Mixed Methods Prior Experience and Trialability</td>
<td>79</td>
</tr>
<tr>
<td>Figure 17</td>
<td>Crosstabs of Perceived Benefits Codes and Prior Experience Quartiles</td>
<td>83</td>
</tr>
<tr>
<td>Figure 18</td>
<td>Benefits of Mixed Methods Differences between Experience Groupings</td>
<td>84</td>
</tr>
<tr>
<td>Figure 19</td>
<td>Benefits of Mixed Methods: Differences within Experience Groupings</td>
<td>85</td>
</tr>
</tbody>
</table>
Figure 20  Prior Experience and What it Would Take to Use Mixed Methods................................................................................................................................. 90

Figure 21  To Use Mixed Methods: Differences between Experience Groupings................................................................................................................................. 91

Figure 22  To Use Mixed Methods: Differences within Experience Groups........................................ 92

Figure 23  Overlap between Knowledge and Persuasion Phases.................................................. 122
List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Perceived Innovation Characteristics and Implications for Practice</td>
<td>7</td>
</tr>
<tr>
<td>Table 2</td>
<td>Tentative Extensions of Implications for Practice</td>
<td>47</td>
</tr>
<tr>
<td>Table 3</td>
<td>Independent Variables and Rationale for Inclusion</td>
<td>53</td>
</tr>
<tr>
<td>Table 4</td>
<td>Cases Selected for Interviews Sorted by Prior Experience</td>
<td>61</td>
</tr>
<tr>
<td>Table 5</td>
<td>Participant Characteristics</td>
<td>68</td>
</tr>
<tr>
<td>Table 6</td>
<td>Reliability Analysis for Self-Developed Survey</td>
<td>69</td>
</tr>
<tr>
<td>Table 7</td>
<td>Prior Experience of Participants with Quantitative, Qualitative, and Mixed Methods using T-Scores Centered with Mean of 50 and an SD of 10</td>
<td>70</td>
</tr>
<tr>
<td>Table 8</td>
<td>Relationships between Prior Experience Types and Innovation Characteristics</td>
<td>71</td>
</tr>
<tr>
<td>Table 9</td>
<td>Teacher-led, Socially-Centered, and Individually-Sought Prior Experiences</td>
<td>81</td>
</tr>
<tr>
<td>Table 10</td>
<td>Joint Display: Perceived Benefits and Mixed Methods Prior Experience</td>
<td>88</td>
</tr>
<tr>
<td>Table 11</td>
<td>Joint Display: What it Would Take to Use Mixed Methods</td>
<td>94</td>
</tr>
<tr>
<td>Table 12</td>
<td>Qualitative Questions Generated by Quantitative and Mixed Methods Findings</td>
<td>101</td>
</tr>
<tr>
<td>Table 13</td>
<td>What Students Valued in Teacher-Led Instructional Experiences</td>
<td>102</td>
</tr>
<tr>
<td>Table 14</td>
<td>How Students Perceived Role of Discussion in Their Own Learning</td>
<td>103</td>
</tr>
<tr>
<td>Table 15</td>
<td>Qualities of participatory and Engaged Learners</td>
<td>105</td>
</tr>
<tr>
<td>Table 16</td>
<td>Most Valued Learning Outcomes in a Mixed Methods Course</td>
<td>106</td>
</tr>
</tbody>
</table>
List of Appendices

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A</td>
<td>Visual Representation of Study Design</td>
<td>162</td>
</tr>
<tr>
<td>Appendix B</td>
<td>Independent Variables and Related Survey Items</td>
<td>164</td>
</tr>
<tr>
<td>Appendix C</td>
<td>Survey Items, Values, Variables, and Constructs</td>
<td>167</td>
</tr>
<tr>
<td>Appendix D</td>
<td>Representation of Sequential Explanatory Findings</td>
<td>180</td>
</tr>
<tr>
<td>Appendix E</td>
<td>Informed Consent</td>
<td>182</td>
</tr>
<tr>
<td>Appendix F</td>
<td>Interview Protocol</td>
<td>185</td>
</tr>
<tr>
<td>Appendix G</td>
<td>Thank You for Participating in the Survey</td>
<td>188</td>
</tr>
<tr>
<td>Appendix H</td>
<td>Email to Interview Participants</td>
<td>190</td>
</tr>
<tr>
<td>Appendix I</td>
<td>Phone Script to Request Interview</td>
<td>192</td>
</tr>
<tr>
<td>Appendix J</td>
<td>Transcription Protocol</td>
<td>194</td>
</tr>
<tr>
<td>Appendix K</td>
<td>Interview Transcripts</td>
<td>196</td>
</tr>
<tr>
<td>Appendix L</td>
<td>Codebook for Perceived Benefits of Using Mixed Methods</td>
<td>305</td>
</tr>
<tr>
<td>Appendix M</td>
<td>Quote Matrix Table for Perceived Benefits of Mixed Methods</td>
<td>310</td>
</tr>
<tr>
<td>Appendix N</td>
<td>Bar Chart Depicting Merge of Benefits and Prior Experience</td>
<td>319</td>
</tr>
<tr>
<td>Appendix O</td>
<td>Codebook for What it Would Take to Use Mixed Methods</td>
<td>321</td>
</tr>
<tr>
<td>Appendix P</td>
<td>Quote Matrix for What it Would Take to Use Mixed Methods</td>
<td>324</td>
</tr>
<tr>
<td>Appendix Q</td>
<td>Codebook for Qualitative Interviews</td>
<td>331</td>
</tr>
<tr>
<td>Appendix R</td>
<td>Coded Segments for the Value of Teacher-Led Learning Experiences</td>
<td>326</td>
</tr>
<tr>
<td>Appendix S</td>
<td>Coded Segments for the Role of Discussion in Learning</td>
<td>340</td>
</tr>
<tr>
<td>Appendix T</td>
<td>Qualities of Engaged and Participatory Learners</td>
<td>346</td>
</tr>
<tr>
<td>Appendix</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>------</td>
</tr>
<tr>
<td>Appendix U</td>
<td>Most Valued Learning Outcome from a Mixed Methods Course</td>
<td>349</td>
</tr>
<tr>
<td>Appendix V</td>
<td>Permission to Reproduce TAM Graphic</td>
<td>353</td>
</tr>
</tbody>
</table>
Chapter 1

Introduction

The explosive increase in mixed methods dissertations over the last few years testifies to the rapidly expanding use and acceptance of mixed methods (Plano Clark, 2010). Students increasingly identify the methodology as the best way to address their questions, justifying their selection on the grounds that the nature of the problem under examination requires an approach offering the clarity and generalizability of an empirical method, while at the same time acknowledging the context and complexity of the problem (Evans, Coon, & Ume, 2011) through qualitative analyses. However, use of mixed methods is difficult and fraught with opportunities to violate principles of rigorous inquiry, creating a need for courses and workshops that provide a solid foundational understanding of mixed methods that pragmatic researchers can leverage when their research questions demand breadth and depth. Research regarding the teaching of mixed methods reveals evidence-based instructional design and practices, but notes that finding the right mixture of breadth and depth as well as practice and theory when it comes to determining the content and pedagogy of courses is an ongoing struggle for instructors. Moreover, these persistent problems continue to be further compounded by the diversity of experience and knowledge of students seeking to learn about mixed methods. Research is needed to identify ways of addressing these ongoing issues.

Therefore, in an effort to generate innovative ideas for addressing the challenges of mixed methods course design, this study used Rogers’ Diffusion of Innovation Theory (DOI) (2003) as a model for examining how student characteristics and prior experiences
related to student perceptions of the innovation of mixed methods. The aim was to gain insights into the teaching and learning experience by gaining a deeper understanding of student perspectives of the innovation of mixed methods. This study also extended the literature on the diffusion of innovations through its focus on how student characteristics relate to perceptions of innovation characteristics, an area identified as needing further exploration (Wejnert, 2002) and which may help to predict the rate of adoption of the innovation of mixed methods in future research. Finally, this study proposes a way to graphically depict findings from explanatory sequential mixed methods research.

**Purpose of this Study**

The purpose of this mixed methods research was to understand the relationship between graduate student characteristics and prior experiences on the perceived characteristics of the innovation of mixed methods. The study was undertaken from an instructional design point of view seeking insights to address challenges identified in the literature on teaching mixed methods.

An explanatory sequential design was used, and it involved collecting quantitative data first and then explaining the quantitative results with in-depth qualitative data. In the initial quantitative phase of the study, survey data was collected from 800 and 900-level graduate students enrolled in courses at a Midwestern university. The objective of the quantitative phase, or strand, was to identify the relationship between student characteristics and students’ perceptions of mixed methods. The subsequent qualitative phase was conducted as a follow-up to the quantitative results to help explain the
relationship between student characteristics and prior experiences and the perceived characteristics of the innovation of mixed methods.

Research Questions

Quantitative. What are the relationships between student characteristics and prior experience and perceived characteristics of the innovation of mixed methods?

Qualitative. What do students value with regards to their own learning about mixed methods?

Mixed.

1. How do the described benefits of mixed methods enhance the quantitative findings?
2. How does knowing what it would take for these participants to use a mixed methods approach enhance the quantitative findings?
3. What has changed about the researcher’s understanding of how mixed methods is perceived and considered for adoption?
4. How do the mixed findings inform the design of mixed methods courses?

Foundations

Philosophical assumptions. This study is grounded in a pragmatist worldview, which is to say that it is interested in “what works” (Creswell, 2007) and is unconcerned with determining the actual nature of reality. Mixed methods rejects dualism and is “inclusive, pluralistic, and complementary,” depending wholly on the research question to drive the selection of the method in an effort to use the approach best suited to answering the question (Johnson & Onwuegbuzie, 2004).
**For whom is this research useful?** A weakness of the pragmatic approach can be inadequate articulation of who benefits from the solutions or insights generated by the research (Johnson & Onwuegbuzie, 2004). This study sought insights into the teaching and learning of mixed methods for use in course and workshop design. The audience for this research are administrators, course designers and instructors of mixed methods who benefit from increased interest in mixed methods generated by the use of mixed methods for dissertations and other research. The key beneficiaries of improved course design are students.

**Theoretical model.** This study made use of diffusion of innovations theory (DOI) (Rogers, 2003) as a model. According to Rogers, the five-step innovation-decision process is the process whereby an individual moves from first learning about an innovation, to forming an attitude about the innovation, to deciding to adopt or reject the new idea, to implementation of the innovation, to confirmation of the decision through continued use of the innovation. This study focused on the first two phases: knowledge of mixed methods and the persuasion stage (see Figure 1).

The knowledge stage consists of becoming aware of an innovation (“awareness knowledge”), knowing how to use the innovation (“how knowledge”), and the understanding the underlying principles of the innovation (“why knowledge”). According to Rogers (2003), it is possible to adopt an innovation without “why knowledge,” but the danger of misuse increases and the adopter may discontinue use because of unsatisfactory results.
The persuasion stage consists of attitude formation about the innovation. In this phase, adopter characteristics and prior conditions interact with the perceived characteristics of the innovation to yield a favorable or unfavorable attitude towards the adopting the innovation. For this study, students are the decision makers and their characteristics and prior experiences influence their perception of the innovation of mixed methods and impact whether they ultimately adopt or reject mixed methods as an approach to inquiry. Because one of the aims of mixed methods instructors is to increase the use of mixed methods across disciplines, it is important to understand how student characteristics and prior experiences interact with their perception of the innovation of mixed methods.


*Figure 1*. The five phases of innovation adoption.
In the quantitative strand of this study, student characteristics and prior experiences are the independent variables and the perceived characteristics of the innovation of mixed methods are the dependent variables.

The DOI model was selected on the basis of its wide use in diffusion research in a variety of fields from marketing, to health, to education and technology acceptance where change agents, or those who would have individuals modify their behavior in some way, such as by purchasing a product, modifying health-related behaviors, utilizing new instructional practices, or employing new productivity enhancing technologies, analyze how decision-makers perceive an innovation in order to optimize how the innovation is perceived by the decision-makers to effect adoption. In this study, instructors were conceptualized as change agents because their learning objectives call for change on the part of students in the form of new competencies and understandings. For this study, student adoption of mixed methods means students value mixed methods as a useful approach to research and are able to plan and carry out a mixed methods study because of the myriad of knowledge and competencies gained in taking a mixed methods course (Creswell, Tashakkori, Jensen, & Shapley, 2003).

Rogers (2003) defines an innovation as an idea, practice or object that is perceived as new by an individual and information about the innovation influences the attitude individuals form towards the innovation as they assess its perceived characteristics. How individuals assess those characteristics impacts their rate of adoption and there are differing implications for innovation advocacy associated with each perceived characteristic (Mohr, Sengupta, & Slater, 2009) (see Table 1).
By understanding how students perceive mixed methods, courses may be designed in such a way as to better address students’ needs with regards to using mixed methods.

Table 1

*Perceived Innovation Characteristics and Implications for Practice*

<table>
<thead>
<tr>
<th>Perceived Characteristic (Rogers, 2003)</th>
<th>Definition</th>
<th>Implication (Mohr et al., 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Advantage</td>
<td>The degree to which an innovation is perceived to be better than the idea it supersedes</td>
<td>Advocates must understand adopter perceptions of benefits versus costs to address adopter concerns.</td>
</tr>
<tr>
<td>Compatibility</td>
<td>The degree to which an innovation is perceived to be consistent with existing values, past experience, and needs of the adopter</td>
<td>Advocates must educate and inform adopters to increase compatibility.</td>
</tr>
<tr>
<td>Complexity/Ease of Use</td>
<td>The degree to which the innovation is perceived as being difficult to understand or use</td>
<td>Advocates must simplify the use of the innovation, make using it easier to learn, and offer training</td>
</tr>
<tr>
<td>Trialability</td>
<td>The degree with which an innovation can be experimented with before adoption</td>
<td>Advocates should design pieces as modules or offer trial periods</td>
</tr>
<tr>
<td>Observability</td>
<td>The degree to which the results of using an innovation are visible to others</td>
<td>If benefits are difficult to assess, adoption will be slow</td>
</tr>
</tbody>
</table>

**Significance of the Study**

This study contributed to research on the adoption of mixed methods by identifying how student characteristics interact with student perceptions of the innovation of mixed methods with relation to learning about and using mixed methods. The study also proposed a way to visually represent findings in an explanatory sequential mixed methods study as well as detailing how visualization was used in the data analysis process and at the points of mixing. Creswell (2009a) presented a table mapping the
research of mixed methods and that map is recreated (See Figure 2). It shows where this study fits within the larger view of the research of mixed methods.
Figure 2. Where this study fits in the map of mixed methods research.
Chapter 2  
Review of the Literature

Because a key objective of this study was to identify new perspectives on teaching mixed methods in order to address longstanding challenges and issues in the practice of teaching mixed methods, this study combined research from two major areas: teaching mixed methods and innovation adoption.

The review begins with an exhaustive historical review (Randolph, 2009) of studies focused on teaching mixed methods in order to establish the development of current teaching practices. Learning objectives, pedagogical approaches, issues and challenges are identified. Subsequently, a review of representative studies from the literature of innovation adoption is done in order to familiarize readers with the domain, position this study, and identify and clarify the independent and dependent variables of the innovation adoption model used in this study. Finally, the findings within the area of teaching mixed methods are combined with those from the literature of innovation adoption to establish a rationale for the variables selected and the methodology used for the study as well as to bridge the language used in each domain.

Teaching Mixed Methods

Because desired outcomes for this study included new insights on designing mixed methods courses and workshops by better understanding students’ perspectives of the characteristics of the innovation of mixed methods, a thorough understanding of how mixed methods has been taught was essential.
Selection process. The selection process for articles began with Creswell et al.’s (2003) article, “Teaching Mixed Methods Research: Practices, Dilemmas, and Challenges” in the Handbook of Mixed Methods in Social and Behavioral Research, a collection of articles by leading mixed methods scholars. The title of Creswell et al.’s article was entered into Google Scholar, which provides a simple, yet powerful, search interface to hundreds of journals and major databases, and the results of the search provided a link to all the articles citing Creswell et al.’s article. The titles of the citing articles were examined. Those with direct mention of “teaching” or “mixed were further examined and articles about the teaching of mixed methods were selected. The examination of the bibliographies of the downloaded articles, provided additional references and three primary search terms were identified: “mixed methods,” “mixed research,” and “mixed methodologies.” These terms were used with the OR operator and combined with the AND operator to yield 16 articles focused on the teaching of mixed methods.

Google Scholar was selected because of its comprehensive, interdisciplinary scope. Moreover, once a citation or article is located, Google Scholar provides one-click access to all the articles in its database that cite that particular article, making it much easier to get a sense of the multiple disciplinary domains in which the original article had an impact. Because mixed methods is used in so many disciplines, it seemed possible that references to teaching mixed methods may appear in many different sources. Thus, Google Scholar and the exploration of each article’s references, both with the search interface and manually, were deemed the most effective way to do an exhaustive search
on the teaching of mixed methods. In sum, 15 articles or chapters were located in 8 different sources with half of them found in the International Journal of Multiple Research Approaches, an international peer-reviewed journal which publishes two topic-based special issues each year.

**Historical review of teaching mixed methods.** A historical review of the teaching of mixed methods was done because through the examination of references, clear influences on pedagogy were identified. These relationships are shown in Figure 3.

Three articles influencing the teaching of mixed methods were published in 2003. Two of these addressed the teaching of mixed methods directly (Creswell et al., 2003; Tashakkori & Teddlie, 2003), while the third was an approach to instructional design emphasizing “significant learning” and promoting the use of a new taxonomy of learning (Fink, 2003).

Creswell et al. (2003) surveyed instructors of mixed methods. The 11 respondents revealed that mixed methods courses were primarily restricted to graduate students with prerequisite qualitative and quantitative courses. There was no consensus among respondents regarding where the course was placed in the curriculum or on the necessary prerequisites.
Figure 3. Relationships among the articles on the teaching of mixed methods.
Learning objectives were varied but included the following:

- develop the skills necessary to becoming an informed consumer of research literature;
- developing a solid understanding of the research process in education and the behavioral sciences;
- developing skills necessary to present research findings to peers and other professionals;
- producing written works integrating both qualitative and quantitative methods presented in APA format;
- understanding the modes of qualitative and quantitative inquiry and the subsequent techniques for collecting, analyzing, and interpreting data; and
- understanding the role of triangulation in research.

Pedagogies employed by the respondents included lecture, formal and informal discussion, journaling, individual and small group work in the form of data collection, critical analysis of articles and research models, and project-based learning resulting in the production of a mixed methods paper.

Issues and challenges identified including personal bias towards or against quantitative or qualitative approaches, anxiety about quantitative methods, a lack of preparation for the work needed to properly conduct qualitative analysis, and a tendency to seek “right” answers as opposed to a focus on understanding the whole research process.
The authors recommended a focus on basic designs such as mixed methods for the purposes of triangulation, explanation, and exploration. They also stressed the value of visual maps of mixed methods studies. Instructors were advised to provide examples of different types of data analysis and mixing, but to recommend students utilize only one strategy initially to develop comfort in handling both types of data. Finally, the authors advised instructors to familiarize themselves and their students with computer software packages designed to facilitate qualitative and mixed methods data analysis.

Also published in 2003 was Tashakkori and Teddlie’s article on the issues and dilemmas in teaching research methods courses. Their major assertion was that research methods should be taught in an integrated, complementary manner in order that students be prepared to investigate problems having a level of complexity requiring both quantitative and qualitative research competency. They also presented a sample course having the prerequisites of at least one qualitative and one quantitative course, but the authors emphasize that this may not have been necessary. They assert that the instructional problem is that students are often forced into a qualitative or quantitative track before they’ve taken their comprehensive exams and they make the case that the reasons for specialization are based on key fallacies:

- qualitative is always inductive while quantitative is always deductive;
- qualitative and quantitative cannot be used together because they require different paradigmatic support;
- that causality is available via quantitative approaches;
- that all variables except the independent variable can be held constant; and
that there only one of two types of data – objective or subjective – can be collected.

To address the fallacies and place the emphasis of research on the research question, Tashakkori and Teddlie (2003) recommended the first methods courses for students be mixed so that students can understand the differences and similarities between the two and focus on using the best approach for serving “the dictatorship of the research question.”

In accordance with Creswell et al.’s findings and recommendations (2003), Tashakkori and Teddlie’s (2003) sample course modules imply similar learning objectives such as understanding the research process, triangulation, and data collection and analysis. Unlike Creswell et al. (2003), however, Tashakkori and Teddlie (2003) place more emphasis on the need to eradicate paradigmatic bias by emphasizing that the research question dictate the selection of method employed whether mixed, qualitative, or quantitative.

Finally in 2003, Fink published his book, *Creating significant learning experiences: An integrated approach to designing college courses*. The book presented a new taxonomy of learning and an approach to instructional design supportive of the taxonomy. In the teaching of mixed methods, this became important when an article describing the construction of a syllabus for a mixed methods course was published (Earley, 2007).
Onwuegbuzie and Leech (2005) were also concerned with the development of pragmatic researchers and advocated a general approach to teaching research methods but based their instruction around a seven step process:

1. formulate a research problem and objective;
2. develop a research purpose, question(s), and hypotheses;
3. select a research design/method;
4. collect data;
5. analyze data;
6. interpret/validation data; and
7. communicate findings.

However, Onwuegbuzie and Leech (2005) went a step further than Tashakkori and Teddlie (2003) in that they proposed to get rid of the “q-words” altogether, and instead recommended referring to research methods as being on a continuum ranging from confirmatory to exploratory.

Two years later, Early (2007) described the development of a syllabus for a mixed methods course. Unlike Tashakkori and Teddlie (2003) and Onwuegbuzie and Leech (2005), Early (2007) identified mixed methods as an approach distinct from qualitative and quantitative approaches. However, students were required to have had at least one qualitative and quantitative course prior to taking the mixed methods course. Early’s rationale for the prior experience was that if students already had research questions in mind and had written literature reviews, more time could be spent focusing on that which was particular to mixed methods – an important time savings because he had developed
the syllabus for a shortened summer course. For a typical semester term, a more
developed research study proposal would be appropriate since there would be more time
for students to interact with their instructor and spend more time in the literature.

Centering a mixed methods course on the development of research proposals was
also used in Christ’s (2009) longitudinal study examining two mixed methods courses
and the impact of using a step-by-step approach to proposal development on the quality
of research proposals. The introduction to research course averaged 17 students and had
no prerequisites while the advanced course for doctoral students had an average class size
of nine, required previous research courses, and was taught as a seminar. Both courses
utilized lectures, discussion, group work, and student presentations. The doctoral level
course also made use of triad groups for peer review.

Christ (2009) found that the step-by-step approach combined with the creation of
detailed methodological maps yielded a higher rate of advisor approval of research
projects and students said they found the format helpful, but some did not deem peer
review and group work as useful. Introductory level students complained about too much
reading and claimed an inability to make sense of it all, which further confirmed the
longstanding challenge of selecting the right amount of course content mentioned by
other authors (Christ, 2009; Creswell et al., 2003; Ivankova, 2010; Onwuegbuzie, Frels,

In contrast to the single-term course designs examined by other authors, Baran
(2010) taught mixed methods as part of a 3-year Doctorate in Leadership program.
Students were placed in cohorts and required to participate in six sequential research
seminars where their ongoing work was reviewed by students specializing in both qualitative and quantitative approaches. In this integrated learning community approach, 70% of the students used mixed methods in their dissertation work. The emphasis on discussion and collaborative learning was credited for this outcome.

Unlike the more traditional teaching contexts previously mentioned, Ivanova (2010) facilitated weekly asynchronous conversations using a discussion board in her wholly online mixed methods course for doctoral students from a variety of disciplines. Like the courses taught face-to-face, these students were challenged by the amount of content and differed greatly in their prior research experience, but because of the asynchronous environment, the online students had to also muster a greater degree of self-discipline and self-organization. The asynchronous design dealt additional challenges to the instructor as well. Close supervision of the text-based environment was required in order to give rapid feedback and some topics were complex enough that face-to-face clarification would have been helpful. Lessons learned included a need to revise topic sequence in order to create more time to give feedback and engage students on the discussion board. Moreover, the lack of a textbook initially made it difficult to provide adequate readings.

Although mixed methods research had greatly expanded since Creswell et al.’s (2003) investigation of mixed methods pedagogy, few studies comparing pedagogical approaches in teaching mixed methods had yet been done. Onwuegbuzie et al. (2011) addressed this shortage with a mixed methods study having eight teacher-participants.
Qualitative data included interviews with teacher-participants, videos of class sessions, and student artifacts comprising dissertation proposals and reflexive journals. Rubrics, demographic data, and previous experiences, such as the number of methods and mathematics courses taken in addition to the Reading Interest Survey (RIS), made up the quantitative data.

Qualitative analyses revealed three meta themes, or continuums, regarding pedagogical approaches:

1. Orientation
   a. Methodological – research tradition
   b. Question/topic – question-driven
2. Application
   a. Conceptual – philosophical assumptions, issues, stances
   b. Applied – collecting and analyzing real data
3. Structure
   a. Exploration – experiential learning
   b. Structure – models, typologies, frameworks

Quantitative analyses found significant relationships between the number of prior research courses ($r = 0.26, p < 0.05$) and the quality of the dissertation proposal as well as between overall GPA and proposal quality ($r = 0.52, p < 0.0001$). This finding supported the utility of the methods courses prerequisites. There were two key areas where students struggled most: (a) integrating their research designs, and (b) describing how the rationale they made for mixing quantitative and qualitative approaches would be met.
Analysis of the reflexive journals kept by students revealed multiple themes including Timing of Course (Foundational Potential and Course Conflict), Depth vs. Breadth, Sampling, Design, and Analysis. Some students wished they would have taken the course sooner in their graduate careers. Others were frustrated by schedule conflicts. The meta-theme with the most negative comments was Depth vs. Breadth with some overwhelmed by the amount of reading and others disappointed that the breadth prevented investigating topics more in-depth. With regards to the Sampling meta-theme, many students appreciated how a typology of designs helped them understand sampling strategies. Students were also predominately positive about information about mixed methods designs. The Analysis meta-theme revealed more students were concerned about quantitative analyses than qualitative, but they predominately recognized the importance of both. Additionally, presenting a framework for conducting mixed methods research helped some students see the big picture, while at the same time, the applied aspect of producing a “mini-dissertation” was found helpful to more fully understanding how to use mixed methods. Finally, the analysis of the video data revealed that students were most engaged in lessons when they worked in groups and the majority were positive about their group experiences. At least one group decided to make the recommended edits and submit their project for publication or presentation.

Overall, Onwuegbuzie et al.’s study (2011) showed students have a positive perception of mixed methods and confirmed ongoing student challenges in learning mixed methods, such as breadth of content, quantitative analysis, and writing various components of a research study. In these regards, students found more structured
approaches helpful, such as the sampling typology and the framework of designs. However, students also benefitted from getting “hands-on” and working with real data, producing their own “mini-dissertations,” which supports a more applied approach versus conceptual.

Building on Onwuegbuzie’s work investigating the pedagogical approaches among instructors, Frels, Onwuegbuzie, Leech, and Collins (2012) examined how the challenges of teaching a mixed methods course may differ in accordance with the conceptual stance of instructors – an important consideration when instructors are attempting to prioritize and address challenges.

Frels et al. (2012) used Teddlie and Tashakkori’s (2010) framework to classify 11 instructor participants according to their conceptual stance. Five participants were classified as taking a dialectic stance, or believing that the “use of multiple paradigms in a single mixed methods study yields greater understanding of the underlying phenomenon” (Frels et al., 2012, p. 27). Four participants were classified as endorsing an alternative paradigm, or where a single paradigm is used to support the use of mixed research. One participant adhered to a multiple paradigmatic stance, which differs from a dialectic stance in that the former utilizes different paradigms depending on which is most relevant for a particular study, while the latter may make use of multiple paradigms in a single study. The one other participant was classified as having a complementary strengths stance, meaning that mixed methods is possible, but the different approaches must be kept as separate as possible to allow the strength of each to be maximized (Frels et al., 2012).
Frels et al. (2012) propose that the stance instructors hold relates to the challenges they will identify in teaching their courses. For example, among the 11 instructor participants, 4 of the 5 holding a dialectic stance clustered in the quadrant representing student diversity and the application of knowledge, while those holding an alternative paradigmatic stance were located to the right of the y-axis, representing more long-term, external challenges. Frels et al. recommend new teachers of mixed methods may use awareness of their own stances to predict the key challenges they might face.

Most recently, Onwuegbuzie et al. (2013), employed a 4-phase approach to teaching mixed research to doctoral students in 3 different contexts: a site-based semester format, and online semester format, and a site-based 3-weekend format. The 4 phases consisted of the conceptual/theoretical phase, the technical phase, the applied phase, and the emergent scholar phase.

During the first phase students were introduced to the 13-step mixed methodological process that would be used and they focused on formulating research questions, planning their research, and implementing the research. During phase 2 qualitative and quantitative data analysis techniques come to the fore. In phase 3, the applied phase, students took what they learned in the previous two phases and applied it to their research proposals and real data. Key assignments included a mixed research notebook where students practiced analyzing both qualitative and quantitative data in response to a research question the instructor framed around the data. Students were also required to analyze research in their discipline, and in the on-site semester course and the 3-weekend course, students formed learning groups of 4-6 that were responsible for
producing a full 5-chapter mini-dissertation. Presentations to the rest of the class at the end of the term marked the completion of phase three. Phase four noted the beginning of the emergent scholar phase where faculty encouraged students to present their research and submit it for publication. Faculty offered their mentorship as well and often served as co-authors. This resulted in many studies being presented and regional, national, and international conferences.

Students faced specific challenges at each stage and qualitative analysis of reflexive journals revealed the following themes for each phase. In phase 1, the difficulty of the readings and the lengthy syllabus were overwhelming. The subsequent technical phase yielded problems learning software, information overload, and labor intensity. Phase 3 saw concerns about time and technical writing come to the fore. Additionally, self-doubt was most noted during this phase. Because the end of phase 3 coincided with the end of the term, grades were of key concern at the cross-over from phase 3 to 4 (Onwuegbuzie et al., 2013).

Three themes were identified among instructor challenges: (a) diverse levels of students, (b) unfamiliar terminology for students, and (c) time constraints.

**Summary of the teaching of mixed methods.** In all of the articles about teaching mixed methods, except those advocating for a mixed approach as the initial research course, the two key challenges for instructors are identified:

1. student diversity in preparedness for the work; and
2. quantity of content and activities.

From a student perspective, the sense of being overwhelmed is a recurrent theme.
The various investigations into the teaching of mixed methods confirmed and extended Creswell et al.’s (2003) initial findings. Courses were restricted to graduate students in all cases except one (Christ, 2009). Most frequently students were doctoral students who had had at least one qualitative and one quantitative course, which did put students at risk for having bias towards one approach or another (Tashakkori & Teddlie, 2003), but the quality of mixed methods research proposals correlated with prior experience in qualitative and quantitative approaches, as did overall GPA (Onwuegbuzie et al., 2011). Additionally, courses required students to demonstrate their understanding of mixing qualitative and quantitative approaches to inquiry through the production of a written artifact, typically a research proposal, done either individually, or as teams (Baran, 2010; Onwuegbuzie et al., 2013). Pedagogies employed lecture, discussion, and group work during meeting sessions or via an online discussion board (Ivankova, 2010).

Key challenges experienced by instructors were student diversity in terms of preparedness for both qualitative and quantitative data analysis and difficulty managing breadth versus depth in terms of course content. Studies which examined student perspectives confirmed identified challenges through student expressions of insecurity in performing quantitative or qualitative analysis or by students’ feelings of being overwhelmed. In the studies which described student learning artifacts, teaching mixed methods based on step-by-step approaches to creating a research proposal yielded higher quality proposals (Christ, 2009) and when such approaches were coupled with mentorship, there were more successful transitions from student to “emergent scholar” (Onwuegbuzie et al., 2013) as demonstrated by the submission of student research to
conferences and journals. Finally, despite the frustrations students may have experienced in facing the feelings of being overwhelmed and underprepared, many were grateful for the opportunity to learn, wished they would have had the course sooner in their academic careers, and looked back on the challenges as some of the most useful learning experiences they had in the course (Onwuegbuzie et al., 2013).

**Innovation Adoption**

Diffusion was not always understood to be a generalized process, but in the 1950’s, after noticing commonalities among diffusion studies involving agriculture, kindergartens, driver training in schools, and the use of tetracycline, Rogers made the case for a generalized model, believing that diffusion was “a kind of universal process of social change” (2003, p. xvi). Rogers published the first edition of *The Diffusion of Innovations* in 1962 which summarized the findings from a variety of diffusion studies around a generalized model and made a case for standardized ways of categorizing adopters and conceptualizing the diffusion process. Since then, adoption and diffusion literature in the domains of health, technology, communications, marketing, and education has become plentiful. To make sense of the diffusion of innovations (DOI) literature, Rogers proposed a taxonomy of diffusion research (2003, p. 96). Within this taxonomy, research was sorted into eight main types according to main dependent and independent variables and units of analysis. The types are listed by their main dependent variable.

1. earliness of knowing about an innovation as predicted by characteristics of the members of a social system;
2. rate of adoption of different innovations in a social system as predicted by the attributes of innovations as perceived by the members of that social system;
3. innovativeness of members of a social system as predicted by characteristics of the members of that social system;
4. opinion leadership in diffusing innovations as predicted by characteristics of the members of that social system;
5. diffusion networks as predicted by pattern links between two or more members of a system;
6. rate of adoption of innovation in different social systems as predicted by system norms and characteristics of the social system;
7. communication channel use as predicted by innovativeness and other characteristics of members of a social system; and
8. consequences of an innovation as predicted by characteristics of members, the nature of the social system, and/or the use of the innovation.

Map of the DOI literature. The research undertaken in this dissertation examines how student characteristics and prior experiences interact with the perceived characteristics of the innovation, an area identified as needing further exploration (Wejnert, 2002). Figure 4 depicts where this study fits in the DOI literature.

Selection process. The selection process for articles within the DOI literature was a purposive sampling in that articles and studies central to key ideas informing this study such as the impact of actor/member/user characteristics on the perception of the
The numbered items reflect taxonomy in terms of the dependent variables. Arrows are used to relate the dependent variables to their predictor variables. This study examines the interaction between two independent variables and will be useful to examine the rate of adoption of mixed methods in future research.

Figure 4. Where this study fits in the diffusion of innovations literature.
characteristics of the innovation were sought. Studies employing a survey instrument that could be adapted for assessing student perceptions of the innovation of mixed methods were of particular interest. Additionally, understanding technology adoption, or “acceptance” as it is termed in the literature of technology adoption and diffusion, was given priority because of the author’s initial perception of mixed methods as a sophisticated and complex tool utilized for particular purposes, much like certain computer-based systems, the complexity of which is offset by their usefulness in particular endeavors. The emphasis on technology acceptance was also appropriate because of the author’s expertise within the realm of instructional technology.

**Technology adoption.** Locating central or pivotal studies within the realm of innovation adoption began with seeking articles about technology adoption, based on the idea that mixed methods was like a complex tool, and in the same way that computer software is used to address specific problems, mixed methods is employed to address specific types of research questions. Therefore, constructs relevant to the adoption of computer technology may be useful in understanding how the characteristics of mixed methods are perceived.

Search terms such as (“technology adoption”) and (“technology adoption” AND “meta-analysis”) led to a many articles predominately focused on computer software or Internet related innovations. By examining “cited by” counts, influential articles and authors were selected for more thorough examination. In this way, it was determined that within the realm of innovation adoption with regards to technology, the Technology Acceptance Model (TAM) (Davis, 1986) established on research examining the
constructs of perceived usefulness and perceived ease of use with respect to user acceptance of information technology was the foundational model upon which the subsequent dominant models, TAM2 and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh, Morris, Davis, & Davis, 2003), were based.

In the course of reading, it was discovered that within technology adoption, or acceptance, there are nine key models, but the Unified Theory of Acceptance and Use of Technology (UTAUT) is the most robust predictive model. It encompasses the most key constructs of the other eight models for the greatest predictive power with regards intention (adoption) and usage (implementation) (Venkatesh et al., 2003).

This review focuses on the evolution from the original Technology Acceptance Model (TAM) to UTAUT because these models are the most dominant models in technology acceptance and are also closely related to diffusion of innovations theory (DOI).

**Technology Acceptance Model.** The original TAM model posits that external variables influence the constructs of perceived usefulness and perceived ease of use and those in turn contribute to the attitude formed towards using the innovation as well as the behavioral intention to use the innovation, which subsequently may lead to actual use of the system as represented in Figure 5.

The TAM model constrains the definition of “perceived usefulness” to “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis, 1989, p. 320) and be useful in securing the rewards of good...

Figure 5. Technology acceptance model.

performance such as pay raises, bonuses, etc. This definition rules out muddier constructs among which are “increased job satisfaction” and “others will be more aware of what I am doing” (Davis, 1989, p. 321). To develop an instrument for use in explaining the use of technology systems, Davis conducted two studies after using conceptual definitions to generate 14 items for each construct. Pretest interviews were then used to assess the meaning of the items. The interviews eliminated four items, leaving 10 for a field study of 112 users of two different electronic mail systems. Subsequently, the scales were refined and reduced to six items per construct. Another study was conducted (n = 40) using two different graphics programs. Data from the two studies was used to investigate the relationship between usefulness, ease of use, and self-reported usage.

In the first study, actual usage across both email programs correlated with both usefulness (r = .63) and ease of use (r = .45). Interestingly, when regression was used to look at the impact of usefulness on usage while controlling for ease of use, the correlation
was significant (r = .57, p < .001). In stark contrast, when usefulness was controlled, the
correlation between ease of use and usage was not significant (r = .07).

In the second study where the use of two graphics systems was compared,
participants varied in their experience with computer systems, but were not current users
of either graphics system. Participants were given an hour of training with each system,
then asked to predict their usage if they were to have access to the program at their jobs
in the future. Regression analysis revealed that when ease of use is controlled, the
correlation between usefulness and predicted usage was significant (r = .75, p < .01). In
contrast, when usefulness was controlled, the correlation between ease of use and
predicted use was not significant. The findings of both of these studies support that
usefulness mediates ease of use, suggesting that if an innovation is sufficiently useful, its
complexity may not deter its use.

DOI applied to technology adoption. Moore and Benbasat’s Perceived
Characteristics of the Innovation (PCI) scale aimed to apply Rogers’ general theory to
technology innovation adoption (1991), making use of the original five perceived
characteristics of the innovation: relative advantage, compatibility, complexity,
observability, and trialability. However, Moore and Benbasat made a distinction between
the perceived characteristics of the innovation and the perceived characteristics of using
the innovation. They asserted the difference was important because attitudes towards an
object may differ from attitudes towards a particular behavior concerning the object, and
it is the behavior or use of an innovation that leads to its diffusion (Moore & Benbasat,
Moore and Benbasat (1991) also sub-divided two of Rogers’ constructs: relative advantage and observability. Relative advantage was split into “relative advantage” and “image” in order to distinguish between status conferral from use of the innovation and the degree to which using the innovation is better that using that which preceded it. Observability was divided into “visibility” and “result demonstrability” in order to distinguish between the perceived prevalence of the innovation’s use and the degree to which the benefits of using the innovation are observable, understood, and communicable. Finally, because information technology in the late 1980’s and early 1990’s was primarily available in the workplace, the construct of “voluntariness,” or degree to which the use of the innovation is perceived as being voluntary, was deemed a necessary addition in order to distinguish between use of the innovation due to organizational pressure versus use of the innovation for other reasons.

Technology Acceptance Model 2. In 2000, Venkatesh and Davis extended the TAM by accounting for the external variables influencing perceived usefulness and perceived ease of use. The extended model, TAM2, identified both socially related variables, such as subjective norm, image, and voluntariness along with cognitive variables, including result demonstrability, output quality, job relevance, and experience. Of these external variables, image, voluntariness, and result demonstrability came from the innovation adoption research and instrument development done by Moore and Benbasat (1991).

Within the TAM2 model, subjective norm refers to when individuals perceive that another individual not only wants them to perform a specific behavior, but also has a
perceived ability to reward behavior or punish nonbehavior. Although related to voluntariness, subjective norm would include a colleague without formal authority. Additionally, subjective norm encompasses “internalization” wherein individuals adopt the beliefs of others they deem important into their own belief structures. Individuals respond to social normative influences to establish or maintain a favorable image within a reference group with the aim of procuring increased power and influence, which may in turn lead to enhanced productivity and subsequent rewards for improved job performance (Venkatesh & Davis, 2000).

Venkatesh and Davis (2000) proposed several hypotheses regarding the social determinants. They predicted subjective norm would have a positive direct effect on intent to use when use of the system was mandatory, but not when system use was voluntary. Additionally, subjective norm would positively affect image, which in turn would have a direct effect on perceived usefulness. However, the influence of subjective norm was predicted to decrease over time as individuals gained experience with the systems. In contrast, the cognitive determinants of job relevance, output quality, and result demonstrability were predicted to also have a direct, positive, but not attenuating, effect on perceived usefulness over time.

The cognitive determinants stem from the idea that people create a mental model to assess the match between important work goals and the consequences of using a system as a basis for forming judgments about the “use-performance contingency” (Venkatesh & Davis, 2000, p. 191), or whether using the system will pay off, or be worth the effort. The key cognitive variables are job relevance, output quality, and result
demonstrability. The first, job relevance refers to the judgments individuals form as they assess the capabilities of a system with respect to what they need to get done in their job. The second, output quality, comes into play when individuals have a choice of systems. Under this condition, individuals are predicted to select the system that provides the highest output quality. Lastly, result demonstrability underscores the importance of individuals connecting use of the system with positive results. When the positive benefits of using a system are highly observable and communicable or have high result demonstrability, there is a positive effect on the perceived usefulness of the system. Conversely, if a system produces effective job-relevant results for users, but does so in an obfuscated way, the effect on perceived usefulness will be minimized. Finally, perceived usefulness is impacted by perceived ease of use in that the less effort it takes to use a system when other factors are held constant, the more useful the system is perceived because of its positive impact on job performance. Figure 6 represents the extended Technology Acceptance Model and the amount of overall variance explained by the social and cognitive constructs in Venkatesh and Davis’ longitudinal research involving four studies with four different software technologies in which all hypothesized predictions where supported.

Support for TAM2 came from four longitudinal studies, two of which were voluntary system implementations and two of which were mandated. Questionnaires were distributed to participants at four time points: The first took place immediately after training. The next two were distributed after implementation at one month and three months. Finally, self-reported usage was reported at five months after implementation.
In the second technology acceptance model (TAM 2), Venkatesh and Davis (2000) were more specific with respect to factors influencing perceived usefulness. Adapted from “A theoretical extension of the technology acceptance model: four longitudinal field studies” by V. Venkatesh and F. D. Davis, 2000, Management Science, 46, No. 2, p. 197. Copyright 2000 by Informs. Reproduced with permission.

Figure 6. Technology Acceptance Model 2.

The first study consisted of the introduction of a scheduling and personnel assignment software package. Previously, these functions were handled manually by the 48 participants. Two days of training were provided but use of the computer-based system was voluntary and 38 participants completed the study.

The second study involved a move from a mainframe application to a Windows based application. The 50 participants had varying degrees of experience with computer applications and worked in different levels of the organizational hierarchy. Because the change was a major one, the mainframe system was left in place and participants were
able to use either system at their discretion. Of the 50 subjects who underwent the initial 1.5 day on-site training program, 39 provided usable responses at all points of measurement.

The third study involved a mandatory change from a DOS-based account management system to a Windows-based system in an accounting services firm. Fifty-one employees took part in a one-day training program to prepare them to switch to the new system in a single week. Forty-three participants provided information at all points of measurement.

In the fourth study, 51 employees of an international investment banking firm were subjected to a mandatory switch to a new DOS application offering important functionality unavailable in the old DOS-based system. Because the new system was from another vendor, the interfaces of the two systems differed significantly. Employees took part in a 4-hour training session and the old system was immediately phased out. Thirty-six subjects provided responses at all points of measurement.

Predicted relationships proposed in the extended model were supported by each of the studies and overall findings are represented in Figure 6. The authors point out two important implications of their findings. One, the use of mandatory compliance-based approaches is likely to be less effective over time than using social influence to facilitate positive changes in the perceived usefulness of the new system, and two, increasing result demonstrability relative to the old system may provide critical leverage for increasing user acceptance.
Unified Theory of Acceptance and Use of Technology (UTAUT). The UTAUT integrates eight models of technology acceptance by taking the strongest predictors and moderating factors of the intention to use and of actual usage of technology from each of the models to create a single unified model of technology acceptance (Venkatesh et al., 2003) having greater explanatory power than any of eight models independently.

The eight models reviewed by Venkatesh et al. (2003) were as follows:

1. theory of Reasoned Action (TRA),
2. technology Acceptance Model (TAM),
3. motivational Model (MM),
4. theory of Planned Behavior (TPB),
5. combined TAM and TPB (C-TAM-TPB),
6. model of PC Utilization (MPCU),
7. innovation Diffusion Theory (IDT), and
8. social Cognitive Theory (SCT).

Of these eight models, five are general theories of human behavior: TRA, MM, TPB, IDT, and SCT. TAM, C-TAM-TPB, and MPCU are specific to technology acceptance, as is the UTAUT itself.

Performance expectancy encompasses the following five constructs from the various models: perceived usefulness (TAM/TAM2 and C-TAM-TPB), extrinsic motivation (MM), job-fit (MPCU), relative advantage (IDT), and outcome expectations (SCT). Moreover, the performance expectancy construct in each individual model was the strongest predictor of behavioral intention.
This unified model shows the constructs of the various models it subsumes. Variables from the diffusion of innovations are shown in boldface. Adapted from “User acceptance of information technology: Toward a unified view” by V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, 2003, MIS Quarterly, 27, p. 445. Copyright 2003 by MIS Quarterly. Adapted with permission.

Figure 7. Unified Theory of Acceptance and Use of Technology model.

*Effort expectancy* refers to the degree of ease of use of the system and encompasses perceived ease of use (TAM/TAM2 and IDT), complexity (MPCU).

*Social influence* captures the idea that an individual’s behavior is influenced by the way they believe others will view them as a result of having used the technology and it includes subjective norm (TRA, TAM2, TPB/DTPB, and C-TAM-TPB), social factors (MPCU), and image (IDT).

*Facilitating conditions* refers the extent of organizational support for using the system and includes the following constructs from the individual models: perceived
behavioral control (TPB/DTPB, C-TAM-TPB), facilitating conditions (MPCU), and compatibility (IDT).

To compare the models and test the UTAUT, data was collected from four different organizations using a questionnaire to measure key constructs from each of the eight models at three different points in time: right after training (T1), one month after implementation (T2), and three months after implementation (T3). Finally, actual usage was measured over the six-month post-training period. Subsequently, findings were cross-validated using additional data from two new organizations.

Key findings: Performance expectancy is the strongest predictor of intention in most cases, though it may be moderated by gender and age. The effect of effort expectancy is also moderated by age and gender such that it is more significant for women and older workers, but with experience, those effects decrease. The effect of social influence was insignificant when it was analyzed with including the moderators of gender, age, experience, and voluntariness. Finally, the impact of facilitating conditions was significant only when moderating effects of age and experience were taken into account.

**Summary of technology adoption.** In reviewing the technology acceptance literature, key findings regarding the impact of experience are most notable. In TAM/TAM2 and UTAUT research, the impact of social factors and complexity were shown to diminish over time with experience of using the system, leaving performance expectancy, which includes those factors of perceived usefulness and relative advantage, as the most critical predictor for both intention to use and actual usage.
The implication of these findings with regards to mixed methods may be as students gain experience and confidence with mixed methods, other influences which may discourage using mixed methods, such as a lack of knowledge with qualitative or quantitative methods, the amount of work, or biases against mixed methods, may diminish and students will become more likely to use mixed methods in the future.

**Use of DOI in education.** Both TAM and DOI have been widely used in education with respect to schools and faculty adopting and implementing new programs, techniques, and especially technologies. Findings reflect and confirm those in technology adoption such that perceived relative advantage is the most critical variable.

**Faculty adoption.** In order for faculty to adopt and implement technology there must be a relative advantage in terms of personal efficiencies gained, or improved student learning outcomes (Jebeile & Abeysekera, 2010; Lin & Ha, 2009). Both institutional and peer support play critical roles in faculty acceptance of technology (Nicolle & Lou, 2008) as there are many barriers to technology use, such as lack of training, technical support, appropriate instructional software, and time (Abrahams, 2010; Sahin & Thompson, 2006).

**Using DOI to better understand student perceptions.** Little is known with regard to the relationships between graduate student characteristics and student perceptions when it comes to innovation adoption. In fact, only one study was located that specifically employed perceptions of innovation characteristics to better understand how students perceived an e-learning website and how prior experience with e-learning websites impacted acceptance and continued use of e-learning websites.
Prior experience with an innovation and the individual’s stage in the decision process can influence which perceived characteristics have significant relationships with the intention to use or use of an innovation as well as the nature of that relationship.

Liao and Lu (2008) proposed the perceived characteristics of the innovation of an e-learning website would be positively related to users’ intentions to adopt or continue to use e-learning, they also predicted that users’ intentions were positively related to actual use, and finally, that experience affects how users perceive the characteristics of e-learning websites.

The 137 study participants were students in a 4-week asynchronous online project management course. Students received a one-hour, hands-on training session before beginning the course. Upon completing the course, students responded to a survey based on Moore and Benbasat’s (1991) questionnaire of scales of perceptions of innovation characteristics. The 59 females (43%) and 78 males (57%) ranged in age from 20-30 years old and had varying degrees of experience with e-learning websites. Forty-one (30%) lacked any experience with e-learning websites.

The authors found that for students without prior experience, perceived relative advantage ($r = 0.84, p < 0.01$) and compatibility ($r = 0.20, p < 0.05$) were most closely related with their intention to continue to use ($R^2 = 0.794$) e-learning websites. But, for students with prior experience, compatibility ($r = 0.58, p < .01$) and result demonstrability ($r = 0.331, p < .01$) were significantly related to their continued use ($R^2 = 0.571$) of e-learning websites.
Synthesis of the Literature

This study sought insights into the teaching and learning of mixed methods by taking the perspective that mixed methods was an idea or tool to be “adopted” as opposed to something to be learned or taught. Within the domain of diffusion of innovations theory (DOI), Rogers (2003), states the innovation-decision process consists of reducing uncertainty about the innovation. The amount of uncertainty, or perception of risk, depends on prior conditions—among which are such constructs as social norms and previously developed expertise—along with adopter and innovation characteristics.

The theoretical underpinning of the DOI model proposes that when decision makers deem an innovation adequately useful, or advantageous, for their ends, they are motivated to put forth the required effort to adopt and eventually implement the innovation. When this perspective is applied to mixed methods, the assumption is that if graduate students perceive mixed methods as the best approach for addressing their research questions, they will adopt the approach and eventually implement it for their research leading to further dissemination of mixed methods. Because there are implications related to facilitating adoption of an innovation associated with each perceived characteristic (Mohr et al., 2009), it is important to understand how graduate students perceive the characteristics of mixed methods. By analyzing the course design in light of what is known about innovation adoption and student perceptions of the characteristics of mixed methods, it is anticipated that innovative ideas for addressing longstanding challenges will be spawned.
The first part of the literature review focused on understanding how mixed methods has been taught over the last 15 years and the second part of the literature review focused on understanding technology adoption, or “acceptance,” as it is termed in the information technology literature. Technology acceptance was deemed as the most pertinent area of DOI literature because of the guiding metaphor that “mixed methods was like a sophisticated and complex computer-based system.” The use of a complex computer system, or mixed methods, is optional, but to use either effectively will require considerable effort, but if adequately motivated by the system’s usefulness or other factors, users will make the requisite effort to learn how to apply the technology, or method, to achieve their ends.

The review of the teaching of mixed methods revealed that although constructivist, project-based approaches were typically utilized in teaching mixed methods, students felt overwhelmed by the amount of content in mixed methods courses and lacked confidence in their abilities, especially with regards to quantitative data analysis, and more generally with respect to the overall quality of their projects and the idea of submitting them to conferences and journals. For instructors, the key challenges were the diversity of student preparedness in both qualitative and quantitative approaches and scope of content they felt necessary address over a single term in order to provide depth to the breadth of the material.

From the review of the Rogers’s (2003) model and technology acceptance, it was learned that the variables that contribute to “acceptance” or “adoption” differ from those most pertinent to actual use of the innovation. For example, with regards to adoption, or
“intent to use,” inexperience correlates more strongly with the socially-related innovation characteristics of visibility and image than it does with relative advantage, compatibility, and result demonstrability. In contrast, experience correlates most strongly with relative advantage, compatibility, and result demonstrability. However, when it comes to actual use, or implementation, of the innovation, relative advantage is most critical (Venkatesh et al., 2003).

This may be explained by Rogers’ (2003) proposal that decision makers proceed through three different knowledge stages as they move throughout the phases of adoption: “awareness” knowledge, “how” knowledge, and “why” knowledge. Visibility and image may correlate more strongly with inexperience because individuals at the awareness stage do not know enough about the innovation to assess its relative advantage, compatibility, or result demonstrability.

Inexperience correlates positively with perceived ease of use, but this variable, also called complexity, is moderated by perceived usefulness, or relative advantage, in that the more useful an innovation is perceived, the less its complexity will deter acceptance and use (Davis, 1989; Venkatesh & Davis, 2000; Venkatesh et al., 2003). Venkatesh and Davis (2000) proposed that increasing perceived result demonstrability may be a way to increase intention to use an innovation.

There are implications with regards to the actions advocates of adoption should take in order to help decision makers perceive an innovation positively. These actions differ depending on which of the perceived characteristics of high technology innovations is being targeted (Mohr et al., 2009). Similar relationships may exist with regards to
mixed methods. Table 2 lists the perceived characteristics of the innovation of mixed methods, defines the terms relative to mixed methods, and posits possible implications as related to teaching mixed methods.
Table 2

*Tentative Extensions of Implications for Practice*

<table>
<thead>
<tr>
<th>Perceived Characteristic</th>
<th>Definition relative to mixed methods</th>
<th>Tentative extensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Advantage</td>
<td>The degree to which students perceive mixed methods is superior to monomethods</td>
<td>Instructors must understand student perceptions of the benefits versus costs of using mixed methods in order to maximize perceived benefits.</td>
</tr>
<tr>
<td>Compatibility</td>
<td>The degree to which mixed methods is perceived to be consistent with existing values, past experience, and needs of the student</td>
<td>Instructors must help students address bias they may feel against mixed methods based on past experience with qualitative or quantitative approaches.</td>
</tr>
<tr>
<td>Ease of Use</td>
<td>The degree to which mixed methods is perceived as being easy to understand or use</td>
<td>Instructors should help students develop confidence in their ability to use mixed methods.</td>
</tr>
<tr>
<td>Trialability</td>
<td>The degree with which mixed methods can be experimented with before adoption</td>
<td>Instructors should provide opportunities for students to apply mixed methods.</td>
</tr>
<tr>
<td>Result demonstrability</td>
<td>The degree to which the benefits of using mixed methods are perceived as observable, understood, and communicable</td>
<td>Instructors should underscore research results and findings that could not have been identified using a monomethod approach to research.</td>
</tr>
<tr>
<td>Visibility</td>
<td>Perceived prevalence of the use of mixed methods</td>
<td>Instructors should help students see how mixed methods is being used in their fields.</td>
</tr>
</tbody>
</table>

*Note:* Perceived characteristics as identified and defined by Moore and Benbasat (1991).

**Summary**

The metaphor that began this line of investigation and search for innovative insights to addressing longstanding issues in mixed methods course design was that mixed methods was like a sophisticated, complex, computer-based tool. This metaphor implies that principles informing technology acceptance may be applicable to the
teaching of mixed methods in that these principles may help course designers and
instructors design more effective learning experiences. Effective learning experiences
within the context of mixed methods are those leading to a more rapid acquisition of how
and why to use mixed methods approaches.

Based on the review of the literature, one might expect the attitude of students
with little experience with research approaches, especially mixed methods, towards
mixed methods to be more influenced by how pervasive the use of mixed methods is
within their area of study. In contrast, those with more experience are more likely to
focus on the advantages conferred by using mixed methods as opposed to a strictly
qualitative or quantitative approach. What can be inferred from this is that the ongoing
challenge of student diversity in terms of preparedness for studying mixed methods is not
as simple as differing skillsets, but rather more complex in that the diversity of
experience may influence how and why students direct their attention – the first condition
of learning.
Chapter 3

Method

A mixed methods study must integrate qualitative and quantitative approaches, not just have both quantitative and qualitative data and analysis – each must enhance the other such that the findings and implications of such studies are richer for the combination (Bryman, 2007; Creswell, 2009b).

Two Points of Mixing

This study employed a sequential explanatory design with a quantitative priority where quantitative and qualitative data were mixed twice. The first mixing took place in the quantitative phase and used the “interactive strategy of merging” (Creswell & Plano Clark, 2011, p. 67) during data analysis. Findings from this first mixing of quantitative and qualitative data determined case selection for the qualitative phase.

Using the notation system from Creswell and Plano Clark (2011) this study could be represented as QUAN(+qual)→qual = explanation. “QUAN” denotes that the quantitative strand has priority and “(+qual)” shows how an open-ended survey item was used to enhance the quantitative phase. The arrow indicates that the qualitative (qual) phase follows the quantitative phase and helps explain the quantitative findings. A procedural diagram was developed to help communicate the phases, methods and products of the proposed research.

Mixing 1: Merging to enhance. The quantitative strand was initialized first and connected to the qualitative strand subsequent to the first point of mixing of quantitative and qualitative data during analysis. The goals of the quantitative phase were to identify
Figure 8. Visual representation of this sequential explanatory study.
any significant relationships between student characteristics and students’ perceived characteristics of the innovation of mixed methods. Subsequently, an enhancement of those relationships was sought through the qualitative analysis of the responses to the two open-ended questions, “What would it take for you to use a mixed methods approach?” and “What do you perceive to be the benefits of using a mixed methods approach?”

These questions were selected to allow students to describe the benefits of mixed methods that they perceived as well as to describe what they perceived they needed in order to use mixed methods. By merging the quantitative and qualitative data during analysis, the criteria for case selection was established along with a refinement of the interview protocol for the qualitative phase.

**Mixing 2: Extending the usefulness.** In the qualitative phase following the first mixing, semi-structured interviews supplied textual data that helped to improve the utility of the findings from the initial mixing, a rationale for mixing put forth by Bryman (2006) that aims to improve the usefulness of findings for practitioners such as the course designers and course instructors who are the audience for this research.

**Summary.** In this design, the quantitative phase had priority because it was used to identify significant relationships between individual differences among students and how those students perceived the characteristics of the innovation of mixed methods, which supported the use of the DOI model in the context of understanding how graduate students perceive mixed methods as part of the adoption process of an innovation like mixed methods. When the quantitative data was combined with the qualitative data from the open-ended question during the analysis in phase 1, criteria for selecting cases that
could improve or extend the usefulness of the findings from the first mixing were identified. The integration of the findings from the first mixing with the findings from the qualitative phase, yielded the second point of mixing for the purpose of improving the usefulness of the findings.

**Target Population**

The target population in this study was students over the age of 19 years enrolled in 800 and 900 level courses offered during the Spring 2013 semester at a Midwestern University. Multiple colleges were targeted and 34 majors were represented.

**Quantitative Phase**

**Data collection.** Two approaches were used to identify and contact potential respondents. The first was through instructors teaching 800 and 900 level courses in multiple colleges on campus to which the investigator had access. The second was through graduate student groups. Four instructors allowed students to take the survey during class, while the other nine posted the invitation to participate and a link to the survey in the online portions of their courses or emailed the invitation and link to students. Of the 109 students who started the survey, 87 completed it in its entirety, constituting an 80% completion rate.

**Independent variables.** The independent variables selected for use in this study included age, gender, academic major, professional goals, workload, and composite variables representing quantitative prior experience, qualitative prior experience, mixed methods prior experience, and overall prior experience with research approaches. Prior experience with an approach includes taking courses, participating in workshops,
attending presentations, discussions with friends, colleagues, and committee members, as well as reading books, articles, or online information about quantitative, qualitative, or mixed methods approaches.

Table 3

*Independent Variables and Rationale for Inclusion*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Rationale for Inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Younger individuals tend to have more favorable attitudes towards innovations (Goldsmith &amp; Hofacker, 1991; Rogers, 2003).</td>
</tr>
<tr>
<td>Gender</td>
<td>More women than men earn graduate degrees in social sciences (Allum, Bell, &amp; Sowell, 2011; Jaschik, 2010).</td>
</tr>
<tr>
<td>Major</td>
<td>The prevalence of quantitative, qualitative, and mixed methods varies by discipline (Alise &amp; Teddlie, 2010).</td>
</tr>
<tr>
<td>Professional Goals</td>
<td>Relative advantage encompasses the idea of “an individual perceiving the innovation as advantageous” (Rogers, 2003).</td>
</tr>
<tr>
<td>Workload</td>
<td>Commitments outside of academic pursuits impacts retention in programs (Ivankova &amp; Stick, 2007) and may influence perceptions about the characteristics of mixed methods in terms of relative advantage, which encapsulates cost/benefits analysis.</td>
</tr>
<tr>
<td>Prior Experience</td>
<td>Prior knowledge is the best predictor for learning outcomes (Shell et al., 2010). Within the framework of innovation adoption, prior knowledge is related to compatibility which has been difficult to separate from relative advantage (Moore &amp; Benbasat, 1991). Prior experience, however, has been found to be closely related to innovation use (Arts, Frambach, &amp; Bijmolt, 2011).</td>
</tr>
</tbody>
</table>

Additionally, in order to examine prior experience with mixed methods more closely, it is sub-divided into three variables representing the types of prior experience.

Teacher-led prior experiences with mixed methods include taking a course, participating
in a workshop, or attending a presentation. Socially-centered prior experience with mixed methods encompasses discussions about mixed methods with friends, colleagues, committee members, and advisors. Individually-sought prior experience with mixed methods consists of seeking information about mixed methods in books outside of classes and on the Internet.

To compute the prior experience composite scores, measures were standardized and then summed and transformed into T-scores (by definition T-scores have a mean of 50 and a SD of 10). Survey items related to score computations are shown in Appendix B.

**Dependent variables.** The dependent variables were the perceived characteristics of innovations as expanded by Moore and Benbasat (1991).

Moore and Benbasat (1991) separated relative advantage into relative advantage and image in order to distinguish between status conferral from use of the innovation and the degree to which the innovation is better than that which it supersedes.

Compatibility encapsulates the degree to which the innovation is consistent with “existing values, past experiences, and needs of the potential adopters” (Rogers, 2003, p. 15). If compatibility is low, students may require additional information as to how mixed methods fits with their values, experiences and needs.

Critical to considering the implications of relative advantage and compatibility is that researchers have found these two variables to be consistently confounded despite trials whereby subjects consistently sorted items into different categories relating to the two constructs (Moore & Benbasat, 1991). Consequently, in the data analysis for this
study, correlations are run with relative advantage and compatibility separately as well as combined.

“Ease of Use” originates from Rogers’ construct of “Complexity” and is operationalized as the degree to which an individual believes the use of a technology will be free from effort (Venkatesh & Bala, 2008). If students do not perceive mixed methods as being easy to use, simplification and additional training may be important factors to encourage adoption. While “ease of use” is a major dependent variable in the literature, survey questions related to this construct were removed from the survey during the consultation with an outside judge assessing content validity because the items were deemed insufficient for capturing variation in perception of the ease of use of mixed methods. Mixed methods was deemed inherently complex and insight into the nature and extent of students’ perceptions was thought to be better captured through an open-ended question related to what did students think it would take for them to do a mixed methods study.

Observability is split into “result demonstrability” and “visibility” in order to distinguish the perceived ease of observing the results and communicability of those results of using the innovation from the perceived pervasiveness of its use.

“Trialability” refers to the degree to which an individual can try out a technology before committing to its use and it is theorized that this should be important when individuals use a technology “at their own risk” (Moore & Benbasat, 1991) (see Figure 9).
Survey design. The self-developed, cross-sectional Internet-based survey underwent multiple reviews by an outside judge and was pilot-tested with eight graduate students having varying degrees of experience with research approaches. In addition to variables such as age, gender, race, major and academic or non-academic professional goals, slider scales were used to capture information about workload, prior experiences with qualitative, quantitative, and mixed methods approaches, as well as perceptions of the innovation of mixed methods.

![Variable map depicting the relationships among the study constructs.](image)

*Figure 9.* Variable map depicting the relationships among the study constructs.

The initial items for inclusion came from a shortened version of the Moore and Benbasat (1991) scale, Perceived Characteristics of the Innovation (PCI). The items were altered to focus on the innovation of mixed methods and the context was changed from a workplace environment to an academic one (see Appendices C and D for comparison).
Items were expressed as statements, to which respondents were to have used a 7-point Likert scale to indicate their level of agreement. The scale ranged from “strongly disagree” to “strongly agree.” However, during the review with an outside expert selected to assess the content validity of the items, many items were deemed too simplistic to address mixed methods. Several items, including all of those related to the perceived ease of use of mixed methods, were deleted and the wording of other items was substantially changed. The resultant survey was tested with a pilot group representative of the population. Minor textual changes were then made to enhance clarity, resulting in the final version of survey items shown in Appendix C, which displays the item number, item text, possible values, variable names, and the constructs items are proposed to measure.

**Data analysis.** Data was formatted and organized appropriately for use with SPSS and a table listing the variables, definitions, and the numbers associated with the response options was established. The data was then explored to identify broad trends and to develop an understanding of the database. Survey reliability analysis was conducted and expressed using Cronbach’s Alpha coefficients. Frequencies and descriptive statistics were computed for the independent and dependent variables.

**Correlations.** Correlations between the student characteristics of age, gender, professional goals, and workload and the perceived characteristics of the innovation of mixed methods were done. Correlational analysis was also conducted to investigate the relationships between the types of prior experience with research approaches and the dependent variables. Finally, correlation analysis was used to examine the relationships
between teacher-led, socially-centered, and individually-sought kinds of prior experiences and the perceived characteristics of mixed methods.

**Qualitative analysis.** Survey responses to both open-ended survey questions were imported into the qualitative data analysis software (MAXQDA 10, 2011) where Creswell’s “lean coding” process (2007, p. 184) was used to work from a short list of in vivo codes that were revised and expanded as the data was reviewed multiple times. Qualitative codebooks using tables to organize codes, child codes, definitions, and example passages were developed. To enhance the validity of the qualitative findings, coded passages were examined by a second coder knowledgeable about qualitative approaches. The secondary coder was equipped with the existing codebook asked to examine the passages and evaluate the accuracy of the code employed. Conflicts were resolved through discussion until agreement on a code could be reached. This approach was sensitive to the limited resources of time and funding for the project and was derived from an approach described by Creswell (2007).

**Mix 1: Enhancing the quantitative findings.** The first mixing of qualitative and quantitative data was done to enhance the quantitative findings. First, significant relationships between the independent variables of prior experience and dependent variables were identified. Second, respondents were sorted into quartiles based on their level of prior experience with mixed methods. The quartile codes were added to the respondent data files which were loaded into the qualitative analysis software (MAXQDA 10, 2011). Third, respondents’ responses to the open-ended questions were then coded and themes identified. Fourth, the crosstabs feature of MAXQDA 10 made it
possible to see that differently coded responses were associated with different levels of prior experience, indicating that students’ perception of what they needed to use mixed methods changes as they have more knowledge and experience. This finding corroborated the significant relationships identified in the quantitative analysis and provided a rationale for interview case selection. Additionally, the findings informed the refinement of the interview protocol.

Qualitative Phase

The purpose of the qualitative phase is to extend the usefulness of the quantitative results and findings from the first mixing.

Qualitative research design. The quantitative analysis findings from the first mixing determined the case selection and the protocol used with the semi-structured interviews.

Case selection. Participants were selected from those who expressed willingness to be interviewed on the initial survey. From that subset, maximum variability in terms of prior experience with mixed methods and approaches to research in general was prioritized to select 10 individuals for interviews. Along with prior experience, participants were selected with respect to professional goals, gender, and age.

Interview protocol. Participants were contacted via email or by telephone to set up the interviews. Scripts were used to ensure the invitations to participate were expressed in a consistent manner (Appendix H).
A semi-structured protocol (Appendix F) was used for the interviews to facilitate cross-case analysis, but participants were encouraged to elaborate in order to reveal unanticipated detail or perspectives.

**Data collection.** Two interviews were done in person. Two were conducted using Google Hangouts, a free web-based conferencing tool. Skype, which offers free one-to-one video conferencing, was used for another. The other five were conducted using the voice-over-Internet capabilities of Google Voice. These approaches made participating in the interviews convenient for the participants and allowed the investigator to use Voice Recorder HD, an iPad app, to make high quality recordings. The interviews were then transcribed using a transcription protocol (Appendix J) and imported into MAXQDA (MAXQDA 10, 2011) for analysis. The transcripts are included in this document in Appendix K.
### Table 4

*Cases Selected for Interviews Sorted by Prior Experience*

<table>
<thead>
<tr>
<th>ID</th>
<th>PEO</th>
<th>PEMM</th>
<th>PG</th>
<th>Major</th>
<th>Age</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>CW</td>
<td>Q1</td>
<td>Q1</td>
<td>Academic</td>
<td>Education</td>
<td>30</td>
<td>F</td>
</tr>
<tr>
<td>JP</td>
<td>Q1</td>
<td>Q1</td>
<td>Academic</td>
<td>Architecture</td>
<td>56</td>
<td>F</td>
</tr>
<tr>
<td>LN</td>
<td>Q1</td>
<td>Q1</td>
<td>Academic</td>
<td>Education</td>
<td>40</td>
<td>M</td>
</tr>
<tr>
<td>AZ</td>
<td>Q2</td>
<td>Q3</td>
<td>Non-Academic</td>
<td>Education</td>
<td>26</td>
<td>F</td>
</tr>
<tr>
<td>BX</td>
<td>Q2</td>
<td>Q3</td>
<td>Non-Academic</td>
<td>Education</td>
<td>29</td>
<td>F</td>
</tr>
<tr>
<td>HR</td>
<td>Q3</td>
<td>Q2</td>
<td>Non-Academic</td>
<td>Civil Engineering</td>
<td>24</td>
<td>M</td>
</tr>
<tr>
<td>GS</td>
<td>Q3</td>
<td>Q4</td>
<td>Academic</td>
<td>Education</td>
<td>26</td>
<td>F</td>
</tr>
<tr>
<td>FT</td>
<td>Q4</td>
<td>Q3</td>
<td>Academic</td>
<td>Music</td>
<td>32</td>
<td>F</td>
</tr>
<tr>
<td>DV</td>
<td>Q4</td>
<td>Q4</td>
<td>Academic</td>
<td>Sociology</td>
<td>37</td>
<td>M</td>
</tr>
<tr>
<td>KO</td>
<td>Q4</td>
<td>Q4</td>
<td>Academic</td>
<td>Education</td>
<td>41</td>
<td>F</td>
</tr>
</tbody>
</table>

*Note:* ID = participant identifier, PEO = prior experience with research approaches overall, PEMM = prior experience with mixed methods, T = page on which interview transcript begins. Transcripts are included as Appendix K.

**Qualitative analysis.** All ten transcriptions were first read in their entirety and general impressions were recorded as memos. Coding was then done using in vivo coding predominately with a small number of codes developed by the investigator that encapsulated the concepts.

In contrast to the lean coding approach used with the short answer survey items, the coding of the interview data was more extensive then combined into broader themes addressing how students valued teacher-led learning experiences, when and for what
purposes students discussed what they were learning, how students valued student-centered versus teacher-led learning experiences, what students said engaged learners should do as part of the learning process, and finally, what students said the most valuable outcome from a mixed methods course would be.

**Mix 2: Extending the Usefulness of Findings**

The second point of mixing qualitative and quantitative approaches in this study takes place in the discussion section where the qualitative findings from the interview data are related to the results from the quantitative phase and the embedded initial merging of quantitative and qualitative data during analysis. In doing so, the aim is to extend the usefulness of the phase 1 findings to practitioners such as course designers and instructors of mixed methods courses. Additionally, as part of this second mixing, novel ways of visualizing the mixed findings are presented.

The second mixing provides a holistic picture of the relationship between the independent variables, indicative of students’ characteristics, aspirations, workload, and prior experiences, and the dependent variables, captured through the measurement of students’ perceptions of mixed methods. The qualitative data analysis is useful for understanding students’ perspectives. The holistic picture informed by the model of the diffusion of innovation may provide a foundation from which to launch a research agenda examining the impact of composing content and pedagogy in such a way as to more effectively meet students’ needs and support the dissemination of mixed methods.

**How the qualitative findings explain the quantitative results.** The qualitative findings will elucidate why students hold the perceptions they do and by understanding
the “why,” students’ likelihood of making use of mixed methods for a project may be increased by addressing those reasons they may opt not to use mixed methods, despite finding more value in mixed methods than either quantitative or qualitative alone (Haines, 2011).

**Visual representation of integrated findings.** Graphical representation of data presents a way for people to make meaning out of large quantities of information through its quality of enabling the recognition and assessment of the relationships among the data, a task that may be difficult or impossible when the information is simply presented linearly in textual form. The challenge of comprehension comes from the requirement of building mental representations of the data in limited working memory. This can especially challenging for those with little prior knowledge of the topic at hand (Mayer, Bove, Bryman, Mars, & Tapangco, 1996; Mayer & Gallini, 1990). Multivariate graphical displays enhance the viewer’s ability to detect and comprehend phenomena, understand conclusions, and perform comparisons of relative quantities (Dickenson, 2010). To facilitate meaning making, visualizations should consist of complex ideas communicated with clarity and precision, giving the viewer the greatest number of ideas in the shortest amount of time, with the least ink, in the smallest space (Tufte, 1983).

Dickenson makes the case that visualization is appropriate for mixed methods because in addition to the aforementioned affordances, images are ubiquitous in the real world. Therefore, the same practical relevance often used to justify mixed methods approaches supports the use of imagery to communicate ideas about mixed methods research from data, to design, to the points and nature of the integration of qualitative and
quantitative data, to representing findings (Creswell & Plano Clark, 2011; Dickenson, 2010).

Currently, there is not a way of visually displaying the findings for the explanatory sequential design that aligns the qualitative findings with the quantitative results and a part of this project is an attempt to create such a graphical representation. Key considerations include clear representation of priority, integration or mixing, and how the qualitative findings explain and extend the usefulness of the quantitative results.
Chapter 4

Results

This chapter describes the results of this sequential explanatory mixed methods study having two points of mixing qualitative and quantitative data. Descriptive statistics are reported first followed by the survey reliability analysis. Subsequently, the relationships between student characteristics (age, gender, race, academic major, student status, and workload) and the perceived characteristics of the innovation of mixed methods are explored.

The relationships between prior experience and the perceived characteristics of mixed methods are examined in two ways:

First, the relationships among quantitative prior experience, qualitative prior experience, and mixed methods prior experience and the perceived characteristics of relative advantage, compatibility, results demonstrability, trialability, and visibility of mixed methods are investigated. In this first examination, prior experience with an approach includes taking courses, participating in workshops, attending presentations, discussions with friends, colleagues, and committee members, as well as reading books, articles, or online information about quantitative, qualitative, or mixed methods approaches.

Second, in order to more closely examine the relationship between mixed methods prior experience and the perceived characteristics of mixed methods, prior experience with mixed methods is sub-divided into three variables: teacher-led, socially-centered, and individually-sought prior experiences. Teacher-led prior experiences with
mixed methods include taking a course, participating in a workshop, or attending a presentation. Socially-centered prior experience with mixed methods encompasses discussions about mixed methods with friends, colleagues, committee members, and advisors. Individually-sought prior experience with mixed methods consists of seeking information about mixed methods in books outside of classes and on the Internet. Findings are enhanced and extended through mixes with qualitative data collected in open-ended survey items and via interviews.

The results are reported in the following sequence:

1. Descriptive statistics for student characteristics
2. Reliability analysis of constructed innovation scales
3. Correlations among quantitative prior experience, qualitative prior experience, mixed methods prior experience, and overall prior experience with research approaches and the perceived characteristics of relative advantage, compatibility, results demonstrability, trialability, and visibility of mixed methods
4. Correlations between the types of mixed methods prior experience (teacher-led, socially-centered, individually-sought) and the perceived characteristics of relative advantage, compatibility, results demonstrability, trialability, and visibility of mixed methods
5. Qualitative analysis of short answer survey items
6. Findings from mixing quantitative and qualitative data
7. Case selection for in-depth interviews
8. Qualitative findings from in-depth interviews

**Phase I: Quantitative Analysis and Mixing 1**

The quantitative phase for this study included survey data collection, descriptive statistics and correlational investigation of dependent and independent variables.

Participants in this study were primarily white women under 40 years of age with academic professional goals and an academic major related to education who attended school full-time and carried a 40-80 hour workload each week. Workload was a composite variable composed of the sum of hours spent on academic coursework, professional work outside the academy, and on priorities other than school and work. Details for student characteristics are shown in Table 5.
Table 5

Participant Characteristics ($n = 87$)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>21</td>
<td>77</td>
</tr>
<tr>
<td>Women</td>
<td>66</td>
<td>23</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>77</td>
<td>80</td>
</tr>
<tr>
<td>Asian</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>African-American</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 30</td>
<td>43</td>
<td>49</td>
</tr>
<tr>
<td>30-39</td>
<td>30</td>
<td>34</td>
</tr>
<tr>
<td>40-49</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>50 +</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Professional Goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>62</td>
<td>71</td>
</tr>
<tr>
<td>Non-Academic</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>Student Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-Time</td>
<td>58</td>
<td>67</td>
</tr>
<tr>
<td>Part-Time</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>Academic Major</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>57</td>
<td>66</td>
</tr>
<tr>
<td>Non-Education</td>
<td>30</td>
<td>34</td>
</tr>
<tr>
<td>Workload</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 20</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20-39</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>40-59</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>60-79</td>
<td>27</td>
<td>31</td>
</tr>
<tr>
<td>80-99</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>100 +</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

*Note. Workload is a composite variable composed to the number of hours respondents spend on coursework, professional work outside the academy, and hours spent on priorities other than school or work.*

**Survey reliability analysis.** Reliability of item scales exceeded the recommended .7 for four of the five dependent variables.
Table 6

Reliability Analysis for Innovation Subscales

<table>
<thead>
<tr>
<th>Perceived Characteristic of the Innovation</th>
<th>Short Definition</th>
<th>Cronbach’s Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Advantage</td>
<td>Costs versus benefits</td>
<td>.96</td>
<td>9</td>
</tr>
<tr>
<td>Compatibility</td>
<td>Consistency with existing values, beliefs, and needs</td>
<td>.94</td>
<td>5</td>
</tr>
<tr>
<td>Result demonstrability</td>
<td>The degree to which the results of using the innovation are observable and communicable</td>
<td>.82</td>
<td>4</td>
</tr>
<tr>
<td>Visibility</td>
<td>Perceived pervasiveness of use</td>
<td>.63</td>
<td>5</td>
</tr>
<tr>
<td>Trialability</td>
<td>Ability to try out the innovation</td>
<td>.77</td>
<td>5</td>
</tr>
</tbody>
</table>

Quantitative research questions. There were two quantitative research questions:

1. To what extent was there a relationship between age, gender, professional goals, academic major, student status, or workload with the perceived characteristics of the innovation of mixed methods?

2. To what extent was there a relationship between prior experience with research approaches and the perceived characteristics of the innovation of mixed methods?

Student characteristics and the perceived characteristics of mixed methods. There were no significant relationships between age, gender, race, academic major, professional goals, student status, or workload and the perceived characteristics of the innovation of mixed methods.
**Prior experience examined.** The prior experience with research approaches reported by students varied widely.

Table 7

*Prior Experience of Participants with Quantitative, Qualitative, and Mixed Methods using T-Scores Centered with Mean of 50 and an SD of 10 (n = 87)*

<table>
<thead>
<tr>
<th>Prior Experience</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative</td>
<td>39.3</td>
<td>80.3</td>
</tr>
<tr>
<td>Qualitative</td>
<td>38.7</td>
<td>76.7</td>
</tr>
<tr>
<td>Mixed Methods</td>
<td>41.0</td>
<td>86.9</td>
</tr>
<tr>
<td>Teacher-Led</td>
<td>42.8</td>
<td>97.0</td>
</tr>
<tr>
<td>Socially-Centered</td>
<td>42.6</td>
<td>83.0</td>
</tr>
<tr>
<td>Individually-Sought</td>
<td>42.0</td>
<td>85.2</td>
</tr>
<tr>
<td>Overall</td>
<td>37.5</td>
<td>83.4</td>
</tr>
</tbody>
</table>

*Note.* Prior experience with each approach and overall comprises teacher-led experiences (courses, workshops, presentations), socially-centered prior experience (discussions about the approach with friends, colleagues, committee members, advisors), and individually-sought prior experience (seeking more information outside of class in books, articles, or online).

Correlations run to test the significance between quantitative, qualitative, and mixed methods prior experiences and the perceived characteristics of the innovation of mixed methods identified strong positive relationships which are shown in Table 8.
### Table 8

*Relationships between Prior Experience Types and Innovation Characteristics*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Qualitative</th>
<th>Quantitative</th>
<th>MM</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Advantage</td>
<td>.308**</td>
<td>.290**</td>
<td>.434**</td>
<td>.397**</td>
</tr>
<tr>
<td>Compatibility</td>
<td>.264*</td>
<td>.185</td>
<td>.487**</td>
<td>.348**</td>
</tr>
<tr>
<td>Relative Advantage + Compatibility</td>
<td>.313**</td>
<td>.268*</td>
<td>.489**</td>
<td>.406*</td>
</tr>
<tr>
<td>Result demonstrability</td>
<td>.463**</td>
<td>.352**</td>
<td>.535**</td>
<td>.463**</td>
</tr>
<tr>
<td>Visibility</td>
<td>.153</td>
<td>-.020</td>
<td>.270*</td>
<td>.139</td>
</tr>
<tr>
<td>Trialability</td>
<td>.298**</td>
<td>.209</td>
<td>.427**</td>
<td>.354**</td>
</tr>
</tbody>
</table>

*Note:* Mixed Methods (MM).

** significant to .01

However, violations of the assumptions required for correlational analysis in the form of heteroscedasticity, skewed distributions, and outliers undermine the predictive power of the relationship between the amount of prior experience with mixed methods and the dependent variables. Nonetheless, scatterplots reveal that for this particular selection of participants, prior experience does appear to impact how students perceive the characteristics of the innovation of mixed methods. The diversity of perceptions and possible implications are discussed in Chapter 5.

**Scatterplots of variable relationships.** Descriptive statistics and scatterplots were examined to check for linearity, outliers, and homoscedasticity.
Linear relationships were discernable in the relationships between mixed methods prior experience and the perceived characteristics of the innovation of mixed methods but because the distribution skewed right the validity of predictive correlational relationships was undermined. Scatterplots associated with the strongest relationships are shown in Figure 10 and are duplicated at a more legible size on subsequent pages (see Figures 11-16).

Overall, the scatterplots show that for this set of respondents, linear relationships exist between the perceived characteristics of mixed methods and the amount of prior experience participants have had with mixed methods. Interestingly, many had low levels of experience with mixed methods, but perceived the characteristics of relative advantage, compatibility, and result demonstrability highly despite their lack of
Columns left to right: qualitative experience, quantitative experience, and mixed methods experience.

*Figure 10.* Scatterplots depicting variable relationships.
This scatterplot shows that participants having more experience with qualitative methods tended to rate result demonstrability more highly.

*Figure 11. Qualitative prior experience and result demonstrability.*
This scatterplot shows that the majority of respondents had little experience with mixed methods, yet tended to rate mixed methods highly (relative advantage).

*Figure 12.* Relative advantage and mixed methods prior experience.
Scatterplot depicting the relationship between mixed methods prior experience and to what degree participants perceived that mixed methods is compatible with their existing values and beliefs.

*Figure 13. Compatibility and mixed methods prior experience.*
This scatterplot combines the routinely confounded constructs of compatibility and relative advantage and relates them to participants’ level of prior experience with mixed methods.

Figure 14. Mixed methods prior experience and relative advantage + compatibility.
This scatterplot displays the relationship between prior experience with mixed methods and the degree to which participants perceived the results of using mixed methods to be observable and communicable.

*Figure 15. Mixed methods prior experience and result demonstrability.*
The relationship between prior experience with mixed methods and to what degree participants perceived that mixed methods can be experimented with or tried out before adoption (trialability) is shown in this scatterplot.

*Figure 16. Mixed methods prior experience and trialability.*

experience. This differs from overall levels of experience with research approaches in which correlations of prior experience with relative advantage and compatibility were somewhat lower than those with mixed methods.

**Types of prior experiences with mixed methods.** This study also explored the relationship between the types of prior experiences and the dependent variables. The three kinds of prior experiences were *teacher-led, socially-centered,* and *individually-sought.* Teacher-led experiences were interactions designed and facilitated by an expert
such as a course or a professional workshop. Socially-centered experiences consisted of discussing mixed-methods approaches with friends, colleagues, committee members, or others. Individually-sought experiences included activities such as looking up information on the Internet or independently reading books or articles on the topic.

Teacher-led, socially-centered, and individually-sought scores were generated by standardizing and then summing scores belonging in each category. The relationship between the composite scores and the dependent variables was investigated using correlational analysis. Question items comprised by the summed scores are shown in Appendix B. Pearson’s r was used as a measure of the strength of the correlations between the kind of prior experience and the dependent variables (see Table 9).

Teacher-led prior experience and the dependent variables yielded weak to moderate positive relationships. In contrast, the relationships between socially-centered and individually-sought experiences and the dependent variables were moderate to strong. In fact, out of the three types of prior experiences with mixed methods, teacher-led experiences had the weakest relationship with the perceived characteristics of the innovation of mixed methods. Socially-centered had the strongest, most notably with respect to result demonstrability, the dependent variable associated with the degree to which the results of using the innovation are observable and communicable.

**Mix 1: Merging to enhance quantitative findings.** In order to enhance quantitative findings, the responses to two open-ended questions related to implementation, the phase following persuasion and adoption of an innovation, were analyzed.
Table 9

Teacher-led, Socially-Centered, and Individually-Sought Prior Experiences

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Teacher-Led</th>
<th>Socially-Centered</th>
<th>Individually-Sought</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Advantage</td>
<td>.230*</td>
<td>.431**</td>
<td>.396**</td>
</tr>
<tr>
<td>Compatibility</td>
<td>.283**</td>
<td>.446**</td>
<td>.487**</td>
</tr>
<tr>
<td>Relative Advantage + Compatibility</td>
<td>.270*</td>
<td>.470**</td>
<td>.464**</td>
</tr>
<tr>
<td>Result demonstrability</td>
<td>.377**</td>
<td>.520**</td>
<td>.467**</td>
</tr>
<tr>
<td>Visibility</td>
<td>.312**</td>
<td>.190</td>
<td>.291**</td>
</tr>
<tr>
<td>Trialability</td>
<td>.328**</td>
<td>.420**</td>
<td>.356**</td>
</tr>
</tbody>
</table>

* Significant at the p < 0.05 level.
** Significant at the p < 0.01 level.

According to Venkatesh et al. (2003), diffusion of an innovation comes not from perceiving it positively, or even of “accepting” or “adopting” it, although both of these phases must be traversed. Diffusion is the result of use, or implementation. Because one of the objectives for this research is to facilitate the diffusion of mixed methods, two open ended questions related to the use of the innovation were posed. The responses were coded and qualitative and quantitative data was merged during analysis in order to enhance the quantitative findings (Bryman, 2006). The two open-ended questions were as follows:

1. What do you perceive to be the benefits of using a mixed-methods approach?
2. What would it take for you to use a mixed methods approach?
Several ways of representing the merged data and findings were used to better comprehend how the qualitative data enhanced the quantitative findings. These processes, figures, and tables are described as the results are presented.

**How students described the benefits of using mixed methods.** A lean approach to coding (Creswell, 2007, p. 184) was employed and categories were expanded as necessary. In vivo terms were preferred and coded segments were reviewed and verified by a knowledgeable outside academic professional proficient with qualitative approaches. The codes representing participant perceptions of the benefits of using mixed methods are listed below. Child codes are indented and code definitions are listed in Appendix L along with representative text segments.

- **Breadth and Depth**—The general idea of “more is better” whether it is more detail, more comprehensive, more data, etc.

- **Flexibility**—The concept of retaining or creating options that would be restricted using a single approach.

- **Completeness**—A sense of thoroughness – looking at everything – as if something is left undone if a single approach is used.

- **Strengthens**—The notion that combining qualitative and quantitative approaches adds robustness, strength, or compensates for the weaknesses of the other.

- **Explanation**—The idea that mixed methods addresses the “why” of quantitative findings.

- **Context**—The belief that without knowing the context of findings, one cannot fully understand the findings.

- **Validity**—The substantiation of qualitative or quantitative claims.

These codes were then merged with quantitative data related to students’ level of prior experience with mixed methods.
Merging perceived benefits with prior experience. To analyze and merge the two forms of data, the crosstabs feature of MAXQDA 10 was used to explore the nature and extent of the variation of the coded segments according to the level of prior experience.

Figure 17 displays the number of coded segments at each intersection of quartile and code.

The summed segment counts in the rightmost column indicate which qualities are perceived as most beneficial overall. Prior experience may influence which benefits are perceived as most beneficial as seen by the differences in the counts in each column.

**Figure 17.** Crosstabs of perceived benefits codes and prior experience quartiles.

From viewing the summed information in the rightmost column, it is readily apparent that breadth and depth, completeness, strengthens, and validity are the dominant benefits of using mixed methods perceived by the participants in this study.

To better comprehend the relative differences between and among the quartile groupings, the crosstabs function was used to view the data in the form of percentages, both row- and column-wise in the following figures. This form of display reduces the cognitive load imposed by needing to do mental calculations to discern relative
differences between data points by leveraging the well-understood concept of 100%. The percentage values immediately communicate relative comparisons, one of the most important benefits of data visualization (Dickenson, 2010; Tufte, 1983).

Viewing the segment counts row-wise in percentage form facilitated relative comparisons between the quartile groups with respect to each code construct.

Figure 18. Benefits of mixed methods: differences between experience groupings.

With the exception of the group with the least experience with mixed methods, breadth and depth was perceived as a benefit by all groups. Flexibility was valued by the two lower quartiles and by those with the most prior experience. Completeness, another child category of breadth and depth, was similarly appreciated by all groups. The quality of strengthens was most highly valued by those with the most prior experience. In contrast, explanation and context were benefits most perceived by those with lower levels of experience. Validity resonated with those in quartile 3.

The column-wise display helped assess the variation within groups. For the first quartile, those with the least prior experience with mixed methods, the qualities were fairly evenly distributed, with somewhat more emphasis on breadth and depth,
completeness, and validity. For those in the second quartile, breadth and depth, along with flexibility, were more valued. In the third quartile, breadth and depth plus validity, were key. Finally, for those with the most prior experience, those in the fourth quartile, breadth and depth, completeness, and the strengthening aspects of mixed methods were emphasized.

Viewing segment counts column-wise in percentage form emphasized the differences within each quartile group with respect to cited benefits of a mixed methods approach to inquiry.

*Figure 19.* Benefits of mixed methods: differences within experience groupings.

Understanding the relative relationships between and within the quartile groupings could also have been accomplished by making use of Tufte’s recommendations for graphic excellence (1983) in the form of a bar chart.

At this point in the analysis, having greater understanding of the relative differences between and among the groupings, focus was placed on discerning more nuanced variations by comparative reading of the actual language used by participants to describe the benefits they perceived. For this step in the analysis, a quote matrix (Appendix M) generated by MAXQDA was employed. In general, the more experience
students had with mixed methods, the more specific they were in identifying and communicating perceived benefits.

*Textual description of the merged findings.* For the participants in this study, mixed methods offered more data and more research options which lead to a more thorough and complete investigation, leaving “no stone unturned.” Because of these benefits, the research was stronger, with areas of weakness inherent in each approach amended by complementary aspects of the alternate approach and thereby substantiating claims of knowledge.

With the exception of the group with the least experience with mixed methods, breadth and depth was perceived as a benefit by all groups. Flexibility was valued by the two lower quartiles and by those with the most prior experience. Completeness, another child category of breadth and depth, was similarly appreciated by all groups. The quality of strengthens was most highly valued by those with the most prior experience. In contrast, explanation and context were benefits identified by those with lower levels of experience. Validity resonated with those possessing a middling to more advanced levels of prior experience in quartile 3.

*Joint display of perceived benefits juxtaposed with prior knowledge.* One of the benefits of visualizing data is the ability to include more information and to situate findings in a comprehensible context. For merged findings such as the first mix of this study, Creswell and Plano Clark (2011) recommend the use of a joint display table. In this type of representation, quantitative and qualitative data is configured such that the two forms of data can be directly compared.
In Table 10, the qualitative themes encapsulating the benefits of using mixed methods perceived by participants are juxtaposed with the quantitative data of coded segment counts and the mixed methods prior experience composite variable. The joint display renders the relationships more easily comprehended.

What it would take to use mixed methods approach. The second open-ended question was “What would it take for you to use a mixed methods approach? This question prompted students to reflect on what they perceived they needed to surmount the challenges they perceived when considering using mixed methods.

A lean approach to coding (Creswell, 2007) was employed and categories were expanded as necessary. In vivo terms were preferred and coded segments were reviewed and verified by a knowledgeable outside academic professional proficient with qualitative approaches. The codes representing catalyst constructs are listed below. Child codes are indented and code definitions and example segments are listed in Appendix O.

*Experience* – Try mixed methods in a hands-on way

*Course* – Teacher or expert-led learning experience

*Knowledge* – Generally expressed need for more knowledge

  *Confidence* – Insecurity about skills or ability

*Purpose* – Need a reason

*Guidance* – External guidance or support of unspecified type

  *Collaboration* – Desire to work with others
### Table 10

*Joint Display: Perceived Benefits and Mixed Methods Prior Experience*

<table>
<thead>
<tr>
<th>Segment counts and themes</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 Breadth and Depth</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>“ability to create complex studies”</td>
<td>“provides both a sense of generalizability as well as rich detailed information”</td>
<td>“Broader analysis, understanding of the research problem”</td>
<td>“… ability to capture not only the generalizability of quantitative data, but also the impact of “at this given point in time” data of qualitative data”</td>
<td></td>
</tr>
<tr>
<td>7 Flexibility</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>“It takes away unrealistic restrictions I may encounter b/c of the approach or design if I chose only qualitative or quantitative”</td>
<td>“Affords the researcher greater level of flexibility”</td>
<td></td>
<td>Sometimes limiting an approach to QUAN or QUAL forces you to change your question and thus limiting your understanding.”</td>
<td></td>
</tr>
<tr>
<td>13 Completeness</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>“Combining two methods would, in theory, provide a more holistic and comprehensive approach leaving no stone unturned.”</td>
<td>“More flexible and able to capture results that are not easily captured by either method alone.”</td>
<td>“It makes a research more complete.”</td>
<td>“…mixed methods affords an opportunity to ask complex questions and integrate complex sets of data to foster a better sense of understanding of a given phenomenon.”</td>
<td></td>
</tr>
<tr>
<td>Segment counts and themes</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
</tr>
<tr>
<td>10</td>
<td>Strengthens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“You get to make use of the strengths of both qualitative and quantitative research”</td>
<td>“it answers questions where quant and qual do not do a good job on their own”</td>
<td>“helps minimize subjectivity and maximize objectivity”</td>
<td>“To me, it helps to answer some of the questions with which we are left after reading quantitative research alone.”</td>
</tr>
<tr>
<td>5</td>
<td>Explanation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Sometimes statistical data simply doesn’t go very far to explain some results”</td>
<td>“Juxtaposing data that shows a result with data that explores why that result is what it is”</td>
<td>“Quality of data enriched data explanations of numerical data”</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Context</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“brings context and understanding that would be missed in a strictly quantitative approach”</td>
<td>“Could provide a story along with whatever quantitative trends may be present.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Validity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>“It gives accurate results”</td>
<td></td>
<td>“More evidence to support points”</td>
<td>“I appreciate that numbers can be used to situate descriptive data and add credibility to such evidence.”</td>
</tr>
<tr>
<td>68</td>
<td>Total Segments</td>
<td>17</td>
<td>15</td>
<td>17</td>
</tr>
</tbody>
</table>

Note: MM Q1 | Q2 | Q3 | Q4 = Prior experience with mixed methods segmented into quartiles. Numeric values refer to text segment counts. There were 68 usable responses.
Mentorship – Specifically uses the word “mentorship” or refers to more one-on-one types of relationships and guidance from someone with more expertise.

Conditions - Conditions that have to be met

Time – Need for more time

The themes listed above were then merged with quantitative data related to students’ level of prior experience with mixed methods.

Merging what it would take to use mixed methods with prior experience. To analyze and merge the two forms of data, the crosstabs feature of MAXQDA 10 was used to explore the nature and extent of the variation of the coded segments according to the level of prior experience.

![Crosstabs view showing segment counts for the level of prior experience with respect to the qualitative themes related to the question, “What would it take for you to use a mixed methods approach?”](image)

*Figure 20. Prior experience and what it would take to use mixed methods.*

From viewing the summed information in the rightmost column, it is readily apparent that in order to consider using mixed methods, participants in this study perceived a course, additional knowledge, and a purpose to be essential. By using the
codebook (Appendix O), an initial textual description of students’ perceptions can be written.

Given a reason to use mixed methods, most students said they needed more knowledge and perceived an expert-led learning experience, such as a course in mixed methods, to be the best way to get the knowledge they required.

Relative differences between the quartile groupings was then investigated using the crosstabs row-wise percentage display (see Figure 21). From this display, it is seen that what is perceived to be needed to consider using mixed methods varied with respect to prior knowledge. Those with more experience placed greater priority on having a course in mixed methods, whereas those with less prior experience expressed a need for more knowledge. Interestingly, those with the most experience with mixed methods cited the need for time. With regards to purpose, there was fairly equal distribution among the groups.

Row-wise display using percentages made it easier to discern relative priorities between groups with respect to the qualitative theme. For example, having a mixed methods course appeared to be more important for those students with more experience than those with less when it came to using a mixed methods approach.

*Figure 21.* To use mixed methods: differences between experience groupings.
Variance within the quartile groups was examined using the column-wise display of the crosstabs feature (see Figure 22). By examining the variance within the quartile groupings, a transition from a general need for more knowledge to more specific needs for a purpose and course was identified.

Crosstabs view using column-wise percentages helped emphasize the relative variance within the quartile groupings. For those with the least amount of experience with mixed methods more knowledge was critical, but for the middle quartiles the identified needs of purpose and knowledge had priority. For those with the most prior experience, purpose and a course dominated their perceived needs.

*Figure 22. To use mixed methods: differences within experience groupings.*

*To use a mixed methods approach.* Given a reason to use mixed methods, most participants said they needed more knowledge and perceived an expert-led learning experience, such as a course in mixed methods, to be the best way to get the knowledge they perceived they required. However, those with the greatest amount of prior knowledge also placed the greatest priority on formal training such as a course. In contrast, those with less prior knowledge emphasized the need for more information. All participants recognized the need for a purpose to justify the effort of using mixed methods.
**Joint display of what it would take with prior experience with mixed methods.**

A quote matrix was created to compare the groups in terms of the language that was used with respect to each theme (Appendix P). Again, like the benefits of using mixed methods, students with more prior experience tended to be more specific in describing what they perceived they needed in order to use a mixed methods approach. The quote matrix display facilitated identifying a representative segment for each construct at each level of prior experience. The representative segment was then used as part of the joint display shown in Table 9.

**Summary of quantitative analysis and mix 1.** The correlational analysis identified positive relationships between prior experience with quantitative, qualitative, and mixed methods approaches and the perceived characteristics of the innovation of mixed methods. Prior experience with quantitative approaches showed weak relationships with relative advantage \((r = .29, p < .01)\) and relative advantage + compatibility \((r = .27, p < .01)\). A moderate relationship was found between result demonstrability and quantitative experience \((r = .35, p < .01)\).

Prior experience with qualitative research approaches had moderate relationships with relative advantage \((r = .31, p < .01)\) and relative advantage + compatibility \((r = .31, p < .01)\) and a strong relationship with result demonstrability \((r = .46, p < .01)\).
<table>
<thead>
<tr>
<th>Themes</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Course</td>
<td>2 “More knowledge, as in the mixed-methods course.”</td>
<td>2 “More focus of this in a methods course.”</td>
<td>6 “I would need to take a course in it - I see the benefit but my skills as a researcher are very weak.”</td>
<td>5 “Additional training and faculty mentors who can demonstrate the process to me.”</td>
</tr>
<tr>
<td>5 Experience</td>
<td>2 “Lots of guidance and hands on experience”</td>
<td>1 “Exposure and experience to feel comfortable”</td>
<td>2 “Experience, mentorship, training”</td>
<td>0</td>
</tr>
<tr>
<td>18 Knowledge</td>
<td>9 “More knowledge on the mixed methods approach”</td>
<td>4 “Learning how and when and why.”</td>
<td>4 “More information about the pros and cons of the mixed-method approach and more information in general about the approach.”</td>
<td>1 “More information on how to use this approach.”</td>
</tr>
<tr>
<td>6 Confidence</td>
<td>1 “A different brain.”</td>
<td>3 “A lot more confidence with statistics”</td>
<td>1 “I see the benefit but my skills as a researcher are very weak.”</td>
<td>1 “I understand that a researcher needs to have grasp on both QUAN and QUAL methods but I do not feel completely competent in either approach”</td>
</tr>
</tbody>
</table>

Table 11 continues
### Prior Experience with Mixed Methods

<table>
<thead>
<tr>
<th>Segment counts and themes</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 Purpose</td>
<td>4 “A reason in general”</td>
<td>5 “A question that is best answered by a mixed methods approach”</td>
<td>4 “If my project requires a mixed-methods approach, that is, when neither qualitative nor quantitative approach alone will suffice for my project.”</td>
<td>6 “I would decide whether a mixed methods approach is appropriate based on the project and the questions.”</td>
</tr>
<tr>
<td>2 Guidance</td>
<td>1 “Lots of guidance”</td>
<td>0</td>
<td>0</td>
<td>1 “Guidance of consultations”</td>
</tr>
<tr>
<td>3 Collaboration</td>
<td>0</td>
<td>2 “Collaborating with someone who is an expert in the qualitative/mixed-methods research.”</td>
<td>1 “I only plan to use a mixed-methods approach if I am collaborating with another researcher.”</td>
<td>0</td>
</tr>
<tr>
<td>6 Mentorship</td>
<td>1 “Access to information and guidance from an advisor or faculty member who will evaluate and provide feedback during the process”</td>
<td>1 “A good advisor that had used mixed methods”</td>
<td>2 “I have taken the course and it’s the approach used and suggested by my advisor”</td>
<td>2 “Additional training and faculty mentors who can demonstrate the process to me.”</td>
</tr>
</tbody>
</table>

Table 11 continues
<table>
<thead>
<tr>
<th>Segment counts and themes</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Conditions</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>&quot;Pursuing a doctorate&quot;</td>
<td></td>
<td>&quot;A fundamental shift in my belief that a person’s thinking can be measured.”</td>
<td></td>
<td>&quot;I would use it without persuasion.”</td>
</tr>
<tr>
<td>5 Time</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>&quot;More time, energy, and efforts”</td>
<td>&quot;Lots of time.”</td>
<td>&quot;I would need an extended period of time to complete my dissertation in order to use a mixed-methods approach.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>86 Segments</td>
<td>23</td>
<td>21</td>
<td>22</td>
<td>20</td>
</tr>
</tbody>
</table>

Note: MM Q1 | Q2 | Q3 | Q4 = Prior experience with mixed methods segmented into quartiles. Numeric values refer to text segment counts. There were 68 usable responses.
In contrast to qualitative and quantitative prior experiences, mixed methods experience exhibited strong positive relationships with relative advantage ($r = .43$, $p < .01$), compatibility ($r = .49$, $p < .01$), relative advantage + compatibility ($r = .49$, $p < .01$), result demonstrability ($r = .54$, $p < .01$), and trialability ($r = .43$, $p < .01$).

However, scatterplots showed that participants with low levels of prior experience with mixed methods showed great variability in their ratings of the perceived characteristics, most notably relative advantage (see Figure 12), compatibility (see Figure 13), and result demonstrability (see Figure 15). The skewness of the composite scores representing mixed methods (1.76) undermined the reliability of the scale and was indicative of a population where the majority had low levels of mixed methods experience and a small number had high levels of prior experience.

Positive relationships were also identified between the kind of prior experience and the perceived characteristics of the innovation of mixed methods (see Table 9). Teacher-led prior experiences had significant, but weak, correlations with the perceived characteristics of mixed methods. Socially-centered prior experiences had moderate to strong relationships with relative advantage ($r = .43$, $p < .01$), compatibility ($r = .45$, $p < .01$), relative advantage + compatibility ($r = .47$, $p < .01$), result demonstrability ($r = .52$, $p < .01$), and trialability ($r = .42$, $p < .01$). Individually sought prior experiences, such as seeking information on the Internet or reading books on one’s own, also yielded moderate to strong relationships with the following perceived innovation characteristics: relative advantage ($r = .37$, $p < .01$), compatibility ($r = .49$, $p < .01$), relative advantage +
compatibility \( (r = .46, p < .01) \), result demonstrability \( (r = .47, p < .01) \), and trialability \( (r = .36, p < .01) \).

The only perceived characteristic of the innovation of mixed methods that had a moderate or strong relationship with quantitative, qualitative, and mixed methods prior experiences was result demonstrability, or the degree to which the results of using the innovation of mixed methods was both observable and communicable. In examining the kinds of prior experiences with respect to result demonstrability, only socially-centered and individually-sought experiences correlated strongly. These two kinds of experiences also had strong correlations with relative advantage and compatibility.

The quantitative results highlighted the relationship between prior experiences with research approaches and the perceived characteristics of relative advantage, compatibility, and result demonstrability. This means that having more knowledge about research approaches helps one discern the benefits of using mixed methods, evaluate the relative advantages of using mixed methods instead of a single approach, and renders mixed methods more congruent with one’s values. Moreover, because socially-centered and individually-sought experience correlated with the dependent variables more strongly than teacher-led prior experiences, the nature of the prior experience may influence how great of an impact the prior experience has on one’s knowledge acquisition.

To enhance these findings, quantitative data in the form of the composite variable representing mixed methods prior experience was used to distribute the participants into quartiles. The quartile variable was then juxtaposed with themes identified through the analysis of two open-ended questions. The first question asked participants to describe
what they perceived as the benefits of using mixed methods. The second question asked participants to describe what it would take for them to use a mixed methods approach.

The key perceived benefits, or relative advantages, of using mixed methods instead of a single approach, were breadth and depth, completeness, strengthens, and validity. However, to profit from these benefits by using mixed methods, participants perceived they needed more knowledge, formal instruction, and a purpose. Those with lower levels of prior experience emphasized more knowledge, but those with higher levels more specifically expressed a need for formal training, such as a course.

To extend the usefulness of these findings, interviews were done with participants to better understand the following:

- what they valued about teacher-led learning experiences.
- what role they believed a socially-centered interaction like discussion played in their learning.
- what it meant to be a participatory and engaged learner.
- what learning outcomes they would most value in a mixed methods course.

**Case selection.** A purposeful maximum variation sampling strategy was employed. Ten students were selected for interviews. Participants varied with respect to prior experience with mixed methods, gender, and professional goals.

**Qualitative Phase**

In a sequential explanatory mixed methods study, the qualitative questions and subsequent data collection is determined by the quantitative findings and the qualitative findings help explain the quantitative findings. In this variation of a sequential
explanatory model, quantitative and qualitative data from the survey were merged during the analysis phase such that the qualitative findings would enhance the quantitative results. These findings generated additional questions to be explored during the qualitative phase in order to extend the usefulness of the findings. Table 12 displays the quantitative results and merged findings that generated the qualitative questions.

**How students valued teacher-led instructional experiences.** Participants overwhelmingly valued teacher expertise grounded in “real-world” experience and the credibility that conferred. Teachers were also sources of motivation, both by sharing enthusiasm for their topics and because their role gave them power which compelled a sense of accountability in participants, prompting them to do assignments and participate and learn as a consequence. Two participants valued teachers for their ability to help students learn by creating more optimal learning interactions or conditions than students were able to do on their own. Finally, two students valued the feedback and insights teachers could provide. Table 13 lists the themes identified, the number of coded segments, and presents a representative quote to illustrate each theme. All of the coded segments in each theme are found in Appendix R.
Table 12

Qualitative Questions Generated by Quantitative and Mix 1 Findings

<table>
<thead>
<tr>
<th>QUAN</th>
<th>Mixing 1</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher-led prior experiences had weaker relationships with the perceived characteristics of mixed methods than did socially-centered or individually-sought experiences</td>
<td>Students desired more knowledge and those with more experience said formal instruction was what they needed to consider using a mixed methods approach</td>
<td>What do students value about teacher-led instructional experiences?</td>
</tr>
<tr>
<td>Socially-centered prior experiences had the strongest relationships with relative advantage, compatibility, and result demonstrability</td>
<td>Only 3 participants mentioned collaboration when describing what they needed to use a mixed methods approach</td>
<td>How do students perceive the role of discussion in their own learning? How do students perceive the affordances and drawbacks to teacher-led versus student-centered learning experiences?</td>
</tr>
<tr>
<td>Individually-sought prior experiences also had strong relationships with relative advantage, compatibility, and result demonstrability</td>
<td>The majority of students cited external requirements when it came to using mixed methods. Of those who noted internal changes that would need to be made, five noted a need for confidence with research approaches, one displayed bias against quantitative methods, and one mentioned the need for more effort on their part.</td>
<td>What does it mean to be a participatory and engaged learner? What would a student consider the most highly valued learning outcome of taking a mixed methods course?</td>
</tr>
</tbody>
</table>

Note: QUAN = quantitative finding, Mixing 1 = merge of quantitative findings and qualitative data from open-ended survey questions, Questions = questions prompted by quantitative results and the findings of the first mix.
Table 13

*What Students Valued in Teacher-Led Instructional Experiences*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Representative quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise</td>
<td>“The obvious is of course their experience, and hopefully their expertise in the field and providing you with the knowledge that they’ve accumulated from years of experience on a topic that you are trying to engage with or trying to learn about. If they’re a good scholar, a good expert, they can bring forth discussions from real world experiences, not just book regurgitation or scholarly regurgitation, anybody can do that.”</td>
</tr>
</tbody>
</table>
| Motivation       | “The value in having instruction on mixed method research design from an instructor is that I’ll have added incentive and motivation to complete the coursework, to complete the readings, engage in the discussions and so forth.”

“I think what’s really valuable about it is seeing that person’s passion shine through. You can see that they have spent hours and years of their life dedicated to a topic that they really care about. I think that, regardless of what the topic is, it’s engaging and captivating to watch someone who is passionate about something speak about it and share about it … If somebody else is passionate about it, it’s contagious.” |
| Instructional Design | “If they’re a good teacher, a good instructor, they can present you with the information in a novel way; they have some type of teaching technique that is unique or effective. They can unpack some type of concept for you that you’ve never been able to comprehend on your own. I think some instructors have a gift of being able to do that.” |
| Interaction      | “It’s still valuable to me to have the insights of the instructor and to be in a formal class setting both from a motivational standpoint but also from the standpoint of being able to engage, ask questions, and have follow up with the instructor instead of just reading the text book and having that one way information have a two-way exchange of information to further my learning process.” |

**The role of discussion in learning.** Six of the ten participants interviewed said they were inclined to start talking about what they were learning right away, before they felt they had a firm understanding of the topics. The majority of participants primarily used discussion with others to help “calibrate” their own thinking, either validating what they believed to be true, or exposing weaknesses in their own understandings and ideas.
The new ideas generated in discussions were also valued. All coded segments in each theme are listed in Appendix S.

Table 14

How Students Perceived the Role of Discussion in Their Own Learning

<table>
<thead>
<tr>
<th>Theme</th>
<th>Representative Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibration</td>
<td>“It helps me to recalibrate my instrument, so to speak. I know that by talking to other people that maybe what I’m thinking or what I’m understanding is jiving with what they’re learning and understanding. But, I also love the fact that there’s that dissonance and sometimes something I’m thinking or feeling about a subject is not what one of my peers is thinking or feeling.”</td>
</tr>
<tr>
<td>New Ideas and Connections</td>
<td>“I think that in discussion, not just discussion with your classmates, but discussion with your friends, with family, and colleagues and different other realms of your life, it’s huge. You’re making other associations with the material outside of just those circumstances that strengthen that content itself. I think discussion is huge, that’s how you should be participating.”</td>
</tr>
<tr>
<td>Getting Information</td>
<td>“Through discussion we know more about the topic and we know more about what we need to do and to recognize that what kind of book do I need to read/We share all of this kind of information, passing notes, and our homework and all kinds of things.”</td>
</tr>
</tbody>
</table>

Teacher-led versus student-centered learning experiences. Participants spoke positively about the role discussion played in their learning and emphasized how “constructing on your own” could lead to confidence from a greater sense of mastery. One student described how peer interactions produced less anxiety, making it easier to share ideas, but some students felt “short-changed” when their peers were unprepared to participate and felt that it was the teacher’s expertise they were “paying for” and wanted to “talk to the expert.” See Appendix T for the full list of coded segments.
Overall, the participants interviewed placed enormous value on the expertise of the instructor and seemed to take the position that knowledge flows from teacher to student.

**Qualities of a participatory and engaged learner.** When asked to describe what it meant to be a participatory and engaged learner, the participants emphasized the importance of self-motivation and initiative. They advised forming connections with other graduate students, approaching readings with a critical mindset, identifying and bringing in outside resources, trying to learn from others, and keeping coursework constantly on one’s mind to make connections. One participant succinctly described an engaged learner, “I see an engaged learner as one who crosses that threshold between I have to do this and I get to do this” (see Table 15). Appendix U contains a full list of the coded segments.

Finally, participants were asked what they would value most from taking a mixed methods course.

**What learning outcomes students would value in a mixed methods course.** Some participants valued “how-type” knowledge and would want to finish the course prepared to apply their knowledge by carrying out their own mixed methods study. Others focused more on wanting to acquire a clear understanding of what it meant to integrate qualitative and quantitative methods, not necessarily do a study on their own (see Table 16). The full list of coded segments is found in Appendix V.
Table 15

*Qualities of Participatory and Engaged Learners*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Representative quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiative</td>
<td>“Be more active in learning, to find a more papers and read more papers by themselves, and not just to learn from class. The textbook is limited in what you want to learn. If you really want to do a good job and you want to learn more about that, extra after the class. Cooperate with both your professor and students are learning and discuss with them, you need to learn from each other”</td>
</tr>
<tr>
<td>Create Relevancy</td>
<td>“I would say to be active in the discussions, to really carry out assignments and projects for the class in a way that is meaningful to you, not just thinking about each task as something to check off of a list, but what you’re going to get out of it that’s going to help you in the future. Perhaps a participatory learner thinks about each task as preparation for future learning or preparation for future research instead of thinking of it as a hoop to jump or a step to climb”</td>
</tr>
<tr>
<td>Reflect</td>
<td>“As you know, with these programs there’s a lot of reading, a lot of studying, and a lot of thinking that goes on. At first, it’s a little overwhelming but I think I found that place where it was changing how I was thinking, it was changing and how I was stretching my head in new directions. It was painful at times, but there’s something about that learning that once you’re really engaged in the material, you know you’re passionate about it, you know you’re excited about it, you don’t feel like you’re learning anymore because you have to, it’s because you get to and because you want to.”</td>
</tr>
<tr>
<td>Form Relationships</td>
<td>“I think it really matters to form connections with your cohort members or your fellow students as much as possible to also form them across campus with other graduate students. I think there’s a lot to be said for that and I think there is really a benefit in taking some of those mixed level classes and engaging with particularly the senior level undergraduates and honing our own skills as emerging researchers, emerging instructors, or whatever the case may be and learning from our experiences in working with the brightest of the undergraduate population as well.”</td>
</tr>
</tbody>
</table>
Table 16

*Most Valued Learning Outcomes in a Mixed Methods Course*

<table>
<thead>
<tr>
<th>Theme and number of coded segments</th>
<th>Representative Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hands-On Experience 5</td>
<td>“I would have to say the practice of doing a mixed methods project and really feeling that I have a good understanding of how that happens and how to do it on my own in the future”</td>
</tr>
<tr>
<td>Clear Understanding 4</td>
<td>“That course, the biggest thing I took away from it because clearly I couldn’t take away all the nitty gritty parts of research with qualitative or quantitative, but I took away the big picture. I really thought a lot about, “there are these intentional ways of putting together this quantitative data and this qualitative data and when should you be intentional with this? How should you be intentional when you put them together?” It was a great experience for me, it actually helped revise what I was doing in the research study I was working with.”</td>
</tr>
<tr>
<td>Collaboration 1</td>
<td>“I think, for me, the opportunity to find that collaborator who is on the other brain side of the equation that would be the ticket. I think as much as I would like to think that I would become an expert in it all, I don’t see that as my strength. I don’t really see that, I see that as potentially diverting or distracting from what I know is my strength. But, to be able to find somebody who I can collaborate with who also understands the value of this mutual collaborative work and of combining forces and maximizing our impact. That would be the ticket for me..”</td>
</tr>
</tbody>
</table>

**Mixing 2: Extending the Usefulness of the Findings**

The quantitative findings were enhanced in the first mixing where quantitative data in the form of the participants’ level of prior experience with mixed methods was used to establish quartiles. The quartile information was juxtaposed with the qualitative themes identified in the analysis of the open-ended survey questions. The results of this merger generated new questions that were addressed in the qualitative phase through the analysis of the interview data. In this section, the quantitative finding will be presented first, followed by the mixing 1 result and the question the two analyses spawned. Finally,
the findings from the analysis of the interview transcripts are presented to extend the usefulness of the initial results. The implications of these combined findings are discussed in Chapter 5.

**Importance of courses and teachers.** In the quantitative analysis, teacher-led experiences had weak relationships with the perceived characteristics of mixed methods. However, when asked what it would take for the participants to use a mixed methods approach, graduate students with little prior knowledge of mixed methods desired more knowledge, while those with more experience stated a need for formal instruction. If there is not a strong positive relationship between teacher-led experiences and dependent variables such as result demonstrability and relative advantage, what do students value about teacher-led instructional experiences? The analysis of the interview data revealed that students most valued the domain expertise of their teachers and this expertise conferred credibility and authority along with “real world” experience. However, in terms of learning, participants described teachers as sources of motivation, both through establishing an environment of accountability and through their enthusiasm for their topics.

**Socially-centered interactions and deep learning.** The quantitative analysis showed that socially-centered prior experiences had strong, positive relationships with relative advantage, compatibility, and result demonstrability. However, when asked what it would take for them to use a mixed methods approach, only three students made statements related to collaborative activity. This elicited two questions:
1. How do students perceive the role of discussion in their own learning?

2. How do students perceive the affordances and drawbacks to teacher-led versus student-centered learning experiences?

For the participants in this study, discussion helps students calibrate their learning by validating beliefs or exposing weaknesses. Discussion also helps students make connections between what they learn and what is external to the course. However, students may feel “short-changed” when class discussions or group work goes off-topic or their classmates are not prepared to engage in the peer-to-peer activities. Students emphasized that what they were “paying for” was the teacher’s expertise.

**Individual as learner.** Like socially-centered prior experiences, though not quite as strong, individually-sought prior experiences had positive relationships with relative advantage, compatibility, and result demonstrability. However, when asked what it would take to use a mixed methods approach, most emphasized external requirements, such as a course, as opposed to internal changes they could make. Of those who did mention more internally affiliated constructs, five lacked confidence with quantitative research approaches and one mentioned the need to expend more effort. This finding prompted two questions:

1. What does it mean to be a participatory and engaged learner?

2. What would students consider the most highly valued outcome of taking a mixed methods course?

Participants said that engaged learners have initiative and form relationships with other students, approach readings with a critical mindset, try to learn from others, and
constantly work to make connections between what they are learning and what they know, or learn, outside the course. With regards to what they would most value from a mixed methods course, participants were split between the hands-on knowledge that would enable them to carry out a mixed methods study and a clear understanding of what it meant to integrate qualitative and quantitative research.

**Results Summary**

Eighty-six graduate students ranging in age from 22 to 56 years of age (M = 32, SD = 8.6) completed the survey. Most were women (77%) and most were white (80%). Sixty percent of the participants belonged to 5 of the 34 academic majors represented: Teaching, Learning, & Teacher Education (28%, n = 24); Educational Psychology (11%, n = 10); Educational Studies (8%, n = 7); Architecture (7%, n = 6); and Child, Youth, & Family Studies (6%, n = 5). A majority of students sought academic careers (71%, n = 24) after graduation and most classified themselves as full-time students (66%, n = 57). Full-time students reported spending nearly 30 hours per week on academic coursework (M = 28.88, SD = 13.85) while part-time students reported about half that (M = 13.23, SD = 7.07). Although it was anticipated that there might be a relationships between student characteristics and the perceived characteristics of the innovation of mixed methods, no significant relationships were identified.

However, prior experience was an important variable. On average participants had at least three credit hours of experience with qualitative methods (M = 3.49, SD = 3.4) and five hours of experience with quantitative methods (M = 4.9, SD = 5.73), but little experience with mixed methods (M = 1.37, SD = 2.42). Nonetheless, there were
significant relationships between the level of prior experience and the perceived characteristics of mixed methods. Strong relationships were identified between the level of qualitative prior experience and result demonstrability ($r = .46, p < .01$). Overall prior experience, which included qualitative, quantitative, and mixed methods prior experience had strong positive relationships with the combined variable of relative advantage + compatibility ($r = .41, p < .01$) and result demonstrability ($r = .46, p < .01$). However, the strongest relationships were between mixed methods prior experience and relative advantage ($r = .43, p < .01$), compatibility ($r = .49, p < .01$), result demonstrability ($r = .54, p < .01$), and trialability ($r = .43, p < .01$).

Interesting relationships were identified between the kinds of prior experiences and the perceived characteristics of the innovation of mixed methods. Socially-centered activities such as discussion with colleagues and friends had the strongest positive relationships with relative advantage ($r = .43, p < .01$), compatibility ($r = .45, p < .01$), result demonstrability ($r = .52, p < .01$), and trialability ($r = .42, p < .01$). Individually-sought activities like looking up information on the Internet or independently reading books about mixed methods had strong relationships with the combined variable of relative advantage + compatibility ($r = .46, p < .01$) and with result demonstrability ($r = .47, p < .01$). Surprisingly, teacher-led prior experiences only had weak to moderate positive relationships with compatibility ($r = .28, p < .01$), result demonstrability ($r = .38, p < .01$), visibility ($r = .31, p < .01$), and trialability ($r = .33, p < .01$).

Participants were asked to describe what they perceived to be the benefits of mixed methods and their answers varied with respect to their levels of prior experience,
thereby confirming quantitative findings as well as enhancing them by the identification of key benefits. The benefit of breadth and depth was perceived as a benefit by participants at all levels of prior knowledge, but graduate students with higher levels of prior knowledge emphasized benefits such as validity, the strengthening aspect of using mixed methods, and the benefit of completeness.

The second open-ended question explored the use of mixed methods by asking participants to describe what it would take for them to use a mixed methods approach. Again, prior experience appeared to play a role. Those with less prior experience emphasized a general need for more knowledge about mixed methods while those with the most prior experience focused on formal instruction.

Because this study aimed to provide course design insights to faculty and instructional designers, further exploration of questions related to teaching and learning prompted by the findings of the first mixing of qualitative and quantitative data constituted the second phase of the study. In particular, because the quantitative findings only found weak relationships between teacher-led prior experiences and the perceived characteristics of mixed methods, yet students identified a course as what they most needed to use a mixed methods approach, further investigation into what students valued with regards to their own learning was warranted and ten participants with varying levels of mixed methods prior experience were selected for in-depth interviews.

The primary objective was to investigate how teacher-led and socially-centered learning interactions were valued by graduate students in order to understand why there were weak relationships between teacher-led prior experiences and the dependent
variables when there were strong relationships between the same variables and socially-centered and individually-sought prior experiences. Participants were also asked to describe what it meant to be an engaged learner as well as what they would most value from a mixed methods course.

In teacher-led experiences, participants primarily valued teachers for their domain expertise, but they did not describe how the expertise of instructors contributed to their learning. Instead, the motivational role of teachers was connected to learning. Participants said that teachers created a context of accountability so that students did assignments and activities that lead to learning. Participants also described how observing a teacher’s enthusiasm for a subject sparked their own interest and motivated them to learn.

When asked to describe what role a socially-centered activity such as discussion played in their learning, participants said discussing their learning with others helped them “calibrate” their thinking – either validating or exposing weaknesses in what students believed to be true. Additionally, participants said discussion with others was critical to generating new ideas. However, participants said discussions with peers in a student-centered classroom were often frustrating because peers were not prepared to participate and sometimes it felt as if they were short-changed because it was the instructor’s expertise they were “paying for,” not to learn from other students.

To understand how participants understood the role of the learner, they were asked to describe what it meant to be an engaged learner. Participants emphasized the need for initiative and for students to approach course content with a critical mindset and
to try to learn from others and make connections between what they were learning and the world outside the classroom.

These findings seemed to indicate a discrepancy between what the participants most valued and under what conditions they learned most effectively. From the value they placed on instructor expertise, it seemed they had a mental model of learning in which experts transmitted knowledge to students who would passively receive it. In contrast, direct links were made between learning and discussion, as well as between learning and the behaviors of an engaged learner, but students seemed to devalue those types of interactions and behaviors. Participants felt they were not paying to learn from their peers and complained about group discussions that went off topic without recognizing that an engaged learner would pull the conversation back on topic to extract learning from the exchange.

When students were asked what their most valued learning outcome would be from a mixed methods course, two themes emerged. First, students emphasized the desire for hands-on learning such that they would be able to use a mixed methods approach after taking the course. Second, participants emphasized the need for a “clear understanding” of what it meant to integrate qualitative and quantitative data.

In the next chapter, these findings are discussed with respect to the quantitative, qualitative, and mixed research questions. Findings are also related to the theoretical models and issues presented in the literature review. The chapter begins with a study overview then addresses each research question in turn.
Chapter 5

Discussion

The purpose of this sequential explanatory mixed methods study was to understand the relationship between graduate student characteristics and prior experiences on the perceived characteristics of mixed methods. The study was undertaken from an instructional design point of view and sought insights to address ongoing challenges in teaching mixed methods to graduate students. The study was carried out in two phases. The first phase consisted of concurrent collection of quantitative and qualitative data via a survey and an initial merge of quantitative and qualitative data during analysis to enhance the findings. The merged findings spawned questions and informed case selection for the subsequent qualitative phase. The second and final mix of quantitative and qualitative occurs in this section where findings from each step are discussed in relation to the research questions.

This chapter gives an overview of the study and then the research questions are addressed in the order in which they were addressed in the research process. Each discussion relates the findings to the relevant theoretical models and issues presented in the literature review. Implications and recommendations, limitations, future research, and concluding reflections are presented in Chapter 6.

Overview of the Study

Strong relationships were found between prior experience with mixed methods and the perceived characteristics of mixed methods. Socially-centered and individually-sought prior experiences had stronger relationships than teacher-led prior experiences.
Participants viewed the primary benefits of using mixed methods to be its qualities of breadth and depth, completeness, validity, and potential to strengthen a study through the compensatory aspects of qualitative and quantitative approaches. The benefits cited by participants varied with respect to their level of prior experience with mixed methods. To use a mixed methods approach, participants needed a purpose, more knowledge, and formal instruction. In teacher-led environments, participants highly valued the domain expertise of their instructors, but did not directly relate that expertise to learning. Instead, students emphasized the motivational role teachers played, both through sharing their enthusiasm for their subject, and through the environment of accountability which prompted students to do the assignments and activities that lead to learning. In contrast, when students described the role of a socially-centered activity such as discussion, it was directly related to activities indicative of deeper learning. Participants appreciated the way that discussion helped them identify weaknesses in their understanding and prompted new ideas. In terms of being good learners, participants emphasized initiative. The key learning outcomes participants wanted out of a mixed methods course were either hands-on experience such that they could carry out their own mixed methods study, or a clear understanding of what it meant to integrate qualitative and quantitative approaches.

**Quantitative Research Question: Identified Relationships**

“What were the relationships between student characteristics and prior experience and the perceived characteristics of the innovation of mixed methods?”
In the quantitative phase, strong positive relationships were found between prior experience with mixed methods and the dependent variables of relative advantage, compatibility, and result demonstrability.

These findings were consistent with the Unifying Theory of Acceptance and Use of Technology (UTAUT) which posits that experience diminishes negative effects of complexity and incompatibility, rendering performance expectancy, the construct encompassing the characteristics of relative advantage and result demonstrability from Rogers’ innovation adoption model, most strongly associated actual use of a system. To extrapolate from the context of technology acceptance to that of teaching mixed methods, the theoretical model would suggest that instructors should help students fully understand how using mixed methods can help them be more effective and thereby benefit in their respective professional contexts.

**Mixed Research Questions 1 and 2**

Mixing 1, where the quantitative data representing prior experience with mixed methods was juxtaposed with themes that emerged from the analysis of two open-ended survey questions, revealed which benefits of mixed methods students perceived and what they believed they needed to use a mixed methods approach.

**Mixed research question 1: described benefits.** “How do the described benefits of mixed methods enhance the quantitative findings?”

The first merger enhanced the quantitative findings by revealing which perceived benefits of using mixed methods were most apparent and important at which level of prior experience.
Respondents cited the benefits of breadth and depth, completeness, validity, and the strengthening aspects of the compensatory potential each approach had with regards to the weaknesses in the other. However, the distribution of the segment counts at each quartile level informed the observability of the benefits with respect to prior experience.

For participants with the lowest level of prior experience with mixed methods, the coded segments were evenly distributed among the seven identified benefits. This demonstrated that for those with the least amount of knowledge particular benefits did not stand out. They may have even guessed at benefits based upon the content of survey items.

In quartile 2, there was a single cluster related to breadth and depth, then even distribution among five other categories. Breadth and depth was also the top cluster in the higher knowledge quartiles. This implies that with a little prior experience, breadth and depth is the most easily perceived benefit of using mixed methods. It is also a phrase frequently used in mixed methods literature from textbooks to research articles.

Finally, quartiles 3 and 4 showed more dramatic but differing clustering which may be indicative of how observable, or understandable, the results of using mixed methods are. For example, in quartile 3, segments are split between the easily comprehended benefit of breadth and depth and the benefit of validity. Those in quartile 4, the highest level of prior experience, placed less importance on validity and more on completeness and the compensatory/strengthening aspects of mixed methods.
Mixed research question 2: to use mixed methods. “How does knowing what it would take for these participants to use a mixed methods approach enhance the quantitative findings?”

The second merger enhanced the quantitative findings by exposing differences in how students assessed their shortcomings and capabilities at different levels of knowledge about mixed methods. The findings supported Rogers’ (2003) assertion that as people move through persuasion phase the innovation adoption process they also go through phases of knowledge.

The phases of knowledge are “awareness,” “how,” and “principle” or “why” knowledge. According to Rogers (2003), decision makers may adopt an innovation based on how knowledge of the innovation, but without principle knowledge they will be unable to accurately evaluate the impact of using the innovation and may discontinue use. With respect to mixed methods, a remarkably complex innovation, implementation simply cannot take place without extensive knowledge of how and why to use the approach.

The merged findings support these knowledge phases. Quartile one coded segments were clustered under the code of “knowledge” and expressed the need for more knowledge in a general ways, using phrases such as “need more information” and “need to know what it [mixed methods] is.” For higher knowledge quartiles, expressions were more specific and focused on needing a course and appropriate research questions.

Students in the awareness phase were just hearing about mixed methods, perhaps for the first time, when doing the survey. Consequently, they could offer little specificity
to what they required to actually use the approach. More knowledgeable participants identified “how” and “why” types of needs and identified expert-led formal instruction as the way to get this knowledge.

**Qualitative Question: What Students Valued**

“What do students value with regards to their own learning about mixed methods?”

To extend the usefulness of these findings for instructional designers and faculty to create more effective mixed methods courses, ten participants with varying levels of prior experience with mixed methods were selected for interviews in order to more deeply understand what students valued about formal learning environments, what they most wanted from a mixed methods course, what qualities they perceived learners needed, and what types of interactions they believed lead to significant learning.

Qualitative analysis of the transcripts showed that what participants wanted out of a mixed methods course was split between a clear understanding of the integration of mixed methods, so its value and use in research could be understood, and concrete “how-to” knowledge needed to confidently carry out a mixed methods study. With respect to understanding how students perceived their own learning, there was a discrepancy between what participants valued most in a formal instructional setting and what is associated with deeper learning.

Participants had high regard for the domain expertise of teachers, but did not strongly associate that expertise with their own learning except in the capacity of motivation. Participants said when teachers exhibited enthusiasm for their topic it was
“contagious” and motivating. Additionally, teachers provided an environment of accountability and motivated students to actually do the things that led to learning, such as readings and discussion participation.

When asked to describe what it meant to be an engaged and participatory learner, participants emphasized the need for initiative, to take responsibility for making course content relevant to their own experiences, participating, and making connections between what they were learning in the class with the world outside the class. Participating in discussions in and outside the classroom helped participants to calibrate their learning -- either validating conclusions or prompting a rethinking by pointing out weaknesses.

Surprisingly, despite linking deeper learning to individual initiative and interactions with others, such as having formal and informal discussions, participants tended to devalue student-centered activities because it was the instructor’s expertise they were “paying for.”

These findings are consistent with the constructivist approaches taken by instructors (Earley, 2007) to teach mixed methods in that student-centered activities such as peer discussion can lead to deeper learning but are not always found valuable by students (Christ, 2009).

Mixed Research Questions 3 and 4

To answer the final two mixed research questions, findings from the first mix, where quantitative and qualitative data were merged during analysis, are combined with the qualitative findings, resulting in the second mixing in the study.
Mixed research question 3: changes in understanding. The third mixed question asked how had the researcher’s understanding of how mixed methods was perceived and considered for adoption changed based on the findings of this study.

The model proposed by Rogers (2003) was intended as a widely applicable general model and it has proven to be so in many domains. Going into the study, it was anticipated that if the importance of the perceived characteristics varied with respect to time and experience, that variance would be similar to that other innovations such as technology. However, as a result of this study, it appears that the perceived characteristics of mixed methods may differ because of the sheer complexity of the innovation and the inability to easily “try” it before committing to using it.

In Rogers’ model (Figure 1), the phases are displayed as if they have little overlap and the perceived characteristics of the innovation are shown as if they are equally relevant at the same point of time. With respect to the highly complex innovation of mixed methods, this study seems to support a model of adoption whereby the knowledge and persuasion phases have a great deal of overlap and the perceived characteristics are relevant at different points in time.

Figure 23 places visibility most near awareness in accordance with Rogers’ (2003) proposition that inexperienced decision makers do not have enough experience with the innovation to assess its relative advantage and other characteristics. Result demonstrability and compatibility come next. Because of bias against quantitative or qualitative methods, compatibility may be an early issue. Once equipped with an
The proposed importance and relevance of the perceived characteristics of the innovation of mixed methods may vary with respect to the type of knowledge decision makers posses.

*Figure 23. Overlap between knowledge and persuasion phases.*

understanding of how mixed methods works and its principles to some degree, students are able to assess the relative advantages of using mixed methods within their domain and situation. If the perceived advantages are great enough, students may implement mixed methods. This is in accordance with Venkatesh et al.’s (2003) assertions within the domain of technology acceptance that experience is most strongly correlated with compatibility, result demonstrability, and relative advantage, but that when it comes to use of the innovation, or implementation, relative advantage is most critical. However, where Figure 23 differs from technology acceptance is with respect to trialability. The ability to test software before committing to use it is critical and closely tied to being able to assess the results of using it (Mohr et al., 2009). In contrast, there is no easy way to “try” mixed methods beyond vicarious experimentation through the experiences of others. To get hands-on with mixed methods, one must embark on creating a proposal, which is often done as part of committing to the cost and time of a mixed methods course. Consequently, while there are many similarities between adopting complex
technologies and adopting mixed methods as an approach to inquiry, mixed methods may have its own unique pattern.

**Mixed research question 4: informing mixed methods course design.** The final research question asked how these findings informed the design of a mixed methods course.

In short, little new was learned by relating the adoption of mixed methods to technology acceptance, but understanding what students thought it would take for them to use a mixed methods approach along with how they valued teacher-led learning experiences, utilized discussion in their learning, described engaged and participatory learners, and what they wanted to learn in a mixed methods course prompted several ideas.

**Mixed methods as technology acceptance.** In Table 2, Mohr et al.’s (2009) implications for facilitating the adoption of high tech innovations was extended to the classroom wherein the teacher was the change agent with the objective of facilitating the adoption of mixed methods. In relating the findings to technology acceptance, no new insights were gained because existing instructional designs already take the recommended measures to encourage innovation adoption. Many issues related to relative advantage are addressed in the following two ways:

1. comparison of mixed methods with qualitative and quantitative approaches highlights advantages and drawbacks of using mixed methods, and
2. the guidance students receive from instructors provides support for managing the complexity of a mixed methods approach.
Moreover, students show their awareness and acceptance of mixed methods by signing up and taking the course, demonstrating that the approach is compatible with their exiting beliefs and values. In some cases, students may have opted to take the course in order to develop their dissertation proposal and have thereby already made the decision to adopt and implement mixed methods. Others have committed to trying mixed methods as part of a project based course. These students will decide to adopt or not after the trial. One way instructors might increase the use of mixed methods by students, especially those not planning on academic careers, may be to help students identify ways in which they might effectively employ mixed methods in their current or future professional contexts. Taking this approach may help students identify relevant relative advantages of using mixed methods.

The challenges of teaching mixed methods. From the literature review there are longstanding challenges associated with teaching mixed methods. The two most commonly cited are the interrelated issues of differently prepared students and the sheer breadth of content that when explored to any depth seems overwhelming to students (Christ, 2009; Ivankova, 2010; Onwuegbuzie et al., 2013).

The findings of this study suggest that mixed methods course designs may benefit from examining how the role of the instructor is utilized within the course as well as to what degree students understand their own learning and value socially-centered learning interactions. In this way, project-based course designs used in teaching mixed methods may be rendered more effective.
Discussion Summary

This study investigated the relationships between student characteristics and prior experience and the perceived characteristics of the innovation of mixed methods in order to explore how models of innovation adoption may inform mixed methods course design.

In the first phase, strong positive relationships were identified between relative advantage, compatibility, and result demonstrability. These results were consistent with Rogers’ model (2003) as well as the Unifying Theory of Acceptance and Use of Technology (Venkatesh et al., 2003) in that experience diminishes the negative effects of complexity and incompatibility, leaving relative advantage and result demonstrability as the variables most likely to impact future use of mixed methods. Quantitative analysis also showed that the kind of prior experience may be relevant. Socially-centered and individually-sought prior experiences were more strongly related to the dependent variables than teacher-led prior experiences. These findings were somewhat surprising and justified further exploration of how students valued teacher-led and socially-centered activities in the second and qualitative phase of this study.

In the first phase of the study was the initial merging of quantitative and qualitative data to enhance the quantitative findings. The link between prior experience and perceived benefits was confirmed. Participants at all levels of prior experience identified breadth and depth as a benefit of using mixed methods, but with increased prior experience different benefits were emphasized, suggesting some benefits were more readily identified while others may have been less obvious, or important only when participants possessed certain kinds of knowledge. This finding enhanced the
quantitative findings by revealing that the kind of prior knowledge may be an important consideration. For example, participants in the third quartile of prior experience with mixed methods perceived validity as a key benefit of the approach, perhaps indicating that at this level of prior experience, validity is a key concern.

Findings from the second question from the first mixing were consistent Rogers’ (2003) proposition that people move through different phases of knowledge as they proceed through the phases of adoption. Participants were asked what it would take for them to use a mixed methods approach. Those with high levels of prior knowledge emphasized the need for formal instruction while those with low levels expressed general statements of needing more information or knowledge about mixed methods. The phases of knowledge are “awareness” knowledge, “how” knowledge, and “principle” or “why” knowledge. The findings suggest that with more prior experience, participants were able to more accurately identify gaps in their understanding that would prohibit them from using mixed methods. These findings enhance the quantitative findings by suggesting that the sequence in which information about mixed methods is presented may influence the perceived characteristics of mixed methods and thereby impact the eventual use of the approach.

To extend the usefulness of these findings to course designers and instructors, interviews with ten participants with varying degrees of prior knowledge of mixed methods were conducted to better understand what students valued in a formal learning context such as a course. Participants highly valued the domain expertise of their instructors but associated indicators of deeper learning, such as revision of their beliefs
and making connections between what they were learning and the world outside the classroom, with socially and individually centered activities such as discussion and learner initiative.

These findings support the current use of constructivist strategies used in teaching mixed methods (Creswell et al., 2003; Earley, 2007; Onwuegbuzie et al., 2013) but also confirm that activities that may lead to deeper learning are not always found valuable by students (Christ, 2009).

The subsequent chapter addresses the implications and recommendations for teaching mixed methods, along with the limitations of the study, and suggested future research. The chapter concludes with reflections and lessons learned.
Chapter 6

Conclusions

This study set out to gain insights into the design of mixed methods courses by understanding how the characteristics and prior experiences of graduate students were related to their perception of the characteristics of mixed methods as an innovation. The metaphor underpinning the research was that mixed methods was like a complex technological innovation and the way the approach was perceived would inform how teachers designed mixed methods courses. This is similar to how change agents, or those who would have decision makers adopt a new technology, may alter their approach, the information they share, and support they provide in order to facilitate adoption of a technological innovation.

In this study, strong positive relationships were found between prior experience with mixed methods and the perceived characteristics with mixed methods. Participants with more experience identified and prioritized perceived benefits with greater specificity than those with little prior experience. Additionally, more experienced participants were better able to identify their shortcomings and displayed greater specificity in stating their needs with respect to using a mixed methods approach.

The kind of prior experience was also related to the perceived characteristics of mixed methods. Strong positive relationships were found between socially-centered prior experiences and the perceived characteristics of mixed methods. To a slightly lesser degree, this was also true for individually-sought prior experiences. However, there were only weak to moderate relationships between teacher-led prior experiences and the
dependent variables. Although this finding was initially surprising, literature in teaching and learning supports the importance of individually and socially constructed knowledge to deep learning (Schunk, 2011). However, in the second phase of the study when 10 participants having differing levels of prior experience were interviewed to investigate what they valued in terms of their own learning, a dissonance was discovered between what was most valued and what was directly linked with learning.

Participants most valued teacher-led learning experience for the instructors domain-specific expertise, but participants did not directly tie teacher expertise to their learning. Instead, instructor expertise indirectly supported learning by helping to establish an environment of accountability in which participants felt compelled to do activities such as discussion and homework, which were directly tied to learning. The enthusiasm teachers had for their topics was also valued because it made participants feel the material was exciting and important, which motivated them to learn.

In contrast, although participants said discussing what they were learning was absolutely critical to their learning because doing so validated what they thought or exposed weaknesses in their thinking, they did not seem to value it highly. Some even felt that they were being “short changed” when participating in such activities. They were in the class to “learn from the instructor, not other students.” This seeming dissonance between what students most valued and the types of activities most closely associated with deep learning was the most important finding of this study.

In this chapter, the implication of this finding and others are discussed with respect to the design of mixed methods courses and with the aim of addressing the
longstanding challenges of teaching mixed methods. Limitations of this study and suggested future research are also presented. The chapter concludes with reflections and lessons learned.

**Implications and Recommendations for Course Design**

The stakeholders this study sought to inform were instructional designers and teachers of mixed methods courses. In this section, the implications of the findings to course design are described and recommendations for practice are given.

*Constructivist course design.* The approach to teaching used in many mixed methods courses is rooted in constructivism. The assumption is that knowledge is actively constructed by learners whose prior knowledge and experiences shape the meanings they make of new material as they interact with the content, each other, and their teachers. To facilitate learning, mixed methods instructors have employed learner-centered activities such as project based learning and peer discussion (Creswell et al., 2003). Project based learning supports students’ motivation because when students prepare a research proposal they are learning in an authentic context. Moreover, proposals are practical, not only giving students authentic hands-on experience, but may subsequently be used as the foundation for students’ theses and dissertations.

The constructivist foundations of mixed methods course design were reinforced with Earley’s (2007) article articulating how he went about creating a syllabus for his mixed methods course. Earley’s syllabus was based on Fink’s (2003) approach to course design in which learning goals, activities, and assessment are tightly integrated and emphasis is placed on authentic assessment and the learner’s role in constructing their
own knowledge. Earley’s article was frequently cited in articles about teaching mixed methods after 2007, suggesting his approach has been widely diffused (see Figure 3).

One notable aspect of Earley’s (2007) course was the absence of planned lectures. Instead, the “lecture” was centered on interaction with students and its length depended on the questions posed by students. His procedure was to “throw [the question] back to the class” before interjecting his own thoughts. Earley also required students to engage in reflective writing at the conclusion of each class. Students were to note how what they learned would impact their future thoughts and actions. Both of these instructional strategies encouraged students to take responsibility for their own learning and created conditions in which students had to take an active approach to learning.

Constructivist approaches such as problem, project, and inquiry based learning activities have been criticized in favor of “strong instructional guidance” (Kirschner, Sweller, & Clark, 2006, p. 84). Proponents of this view claim that the benefits of a more direct approach to instruction do not diminish until learners have acquired sufficient prior knowledge to provide their own internal learning guidance and those with high prior knowledge are not hindered by additional guidance.

The problem of variable and inadequate prior knowledge on the parts of students was a primary challenge faced by mixed methods instructors. Although nearly all the mixed methods courses described in the literature required students to have had at least one quantitative and one qualitative methods course previous to taking the mixed methods course, teachers often found students unprepared for quantitative or qualitative work. Data collected in this study supports not only variability of preparedness, but a
lack of confidence. When asked what it would take to use a mixed methods approach, several students expressed insecurity about their research abilities. Some participants specifically identified quantitative methods as being problematic. Inadequate prior knowledge may not only render students insecure and handicapped when it comes to doing the work of the course, but perhaps more importantly, it impairs their ability to ask the right questions and seek out the means for amending their shortcomings.

To address the challenges of instructors attempting to select content and activities appropriate to the learners as well as that of students attempting to better direct their own learning, teachers should consider providing optional online modules or links to appropriate resources for students to better individually prepare themselves to take a mixed methods course and maximize their learning.

In the era of massive open online courses (MOOCs), several online basic statistic courses are available. Additionally, there is a plethora of support for both quantitative and qualitative approaches on YouTube and online. For motivated students equipped with a list of terminology and concepts they should understand before taking the mixed methods course, these resources could be utilized to establish baseline competencies. A complementary package of optional “where to go from here” modules and resources may help serve the needs of more experienced students who wish to delve into more complexity. Moreover, these packages could provide a coherent trajectory for students who may not be ready for more advanced understandings until they finish the course.

The prerequisite baseline competencies and the optional supplementary modules or links to recommended resources, should be freely available and widely disseminated
such that graduate students may more readily make use of them, especially preceding the mixed methods course.

**Role of the teacher.** What students valued about a formal learning environment was the domain expertise of the instructor. They felt that this expertise was what they were “paying for,” although beyond inserting “real-world experiences,” students did not describe how the instructor’s domain expertise contributed to their learning. Instead, students emphasized teachers as motivators by sharing enthusiasm for their topics and creating an environment of accountability prompting students to do activities that lead to learning.

Based on this finding, mixed methods instructors may want to more purposefully relate their personal experiences with mixed methods as well as to explicitly describe to students how the design of the course and its activities support learning. Moreover, instructors may want to follow Earley’s (2007) lead and eliminate lecture as a summary or transmission of course content and instead use class time for active learning interactions. Answering student questions, facilitating guided discussions, and providing timely, targeted feedback are linked to improved learning outcomes (Ambrose, Bridges, DiPietro, Lovett, & Norman, 2010) and are important aspects of many flipped courses where content acquisition often takes place outside the classroom. After this knowledge acquisition phase, some form of application takes place in the classroom where the ready availability of instructors yields immediate and high quality feedback for deeper understandings.
When a constructivist perspective is employed, the teacher’s role is to create conditions for learning and then to facilitate the learning process (Fink, 2003; Schunk, 2011) and the tendency of instructors to manifest students’ vision of the instructor as the source of knowledge may contribute to the problem of too much content. Instructors may want to consider what course content is critical for all students to master, and what content may be primarily of use to sub-groups, either because of their prior knowledge, interest, or disciplinary expertise. By offloading content most pertinent to sub-groups rather than the class as a whole to online modules or even as optional content, instructors may find more time to cover core issues more deeply. The offloaded content modules could also be such that each student has to choose at least one specialized module in addition to core content. During question and answer sessions, which have replaced lecture, students not taking that module may have their interest piqued or otherwise benefit from the information. Fink (2003) suggests that less can be more when students learn deeply and are equipped with the means to effectively continue learning in the discipline.

**Role of the student.** In this study, participants described engaged learners as those with a high degree of initiative who take it upon themselves to render course content relevant to their situation, to ask questions, to make connections and have discussions with peers, as well as to go beyond the minimal requirements set by instructors. Participants also linked deep learning activities such as revising their knowledge and generating new ideas and perspectives to socially mediated interactions with peers and others through discussion. However, participants didn’t value student-
centered instruction, sometimes feeling “short-changed” when discussions went off track or peers weren’t well prepared.

The dissonance between describing the behaviors of engaged learners and lack of value placed on opportunities to exercise those behaviors seems to reveal passivity when it comes to students’ own learning. For example, students might prepare for a discussion by knowing what they are going to say, but fail to recognize or exercise their own roles in facilitating and guiding the discussion such that it becomes an effective learning experience. Additionally, even at the graduate level many students may also lack the skills and confidence to participate effectively. Under these conditions, learning through discussion may become a rather serendipitous outcome, dependent on the mix of discussants and topic, instead of an opportunity to deliberately practice scholarly dialogue.

To render learner-centered activities more effective and to increase their value to students, instructors may want to consider explicitly describing what it means to learn in a cooperative way and to engage in scholarly dialogue, making use of the motivator-accountability role to encourage students to engage in opportunities to construct knowledge. Abrose et al. (2010) recommend the use of ground rules, that may at times be student constructed, for establishing the expectations and rules for such things a peer discussions. This may be a good way for students to address their concerns about conversations that go too far afield and inadequate preparation.

**Student aims and project based learning.** Mixed methods courses are of an applied nature and organized around a research process culminating in a research
proposal project (Christ, 2009; Earley, 2007; Ivankova, 2010) that is most often individually assigned, although instructors have used group project approaches to successful effect (Onwuegbuzie et al., 2013).

In this study, participants differed in what they most wanted from a mixed methods course. Some wanted hands-on experience in order to feel prepared to carry out a mixed methods dissertation or project at the end of the course. Others emphasized a desire for a clear understanding of what it meant to integrate qualitative and quantitative approaches. Having a project-based approach where students prepare dissertation proposals meets both aims, but not all students may be ready to independently create a proposal or carry out research.

In Onwuegbuzie et al.’s (2013) description of a 4-stage model for teaching mixed methods, students reviewed mixed methods articles, created a dissertation proposal of their own, and carried out a five chapter mini-dissertation as part of a learning group that included software-based data analysis and which students were urged to submit for publishing, often with an instructor as a co-author. This final step of submitting an article for publishing constituted the transition from student to emergent scholar. Onwuegbuzie et al. acknowledged the course model may have been overwhelming for both students and instructors, but justified the time and effort based on the emergent scholar outcome.

In contrast to such an all-inclusive approach to teaching mixed-methods, Fink (2003) proposes that sometimes it makes sense to reduce content to its essentials in order to make room for additional application and feedback. In Fink’s taxonomy of learning is a category called “learning how to learn” and it is a domain specific class of skills that
instructors are encouraged to embed in their courses. In this way, students have time to master a core set of skills and content elements and are well equipped to learn within the domain on their own as needs dictate. Instructors could aid learning subsequent to the course by providing students with a map of “where to go from here” regarding various topics.

This approach may merit consideration by mixed methods instructors whose context does not permit the level of immersion required by Onwuegbuzie et al.’s (2013) strategy to imbue a sense of scholarly confidence.

Instructors could offer students the choice of individually completing a dissertation proposal or completing a group-based mixed methods mini-dissertation. For students earlier in their programs and not yet ready to put together their proposals, an opportunity to work with others to experience the full research process may be helpful as they consider topics of their own. For those students at the proposal stage, the opportunity to get explicit feedback on their proposals would be invaluable. Optional learning modules or approved resources on qualitative and quantitative methods of data collection and analysis could help students amend their actual and perceived shortcomings as well as address the key problem of differently prepared students. By offering individual or group approaches, instructors would allow students to address their own specific needs for taking a mixed methods course. Those using it to produce their dissertation proposal would be able to do so, while those who wanted to learn about the approach and possibly have a paper worth submitting to a conference or for publishing could do that. For the instructor, more group projects as opposed to individual projects
would reduce the number of projects on which feedback had to be given, creating time to
give more specific feedback, which is one of the real values of instructor expertise to
student learning. Group projects may also make it possible to teach larger courses.

**Scholarly confidence.** Within the discipline of design there is a construct coined
by Kelley and Kelley (2012) termed “creative confidence” and it is defined as the ability
to come up with creative ideas and have the courage to try them. Kelley promotes a
process called “design thinking” that gives students strategies to transcend the four fears
of “the messy unknown, of being judged, of the first step, and of losing control” when
pursuing creative endeavors. Mixed methods course designs centered on the research
process seem to have a similar end– to build scholarly confidence by equipping students
with knowledge and processes supportive of overcoming their personal challenges to
designing and conducting mixed methods research. With regards to course design,
instructors may want to consider what learning experiences are most conducive to
building scholarly confidence within the constraints and affordances of their instructional
context.

**Implications summary.** In this section considering the implications of the
findings to course design, there were several recommendations for designing mixed
methods courses that spoke to the longstanding challenges of variability of students’
readiness for the course and the overwhelming amount of course content.

**Variability of prior experience.** Despite course prerequisites, mixed methods
instructors find students often lack quantitative skills or are unprepared for the work of
qualitative methods. This study found that even graduate students who have had mixed
methods experience doubt their research skills and their quantitative capabilities in particular and that these shortcomings would need to be surmounted if they were to consider using a mixed methods approach in their own research. Prior knowledge or the lack thereof impacts the meaning students make from course content, instructor feedback, and the strategies they use to manage their own learning (Ambrose et al., 2010). Because of the critical role prior experience plays in learning (Shell et al., 2010), instructors are justified in their concern about student shortcomings.

To address this issue, instructors should consider setting a well-articulated baseline of competencies and consider some type prior knowledge assessment that can be shared with students considering enrolling in a mixed methods course. The assessment would help students identify their weaknesses and provide them with recommended resources for amending them. At this time, there is little need for instructors to build these resources themselves because a great deal of this type of content is of high quality and readily available online in the form of massive open online courses (MOOCs), YouTube lectures and tutorials, as well as websites dedicated to quantitative and qualitative topics. In fact, there is so much content, that prospective mixed methods students may not be able to readily identify what would most help them prepare for a mixed methods course. In this respect, the instructor could support course learning with relatively little effort by identifying specific competencies and directing students to particular resources or tutorials they could use to address real or perceived gaps in their prior knowledge. This approach would make it easier for instructors to plan the core
content of their courses around a known base level of competencies and raise
expectations for performance in the course.

**Too much content.** The other most often cited challenge faced by mixed methods
instructors had to do with the scope of potential course content. In Onwuegbuzie et al.’s
(2011) study, the most negative theme expressed by students was “breadth and depth.”
Some students were so overwhelmed by the amount of reading that they felt a need to
prioritize what they really needed to know, whereas other students were disappointed to
not be able to explore certain topics in depth. To address these issues, mixed methods
instructors should consider paring the content of their courses down to core knowledge
and a set of skills in which all students will demonstrate competency, if not mastery, by
the end of the term. Additional breadth and depth could be provided through an array of
additional modules from which students could select based on their purposes, needs, or
interests.

If this approach were taken, it would be recommended that instructors replace
lecture time, where they might have previously summarized or presented course content,
with interactive time in which students could ask questions, an approach taken by Earley
(2007) and consistent with active learning practices emphasizing the learner’s role in
constructing knowledge. Moreover, reducing content and making time to provide
additional practice applying knowledge accompanied with specific and frequent feedback
may help establish levels of mastery and confidence such that students will be well
prepared to independently build on their knowledge as circumstances dictate.
Limitations

There were several limitations in this study.

**Generalizability to other universities.** A convenience sampling strategy was used because obtaining a list of all graduate students at the university was beyond the capabilities of the researcher. However, because of the study’s relevance to its author, an instructional designer at the university where the study took place, and for instructors of mixed methods at the same institution, the inability to generalize findings did not diminish the findings to the degree that they would have had the study been intended for a wider audience. For example, the bulk of the participants were concentrated in the college which offers many methods courses, including the mixed methods course. These courses are taken by students from a variety of majors across campus, including many from outside the college which houses the department that offers the course. Because the aim of this study was to inform the design of mixed methods courses at this institution, this sample was adequately representative of the population.

However, the most critical factor limiting the generalizability of the study is the nature of the professional learning community that is involved with learning about mixed methods at this institution. It is unique in the United States and the world with regards to the quality of the faculty and the expertise related to mixed methods.

For over 30 years, John Creswell, a globally renowned leader in mixed methods, co-founder of the *Journal of Mixed Methods*, and author of many books focusing on research design, including *Designing and Conducting Mixed Methods Research*, has taught at the University of Nebraska-Lincoln (UNL). Creswell also founded the Office of
Qualitative and Mixed method Research (OQMMR) at UNL, which provides support for graduate students and faculty conducting mixed methods studies. Additionally, until the end of the 2012 academic term, Vicki Plano Clark, founding managing editor and current associate editor of the Journal of Mixed Methods, taught at the same university. Plano Clark also coauthored Designing and Conducting Mixed Methods Research and coedited The Mixed Methods Reader with Creswell. The efforts of Creswell and Plano Clark at this institution and within the field of mixed methods research has no doubt affected how graduate students in this study perceive the characteristics of the innovation of mixed methods. However, exploring the extent to which this community sees the use of mixed methods as an innovation was of great interest of scholarly inquiry and is reflective of the intent of this study.

**Predictive power.** The skewness of the composite scores representing prior experience with mixed methods (1.76) undermined the reliability of the scale. In this sample, the majority of respondents had low levels of mixed methods experience while a small number had high levels of prior experience with the approach.

**Response bias.** Non-response bias is a limitation that those who respond to a survey differ in a systematic way from those who choose not to respond. Had all students invited to participate in the survey done so, findings may have differed.

**Qualitative analysis.** Increased reliability of coding may have been improved had additional coders been part of the initial coding process. However, due to limited time and resources, intercoder agreement was sought after the coding was completed. The outside expert was supplied with the coded segments and the code book and asked to
review the code definitions and coded segments, then alter or add codes as needed. Under these circumstances, intercoder agreement was 100%.

**Future Research**

This descriptive study has provided a foundation for future study of the teaching of mixed methods. Such a research agenda would be well served by employing a mixed methods approach to assess learning because of the approach’s utility in establishing both an understanding of the local context as well as providing generalizable insights (Harnisch, Creswell, & Guetterman, 2011).

**Impact of student characteristics.** Further investigation into the impact of student characteristics on the perceived characteristics of the innovation of mixed methods is merited. An effect size of .4 was found for the following group comparisons with respect to key perceived characteristics of mixed methods:

- Full-time students rated relative advantage and trialability more highly than part-time students.

- Those with non-education academic majors rated compatibility more highly than those with education-related academic majors.

- Those with academic professional goals and those with non-education related academic majors rated results demonstrability more highly than those with non-academic professional goals or those with education-related academic majors.

**Students as independent learners.** In this study, students described engaged learners as those with initiative who took responsibility for their own learning by making connections, forming relationships, approaching course content with a critical mindset,
and working to learn from others. However, participants also tended to take a more
negative view of activities used in learner centered classrooms such as peer discussion
that are designed to support the characteristics of engaged students. Research is needed
to better understand to what degree students identify themselves as engaged learners and
to what degree their beliefs correlate with their values and actions. Relevant research
questions include the following:

- How do students use supplemental materials, such as tutorials on statistical or
  qualitative methods, designed to help them amend real or perceived gaps in
  their prior knowledge?
- Do students given explicit guidance in using discussion and peer feedback for
  learning make better use of the activities in terms of their own learning and
  value peer interactions to a greater degree?

Need for longitudinal study. By taking a course in mixed methods, students
indicate they possess beliefs compatible with the approach and that they already deem the
relative advantages of at least understanding the approach worth the time, money, and
effort to successfully complete the course. To follow students over time and into their
academic careers and through the innovation adoption process would provide insight into
the diffusion of mixed methods as well as the impact of having taken a mixed methods
course. Relevant central research questions would include the following:

- Do doctoral students who take a mixed methods course go on to publish a
  mixed methods study as the lead author within five years of their graduation?
• Of students who take the course, how many go on to write a mixed methods thesis or dissertation?

• What aspects of the mixed methods course did students who published mixed methods studies within five years of graduation find most and least useful?

**Comparison of course designs and instructional approaches.** Within the discussion of the findings of this study, several implications and recommendations for teaching mixed methods were proposed. Currently, in the United States mixed methods are taught online (Ivankova, 2010), in weekend, summer, and traditional term-based face-to-face courses (Christ, 2009; Creswell, 2007; Earley, 2007; Onwuegbuzie et al., 2013), but with the growing demand for mixed methods courses worldwide, a wide variety of instructional strategies and course designs for multiple modes of instruction reaching classes of varying sizes will be needed. Relevant research questions that would inform these problems would include the following:

• Do group-based mini-dissertations yield learning outcomes equivalent to the individual creation of a dissertation proposal?

• What are the core competencies required in order to design a mixed methods study and can these competencies be developed in absence of a proposal project?

• What content and activities are most effective in terms of learning how to use mixed methods and how might they be implemented in a variety of modes such as face-to-face, online, synchronous, and asynchronously?
Metaphorical analysis of mixed methods discourse. Metaphors reveal conceptual understandings that inform our perceptions of the world and through that our decisions and actions (Lakoff & Johnson, 1980). The overarching metaphor that emerged in this study was EDUCATION AS A BUSINESS. This metaphor encapsulates the perspective of the researcher as well as that of several graduate student participants.

Although the purpose of the study was to seek ways of addressing longstanding challenges to teaching mixed methods, the researcher reveals a business orientation by using technology acceptance models and measuring the success of surmounting the challenges in terms of increased demand for mixed methods courses, which would also increase the need for mixed methods instructors and course designers.

Participants revealed how they viewed EDUCATION AS A BUSINESS through their emphasis on the expertise of the instructor being what they were “paying for,” implying that learning from peers or through other means was less valued and presumably not what they had intended to purchase.

The metaphor, EDUCATION AS A BUSINESS, is pervasive in higher education. University competition for enrollments positions students both as customers and products. To enroll more students, colleges market the amenities of their campuses along with the educational experiences in hopes that students, and their parents, will buy the educational products they offer. Additionally, businesses, industry, and government demand certain qualities in the students produced by the educational process. From the perspective of students and their parents, higher education is an investment, but also a social experience, and they shop accordingly, seeking the biggest payoff for the price.
In a recent essay, Nate Kreuter (2014) asserts that when the educational system views students as customers, the responsibility for making the most of an education, or learning, shifts from students to the institution, which then becomes “a sort of halfway house to employment.” Under this condition, the failure of students to find jobs becomes the fault of the institution.

Yong Zhao, Associate Dean for Global Education at the University of Oregon and crusader for educational revolution in the U.S. and China, also identifies the failure of college graduates to find jobs as a problem with existing educational models (2014). However, his point is not that there is a problem with viewing education as a product, or even that conceiving of students as customers is problematic, but that students, and society, are demanding the wrong product. He advocates an augmented commodification of education by arguing for an increasingly personalized education in the same way that many products can be personalized by individual consumers. His case rests on the premise that because of the speed of change, the employee-product turned out by universities is “out-of-date” by the time it hits the market. In fact, it is this phenomenon that explains the conundrum of a surplus of college graduates seeking employment while at the same time businesses claim to be unable to find qualified employees.

Within the scope of this study, participants did seem to conceive of themselves as educational consumers, but not necessarily savvy consumers. Although they were consciously buying an education, they did not seem to be keenly aware of how to maximize their purchase and extract as much value, or learning, as possible from their expenditure. They rightly recognized that courses are often more efficient in terms of
learning something new than trying to learn something on one’s own, but they did not seem to understand how the aspects of a course figured into the maximization of their learning. Consequently, future research should investigate the impact of making the metaphors EDUCATION AS A BUSINESS and LEARNING AS A PRODUCT explicit on student learning behaviors.

Reflections and Lessons Learned

The dissertation process is a transformative experience and there are so many things I would like to have done differently, or understood, or even not done. Nonetheless, failures and shortcoming should be viewed as learning opportunities and inform future action.

Survey development. There were several aspects of developing and implementing the survey that were challenging and interesting.

Variability in responses. Participants with little to no experience with mixed methods rated its perceived characteristics with extreme variability and I suspect many respondents may have rated the characteristics based upon the perceived advantages gleaned from the text of the survey items. This may or may not be a problem, but for some participants, the survey was their first exposure to mixed methods and constituted the “awareness” knowledge stage identified by Rogers (2003).

Open-ended question placement. Another thing I would consider altering is where the open-ended question asking students to describe the benefits of mixed methods was placed. For this study, it was at the end of the survey after respondents had read many questions regarding the perceived benefits of mixed methods. I feel this may have
threatened the validity of the findings in the first incident of merging quantitative and qualitative data. On the other hand, taking the survey constituted some degree of prior experience with mixed methods and if “breadth and depth” was most readily identified, maybe it was truly the most easily perceived benefit.

**Online survey response rates.** Online surveys are convenient but getting respondents to take the time to complete them is an enormous challenge. I am not at all sure how I could have improved my response rate short of paying people to take it.

**More comprehensive piloting of the survey.** The next time I have the opportunity to construct a survey, I would like to do much more testing before using it to improve validity for all possible respondents. My pilot group did not vary as much in their prior experience of mixed methods and this may be why I did not detect how respondents with little to no experience with mixed methods might answer the questions.

**Negative wording of items.** I should have stated more items negatively to reduce bias introduced by acquiescence (Spector, 1992).

**Quantitative data analysis.** Working with a consulting center can seem helpful, but investigators lacking the right sequence and right questions would do well to steer clear until they have a clear understanding of the tests they want to run and why. I found it difficult to sort through the results sent to me by the consultant and had anticipated a little more support in the form of statistical recommendations for analyzing my data in light of the questions I was asking. Instead, the consultant gave me exactly what I asked for and I felt I lacked expertise. Of course, this had the effect of prompting me to revisit
my statistics training and renew my knowledge of SPSS and procedures, which I should have done anyway, but much sooner.

**Qualitative phase.** MAXQDA 10 is a powerful tool for coding qualitative data and analyzing it in conjunction with quantitative data, but there are some things I would like to do differently next time in order to leverage it more effectively.

**Memos.** This dissertation has underscored the importance of memos and recording my thoughts ideas related to all aspects the project. I made nowhere near enough memos in the beginning. For future projects, I will make heavier use of MAXQDA’s memoing features as well as those available through my citation manager software.

**Coding.** The next project I do will have a team and I look forward to working with others to develop codes and understandings of the qualitative material. Coding alone was challenging because of the way my own experiences informed the meaning I took from the segment. I found it helpful to review all the segments that belonged to a certain code together so I could compare them and see if they really did all belong under the same code, but it was a long iterative experience that could have perhaps been shortened with additional coders.

**Professional knowledge.** In many ways, this dissertation was a summation of what I have learned over the course of my graduate career and in my professional roles and I have found myself pulling from all of those texts and experiences. Unfortunately, my recall was not all that I had hoped. Although my references collection was extensive and organized, I found it to be woefully inadequate when it came to the literature review
because relationships among sources were not represented beyond topical categories. Researchers do not always organize citations in a way that represents the development of theory and thereby often fail to adequately convey how their contribution contributes to further refinement of the theory (Carlile & Christensen, 2004). I believe this is a problem I can address to a large degree in my own work by using my references database in a different way. I am expanding my system beyond topical organization and utilizing the “tags” and “related” tools built into the software to represent the relationships among references. I believe this will not only improve future literature reviews, but will greatly improve my own mental representation of my professional knowledge and beliefs and give me a solid foundation from which to build new ideas and make new connections.
References

(Collins, 2010; Niglis, 2007; Onwuegbuzie et al., 2011)


doi:10.1177/1558689808330883


Haines, C. (2011). Value added by mixed methods research: a multiphase mixed methods design. *DigitalCommons@University of Nebraska-Lincoln*.


Appendix A

Visual Representation of Study Design
Visual Representation of Study Design

**PHASE**
- Preliminary
  - Survey Data Collection
    - Quantitative Data Analysis
      - Qualitative Data Analysis
        - Mixing 1: Merge & Explain
          - Case Selection
            - Qualitative Data Collection
              - Qualitative Data Analysis
                - Mixing 2: Usefulness

**METHODS**
- Procure IRB approval
- Create, adapt and test survey
- Document/communications development
- Interview protocol
- Cross-sectional Internet-based survey with two open-ended items
  - N = 109
- SPSS
- Open-ended coding of responses to open-ended questions to identify dominate themes
- Cross-tabs display and analysis of categorized statements by overall prior experience with research approaches
- Purposeful selection for maximum variation in terms of prior knowledge & perceived characteristics of the innovation of mixed methods
- Interview protocol revision
- In-depth phone-based and in-person interviews
- MAXQDA 10
  - Open-ended coding

**PRODUCTS**
- IRB, Internet-based Survey, Informed Consent Form, Written documents for use in communicating with respondents, first draft of interview protocol
- Numeric data
- Textual data
- Demographic data
- Descriptive statistics
- Themes related to using mixed methods
- Themes related to the perceived benefits of using mixed methods
- Table with counts and representative quotes
- Cases N = 10
- Interview protocol
- Audio recordings of interviews
- Transcripts of interviews
- Themes
- Visual display of integrated findings
  - Discussion
  - Implications
  - Future research
Appendix B

Independent Variables and Related Survey Items
### Independent Variables and Related Survey Items

Table B1

**Independent Variables and Related Survey Question Items**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Variable</th>
<th>Question(s) / Data Column Headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>age</td>
<td>Q2</td>
</tr>
<tr>
<td>Gender</td>
<td>gender</td>
<td>Q3</td>
</tr>
<tr>
<td>Race</td>
<td>race</td>
<td>Q4</td>
</tr>
<tr>
<td>Major</td>
<td>major</td>
<td>Q5</td>
</tr>
<tr>
<td>Professional Goals</td>
<td>goals</td>
<td>Q6</td>
</tr>
<tr>
<td>Student Status</td>
<td>status</td>
<td>Q7</td>
</tr>
<tr>
<td>Workload</td>
<td>workload</td>
<td>Q8_1, Q8_2, Q8_3</td>
</tr>
<tr>
<td>Prior Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualitative</td>
<td>pri_quan</td>
<td>Q10_2, Q11_2, Q13_1, Q13_2, Q13_3, Q13_5, Q13_6, Q13_7, Q13_8</td>
</tr>
<tr>
<td>Quantitative</td>
<td>pri_quan</td>
<td>Q10_2, Q11_2, Q13_1, Q13_2, Q13_3, Q13_4, Q13_5, Q13_6, Q13_7, Q13_8</td>
</tr>
<tr>
<td>Mixed Methods</td>
<td>pri_mm</td>
<td>Q10_3, Q11_3, Q14_1, Q14_2, Q14_3, Q14_4, Q14_5, Q14_6, Q14_7, Q14_8</td>
</tr>
<tr>
<td>Prior Teacher-Led</td>
<td>pri_teach</td>
<td>Q10_1, Q10_2, Q10_3, Q11_1, Q11_2, Q11_3, Q12_1, Q13_1, Q14_1</td>
</tr>
<tr>
<td>Prior Socially-Centered</td>
<td>pri_social</td>
<td>Q12_2, Q12_3, Q12_4, Q12_5, Q13_2, Q13_3, Q13_4, Q13_5, Q14_2, Q14_3, Q14_4, Q14_5</td>
</tr>
<tr>
<td>Prior Individually-Sought</td>
<td>pri_ind</td>
<td>Q12_6, Q12_7, Q12_8, Q13_6, Q13_7, Q13_8, Q14_6, Q14_7, Q14_8</td>
</tr>
</tbody>
</table>
### Survey Question Items Related To Dependent Variables

**Table B1**

**Dependent Variables and Related Survey Question Items**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Variable Name</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Advantage</td>
<td>rel_adv</td>
<td>Q15_1, Q15_2, Q15_3, Q15_4, Q15_5, Q15_6, Q15_7, Q15_8, Q15_9</td>
</tr>
<tr>
<td>Compatibility</td>
<td>compat</td>
<td>Q16_1, Q16_2, Q16_3, Q16_4, Q16_5</td>
</tr>
<tr>
<td>Relative Advantage AND Compatibility</td>
<td>rel_com</td>
<td>Q15_1, Q15_2, Q15_3, Q15_4, Q15_5, Q15_6, Q15_7, Q15_8, Q15_9, Q16_1, Q16_2, Q16_3, Q16_4, Q16_5</td>
</tr>
<tr>
<td>Result demonstrability</td>
<td>results_dem</td>
<td>Q17_1, Q17_2, Q17_3, Q17_4</td>
</tr>
<tr>
<td>Visibility</td>
<td>visibl</td>
<td>Q18_1, Q18_2, Q18_3, Q18_4, Q18_5</td>
</tr>
<tr>
<td>Trialability</td>
<td>trial</td>
<td>Q19_1, Q19_2, Q19_3, Q19_4</td>
</tr>
</tbody>
</table>
Appendix C

Survey Items, Values, Variables, and Constructs
### Survey Items, Values, Variables, and Constructs

<table>
<thead>
<tr>
<th>Col_ID</th>
<th>Question Text</th>
<th>Possible Values</th>
<th>Variable Names</th>
<th>Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Informed consent: will you participate</td>
<td>1-Yes 2-No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>What was your age as of January 1, 2013?</td>
<td>19-100</td>
<td>age</td>
<td>Age</td>
</tr>
<tr>
<td>Q3</td>
<td>You are:</td>
<td>1-Male 2-Female 3-Other</td>
<td>gender</td>
<td>Gender</td>
</tr>
<tr>
<td>Q4</td>
<td>What is your race?</td>
<td>1-White/Caucasion 2-African American 3-Hispanic 4-Asian 5-Native American 6-Pacific Islander 7-Other</td>
<td>race</td>
<td>Race</td>
</tr>
<tr>
<td>Col_ID</td>
<td>Question Text</td>
<td>Possible Values</td>
<td>Variable Names</td>
<td>Construct</td>
</tr>
<tr>
<td>--------</td>
<td>---------------</td>
<td>----------------</td>
<td>----------------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
| Q5 (cont’d) | 27 - Communication Studies  
28 - Community & Regional Planning  
29 - Computer Engineering - Computer and Electronics Engineering  
30 - Computer Engineering - Computer Science and Engineering  
31 - Computer Science  
32 - Construction  
33 - Counseling Psychology  
34 - Earth and Atmospheric Sciences  
35 - Economics  
36 - Educational Administration  
37 - Educational Administration & Supervision  
38 - Educational Administration, Joint Program with UNO  
39 - Educational Leadership & Higher Education  
40 - Educational Psychology  
41 - Educational Studies  
42 - Electrical Engineering  
43 - Engineering  
44 - Engineering  
45 - Engineering Mechanics  
46 - English  
47 - Entomology  
48 - Environmental Engineering  
49 - Finance  
50 - Food Science & Technology  
51 - Geography  
52 - Geography  
53 - Gerontology  
54 - History  
55 - Horticulture  
56 - Human Sciences  
57 - Instructional Technology  
58 - Integrative Biomedical Sciences  
59 - Internet-based Education  
60 - Journalism & Mass Communications  
61 - Leadership Education |
<table>
<thead>
<tr>
<th>Col_ID</th>
<th>Question Text</th>
<th>Possible Values</th>
<th>Variable Names</th>
<th>Construct</th>
</tr>
</thead>
</table>
| Q5 (cont’d) | 62 - Leadership Studies  
63 - Legal Studies  
64 - Management  
65 - Manufacturing Systems Engineering  
66 - Marketing  
67 - Mathematics  
68 - Mechanical Engineering  
69 - Mechanical Engineering and Applied Mechanics  
70 - Mechanized Systems Management  
71 - Modern Languages & Literatures  
72 - Music  
73 - Natural Resource Sciences  
74 - Nutrition  
75 - Nutrition  
76 - Nutrition & Health Sciences  
77 - Philosophy  
78 - Physics & Astronomy  
79 - Political Science  
80 - Post-baccalaureate Teaching Certificate  
81 - Psychological Studies in Education  
82 - Psychology  
83 - Quantitative, Qualitative, and Psychometric Methods  
84 - School Psychology  
85 - Sociology  
86 - Special Education  
87 - Special Education & Communication Disorders  
88 - Speech-Language Pathology & Audiology  
89 - Statistics  
90 - Survey Research and Methodology  
91 - Teaching, Curriculum, & Learning  
92 - Teaching, Learning & Teacher Education  
93 - Telecommunications Engineering  
94 - Textiles, Clothing & Design  
95 - Theatre Arts  
96 - Veterinary Science | | | | |
<table>
<thead>
<tr>
<th>Col_ID</th>
<th>Question Text</th>
<th>Possible Values</th>
<th>Variable Names</th>
<th>Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q6</td>
<td>What are your professional goals?</td>
<td>1 – Academic 2 – Non-Academic</td>
<td>pro_goals</td>
<td>Professional Goals</td>
</tr>
<tr>
<td>Q7</td>
<td>Are you a full or part-time student?</td>
<td>1 – Full-time 2 – Part-time</td>
<td>student_status</td>
<td>Student Status</td>
</tr>
<tr>
<td>Q8_1</td>
<td>If you are professionally employed (do not include graduate teaching and research assistantships), how many hours per week do you typically work?</td>
<td>1-50</td>
<td>hrs_professionally_employed</td>
<td>Workload</td>
</tr>
<tr>
<td>Q8_2</td>
<td>How many hours per week do you typically spend on academic coursework?</td>
<td>1-50</td>
<td>hrs_on_coursework</td>
<td>Workload</td>
</tr>
<tr>
<td>Q8_3</td>
<td>How many hours per week do you spend on commitments outside of school and work?</td>
<td>1-50</td>
<td>hrs_outside_commits</td>
<td>Workload</td>
</tr>
<tr>
<td>Q10_1</td>
<td>How many graduate or professional credit hours have you taken to learn about QUALitative research?</td>
<td>0-30</td>
<td>hrs_qual_grad_pro_credit</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Q10_2</td>
<td>How many graduate or professional credit hours have you taken to learn about QUANtitative research?</td>
<td>0-30</td>
<td>hrs_quan_grad_pro_credit</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q10_3</td>
<td>How many graduate or professional credit hours have you taken to learn about MIXED METHODS research?</td>
<td>0-30</td>
<td>hrs_mm_grad_pro_credit</td>
<td>Prior Experience MM</td>
</tr>
<tr>
<td>Col_ID</td>
<td>Question Text</td>
<td>Possible Values</td>
<td>Variable Names</td>
<td>Construct</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Q11_1</td>
<td>How many professional development workshop hours have you taken to learn about QUALitative research?</td>
<td>0-40</td>
<td>hrs_qual_workshop</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Q11_2</td>
<td>How many professional development workshop hours have you taken to learn about QUANtitative research?</td>
<td>0-40</td>
<td>hrs_quan_workshop</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q11_3</td>
<td>How many professional development workshop hours have you taken to learn about MIXED METHODS research?</td>
<td>0-40</td>
<td>hrs_mm_workshop</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q12_1</td>
<td>I have attended presentations where QUALitative approaches to research were discussed</td>
<td>Never – Often 0-100</td>
<td>qual_presentations</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Q12_2</td>
<td>I have discussed QUALitative approaches to research with friends</td>
<td>Never-Often 0-100</td>
<td>qual_friends</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Q12_3</td>
<td>I have discussed QUALitative approaches to research with professional colleagues.</td>
<td>Never-Often 0-100</td>
<td>qual_colleagues</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Q12_4</td>
<td>I have discussed QUALitative approaches to research with my advisor.</td>
<td>Never-Often 0-100</td>
<td>qual_advisor</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Col_ID</td>
<td>Question Text</td>
<td>Possible Values</td>
<td>Variable Names</td>
<td>Construct</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>-----------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Q12_5</td>
<td>I have discussed QUALitative approaches to research with members of my committee.</td>
<td>Never-Often 0-100</td>
<td>qual_committee_members</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Q12_6</td>
<td>I have read books about QUALitative approaches to research outside of a course.</td>
<td>Never-Often 0-100</td>
<td>qual_books</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Q12_7</td>
<td>I have read journal articles using QUALitative approaches to research.</td>
<td>Never-Often 0-100</td>
<td>qual_journal_articles</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Q12_8</td>
<td>I have viewed information on the Internet about QUALitative approaches to research.</td>
<td>Never-Often 0-100</td>
<td>qual_internet</td>
<td>Prior Experience QUAL</td>
</tr>
<tr>
<td>Q13_1</td>
<td>I have attended presentations where QUANitative approaches to research were discussed</td>
<td>Never – Often 0-100</td>
<td>quan_presentations</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q13_2</td>
<td>I have discussed QUANitative approaches to research with friends</td>
<td>Never-Often 0-100</td>
<td>quan_friends</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q13_3</td>
<td>I have discussed QUANitative approaches to research with professional colleagues.</td>
<td>Never-Often 0-100</td>
<td>quan_colleagues</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q13_4</td>
<td>I have discussed QUANitative approaches to research with my advisor.</td>
<td>Never-Often 0-100</td>
<td>quan_advisor</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Col_ID</td>
<td>Question Text</td>
<td>Possible Values</td>
<td>Variable Names</td>
<td>Construct</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------</td>
<td>--------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Q13_5</td>
<td>I have discussed QUANitative approaches to research with members of my committee.</td>
<td>Never-Often 0-100</td>
<td>quan_committee_members</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q13_6</td>
<td>I have read books about QUANitative approaches to research outside of a course.</td>
<td>Never-Often 0-100</td>
<td>quan_books</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q13_7</td>
<td>I have read journal articles using QUANitative approaches to research.</td>
<td>Never-Often 0-100</td>
<td>quan_journal_articles</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q13_8</td>
<td>I have viewed information on the Internet about QUANitative approaches to research.</td>
<td>Never-Often 0-100</td>
<td>quan_internet</td>
<td>Prior Experience QUAN</td>
</tr>
<tr>
<td>Q14_1</td>
<td>I have attended presentations where MIXED METHODS approaches to research were discussed</td>
<td>Never – Often 0-100</td>
<td>mm_presentations</td>
<td>Prior Experience MM</td>
</tr>
<tr>
<td>Q14_2</td>
<td>I have discussed MIXED METHODS approaches to research with friends</td>
<td>Never-Often 0-100</td>
<td>mm_friends</td>
<td>Prior Experience MM</td>
</tr>
<tr>
<td>Q14_3</td>
<td>I have discussed MIXED METHODS approaches to research with professional colleagues.</td>
<td>Never-Often 0-100</td>
<td>mm_colleagues</td>
<td>Prior Experience MM</td>
</tr>
<tr>
<td>Q14_4</td>
<td>I have discussed MIXED METHODS approaches to research with my advisor.</td>
<td>Never-Often 0-100</td>
<td>mm_advisor</td>
<td>Prior Experience MM</td>
</tr>
<tr>
<td>Col_ID</td>
<td>Question Text</td>
<td>Possible Values</td>
<td>Variable Names</td>
<td>Construct</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>---------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Q14_5</td>
<td>I have discussed MIXED METHODS approaches to research with members of my committee.</td>
<td>Never-Often 0-100</td>
<td>mm_committee_members</td>
<td>Prior Experience MM</td>
</tr>
<tr>
<td>Q14_6</td>
<td>I have read books about MIXED METHODS approaches to research outside of a course.</td>
<td>Never-Often 0-100</td>
<td>mm_books</td>
<td>Prior Experience MM</td>
</tr>
<tr>
<td>Q14_7</td>
<td>I have read journal articles using MIXED METHODS approaches to research.</td>
<td>Never-Often 0-100</td>
<td>mm_journal_articles</td>
<td>Prior Experience MM</td>
</tr>
<tr>
<td>Q14_8</td>
<td>I have viewed information on the Internet about MIXED METHODS approaches to research.</td>
<td>Never-Often 0-100</td>
<td>mm_internet</td>
<td>Prior Experience MM</td>
</tr>
<tr>
<td>Q15_1</td>
<td>Using mixed methods enables me to provide a more complete analysis of research problems.</td>
<td>Not at all true – Completely True 0-100</td>
<td>ra_more_complete_analysis</td>
<td>Relative Advantage</td>
</tr>
<tr>
<td>Q15_2</td>
<td>Using mixed methods helps me situate numerical data in the contexts and words of participants.</td>
<td>Not at all true – Completely True 0-100</td>
<td>ra_situate_data</td>
<td>Relative Advantage</td>
</tr>
<tr>
<td>Q15_3</td>
<td>Using mixed methods enables me to frame participants’ words with numbers, trends and statistical findings.</td>
<td>Not at all true – Completely True 0-100</td>
<td>ra_frame_words</td>
<td>Relative Advantage</td>
</tr>
<tr>
<td>Q15_4</td>
<td>Using mixed methods helps me provide multiple forms of evidence.</td>
<td>Not at all true – Completely True 0-100</td>
<td>ra_multiple_forms_evidence</td>
<td>Relative Advantage</td>
</tr>
<tr>
<td>Col_ID</td>
<td>Question Text</td>
<td>Possible Values</td>
<td>Variable Names</td>
<td>Construct</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Q15_5</td>
<td>Using mixed methods gives me more tools for data collection.</td>
<td>Not at all true – Completely True 0-100</td>
<td>ra_more_data_collection_tools</td>
<td>Relative Advantage</td>
</tr>
<tr>
<td>Q15_6</td>
<td>Using mixed methods allows me to answer questions that cannot be answered by quantitative or qualitative approaches alone.</td>
<td>Not at all true – Completely True 0-100</td>
<td>ra_difficult_questions</td>
<td>Relative Advantage</td>
</tr>
<tr>
<td>Q15_7</td>
<td>Using mixed methods provides a bridge between quantitative and qualitative researchers.</td>
<td>Not at all true – Completely True 0-100</td>
<td>ra_bridge</td>
<td>Relative Advantage</td>
</tr>
<tr>
<td>Q15_8</td>
<td>Using mixed methods makes up for respective weaknesses of quantitative and qualitative approaches.</td>
<td>Not at all true – Completely True 0-100</td>
<td>ra_compensate_weaknesses</td>
<td>Relative Advantage</td>
</tr>
<tr>
<td>Q15_9</td>
<td>Using mixed methods gives me the freedom to use all methods possible to answer a research question.</td>
<td>Not at all true – Completely True 0-100</td>
<td>ra_freedom</td>
<td>Relative Advantage</td>
</tr>
<tr>
<td>Q16_1</td>
<td>I think that using mixed methods fits well with the way I like to do research.</td>
<td>Not at all true – Completely True 0-100</td>
<td>com_my_way</td>
<td>Compatibility</td>
</tr>
<tr>
<td>Q16_2</td>
<td>Using mixed methods fits my research style.</td>
<td>Not at all true – Completely True 0-100</td>
<td>com_my_style</td>
<td>Compatibility</td>
</tr>
<tr>
<td>Q16_3</td>
<td>Using mixed methods is compatible with my approach to research.</td>
<td>Not at all true – Completely True 0-100</td>
<td>com_my_approach</td>
<td>Compatibility</td>
</tr>
<tr>
<td>Col_ID</td>
<td>Question Text</td>
<td>Possible Values</td>
<td>Variable Names</td>
<td>Construct</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
<td>-------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Q16_4</td>
<td>Mixed methods is compatible with the way research is done in my discipline.</td>
<td>Not at all true – Completely True 0-100</td>
<td>com_discipline</td>
<td>Compatibility</td>
</tr>
<tr>
<td>Q16_4</td>
<td>The research training I have experienced so far would work well with a mixed methods approach</td>
<td>Not at all true – Completely True 0-100</td>
<td>com_training_so_far</td>
<td>Compatibility</td>
</tr>
<tr>
<td>Q17_1</td>
<td>I would have no difficulty telling others about the impact of using mixed methods.</td>
<td>Not at all true – Completely True 0-100</td>
<td>im_no_difficulty</td>
<td>Result demonstrability</td>
</tr>
<tr>
<td>Q17_2</td>
<td>I believe I could communicate to others the consequences of using mixed methods.</td>
<td>Not at all true – Completely True 0-100</td>
<td>im_communicate_consequences</td>
<td>Result demonstrability</td>
</tr>
<tr>
<td>Q17_3</td>
<td>The impact of using mixed methods is apparent to me.</td>
<td>Not at all true – Completely True 0-100</td>
<td>im_apparent</td>
<td>Result demonstrability</td>
</tr>
<tr>
<td>Q17_4</td>
<td>I would have difficulty explaining why using mixed methods may or may not be beneficial.</td>
<td>Not at all true – Completely True 100-0</td>
<td>im_difficult_explain</td>
<td>Result demonstrability</td>
</tr>
<tr>
<td>Q18_1</td>
<td>In my discipline, one sees mixed methods used often</td>
<td>Not at all true – Completely True 0-100</td>
<td>dis_used_often</td>
<td>Visibility</td>
</tr>
<tr>
<td>Q18_2</td>
<td>Mixed methods is not very visible in my discipline.</td>
<td>Not at all true – Completely True 0-100</td>
<td>dis_not_visible</td>
<td>Visibility</td>
</tr>
<tr>
<td>Q18_3</td>
<td>In journals for my discipline, the majority of articles are utilizing mixed methods</td>
<td>Not at all true – Completely True 0-100</td>
<td>dis_majority_mm_articles</td>
<td>Visibility</td>
</tr>
<tr>
<td>Q18_4</td>
<td>I know of faculty in my discipline using mixed methods.</td>
<td>Not at all true – Completely True 0-100</td>
<td>dis_faculty</td>
<td>Visibility</td>
</tr>
<tr>
<td>Col_ID</td>
<td>Question Text</td>
<td>Possible Values</td>
<td>Variable Names</td>
<td>Construct</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
<td>----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Q18_5</td>
<td>In journals for my discipline, there are few articles utilizing mixed methods</td>
<td>Not at all true – Completely True True 0-100</td>
<td>dis_few_articless</td>
<td>Visibility</td>
</tr>
<tr>
<td>Q19_1</td>
<td>Before deciding whether to use mixed methods for my dissertation, I would need to do a small mixed methods project</td>
<td>Not at all true – Completely True True 0-100</td>
<td>try_small_project</td>
<td>Trialability</td>
</tr>
<tr>
<td>Q19_2</td>
<td>I have been given enough exposure to mixed methods in order to decide if it would be a good approach for my research.</td>
<td>Not at all true – Completely True True 0-100</td>
<td>try_enough_exposure</td>
<td>Trialability</td>
</tr>
<tr>
<td>Q19_3</td>
<td>I have enough guidance to prepare a national mixed methods research study outline.</td>
<td>Not at all true – Completely True True 0-100</td>
<td>try_enough_guidance</td>
<td>Trialability</td>
</tr>
<tr>
<td>Q19_4</td>
<td>I have enough knowledge to prepare a national mixed methods research study outline.</td>
<td>Not at all true – Completely True True 0-100</td>
<td>try_enough_knowledge</td>
<td>Trialability</td>
</tr>
<tr>
<td>Q19_5</td>
<td>I have enough resources to prepare a national mixed methods research study outline.</td>
<td>Not at all true – Completely True True 0-100</td>
<td>try_enough_resources</td>
<td>Trialability</td>
</tr>
<tr>
<td>Q20</td>
<td>Are you willing to be interviewed as a follow-up to this survey?</td>
<td>1 – Yes 2 – No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q24</td>
<td>What would it take for you to use a mixed methods approach?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Col ID</td>
<td>Question Text</td>
<td>Possible Values</td>
<td>Variable Names</td>
<td>Construct</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------------------------------------------------------------</td>
<td>-----------------</td>
<td>----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Q25</td>
<td>What do you perceive to be the benefits of using a mixed methods approach?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q21</td>
<td>First Name</td>
<td>Text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q26</td>
<td>Last Name</td>
<td>Text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q22</td>
<td>Email</td>
<td>Text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q23</td>
<td>Phone</td>
<td>Text</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D

Representation of Sequential Explanatory Findings
**Representation of Sequential Explanatory Findings**

Proposed graphical representation of a sequential explanatory finding where sequence is denoted by left-to-right and directional arrows and relationships are emphasized with angles and lines. The thickness of the lines represents the strength of the construct. For example, the lines on which calibration and new ideas and connections are on, are doubly as thick as “getting information” because in each of those categories, there were about double the segments coded with that code.
Appendix E

Informed Consent
**Informed Consent**

Because you are a graduate student at UNL, we invite you to participate in a mixed methods research study investigating student characteristics, prior experiences, and the adoption of mixed methods as an innovation.

You will complete a survey regarding your workload, prior experiences with research approaches, and perceptions of mixed methods. At the end of the survey you will be asked if you would be willing to be interviewed about mixed methods.

Not all participants willing to be interviewed will be interviewed. We seek to understand a variety of perspectives on this issue and will select participants based on responses to survey questions.

The survey will take about 15 minutes to complete. The interview will take approximately 30 minutes and will be recorded, however the recording will be destroyed upon completion of interview transcription.

There are no risks to participating in this study and all participants must be 19 years of age or older.

During the course of the study and for three years following the study, any information obtained during this study that could potentially identify you will be kept strictly confidential. The encrypted data will be stored in a locked cabinet with each record identified only with a number. The information obtained in this study may be published in scientific journals or presented at scientific meetings. The quantitative data will be reported as aggregated data, which means no individual will be identified or recognized, and pseudonyms will be used with the qualitative data. The results of this study will be reported in a dissertation. The data will be represented in aggregate form and any quotes included to support qualitative findings will not include identifying information of any kind.
Though we very much hope you’ll help us with this research by participating, you are free to decline to participate or withdraw at any time. Choosing to not participate will not adversely affect your relationship with the investigators, your instructor, or the University of Nebraska.

If you have questions about the research study, please feel free to contact either of the investigators. Please print a copy of this informed consent or save it to PDF for your records.

Sydney E. Brown, Principal Investigator  
Office of Online & Distance Education  
900 Rm 241, UNL, 68588-8900  
sbrown3@unl.edu  
402-472-5204

Delwyn Harnisch, Ph.D, Secondary Investigator  
Teaching, Learning & Teacher Education  
125 Home Economics Building, UNL, 68588-0800  
(402) 472-9413  
harnisch@unl.edu

Or, if you have concerns about the study or questions about being a research participant, please contact the University of Nebraska-Lincoln Institutional Review Board (UNL IRB), telephone (402) 472-6965.
Appendix F

Interview Protocol
Interview Protocol

Hi, ____________, as you may recall I am doing a research study regarding “student characteristics, prior experiences, and the adoption of mixed methods as an innovation.” When you took the survey, you indicated you would be willing to be interviewed [reference informed consent to participant], and based on your characteristics and prior experiences, I’d like to get a greater understanding of your perspective on the following points: The advantages you perceive of learning to use mixed methods.

Your understanding of your own learning, and

Your perspective on the best type of course for you
Advantages of Learning to use Mixed Methods

Innovation and adoption theory is used in a wide variety of disciplines to figure out how best to change behaviors, sell new products, or spread new ideas. As an approach to research, mixed methods is relatively new and by better understanding how graduate students perceive the approach, we aim to design courses that do a better job of helping students emerge with the knowledge and confidence to use mixed methods for their thesis, dissertation, or later in their professional careers.

In your survey response, you said [benefits of MM] ________________

[academic career] Given that you are planning an academic career, what role could mixed methods play in your discipline?

1. As a scholar, how does mixed methods fit into the portfolio of research approaches you aim to acquire?

How do you see mixed methods fitting into the continuous learning scholars pursue in their profession?

[non-academic career] While you are not planning an academic career, the ability to understand and conduct research, even on a small scale, is often a valued professional characteristic.

1. What role could mixed methods play in your profession?
2. As a professional, how might mixed methods fit into the skills and talents you bring to your position?

How might mixed methods fit into your ongoing professional development?

Now, I’d like to get more information about how you perceive your own learning both in general and particularly as it relates to mixed methods.

1. How would you describe what it means to “get more information” or “get more knowledge”?
If you were to “get more information” or “more knowledge” about mixed methods, how would you go about doing that?
How would you explain what it means to be an “engaged” or “participatory” learner to a friend or new graduate student?
In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you are learning with friends, colleagues, and faculty? What role does discussing what you are learning with others play in your learning process?

**About courses specifically**
What do you value about a teacher or expert-led learning experience?
Consider a teacher-led versus student-centered learning experience. Describe the advantages and drawbacks of each from your perspective.

1. When it comes to courses, what is the most effective way to tell you about a new course?

What motivates you to take a new course?
How do you go about evaluating the long-term value of the course to you personally and to your professional career?
If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you? What would you most like to add to your professional portfolio?

**Anything else you’d like to add?**
Are there any other issues, items, or comments you’d like to add to help me understand your perspectives on the value of mixed methods, learning, and course design?
Appendix G

Thank You for Participating in the Survey
Thank You for Participating in the Survey

Thank you for participating.

If you have questions about the research study, please feel free to contact either of the investigators.

Sydney E. Brown, Principal Investigator
Office of Online & Distance Education
900 Rm 241, UNL, 68588-8900
sbrown3@unl.edu
402-472-5204

Delwyn Harnisch, Ph.D, Secondary Investigator
Teaching, Learning & Teacher Education
125 Home Economics Building, UNL, 68588-0800
(402) 472-9413
harnisch@unl.edu

Or, if you have concerns about the study or questions about being a research participant, please contact the University of Nebraska-Lincoln Institutional Review Board (UNL IRB), telephone (402) 472-6965.
Appendix H

Email to Interview Participants
Email to Interview Participants

Thank you for your willingness to participate in the follow-up interview for the Student Characteristics, Prior Experiences, and the Adoption of Mixed Methods as an Innovation research study.

The interview will take approximately 30 minutes and can be done in-person or over the phone, whichever is most convenient for you. Please email or phone me with the three most convenient times for you in the next two weeks.

Thank you,
Sydney Brown

If you have questions about the research study, please feel free to contact either of the investigators.

Sydney E. Brown, Principal Investigator
Office of Online & Distance Education
900 Rm 241, UNL, 68588-8900
sbrown3@unl.edu
402-472-5204

Delwyn Harnisch, Ph.D, Secondary Investigator
Teaching, Learning & Teacher Education
125 Home Economics Building, UNL, 68588-0800
harnisch@unl.edu

Or, if you have concerns about the study or questions about being a research participant, please contact the University of Nebraska-Lincoln Institutional Review Board (UNL IRB), telephone (402) 472-6965.
Appendix I

Phone Script to Request Interview
Phone Script to Request Interview

Phone script for setting up interview

Hi, this is Sydney Brown and I am calling you to first thank you for your willingness to participate in the follow-up interview for the “Student Characteristics, Prior Experiences, and the Adoption of Mixed Methods as an Innovation” Research study. The interview will take approximately 30 minutes and can be done in-person or over the phone, whichever is most convenient for you.

What are the three most convenient times for you in the next two weeks?
Appendix J

Transcription Protocol
Transcription Protocol

Use the following notation for the transcript:

[I] – Interviewer

[P] – Participant

[?] – Couldn’t understand the word(s)

[some word ?] – Can’t quite hear it clearly but it sounds like …

With regards to making out words, listen carefully three times and if it doesn’t make sense insert the [?] and move on.

Please insert an extra line between speakers. Make text of the speaker single-spaced.

[I]: Here is the interviewer speaking and posing a question

[P]: Here is the participant’s response

Name the files the same as the audio files. The filename extension will differentiate the transcript from the audio file.
Appendix K

Interview Transcripts
CW

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: I think I may use mixed methods in my dissertation. To me, mixed methods is more, to develop research, it’s more objective. I will research things on both sides, quantitative and qualitative because it’s more comprehensive. I would like to use mixed methods in my dissertation, but I’m not sure right now.

[I]: How do you see mixed methods fitting into your discipline as part of your graduate studies?

[P]: Actually, I haven’t taken a course until now. I plan to take the course next semester maybe because I plan to take this course in the fall semester but [instructor name] course is copyright [?] and I can’t sign up for that class because it’s already full. So, I may choose several classes, or if possible, I may try to be patient with mixed methods.

[I]: When you look at continuous learning as a scholar, do you see mixed methods as having a role?

[P]: I’m not sure, since I’m doing education; I have talked to some people who had a hard time with mixed methods. I think it mixed method is becoming more and more popular these days.

[I]: What is the best way for you to go about getting more information or knowledge?

[P]: For me, when I have a course, I would like the professor to give more examples. We can adopt a paper that is mixed methods so they can give us, I mean they kind of take the real paper into the class and how the author used mixed methods in their research and that will be better for me. Not to mention the theories or that kind of stuff. I want to work in that [inaudible at 4:37 sound like “post, how to do field work, how to combine the field work with that theory and that [inaudible at 4:47 sounds like “whims and that”].

[I]: How would you explain what it means to be an engaged or participatory learner to a friend or fellow student?

[P]: I think its student centered I do more things with what I have learned; I apply what I have learned into my research.

[I]: If someone was a new graduate student, and they were told to be an engaged student or participatory learner, how would you explain that to a new graduate student?
[P]: I think I would tell them to be more active in learning, to find a more papers and read more papers by themselves, and not just to learn from class. The textbook is limited in what you want to learn. If you really want to do a good job and you want to learn more about that, extra after the class. Cooperate with both your professor and students are learning and discuss with them, you need to learn from each other.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:07:07-0#

[P]: Actually, because I’m from China, I’m not so good about cooperative learning. We don’t do a lot of that. When I study here, I begin to see that some of the meanings difficult to [inaudible at 7:27 sounds like “pull off”] both from the class and the professors so at that time I find that I needed to discuss that with my partners, with my classmates. We have a study group, but there are all my Chinese classmates. We study together and discuss what we have learned in the class. When we compliment the knowledge of each other what I have learned from this class what I have read, what I will explain to her my opinions and my understandings. She’ll also share with me her understanding. I think when I feel it gets difficult to do by myself, then I try to discuss with others sometimes and share with them. I have also phoned professors to help in any way and to try to do better.

[I]: What role do you think discussing plays in your learning? #00:08:42-0#

[P]: I think building the discussion we will find more problems. Sometimes it’s difficult for us to get to the proper- the right answer. [audio cuts out during participant speaking] But, by the discussion we know more about the topic and we know more about what we need to do and to recognize that what kind of book do I need to read? We share all of this kind of information, passing notes, and our homework and all kinds of things.

[I]: What do you value about a teacher or expert led learning experience? #00:09:45-0#

[P]: I think that’s important because they are experts in the field so they know about it and they will give you some professional suggestions. When I discuss with them, I learn from them more and [inaudible at 10:13] my misunderstandings. But, I do not like the totally teacher centered environment. I hope that they are the expert professors, but I think the student-centered learning environment is also important; the best way is to combine both of them.

[I]: When you consider a teacher led versus a student centered experience, do you see advantages and drawbacks from each? #00:010:52-0#

[P]: Student centered is cooperative learning and more equal learning. When I learn with my classmates, I am not so nervous because we’re on the same level and it’s more easy for us to communicate with each other. With teacher-centered, we are more expert, more professional, more polite, more good with suggestions. To me, because I think they are
on a higher level so sometimes I’m not so relaxed or so in a good position or condition to communicate with them. So, I am kind of nervous. When we are talking, they may use some professional words that I have never heard of so it’s difficult to me. They may use some [inaudible at 12:14 sounds like “technical partner things”] but I am still on the first grade so I have never read that kind of thing so it’s difficult for me to understand.

[I]: What’s the best way for you to learn about a new course? #00:012:30-0#

[P]: I would want to know what this class is about, the theory that is involved [?] is important. I want to know what am I going to learn by attending this class and what the level of student who are attending this class. I think [inaudible 13:22 through 13:25] and what results I can get from this class. And the role of this class in my career.

[I]: How do you go about evaluating the long term value of the course to you and your professional career? #00:013:49-0#

[P]: To me now, dissertation is the first thing. If I need to write a dissertation with mixed methods is valuable so I think that mixed methods when I’m starting the class I have to attend. Then, my professional path I want to follow after graduation.

[I]: If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you? #00:014:32-0#

[P]: I think the higher learning outcome is that I can adapt this mixed method into my research. I can really use it after I learn it, not only that I know this and I know how to do this but I can use it. Application is the most important thing.

[I]: What is the perfect class for you like? #00:015:16-0#

[P]: With the classmates and professor and the professor needs to be- sometimes I think humor is important for the professor and he or she will adopt different ways, numerous ways, to have you learn, she needs to be patient with answers to questions from the student and she can also show ways the student can [inaudible at 15:59 sounds like “help explorers”] in doing their research and maybe he can invite some guest speakers into class. The guest speakers, it’s not so important that they’re experts but they can advise the graduate students [because they] have done research in the mixed methods. He could invite students to share their experiences with the class, I think that to me is more important.

[I]: What else would you like to add regarding research approaches, mixed methods, it’s utility and how we ought to teach it? #00:017:02-0#

[P]: I think the first one is the understanding of mixed methods. Actually, I have not really learned mixed methods, but I have read some papers on it. Even though I’ve read papers, I do not know it well, I just have a vague [inaudible at 17:23 sounds like “proof of that”] mixed methods kind of combines qualitative and quantitative. The fact is not that
simple, one of them needs to be the important part and one of them needs to be minor. I think many students will have a first understanding, like me, if they haven’t taken the course. So, when the teacher teaches this class, they need to clarify some aspects about mixed method and then, based on this, they can explore deep and deep. When teaching the class, I think it’s better to have the whole class divided up into different levels. The first level is understanding mixed method, the second level is comparing the mixed methods between qualitative and quantitative.

[I]: How important is it to you to do a mixed methods project on your own? #00:019:20-0#

[P]: When I do the project by myself, I can discover different parts that’s a different experience than cooperative learning. When I find a problem, I will try to solve this problem then try some different resources. It’s also for research, doing a project is important. As a researcher we need to think things and it’s impossible for us to always discuss with others so I think it’s important for us to learn things independently and to train ourselves to be an independent thinker and to do the project as best as I can.

**JP**

This recording began with the participant speaking

[P]: My MA in Instructional Education and then some specialty credits in my field which is interior design. But, the school that I’m- and they were going to pay for the education ones - but the school that I’m part of changed their accreditation so now they’re requiring an MA in my field which makes more sense anyway. I have some credits from, I think I took [inaudible at 00:35 sounds like “I don’t know long forever but”] twelve units in, it was more of a math but education and then [inaudible at 00:44 sounds like “18 of interior design before he”] transferred. So, they transferred 12 units of those into this program. In terms of what I’ve had, so I’m not sure what you mean by mixed methods. I took a class when I was in the education program called “Research in Education” and we talked about mixed methods. So, but it wasn’t just that particular subject.

[I]: I believe that’s a survey of research methods used in education. They probably touch on quantitative, qualitative approaches, and mixed methods.

[P]: Yep, all three of those.

[I]: Well, you’ve had a circuitous route so this will be a great perspective to have.

[P]: So, I have five classes left.

[I]: You said you’re getting your masters? #00:001:54-0#
[P]: I’m getting a Masters in Architecture with a specialization in Interior Design. Just so you understand my goals, I’m actually changing from being an Interior Designer in the field to be a faculty, college level, that first degree instructor in Interior Design, which I’ve already been doing for five year. In the field of education, but I’m in higher education. It’s an interesting perspective because my dean has a PhD in education, so I’m exposed to it all of the time as opposed to if I was getting a degree in Interior Design [inaudible at 3:39 sounds like “it would be in the stuff”] getting exposed to education at all.

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know? #00:05:03-0#[P]: [Inaudible at 05:09 sounds like “and um number it 2009 mixed methods”] when I did that course on the qualitative [audio cuts out] but my thesis at the time [inaudible at sounds like “I don’t know the’"] mixed methods is that just [audio cuts out] if you could refresh my memory I could answer your question better.

[I]: Mixed methods is typically considered an integration of using both qualitative and quantitative approaches to get more breadth and depth in order to get a better understanding of a particular phenomenon. #00:05:54-0#

[P]: And that’s what I thought [inaudible at 5:58 sounds like “to make sure I was answering”] so what was the question again?

[I]: Looking to the future, since you’re going to be a scholar in higher education, how do you perceive the role that mixed methods could play in your discipline and your life as a scholar? #00:06:16-0#

LN[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: Looking ahead both for my own dissertation and also future research within my profession. As a little bit of background, I work at the library at UNK, I’m actually on the faculty. So, there are expectations upon me to conduct scholarship and publish; probably not at the same rate as other traditional faculty members but there is the expectation none the less that I do contribute to scholarship. Mixed methods as a research method is of interest to me because of the ability to go to the next level beyond doing quantitative types of research. A lot of the research that I’ve seen in librarianship in particular tends to lean heavily on survey design for a number of different purposes whether it’s surveying students, surveying library users in a public library domain, just as a couple of examples. That’s helpful, but I think what’s also been lost in that type of research design is getting into the details of why participants in a survey responded the way that they did. I think both in your own study, as an example, has an appeal to me as a researcher in a librarianship and also as a potential research design for my own potential dissertation design in that following up a survey, getting the big picture in the quantitative sense and following that up with more detailed interviews with selected participants can help fill in
a lot of the qualitative details that the survey by itself wouldn’t allow for much detail or in depth analysis.

[I]: How would you describe what it means to get more information or get more knowledge? #00:03:36-0#

[P]: I’m taking a class with [instructor name] on survey design and what I expect to learn in that class will be techniques and methods for designing surveys and writing questions that hopefully eliminate ambiguity as the survey is disseminated. What I learned in one class with [instructor name] in my 800 class this last spring, an overview on research methods, is that it’s helpful, when conducting a survey, is to perhaps conduct a pilot survey with a small group of people, that way you can screen out potential problems or concerns about questions that may not have come to mind as you’re designing the survey. So, you have some of those safeguards in place, but inevitably, I really think it’s going to be difficult for a survey instrument, just by the nature of its design, it’s a two-way conversation medium, but it’s a snapshot capturing person’s attitudes maybe in response to a question at that one moment in time. It also leans heavily on that one person, the participant’s, interpretation of that question which introduces a lot of latitude right there no matter how well-crafted the question may be written. There’s still margin for differences there in interpretation in a survey. What I would expect, in a mixed method design, as I understand it, is particularly in conducting follow up interviews, is that you could really engage a participant in an extended conversation and get a better understanding of why they answered a question in the way that it did and it may even introduce a better understanding of how the participant read the question which could really change the understanding of the response that came back from the general population of participants being surveyed.

I’m still pretty early in my doctoral program, so I have a lot to learn on qualitative methods and mixed methods research design.

[I]: What is the best way for you to go about getting more information or knowledge? #00:07:18-0#

[P]: Are we looking at any subject domain? Education?

[I]: If you wanted to learn more about mixed methods in this next week, how would you go about that? #00:07:34-0#

[P]: I think my approach if I wanted to learn more about mixed methods if I weren’t already signed up for a class or planned to enroll in the class in the very near future, I would refer back to the text books that I have accumulated over my master’s program and now the start of my doctoral program for background information. I say that because I’m a good librarian and I put a lot of value in books. I don’t know if my younger counterparts, millennial students, would take the same approach, but I would start with text books that I have in my collection or the library’s collection. As I’m reading through
those books, I would try to see if there are any other books or articles referenced in the bibliography that might give additional citations or other works that I should refer to in order to get a better understanding of mixed methods research. I won’t say, I sure won’t say that I’m going to go on the internet, using Google and Wikipedia, I will tap into those sources, and again leaning on my background, I feel like I’ve had a great deal of experience in vetting those sources for authority and accuracy, currency and so forth. The “crap test” we call it in the library world for evaluating a website. I would also refer to the internet, off the top of my head, I’m not sure I could suggest a web site I would immediately go to that would instruct me on mixed method design. I would probably start with Google and go from there to start evaluating the results I see from the search list. It’s possible, maybe EDUCAUSE may have something about mixed method design, that’s one website I frequent although it’s generally more technology related issues than methodology. But, who knows, maybe EDUCAUSE would have something on that as well.

I may be dating myself in referencing books, but maybe I’m also not giving enough credit to younger students too. My first reaction would not automatically to dive in to the internet and just bang away at Google. That would not be my first reaction.

[I]: How would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:011:44-0#

[P]: I think, in my own view and what I see as I teach undergraduate students from time to time during a lot of our instruction classes. I think self-motivation is a key component of learning and I know it’s a challenge for us as educators to try to instill that or encourage that within students if they have not grown up with that mindset from an early age. If a student has just coasted through K-12 and they’ve gotten good grades, A’s and B’s, they’ve done the work put before them, but if they’re not engaged and inspired in a way to take ownership of their own learning and to look beyond the basic materials that are put before them: reading materials, text books, course readings, lectures, whatever and think critically about what they’re hearing and what they’re reading, mull that over and challenge it in their own mind. Even take the next step and look for additional information on a topic of particular interest to them. If that process, that self-motivation isn’t instilled in a student, it’s going to be a hard row to hoe I think. I confess, I’m not the only one I suspect many educators feel this way, how do you build that into a student if they’ve been coasting along through life and maybe skated by with decent grades but haven’t developed those critical thinking skills and self-initiative to take ownership of their education. Trying to build that into a first year experience for an undergraduate student is a big challenge. I don’t have all of the answers on how to do to that. What I try to do is I try to teach with enthusiasm when I’m presenting a library instruction session to first year students and I try to explain how the techniques I’m presenting in the class can make their life easier, how it can diminish the amount of time that may be required to do research in a variety of subject areas. I try to sell it that way, which maybe doesn’t appeal to the larger scale of critical thinking skills and self-development, those types of things.
Hopefully it engages them long enough to pick up those skills and apply those skills in a variety of subject areas, not just that one class.

[I]: Put yourself in your student role again, what types of behaviors, actions are indicative of your engagement in the course? #00:016:02-0#

[P]: I think what I try to do, I do try to walk the walk, I try to practice what I preach. When I read material online- all of my courses so far have been online- so as I’m reading my textbook, reading discussion posts on Blackboard for example, I’m reading all of that with critical thinking skills engaged and trying to objectively look at the information and ask myself the question, “How do we know this to be true? Can we take this particular claim at face value? What might be some other perspectives or contributing factors to the experience or the information that’s being conveyed in that material?”

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:018:29-0#[P]: I think it’s been much easier in a course by course basis, so far in my experience in online learning, the discussion forums, particularly [instructor name] Ed Psych 800 course from this past spring where there was a requirement to not just post an answer to a question in the discussion forum but also to reply to three other people on the same question. There was a grade and incentive of course to participate at that level; you’ve got your carrot, the grade so to speak dangling out there in terms of participation. But, it was, in spite of that, I think there was some good conversations that came out of that in many of those discussion posts. I think there were some you would read that the student was probably doing the minimum level of effort required to post something about the reading material that we had been assigned for that particular week. Other students you could pick out that were really thinking critically and challenging, raising questions about whether certain techniques would work well or whether certain ethical issues might come up with a certain type of research design, for example. Those would be fruitful discussions in an online setting. The challenge that I see for myself, and maybe for other online students, it would be interesting to survey would be what type of discussions and conversations about learning are occurring outside of class. My spring classes ended in May, I’ve had no other interaction with students from that class or students from future classes or any other students since that time. I wonder if there’s a disconnect between what graduate students, doctoral students there on campus in Lincoln experience versus what distance students are experiencing. I imagine you rub shoulders with other students there from past classes maybe at the student union or somewhere else on campus, you may have developed friendships with some of those folks too, so those conversations continue outside of class which I think is dynamic and outstanding. But, that’s an area where speaking for myself, distance students don’t have that same type of connectedness with each other and those type of conversations on a regular basis. I do find it very easy to have conversations within the context of the class once the class is done, that conversation pretty much stops. That’s not to pick, on the way the classes or the program are designed in Lincoln that was my experience in another institution where I did my master’s work too. I’m not sure anyone has figured out a good way to overcome
that. There are Facebook groups, I am a member of the TLTE graduate student group on Facebook, but there hasn’t been a conversation on there that I’ve seen to date. I haven’t contributed to that myself, so I’m as guilty as anyone else, I’m not trying to jump start something like that. [I]: Where you’re at, do you discuss with other faculty or committee members? #00:024:19-0#

[P]: I’ve not talked about it with my program committee, is that what you mean? [Yeah.] Not a great deal in part because of the distance factor, I’ve only had one formal meeting of my committee thus far and that was to approve my program this spring. My experience is probably going to be a little different as a distance student compared to what you may hear from your interview subjects there in Lincoln. I do talk about my program, what I’m learning with one or two other colleagues at the library where I work at UNK. One of my colleagues does have a PhD in education as well from Kansas State. He’s twenty some years older than I am so I regard him as something of a mentor even though it’s not a formal mentoring relationship. So, I’ve enjoyed talking with him and sharing a little bit about the courses I’ve taken so far and picking his brain a bit from what he remembers from his doctoral program. That’s been fun, I won’t say that happens frequently; if I have to quantify that I would say those types of conversations happen maybe once every two months. A conversation will come up where we’ll talk about those types of things. I hope that maybe that will increase this colleague I mentioned who I regard as a mentor is working on a research proposal which will likely involve me as a secondary investigator at least. I suspect as we’re working together on this there will be more opportunities to start to apply what I’m starting to learn already.

[I]: What role do you think discussing plays in your learning? #00:027:01-0#[P]: I know in talking with Ron, it’s been motivational for me, I can’t immediately put a finger on a conversation where I felt like he brought up something that augmented my knowledge base of what I was getting in class, but there has been more of a motivational effect, for me, in talking with him. It’s strange to describe, it’s made things more exciting and had a greater sense of reward for me personally, emotionally when I talk with Ron about what I’ve learned and compare experiences with what he went through at K State many years ago. I guess it’s not something to downplay, but I would point more to the emotional support of those conversations in helping me both with my doctoral program and just to be more motivated and excited about continuing my learning and conducting research in our field. That emotional aspect, I think, so far has been far more the fruit of those types of conversations that learning bits and details about doing chi square analyses or those types of nuts and bolts of qualitative and quantitative research. It’s been more encouragement and the emotional reinforcement that has come from having those types of conversations. [I]: What do you value about a teacher or expert led learning experience? #00:030:00-0#

[P]: For myself, I don’t know how other people might answer this question, my first thought that comes to mind brings up the idea of moocs, I’ve been reading a lot about moocs lately, Massive Online Open Courses and I admire people who can enroll in those moocs and see it through to the end; depending on the subject maybe I could do that too.
Moocs so far, have gained some notoriety of having a low completion rate, maybe around 10%. The value in having instruction on mixed method research design from an instructor is that I’ll have added incentive and motivation to complete the coursework, to complete the readings, engage in the discussions and so forth. I’ll also have the benefit of a smaller ratio of maybe 1:15 or 1:30 in which I can engage with the instructor, by having a smaller group of people engaged with the instructor, there’s a greater chance I’ll have to interact with the instructor, ask follow up questions, clarification on lecture content, particularly if it’s a recorded lecture which is the case for all of my online classes so far. There’s been nothing synchronous, no lecture experience. To follow up and have conversations, engage with an instructor with the smaller instructor to student ratio is a very valuable component of a mixed method research course, something that I wouldn’t get if I were to pick up a textbook or Google a website about mixed method research design. That’s great for background information and I’m sure I’ll do that in the future after I complete a course to refresh my memory or to see if there’s new developments in terms of how mixed method research is conducted but for me to have, maybe I’m old school, it’s still valuable to me to have the insights of the instructor and to be in a formal class setting both from a motivational stand point but also from the stand point of being able to engage, ask questions, and have follow up with the instructor instead of just reading the text book and having that one way information have a two-way exchange of information to further my learning process.

[I]: When you consider a teacher led versus a student centered experience, do you see advantages and drawbacks from each? #00:034:10-0#

[P]: I’m trying to think of examples of a student centered learning experience. Would an example be picking up a text book and reading about mixed method research design? Or a group of students collaborating or teaching themselves like the Facebook group?

[I]: More of the latter.

[P]: My first reaction would be some of the pitfalls of the student centered learning in a group sense would be that no one person may have either the personal experience to help lead the group or guide the conversation or the research or the learning process in the way that a traditional instructor led class might have. I’ve participated in group projects as a student and depending on the personalities involved and the assignment, some have been better than others. I’m not sure that I could point to those group assignments being necessarily a replacement for what the instructor brings to the learning process. I don’t think it would be fair to put that expectation to my peers necessarily, that’s my first reaction. I’m not sure I could see- I’d have to see more details of what a model like that might look like to have more confidence in a student centered approach in a group setting could accomplish the same outcomes as an instructor led course on mixed method design.

[I]: How do you learn about new courses available to you as a student? #00:037:53-0#
[P]: I’m not confident that I do, to be perfectly frank. There was a survey that came out not too long ago from the College of Education and Health Sciences; they were asking several questions about communication methods. I didn’t address this question specifically, but thinking of that survey, right now unless the college would have put out an email or set up a Facebook page or something like that that would push the information to me, I honestly don’t’ know how I would find out about new classes being offered at UNL in our program unless my advisor happened to take the initiative to shoot me an email. I know he’s busy, I wouldn’t expect him to do that. The only way that I know to look for courses so far is to search UNL websites, I’ve been through the course catalog three or four times now in the process of building my program of study. I feel like I’ve surveyed everything that’s there, but if a new class came online, I don’t know how I would find out about that at this point because I’m kind of locked into my program of study. Unless somebody hits me in the face with it, me being an online student. Unless someone sent out an email, “Hey, here are some new courses being offered in Fall 20013.” Unless they push that information to me, I’m just not going to know about it. The UNL website is so vast and large that if I knew there was some place to go and look for new courses being offered, I’m not above bookmarking it and checking it frequently, but at this moment, I can’t tell you if it exists. I’m not aware of such a web page.

A lot of those courses aren’t even offered any more. Are you in the internet based education trend?

[I]: I have done my program face to face, I live in Lincoln and work for the university. As my role at the university, I’m the blended learning coordinator and I support design in both blended and online courses. What you’re telling me is interesting not only for my dissertation work and this study, but it’s also a great way to get a perspective on the online experience, I’m cataloging what you’re saying for dual purposes.

[I]: If you do learn about a new course, how do you evaluate the potential value of that new course to you? #00:042:21-0#

[P]: I think the factors that would most weigh in my mind, one is it offered online. I will be taking classes on campus this fall; I’ll be taking one class. That’s a four hour round trip for me to participate in that class, I can’t do that too frequently in my program, so if the class is offered online, that’s going to be a big factor in my decision right off the bat. The course description is a close second in terms of my consideration process. If the course is not offered online, the time and day when the course is offered will be a consideration. If it’s not offered in the evenings, then I probably won’t be able to consider that class. I’m trying to think of other factors that might prompt me to make a change to my program of study.

[I]: What about professional utility and your own portfolio of knowledge and skills and tools as you move forward as a scholar? #00:043:56-0#
P: I think all of those I would agree, if I could see from the class description beyond the title, the description, that the content of that course would augment my skills in a particular research methodology or a particular content area. For example administering online education programs in a higher education setting. Right now, I’m not aware of a class at UNL that addresses that specifically, that would be something I would be interested in and I could either glean that information from the title or the description of the course. I would sign up for that in a heartbeat.

I: It sounds like you go through and try to find some type of match. #00:045:24-0#

P: I do, that’s the process I’ve applied using the catalog on the web of courses and came up with a big wish list of classes I’d like to take knowing I could never take them all or I would never finish my program in a timely manner and talking with my advisor, he informed me that some of these classes aren’t even offered any more. I’m trying to think of the department name, ALCTS, something with agriculture. They were apparently doing a lot of distance education and that faculty member retired so that’s a whole slew of courses that are no longer on the menu so to speak. Well, they’re on the menu but they’re not available at this time. I just scoured the catalog at least three times in developing that wish list and my advisor suggested some classes that weren’t on my radar initially but those titles and descriptions are pivotal. If I could see a syllabus for a course that would be even more informative I’m sure. Again, to my knowledge nobody does that, it’s not just at UNL, it’s at every institution I’ve ever been enrolled at. Part of it is on the faculty, part of it is maybe on the communication systems that are in place. You’re hard pressed to find a syllabus for a course in advance of enrolling of the course and the class actually occurring. In most cases, you don’t see the syllabus until the first day of class. So, you’re really flying blind in terms of what the expectations will be for reading, how’s it graded, what’s the rubric for grading, and whether the nuts and bolts- what’s the detailed outline for how the course calendar is laid out, what topics are addressed and for how long. You just won’t get that kind of detail in a class description unfortunately.

I: That would be quite useful, especially if you had to plan a four hour round trip drive!

P: If there were a database of syllabi that you could narrow down to just UNL or just graduate students but that would be handy. I’ve not seen that done anywhere or heard of that being done anywhere where students could get a closer look before registering and before showing up for the first day of class.

I: If you were to enroll in the mixed methods course, what would be the most highly valued learning outcome? #00:049:05-0#

P: I think a better understanding of integrating quantitative and qualitative research methods and for myself personally, with the type of research often done in libraries, integrating survey research design with individual interview design. I think it’s very close to what you’re doing right now in your own study. Getting a better understanding of how to integrate the two, what challenges there might be, what ethical issues might be
involved, if any - I’m sure there are some in terms of IRB approval and so forth. That would be the main learning outcome for myself looking down the road for how I could see using mixed method design. As a secondary goal, I would also suggest that I’d be interested in learning about other types of mixed method design. The only I can picture in my mind from personal experience and what I’ve read so far is the survey followed up by either a focus group or individual interviews. There are probably other variations out there that I haven’t imagined or come across and I’d be interested to learn more about those combinations.

[I]: Anything else you’d like to add? 

[P]: I can’t think of anything else I would add about mixed methods. In the course design aspect, I think it’s helpful, what I’ve seen at least in one class so far is if you cannot just read about a research design but actually practice, to some degree, actually execute that. Whether it be drafting a research proposal, for example, for me that would be particularly helpful in better learning and retaining how to conduct a mixed methods research design. So far, what I’ve done in my classes, just in my first year are a couple of literature reviews, which were helpful in their own way. I’m suspect in the class I’m about to take with [instructor name] next week on survey design I need to look at the syllabus because I just got access to it yesterday, the impression is that there’s going to be a group exercise where a small group of students will be putting together a research proposal and maybe a sample questionnaire, sample survey. That’s the type of going beyond just reading and obtaining information; we’re starting to apply it in a practical sense. Those types of exercises in a class help me to, personally, integrate those concepts to memory and apply what I’ve learned more effectively in the long term instead of just reading something. If I just read about it, I’ll retain maybe 10% of that. If I practice applying what I’ve read about or heard in lecture, other studies have shown this too, the odds of retention and application go up significantly so I know that would be the case for me too.

AZ

[I] When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P] Specifically mixed methods? Well, it makes me think of the course I’m taking now, I don’t know, I have an idea that I will go on and get my PhD, but will I work in higher education? I don’t know yet. But, I think that having a good understanding of research whether it is quantitative, qualitative, or mixed methods, I think is essential to what I want to do in my graduate work. Whether it has to directly use it like in a professional setting is irrelevant, because what is immediately in front of me is graduate work and I need to have a thorough understanding of different research methods.
[I] How would you describe what it means to get more information or get more knowledge? #00:03:34-0#

[P] The course that I’m taking now are exactly for that reason, to gain more knowledge in research. They’re not necessarily designed to set me up to do research, but it’s to have an understanding of research design so I can interpret something accurately. Again, I go back to the course I’m taking now and the whole idea for this curriculum is that we’re going to be able to identify whether something has validity, or whether an experiment was done right, was the research done properly, whether it tests what it’s trying to test. That’s how I describe the process of how I go about doing that; I need to gain a deeper understand and being able to identify how research is done since I’ll be doing it later on in life.

[I] What is the best way for you to go about getting more information or knowledge? #00:05:17-0#

[P] I need to know how to go about it. In the course I took previously with Dr. X, he, through the assignments and through his teaching, we were instructed how to identify certain components of the research and talk about them. I think that having somebody who is really knowledge in that area, first and foremost, is necessary. Then, being shown the steps that you go through research designs, in a classroom setting, is helpful.

[I] How would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:06:09-0#

[P] I would say that it’s constantly on your mind. You have a dedication, in a sense, where you are quite single minded in the sense that anything can relate to your material, that’s how I’ve felt and that’s how I’ve tried to practice when I have been. When I have been taking courses that’s how I choose to be engaged with them so if I’m constantly turned on to the material, it helps to supplement my writing, it helps to supplement my learning, and I’m constantly making further associations with the material. It’s not just bound to the book, the material, the text and reading, or in a classroom setting it’s being reminded of it in a real world sense. I think that it’s being engaged and turned on to it, being available to learning about that at all times.

[I] In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:07:40-1#

[P] Immediately, even before I understand what it’s about. I’m constantly questioning things. I’ll start reading material once I have the text, immediately before the course begins. It’s continual because I still talk bout the course I’ve taken, I’m still engaged in that material, not to the extent I was when I was in the course, but it’s immediate.

[I] What role do you think discussing plays in your learning? #00:08:23-1#
A: Huge, I think that in discussion, not just discussion with your classmates, but discussion with your friends, with family, and colleagues and different other realms of your life. It’s huge; you’re making other associations with the material outside of just those circumstances that strengthen that content itself. I think discussion is huge, that’s how you should be participating.

[I] What do you value about a teacher or expert led learning experience? #00:09:04-0#

[P] I think that I more readily accept what they’re saying and I can engage with it quickly. It still doesn’t slow me from questioning, from wanting to challenge, and to push back but there’s a certain sense of safety in it. There’s also a sense of expectation, if I’m paying an expert to teach me, they should be at the top of their field or game- the best.

[I] Do you feel that raises your game and likelihood you’ll seek outside information? #00:11:03-0#

[P] Yeah, absolutely. I think they should have that expectation of the students as well.

[I] When you consider a teacher led versus a student centered experience, do you see advantages and drawbacks from each? #00:11:24-0#

[P] Yeah, when its peer led, in my experience, we question a lot. One person has a question, then another turns off of that, then they tell their story and have a question for the group. There’s a lot more questions, there’s really good discussion, but we don’t necessarily generate answers. For me, I’m a problem solver; I’m always driving toward the result of something, so that’s difficult for me. I think I value it less because it’s great to have a peer led discussion, but in the end, I want to talk to the expert. I could see the drawback of having an expert that dominates the classroom too, that doesn’t allow for discussion, that doesn’t allow for questions, who is insecure about the idea of questions. Whether it’s “This is my text, I wrote it, I’m the expert” if they don’t allow that it’s like, “How can students evolve in those areas?” we need to leave room for that as well.

[I] What motivates you to take a new course? #00:12:49-1#

[P] I love learning and never want to stop.

[I] How do you go about evaluating the long term value of the course to you and your professional career? #00:13:14-0#

[P] I think that I want to spend my time learning how to be an efficient learner. In all of my courses, that’s what I want to do; I want to learn how to get from point A to point B and retain said knowledge for as long as possible. I think that there’s immense value in that, it’s being able to reach that material to my friends and to be able to teach that material to my employees in whatever context. There’s high value in that. I think that’s how I’ve narrowed it down to taking the courses that I want to take and wanting to be taught certain things. There’s also the idea that I’m trying to gain specific skills that will
have monetary value when it’s all said and done. I don’t want a piece of paper, “Great, awesome knowledge.” I actually have real life skills that I can take into a job, it’s not just this idea or I don’t know just theory or I don’t know just research. I actually have skills that I will have after I have this degree. Those pieces dictate the courses that I’m taking and the things I want to focus on.

[I] If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you? #00:14:43-0#

[P] In the course that I’m taking now, when we’re going over all three piece briefly, qualitative, quantitative, and mixed. The idea is to understand research design in those three different types of designs. It’s hard for me to answer that question because I’m at the point where I want to thoroughly understand, did this person do this correctly, did this person get from here to there, what were the steps, what were the variables? I’m at that stage right now where I’m trying to understand the design of it so it’s hard to answer that questions.

[I] When you look to the future, what do you see how research fits into your professional portfolio of skills? What would you most like to add to that professional portfolio? #00:15:54-0#

[P] I think it would be nice to be well rounded. I think that people pay particular attention to certain kinds of research designs in one of those three areas. I think it would be nice to be well rounded and I feel like the courses that I have taken and that I will be taken, that they will be doing that. They’re going to be focusing in all three of those different areas; they won’t focus on one particular design. I think that the benefit would be to be well rounded and be able to pick apart any of those three different research methods.

[I] Is there anything you’d like to add on your perspective on mixed methods, learning, or course design? What’s the ideal course for you like? #00:17:21-0#

[P] To be honest, I think that it’s interesting; I’m taking a little survey in instructional technology and Dr. X’s class on teaching learners how to learn. I think there would be a good combination of those courses; knowing how a learner, for me it would be knowing how a learner, how a person takes information, processes it, stores it, and retains it. Being able to take the technology and know to apply what technology is going to best used for a particular content and to be able to apply that. That’s kind of my own perfect design of a course, I feel like there’s a lot of psychology that goes into learning, so I’m taking some of those courses. The foundation of it is knowing how somebody processes and learns information then what technology is going to reach them, what learning processes can best be applied to said situation. That would be the design of the course.

[I] So you like highly designed, you wouldn’t say you like more free form or just discussion? #00:19:08-0#
[P] No, very specific, here is a person, here is how the human mind works, here is how we learn and process information. There are so many different theories of learning in general, so many different ways to apply technology and be able to teach. That would be like a yearlong course. That’s what I want to get out of my coursework; it’s what I want to learn about.

[I] How important to you is it to have your instructor explain the learning benefits of a particular approach that they’re using in classroom? For example, if they were going to do a blended approach or something like that, if they explain the course design and how it’s better for your learning, is that helpful to you? #00:20:41-0#

[P] Absolutely, you’re learning about learning. You’re having a Meta cognitive understanding of- it reminds me of Dr. X’s course- you can’t just teach somebody, this is the best way to learn and then not have your course go against the grain of what you’re teaching. It’s really important, he would go through and for example, he talked about the SOAR model of learning, you select, you organize, you associate, and you regulate. That’s the design of SOAR, the process of how people learn. Then he brings in all of the components of it and then exercise a lot of what he taught in the book in the classroom. So, he would start off a lecture, “A quick one minute review of what we learned last time, here’s what we’re going to be learning about today, here’s why and the purpose of it. Here’s what we need to pay particular attention to.” Then he would get into the lecture, when he started to talk about assignments, we would have discussion first. The outline of that course replicated what we were being taught about learning, how it’s best learned. He would talk about that, having a Meta cognitive process happen with learning about learning. It was embedded into the course, it’s really important. I think it’s really important for the instructor to have feedback too, that’s working, can we spend more time doing these things, or I need help in these areas. He would tailor to that, I think that’s really important. I’m not somebody who can just sit back and not question that. I question that because I care and I want to understand the processes.

[I] When you envision learning about mixed methods or any of your research approaches, what do you think is going to be the best way for you to learn those? #00:22:54-0#

[P] I think case studies help me a lot; I think that having a case study and then have a reflection writing about the case study helps me a lot. Having discussion about it you learn more, but having the expert saying, “These are the things I want you to be able to pick apart in this.” Then, being able to read it on my own, write a reflection piece, then having discussion about it, and coming back to the expert helps me immensely. In learning about mixed methods of whatever research designs I think is going to be, I feel is going to be the ways I’ll learn best.

[I] How do you envision how important it would be to actually be doing a research project? #00:24:04-0#
[P] I think regulation is super important in learning, to really test a student to see what they learned; you should have them teach back the material that you taught to them. You connecting your own research design, that’s the ultimate way of testing what have you learned mixed methods or fill in the blank to the point you can demonstrate mastery. The best way to do that is to reteach it back or to design your own research design. I think it’s imperative, we need to be able to do that and I think most of the courses, if not all of them, it’s been a requirement.

[I] Other comments? #00:24:55-0#

[P] My perception of mixed methods? Intimidated. I have that opinion because we spend so little time with it. Even looking ahead, it’s only going to be a piece. Looking ahead to the course that I’m taking, it’s literally less than a third, it’s going through each of the qualitative, quantitative, and mixed, then there’s the other 40% of the class that we need to get through as well. It’s like a third of 60%. I think that it’s not sufficient to really grasp what it looks like to do mixed methods, but it’s been my experience in the courses I’ve looked into as well, it’s just a small piece.

[I] What’s the best way for you to learn about a new course? #00:26:17-0#

[P] Email, just because my account is not populated frequently, I don’t go to a college website ever unless I need to do something specific. I’m not a part of any Facebook or College of Education thing at all. I’d say email, not even through mail. Email is perfect.

[P]: I’ve been thinking about that and I’m just about to start working on my thesis so it’s probably a good thing for me to think about anyway. I’m doing my literature review this summer. In Interior Design, one of the things that’s very unique about it is it’s typically a small group of students so I never have more than 14 students in a class; the whole field is relatively small compared to something like education. It’s hard to get the larger quantitative study information so I think it’s good to have the qualitative information when you’re sort of getting some feedback [audio cuts out] questions and getting some information where there’s not as much data out there is in something like education. Then, going to do something more qualitative, going out and getting something for specific in an area. One thing that I’m interested in is how we use technology in interior design. So, I’m actually thinking I should maybe go out into how do students use technology in the classroom and how does that translate into the field. I thought about just trying to get some information from local architecture and interior design firms in terms of what they’re using and how much this program and how much of that program. That would be part of what would be helpful for me to know rather than just assuming that I have the answer and then specifying something about that technology that makes things too complicated so narrowing it down specifically to what I’m interested in. We have this new trend in our field called Building Information Modeling. It’s fairly new so you can design, on a computer, the whole building including all of the pertinent pieces, the wood frames and the nails and everything. It’s very different than what we’ve been doing for really the last thousands of years, all just drawing. It’s a big transition and we
as educators help kids learn that so they can use it out in the field. Some people in the field aren’t using it as much and there are all these different programs.

[I]: It sounds like you have an excellent opportunity to explore both quantitative and qualitative, things like software programs are used, how often, how much, as well as qualitative with the experience of using this, the experience of change, especially throughout the organization I’m sure that would be fascinating.

[P]: I see students struggle and I also talk to my peers out in the field. They all have a completely different answer and take on it. So, my assumptions that when a firm is using a specific program, which I’ll ask them, they’re like, “No, I don’t really use that.” Even though their company says they do. Trying to right the right data as opposed to common information which is just too narrow.

[I]: I see how that would inform what you would do in an academy in terms of a scholar and teacher. When you look at the continuous learning that you’ll be doing, how do you perceive fitting in learning more about research methodology and in particular, how might mixed methods be part of that continuous learning as a scholar? #00:010:24-0#

[P]: In the program?

[I]: In your future as a professor, that type of continuous learning that scholars pursue in their professions. Do you perceive a role for mixed methods in that respect? #00:010:44-0#

[P]: I guess it kind of depends on what my particular school wants to do. So I’m part of the Art Institute and we have forty or fifty schools. I know there’s elements in our school where they’re spending time and investing money working on research, they talk about that all of the time. You have to have a reason why you’re doing something and we use data to have a strong foundation for we do something with our program. I know it’s an important thing in our school [inaudible as 11:28 sounds like, “but for us”] perspective but as an instructor, that’s not part of my job, typically. So, it would be, it might be that in a specific course but, the only time I see it on a regular basis is either [inaudible at 11:45 sounds like, “d support”] they have to do a survey and so I guess I’m not actually teaching those courses right now because I don’t have my master’s so I could see that maybe way in the future helping students do a better job of that. They send me questionnaire’s and I’m thinking, “This isn’t a questionnaire.” It covers about information about what my perspective is. So, maybe helping students do something in their survey that is not just quantitative. Typically what they send out is, “Would you do this or that?” “Would you do this or that?” It kind of leaves things that I know they should be addressing off of the table. There’s never a “Write in your comments section” because of course it [inaudible at 12:41 sounds like “would fit in with”] quantitative survey.
[I]: Is there anything you’d like to add about mixed methods and career and discipline
types of things? #00:013:02-0#

[P]: I guess in terms of our discipline, we’re also moving, just in the last decade or
decade and a half, we’ve moved as a profession into actually designing. There’s a whole
ting called “Evidence Based Design.” It’s funny because a lot of what we do in interior
design part of the architecture and building industry so a lot of it is really driven by
statistics and things that have been proven in the field. We have to put fire retardant
materials in a building, for example, because of large fires that have happened in the
1920’s and every time some major crisis happens like a building falls down it’s really in
the news a lot. Its part of our profession, are we doing something that could potentially be
that building that’s had a serious accident? Were we part of it? So, it’s definitely related
to the research that’s had been done drives what we do in a project. Even stuff that isn’t
such a crisis: how do people work in their environment? Does it cause any health
problems? All of that stuff is part of what we do. As interior designers, sometimes it’s
hard to gather all of that information when it’s constantly moving and changing. We have
an older population and you might do stuff because it’s dictated by a law but we need to
up it a little bit because the law sort of drags behind. People who, maybe we had
[inaudible at 14:57 sounds like, “bothered”] doing a study on how many people really
have vision problems, do you do something with every project that you’re [inaudible at
15:05 sounds like, “leg isn’t at”]? How far do you take things and asking the right
questions when you’re working on specific projects. One of my interests is I think a lot of
people want to go into the institution as they age, but we don’t really design homes so
that people can live in their house so they have to leave their house because they can’t
make their own meals. That information is out there, but it doesn’t seem like it’s
coalesced very well. There are still tons of buildings being built that aren’t using what we
know. How do you bridge that gap and convince people, do the right thing?

Maybe we need to ask more questions broadly when we do our projects instead of pulling
out one things that we find, the most recent thing that we’ve read.

[I]: Describe what it means to you to get more information or more knowledge. When
you fill that need or desire, what’s your usual procedure that you follow? #00:017:20-0#

[P]: I usually, since all of my courses have been online. There’s no interior design
master’s program where I live so that makes it kind of hard to pursue this requirement for
my job. I was, “I don’t want to do online, why would I do that?” I actually learned to
really appreciate it because it forces you to have to find things on your own and your
teacher’s not hand holding you. Our students, the hardest thing to teach them is you’re
coming to class and [inaudible at 18:00 sounds like, “You’re my bless this I didn’t
explain to you”] the whole point is that you have to actually read this material and not
buy it. It’s a really hard skill to teach them and to get them to have that light bulb to turn
on. It’s not really anybody’s fault but my own if I don’t take the time to really understand
something. So, with online, I’ve had to learn how to look on the online data basis in
education. I haven’t done it yet through UNL but at [inaudible at 18:24 “ark. Oh, the
things that you” online resources and I’m sure they’re similar. That’s what I would do, I would look up mixed methods and see what I could find that was somehow related to my field and look at that. That’s where I’d start. After that, I usually look through the literature that they’ve read in the bibliography, works cited, and find things that are maybe narrowing the information down. So, if I’m stumped at where to even start, I would try to find something that talks about mixed methods in more detail. I guess I’ve always felt that it’s not that hard to learn things.

My bachelor’s degree was an unusual program, I went to Evergreen State College, have you heard of that? [I: I haven’t heard of it.] There’s no grades at all. They actually have a really strong program in education too. You learn from day 1. You’re sitting in - what they do is have you write goals, write your own objectives so you learn how to do that. You evaluate yourself, you evaluate your professor, you’re constantly reflecting. None of this, what I think traditional education kind of waiting to be [inaudible at 20:28 sound like “signed by whatever my Dean says”] you can’t just spoon feed them like they’re little baby chicks. You have to get them to want the information. We don’t really teach our students that way, for the most part, which is kind of a shame. I think they like it when they figure out what it is themselves.

[I]: If you were going to explain what it meant to be an engaged or participatory learner to a friend or a new graduate student, how would you describe it? #00:021:20-0#

[P]: I think, as an instructor, you have to bring them some sort of task or assignment that forces them to ask questions, just be patient with them and encourage them to push through the “I don’t know what to do” phase and guide them, help them, but don’t answer the questions for them. Just make it part of the process and usually I try to do it in baby steps at a time so they start seeing it right away. One of the other things I’ve done is to have them write their own goals so they are focused on something in class instead of just doing what the teacher is telling them they have to do. Probably writing the goals is the best thing they can do - write goals for themselves in the class. [It sounds like it helps them keep their focus is that what you find?] That’s what I was going to write my thesis on in the education one so I’ve spent a lot of time thinking about that. There’s actually a lot of evidence that says that, it’s called mastery goal setting, that process has a much better educational outcome than traditional education where I take this test, I pass it, I get an A. [Which disappears pretty much right after they get their A.] They don’t retain as much because they’re not engaged in it as well.

[I]: At what point do you start talking about what you’re learning with others: friends, colleagues, or faculty? #00:023:34-0#

[P]: Probably right away. I think it depends on the situation but I think it’s good to toss around ideas. For the master’s thesis I’m doing now, I actually took a course on [inaudible at 23:58 sounds like, “quartered assessment”] that kind of helped me get an idea. I was in this other program and all set to do that one; I’m trying to rethink my purpose so it’s more interior design focused as opposed to education itself. With the
concepts of writing a program for a course to help students use technology and
developing it’s sort of technical and maybe they don’t know the field it might be like, “What is she talking about?” There’s a challenge when you’re teaching this Building Information Technology, what you have to do is build modules, so to speak inside of the program. So, figuring out a way to have that more premade for students for interior design purposes. The industry is so vast, it’s engineers and electricians, interior design is really small. We tend to get little crumbs, it’s very time consuming. I met with an architect last quarter and asked him what he thought. I guess I tend to figure out what it is I’m trying to resolve and run that by someone as opposed to just talking about everything I’ve learned to help me answer a question. Or a series of questions. He thought it was a great idea he said, “Yes, and you should probably [inaudible at 25:32 sounds like “cap”] that.” So, that made me feel like- he had been an architect for like fifty years and he needs to know how to use the computer.

[I]: In that respect, it probably felt like validation.

[P]: Yeah, like that’s something that’s really needed in the field, from an architect standpoint. Really, that’s one of the big employers of interior designers is the architect. There are little firms and there’s giant firms, what a great opportunity to be in the field to walk in and get a job as an interior designer with a team that builds hotels in Dubai and say, “What do you need? Would this be helpful?” Time is a really huge factor in architecture and interior design and education. The more time you spend on something it’s the return; you’re spinning your wheels and not making a profit.

[I]: It also sounds like when you talk about your ideas it helps to clarify your own thoughts, is that accurate? #00:026:54-0#

[P]: Oh definitely. When I talked to him, I tried to ask as many questions so he could give me more information. There’s that [inaudible at 27:12 sounds like, “file cabinet in huh?”].

[I]: Absolutely. What do you value about a teacher or expert led learning experience? #00:027:20-0#

[P]: Probably just the satisfaction of watching them master something that you’ve worked toward teaching them in a whatever, our classes are 11 weeks long, so they’re a little shorter than UNL. It’s not very long just to be able to break it down enough so that they stick with it and be engaged and then a lot of critical thinking, that’s where students really need to get into that in interior design fairly early in the program. You can feed it to them in little baby steps to get them to really master something and feel how, on their side, how rewarding it is. It feels really good. One way that I quantify that is that I give them a survey after class: how was your experience, what would you change, what would you not change, how much homework did you have. That way I know right away what they thought, otherwise you’re still kind of wondering what it was like for them.
[I]: What was your experience as a student, from that perspective? #00:029:27-0#

[P]: Absolutely the feedback. Some courses I’ve taken I feel like there’s a little too much emphasis on the students interacting with each other without the teacher chiming in and going, “that’s a really good point but have you thought of this?” Or this person is on track, this is really what I want you to be learning.” Without that interaction, which can be really successful online, I don’t know that every course can be taught that way, but I think it gives you time to really think about it and absorb things in a way that is different than a classroom where everything is so fast paced then you’re out of there. If you didn’t get the chance to interact with your teacher . . . I went to interior design at a community college for a while and I only got to talk to my teacher once a quarter. So, as a student, I appreciate that feedback. The course I just took I thought she did a really good job because she would have that interaction with us as a group so we kind of got her perspective on other students and whether they’re getting what they’re supposed to be learning or if they overachieved. It was typically a cross section of one student was the best; it was really helpful that way. She also took the time; we wrote papers every week, so she took the time to really comment on everything, not go, “That was a B paper.” That more detailed feedback really helped me as a student, especially in the master’s program since I feel like I have a lot of it under my belt. What do you, as a master educator, think I need to work on? One of the instructors said, “You need to pare down your focus and write an outline, you’re getting to a point that you need to focus. Each point needs to really relate to your topic.”

[I]: If you don’t mind me asking which course or instructor was that? #00:032:12-0#

[P]: It was Suburban Housing, which I really wanted to take that class. I wasn’t supposed to be able to take it but I got an exception. I can’t remember the instructor.

[I]: That was spring semester? I also do a newsletter for online and blended learning and I’m always looking for good examples to show what people are doing.

[P]: I’ve only taken 2 courses and UNL and the other instructor was really good too, but then I had this next one and it was even better. The first one was just a writing class which was really hard to do, it was really a lot of not specific content, just get this concept in your paper. It was good to have as a master’s course for the writing. And just the more evolved way of writing that what you’re typically taught which is good. We have an active verb, relatively simple stuff, I wrote a 50 page paper for my bachelor’s degree, so it’s not like I haven’t done any of that. I did a bunch of research. My mom was a teacher. So, when I was in high school, she was an English teacher, she would say, “Here’s the thesaurus.” She didn’t even read my words.

[I]: When you consider a new course, what motivates you to take a new course and how do you evaluate the long term value of the course to you personally and your professional career? #00:035:15-0#
[P]: I guess it depends on the course. What I like about this program is I’m sort of an odd duck, so I didn’t get a bachelor’s degree in engineering design, I have a bachelor’s in [inaudible at 35:44 sounds like “cow litigation”] and at this time I had 15 years’ experience in interior design and a three year program that I’d gone through in community college, there just wasn’t- I didn’t want to get another bachelor’s degree, it’s too expensive. I didn’t even know I would be teaching at the time, they needed a teacher so they hired me! So, she had to prove to the search committee what my value was.

What I try to do when I take a course it to figure out what I’m going to get out of it. Some of the courses I’ve thought, well, I’m already an interior designer. I can get this done and I don’t have to start at the beginning. I took some classes at the Academy of Art and I thought, “I already know lighting.” So, I had to focus on things that I didn’t know already even though I’ve done lighting plans for senior housing and there were people in the class who had never done a lighting plan. Sometimes I think about a course and say, “Well, I don’t have to spend as much time on that because I have been there, done that, and I can that done in less time and still accomplish what I need to learn.” Other times, when I took some of the education, “I don’t know anything about this.” I like to learn and the education stuff was, “Well, now I’m a teacher, I need to look at what is going to benefit me as an individual as well as in my career.” If I don’t have it connected to me as an individual, things get more frustrating I guess.

[I]: If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you and why? 

[P]: Probably to do that I would, to me it starts to steer me away from my personal goals and my personal career which is teaching. So, it would have to be not only a mixed method course, but something where what I was actually doing was my thesis work so I’m able to spend most of my time doing something that is directly related. I just finished a class that was really hard to do because nothing was related to my particular- it was hard to relate to what I’m doing in my life as an instructor. We’re not really working with statistics for the most part, maybe 10% of my job, if that; probably 3% really.

[I]: That direct relationship in helping you produce an artifact, in this case your thesis, would be most important? 

[P]: Right, so it’s going to further what I’m going to do and I have someone guiding me and giving me specific feedback like, “You’ve bitten off too much here.” I think that’s what typically happens when you start these things. You’re trying to save the world even though you’re not going to do that even though it’s like 3 courses that you’re working on. It’s not a PhD.

[I]: If you were going to describe the perfect learning experience for you, how would you describe that?
[P]: I guess it would be nice to have some [inaudible at 40:40 sounds like “odd ground”] compared to my master’s program, time with students who are in the same program as me and having that peer to peer relationship along with that instructor who gives you clear feedback.

[I]: Do you feel disconnected with your peers in the online environment? #00:041:06-

[P]: Definitely, like in statistics, there’s one person out of forty who was in interior design, everyone else was in education. The other courses that are in interior design, there’s just not a forum for online students to be connected. Our students, they work in groups on their projects, and I encourage them because I think they learn more that way. There’s no social environment, which is one of the drawbacks of online courses. I don’t know how you fix that when we’re all over the country. Maybe using some of the technology, even a face we could put a picture. There’s no face-to-face interaction.

[I]: that is one thing we’re considering in terms of attrition for online students.

[P]: I’ve worked with a lot of really big corporations in interior design like Intel, Hewlett Packard, so actually the company that I worked with a lot for three years is [inaudible at 42:30 sounds like “fraudulent”] and they’re actually a spinoff of Hewlett Packard and they have a couple of people who work all over the world. They use technology so they’re either brought in through chat rooms or online conference calls and you’re still working on the same document. It’s still not perfect, but at least I think the business world has had to deal with it a lot more.

[I]: Right, it’s been forced on them and they’ve had to adapt. Is there anything else you’d like to add in terms of mixed methods? #00:043:17-

[P]: I’m glad you’re forcing me because I have to use a mixed methods process for my thesis piece. I think that you have a good, I don’t know exactly what you’re dissertation is on, but helping us all to think about things in terms of the evidence and not being so narrow is really something that you [inaudible at 44:04 sounds like, “sum up on education”] and you’re thinking, that’s not what they’ve taught. Where are these people coming up with this stuff? We’re so bombarded with these things and when our behavior changes it’s not always based on anything real, just people talking.

[I]: Right, we have a feeling about it and if you get too quantitative and too focused in, too tight on that, you lose the point or the people. #00:044:35-

[P]: I did learn a lot from statistics, but it was a hard course. One of the things I realized is how easy it is to tweak the data to serve yourself or what you’re trying to accomplish. It’s still better than people’s random opinions, but you have to really understand what the data is and reporting results before you say, “That’s solid evidence.” I guess I’m realizing I don’t know enough about mixed methods, but that’s the process of going through the program and having someone help you with the thesis.
[I]: I will tell you the mixed methods course, since you have your question and thesis, it is occasionally offered online. It’s wholly focused on a project and you could do your thesis with that kind of guidance.

[P]: Is that the literature review?

[I]: The mixed methods course takes you through the whole thing. If you go in there with a research question, or even if you’ve done your lit review already, you can pretty much, a lot of the people in that class are PhD students that emerge from that class with their proposal ready to present to their committee. Even if they don’t get all of the data collected during that, everything is ready, everything is set up.

[P]: I’ll have to talk to my mentor about that and see if that fits. He’s been very flexible and very knowledgeable.

[I]: That happens in the mixed methods course and it also happens in some of the purely qualitative courses, especially if you get in with [instructor name] or in anthropology, [instructor name] the king of Grounded Theory. In either of those set ups, since you have a well-developed idea and are looking to shape that, I would strongly recommend a course that centers all of the learning around your project and tying what you’re learning to your project.

[P]: Is that part of- I’m running out of courses to take.

[I]: You may want to investigate it a little bit. The mixed methods course is offered through EDPS, it fills really quick. There are some other routes; we’re looking at some workshops and the need to build more community. Especially for grad students, even if you’re on campus it’s very easy to be isolated.

BX

[I]: When you said concrete data, would you elaborate in regards to your career as you perceive it?

[P]: I think, and some of this emerges as part of an ongoing joke that I have which is as a storyteller and a film maker; I made a documentary called “When we stop counting.” So, the joke is how much further away from quantitative research can you get than making a documentary that is so clearly skewed toward being qualitative. But, that film did start out with statistics and this is something that I personally don’t have the affinity for statistics both in the gathering and I have not had the same sort of response, emotionally, to using statistics to prove a point. However, I recognize that this is, in many cases, something that hinders the perception of my work and my research because there are many people, maybe half of the population, respond better to those kinds of numbers and statistics and see greater value in evidence being presented by numbers than they do by
stories. I think to me, the appeal in learning more, and I know I have very surface level knowledge of mixed methods at this point in time, so I have a pretty pedestrian understanding save that it combines two methodologies. But, I see there being real value in being able to present the story as I want to present it and being able to back it up, in a sense, in this other dimension of data collection. As an ethnographer, it only serves to substantiate the work I do in telling stories. It helps, if you look at it from a political perspective, I’m a very politically minded person and I’m looking to do work that has a political impact and I know that there is a certain political population, a population of policy makers and lobbyist, and politicians, things like that, that are simply not going to act on information unless they see numbers. It doesn’t matter to them, oftentimes, how valid those numbers are but, they want to see numbers. So, to me, and a lot of the way that I work is in partnering with other people who can fill those strengths that are not my own strengths. So, I’m looking to, hopefully, move into an arena where I can not only do mixed methods, but collaborative mixed methods so I can handle a lot of that qualitative story telling type thing, which I know is my strength, and be working in ways that synthesize what I’m doing with potentially a partner researcher who is strong in the quantitative field.

There’s tremendous value in, much like how you separate the dichotomy of right brained and left brained people, if you want to have maximum impact, you have to be able to address all sorts of learners, all sorts of information processors. So, that means being able to provide ways for people to connect with research as well as ways for them to understand it if they are minded in a sense that numbers speak to them.

[I]: How would you describe what it means to get more information or get more knowledge? #00:05:07-0#

[P]: I think, for me, I know that my learning style and I like to learn by reading but I also really like to learn by case studies. I haven’t taken any formal coursework, I’m at this point intending to take formal coursework in research methodology in the fall and I learn best by seeing it done. If I can take a case study and see where a mixed methods approach has been applied that to me will be my best way to learn. At this point, I simply haven’t had the formal exposure to it, at least not knowingly. I’m sure I have but I haven’t knowingly understood what that is. I think really on the quantitative side of things too, that I have seen quantitative research and not recognized it as such just because I don’t have the formal knowledge of it. I think really being able to see how something is executed in reality; not in theory but in reality. So, how do you make sense of a research project that includes a couple of different methodologies and put them together then the end result is, that’s how I think I learn best by seeing it done.

[I]: Would you describe yourself as an engaged and participatory learner? If so, how does it manifest itself and how would you explain that to someone else if you were going to encourage them to be the same way? #00:6:40-0#
Q: When you think about learning behaviors and strategies that you take that represent your participatory nature within your learning, what sort of things do you do that represent or manifest that engagement?

A: I think I’ve always naturally been a person who is very inclined to discussion and to helping steer discussions. I am probably easily faulted as being one who can kind of take over a discussion but I think, especially in this environment that I was just in and others where I have been in mixed undergraduate and graduate classes, I’m really interested in seeing how to engage students who are not typically as participatory themselves and I guess this is some of my potential formation as an emerging teacher which is something I have got this reluctant and sort of complicated relationship with. But, how do I steer a question in a discussion or bring up a new topic in a discussion that leads people to share and leads people to bring in their perspective and their opinion?

So, I think I guess the talk therapy approach, or the working and learning through discussion and building on information is something that I think in many ways is the strongest. Then, partnering that with some sort of work which again in this field school was very interesting because it was literally being partnered with physical labor that was pretty far up field from anything you’d see in a typical classroom. So, how does going and raking a bunch of rakes with someone lead to a discussion on education policy? It happened numerous times and I think that’s, if you want to go into the learning styles theory about that, it was engaging with kinesthetic learners in a pretty non-traditional way. But, I think that the idea of instead of having professors or instructors assign group projects without a lot of thought into the design where you throw students in to a situation in which their grade depends on the work of others and you end up having a couple of people shoulder the burden of the work and others kind of ride along for free, I think there’s a lot to be said for kind of rethinking what a group project means and in conceiving in that kind of work differently and so how do you gauge participation in a group project outside of maybe the traditional, “Here’s what this group has to do.” “Here’s your rubric.” Instead, you think about how you can do that within a class period,
in a class environment that you’re doing group work. I think a lot of that comes down to establishing relationships with people who are working on something prior to this group project assignment beginning. Being as I’ve had experiences there where it really is a complete failure and it ends up being the work of one or two people and not five, and not ten, if it’s a really unwieldy large group. It ends up being the work of one or two and on the flip side then you could conceive of something in which you had the relationships built between them and they’re working toward a real, tangible goal. Not just a grade, but a tangible goal. I think that there’s a lot to be done to get there in most classroom environments.

[I]: If you were talking to a new graduate student and you were to encourage them to be more participator similar to the way you are, what advice would you give them? What should they be doing or thinking about? #00:12:34-0#

A: I think that’s a very challenging question. I feel very lucky that I’ve been afforded the luxury to work focus on my graduate school full time; I know that’s not the case for some of my peers. I see some of them who are not doing it full time that are successful at really being engaged and participatory, but I think it’s really difficult. This is a larger systemic change that needs to happen at the university provide resources for students so that they are able to afford it because it really does change your ability to contribute to the classroom environment to the entire culture of the graduate program if it’s everything on your mind. I know the differences between my fellow students who are also full time students, maybe we had one or two classes together first semester, we see each other more frequently, the level of engagement and buy-in is different and it’s not because of the personalities of the people, it’s often times simply because we may have a life outside of school, but we don’t also have a work life that is a full and separate commitment.

So, that’s in some ways a cheap answer to your question, but I think it really does make a big difference and if the university is interested in having more engaged, more productive graduate students, it would behoove them to look at the way they fund graduate education. That said, I think for any students within a graduate program, I think it really matters to form connections with your cohort members or your fellow students as much as possible to also form them across campus with other graduate students. I think there’s a lot to be said for that and I think there is really a benefit in taking some of those mixed level classes and engaging with particularly the senior level undergraduates and honing our own skills as emerging researchers, emerging instructors, or whatever the case may be and learning from our experiences in working with the brightest of the undergraduate population as well. I know that I’ve been in one class experience where this was a total failure and it really didn’t work. But, at the same time, I’ve had a couple of mixed classes that have been tremendously valuable to me in understanding my place in the larger picture. I think in many cases, doctoral seminars can get really insular and really lovely and fun echo chambers and it’s great to be in them and it’s great to have these three hour discussions once a week, but I think we can lose ourselves in that and not realize our piece of the bigger academy as well as the community that we live in. So, I think any ways that graduate students can branch out and find out how do I, for example, as a
graduate student in teaching learning and teaching education, how do I connect with an
undergraduate student in anthropology? What do I have to share with them and what can I
learn from them? I think that’s an important piece of it too; we don’t do ourselves any
favors by isolating ourselves.

[I]: In your own learning, at what point in your journey towards understanding or
mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or
faculty? #00:16:52-0#

[P]: All of the time, almost instantly. It’s funny to do this right after this field school
because it has so many tangible examples for this; so, within the first three days of class
we had done a lot of native plant identification. I went for a bike ride with a friend and
the only thing I was doing was scanning the sides of the trail looking for the plants that I
had just learned to identify so we could find some of the edible ones for us to eat. It was
instant, “I just learned something and I’m dying to share it.” To the point of nearly
crashing I’m dying to share this information! I’m scanning; I need to find this plant!

I think it morphs and it changes and sometimes it takes a back burner; sometimes an idea
needs to sit in the back of my mind for a while, even if it had been shared earlier it might
need to go back and sort of incubate for a little longer before coming out again. But, I
think it’s a process by which I am very, very tied to peer review and in both formal and
informal capacities. I think I would much rather get some feedback that may or may not
be helpful early on an idea I have just by floating it out there to a friend or colleague or
advisor even if it’s not fully formed because sometimes I feel like I might get on some
track in my mind that I think is brilliant and it’s not. Or, it needs help or maybe it needs
revision, or maybe it just needs to branch out in a different direction that I hadn’t thought
of. I think, to me, it is the diversity of my friend population in terms of the interests that
they have, in terms of their career paths, is tremendously beneficial to me in being able to
see dimensions to my work and to my interests that aren’t readily apparent because I’m
not a physicist, I’m not an architect, I’m not a musician, whatever that other dimension
may be. I am well served by people who think differently so I think there’s sharing
things early on can help shape that. Of course there’s a risk to it going too far up field but
its worth it to me to risk some little bird walks and diversions into other directions that
may not be the eventual one because I keep track of all of these things. It might come up
some day that in fact, what I really interested in how a school interacts in the
neighborhood is where it’s sited and what the landscape architecture looks like. That
might have a tremendous impact on how I eventually come to conceive of what a
neighborhood school looks like. That’s not something that happens even within the
classroom, it’s very external to it. My friend S, the architect who builds schools knows
that that’s how things work.

[I]: What do you value about a teacher or expert led learning experience? #00:20:57-0#

[P]: Some of my course work in the spring really dealt with looking at teacher centered
versus student centered classrooms and design. I really think there is so much to be said
for a good match between a teacher centered teach and a teacher centered classroom, a student centered teacher and a student centered classroom. When you cross over the two or try to blend them, it can often really not go that well. I don’t think, personally, that either one is better than the other though I will say, and part of this is influenced by my undergraduate experience which was going to a school which is renowned for teacher centered teachers who are rock stars. It’s mission is, it’s purpose is, primarily as an undergraduate institution where every single professor teacher undergraduate students. It is not a research university. That was one of my primary reasons for wanting to attend there because every class I take is going to be taught by a professor who is an expert in their field. I value that deeply, I think this is also influenced by my father being a very teacher centered professor. I think if I would have to choose between the two, I think I would much rather be in a teacher centered classroom with a good teacher than a student centered classroom with great students because I’m paying for it. I’m paying to learn from that instructor, ultimately. On the economic level, what am I paying for? I’m not paying to learn from some other students. I could see where it could be argued that’s what you’re paying for; you’re making this cohort experience and you’re developing networks. Ultimately, I think that’s particularly at the university level, that’s not what we’re paying for. That said, a blend where a teacher can understand how to engage in good student driven work is excellent. Having a teacher centered classroom where the instructor is not particularly good at lecturing is terrible and I think is really potentially a lot more frustrating because then there isn’t the same onus of control within the student such as myself to say, “Well, this is the card we’ve been dealt. How can we make the best of this?” If you’re in a lecture class with a bad lecturer there’s not much you can do, as a student, to make it any better and that’s really frustrating.

[I]: What differentiates a good lecture experience from a bad one? #00:23:51-0#

[P]: I think there are so many variables which make it a little difficult to answer. Public speaking skills in the instructor are critical; being able to have an instructor walk in and whether or not they’re assisted by any sort of technology is irrelevant. I’ve seen it done well and I’ve seen it done completely without technology. If they know their story and they’re able to tell it so their story could be a recap of a brief period of history, their story could be an analysis of research within a certain arena. If they can tell their story within the confines of that lecture period, they’re succeeding if it’s a story I’m listening to. I think every lecture is a story. I think there is skill involved in doing it well and like I said, sometimes this can be supported with technology, but a good lecturer is able to do it with or without. It may be better with, it may be better without, it doesn’t matter. When it’s bad is when the story is inconsistent, when the story runs far up field, and not to say that it can’t bird walk because that can make for a good story too. When it’s disorganized, when the story is lost; it goes back to who I am as a storyteller myself. If I’m losing attention they’ve failed because I will listen to any good story. If they’re losing my attention then the lecture has failed. I’ve been in lecture classes in well over 100 students where it felt like we were a room of eight because of the way that the professor was able to keep going, he knew his content in and out. I think that’s the marker of expertise in an area that you’re able to just roll with it and get that across, that’s succeeding at the
teacher centered model. It takes content knowledge and also public speaking skill. [I]: What are some of the things about having access to that expertise that you really value? 

[P]: I think what’s really valuable about it is seeing that person’s passion shine through. You can see that they have spent hours and years of their life dedicated to a topic that they really care about. I think that, regardless of what the topic is, it’s engaging and captivating to watch someone who is passionate about something speak about it and share about it. They care, you can see that they care, they’re really excited. To put it in vernacular, they’re “nerding out” about something in front of a whole bunch of other people and it’s exciting to see. I think that can get me engaged in the lecture on content that I am not familiar with or not passionate about. If somebody else is passionate about it, it’s contagious. I think that goes a long way to building on that learning which is also one of the challenges in the student centered environment. Where that student centered environment works really well is when you have students that are really passionate about the content in that class. That’s just not always the case. Sometimes we have classes that we’re taking because they’re a requirement; we have classes that we’re taking well they have to fill this or that or somebody else suggested it. Maybe it’s not exactly what it’s advertised as being. Maybe we’re just not that into this class because we’re all coming from different backgrounds and we’re not necessarily the experts in this. So that natural passion isn’t always there. I think again what kind of delineates this field school experience is that we were all students who signed up to spend three weeks in the woods; there’s a certain type of student who does that. There are a lot of student show don’t. There was a certain bond that we all had at the outset from wanting to be in a pretty alternative classroom that helped tremendously. There was a comment made by another student, “I looked at this list and I was really hoping we wouldn’t have somebody who is a Germaphobe or who is afraid of bugs or who wouldn’t put in the work.” I think it’s very easy and common for you to get into a class where you have students who are there with their own agenda’s, potentially.

I think especially at the graduate level we’re taught to specialize, we’re taught to focus; we’re channeled to narrow our focus. When we enter into these classrooms, to what extent are we simply beating the war drum of our own focus rather than looking at the focus of the class, rather than building on the expertise of that instructor. I think we’re so channeled into working on our own agendas that when we’re put into a student centered environment at that level, we really can’t stray away from it very well. I find myself time and again in classes like that sort of pulling my hair out about the fact that we’re operating across purposes. As much as we’re trying to engage in the specific content of that class, we keep going back to our own little, “Well, in my view.” “Well in my world.” Instead of really working on the content that maybe the instructor thought to take a bigger role in saying, “This is where my expertise is and you’re here because of this too.”

[I]: What’s the best way for you to find out about new course and then, once you do, how do you go about evaluating the long term value of the course to you and your professional career? 

[P]: This is something that is going to be heavily influenced by my
undergraduate experience. I’ll preface my answer with an explanation of that since it’s pretty unconventional. So, I’ve alluded many times to my undergraduate experience at Brown University. The way that Brown approaches an undergraduate education, first of all, there’s no core curriculum, the onus is on the student to choose all of their classes. You do have credits within your concentration field that you have to fulfill. Other than that it’s free reign to take whatever courses you want; there are not general core requirements, no distribution requirements, nothing like that. This has some profound impact on the entire economic course selection at Brown. For example, think about the fact that there is no English 101. This means that because students are free to select whatever classes they want, they’re relying pretty heavily on course descriptions to figure out how the hell in hundreds of classes they’re going to find four to take each semester.

The language of the course catalog at Brown is quite florid. Instructors seem to be quite concerned with developing really interesting sounding course descriptions. Here’s what happens the first two weeks of each semester.

The first two weeks are called “Shopping period” and you shop for classes. You take your course catalog and circle the courses that you’re interested in taking and you might go to seven or eight classes the first couple of days checking them out, picking up a syllabus, meeting the instructor, getting a spiel on the class, and seeing if it fits what you think it fits, if it fits your needs. At night after the first day of classes, you get together with your friends, you swap syllabi, you talk about, “This instructor seems really interesting, seems like a total oddball, might want to check this class out I think it would suit you, or don’t waste your time going to this one, it’s going to be a drag.” So, you sort through and eventually, by the end of the two weeks, you’ve settled on your four classes for the semester. You might preregister for four classes and take none of them. You might end up enrolling in four completely different ones; you might end up with the four you signed up for based on their descriptions in the course catalog.

So, the economic system shifts entirely. If an instructor is regularly putting out boring sounding course descriptions and not knocking it out of the park on the first day of class, nobody is signing up for their class. So, eventually they’re not having people sign up for their classes, they’re out of a teaching position at a certain point, or they’re going to get a serious talking to about, “Hey, make your classes a little more interesting.” Even the names of course there are interesting because you have to capture the attention of students. On the flip side, as a student, it’s all your fault if you take a class that’s boring. If you take a class that you don’t like, it’s all on you, you had the chance, you shopped, if you didn’t shop well enough and you have buyer’s remorse, it’s your fault. I kind of only had one class in my years there that I thought, “I could have done a little better with this one.” Overall, I often did take the classes that I preregistered for.

That’s been an interesting shift for me now coming into the graduate environment and a school which this is very much not the case and not the way the system is designed. Where I’ve even had, about this ethnographic field school, people in my cohort asking, “How did you take that class? Is that ok? Could you take that class?” Well, why not? It sounds interesting, I can connect it to my work, they advertised it in our college, I don’t
see why not. I don’t see why it’s not part of fulfilling my requirements. I think that there is a lot to be learned from that Brown model of providing course descriptions that don’t just rely on the fact that students have to take a certain set of classes. I’ve been exceedingly frustrated time and time again in the now three terms that I’ve been enrolled here and looking to enrolling in the fourth term. I’ve got a list of classes I’ve got in my shopping cart that I’m enrolled in; I don’t know if I’m going to take any of those, which is an impact from Brown. I looked at those and maybe a one sentence description of this course, I’ve got no idea what’s going to be taught. I can maybe glean a little if they’ve posted the books, but still, I’m not getting information like that. I’m relying more on reputation of the instructor and talking to my peers about who is this instructor and who is that instructor, trying to do some ancillary research, but I really think that this is somewhere where I’m not pleased with the way I’m able to discern whether a class will be useful for me and I don’t really see the point in taking classes that aren’t going to be useful.

I struggle with that quite a bit, primarily because of the financial sacrifices I’m making to be here. I feel like I need to be better informed and I don’t know if the shopping period model probably isn’t going to work, but something beyond what I’m getting now is pretty key. Some of that is probably part of what’s happening is that I feel like because instructors in this environment have never been challenged to think about how... They’re not thinking about advertising themselves, they can pretty much until they get to a point where they don’t have a high enough enrollment, I don’t even know if they’re thinking about that. They’re not thinking about how to advertise and how to get people to sign up for their class, they’re lazy. I think, to challenge instructors to think about whether they would take this class. Would I take my colleagues class and talk to each other about that. If you see an instructor has a class posted...

[I]: If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you? #00:38:53-0#

[P]: I think, for me, the opportunity to find that collaborator who is on the other brain side of the equation that would be the ticket. I think as much as I would like to think that I would become an expert in it all, I don’t see that as my strength. I don’t really see that, I see that as potentially diverting or distracting from what I know is my strength. But, to be able to find somebody who I can collaborate with who also understands the value of this mutual collaborative work and of combining forces and maximizing our impact. That would be the ticket for me.

[I]: Any other questions or comments? #00:40:18-0#

[P]: I think there would be a benefit to finding ways, and I think this comes from my background in technology integration, of not viewing research methodology as a separate thing just like you don’t view technology as a separate thing; it’s an integral part of the work. So far, I haven’t seen that being addressed in the course work I’ve taken. I think
maybe finding ways in which the research methods’ specialists can pair with some of the other instructors to integrate that into all of the other coursework would be beneficial.

HR

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: Yeah, I’m doing civil engineering so it has to do with making sure the numbers make sense with what the people are going to be doing and also a degree in planning as well. Although the stuff that we do, we need numbers to back up what we do, but the stuff that we’re doing is all about what people want. So, you have to go out and do surveys, listen to what they’re saying, get comments, and you also need to qualify that, so combining this together is important to make sure you make the best decisions for the most people.

[I]: How do you see mixed methods fitting into your specific skill set and the application of mixed methods? #00:02:03-0#

[P]: I would say I personally like going out and doing surveys, I like talking to people. So, usually like public meetings and stuff, if you make a plan, a couple of different plans, people come in and talk about what they like. Then, trying to get those into broader categories that you can use to then pick the plan that would least hurt the most people. Being able to talk to people is a real strength for that would help.

[I]: What is the best way for you to go about getting more information or knowledge? #00:03:09-0#

[P]: I would probably go online to try to find something to read and depending on how that went, I might talk to some of my older classmates to see if they’ve taken classes in it before. Then, I would say my last resort would be talking to my professors. Although that could be backwards, generally they tend to be busy so I tend to leave them alone as best I can.

[I]: Sounds like your area is highly quantitative.

[P]: Yeah, the planning is a lot more quantitative than the engineering, so not a ton of mixed methods with that.

[I]: Have you taken the mixed methods course here at UNL? #00:04:25-0#

[P]: I have not, we have, in the planning program, you have to take qualitative analysis one semester and then quantitative analysis is another semester. So, you get both and can then blend them together.
[I]: Did you know there’s a mixed methods course at the university? #00:04:46-0#

[P]: I did not.

[I]: You’re not alone! One of the things I’m finding with graduate students is that many graduate students consider themselves to be highly engaged and participatory learners; do you see yourself as engaged? What about your learning style reveals that you are both engaged and participatory? If you were going to explain what that meant, how would you do that? #00:05:33-0#

[P]: I would say that I’m fairly engaged and participatory. If the professors ask questions, I generally answer them because no one in my classes talk very much because many of them are international students. So they are not as confident in their English abilities so I do a lot of the talking during classes and then if the other students have questions, they normally come and talk to me in my office instead of the professors. I don’t really know why that is, but they do.

I would say to talk during class and ask questions that they have. Also, to not just do the bare minimum for the project. Realize that it’s stuff you will be doing when you graduate, so don’t skate by.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:07:56-0#

[P]: It depends on how interesting what I’m learning is. If it’s something I really enjoy doing and it’s something that is relevant to stuff I see every day, I’m way more likely to talk about it than if it’s something that’s kind of boring but I need to know to get other stuff done. It also depends on who I’m talking to. The people I live with are all civil engineers also, so we’ve taken most of the same courses. We talk about that stuff a lot more than I would with my other friends that I don’t live with that aren’t civil engineers. Basically, if it’s entertaining, if it’s something that I see on the street and I know about it, I’m likely to talk about it more than if it’s just random theory that I don’t know that I’ll ever use.

[I]: What role do you think discussing plays in your learning? #00:09:18-0#

[P]: I think it makes it seem more important maybe, that we can then talk to each other and explain things that are happening. It’s kind of cool because then we’ll say, “I know how that works” or “I know how to do that” or “I could design that if I needed to.” It makes it more worthwhile to me I guess.

[I]: What do you value about a teacher or expert led learning experience? #00:010:26-0#

[P]: I would say that I value actual real world experience. So, the stuff that they’re talking about are things that are actually going on in the real world, so when I go and get a job
they’re things I’ll actually need to know or that will be good things I can talk about in an interview. If I can say, “We did this in school” or “I can use this program.” It’s things that are useful to me instead of theories—they’re fun and cool to think about, but I need to be able to do things to get a job.

[I]: In the student centered experiences that you’ve had and teacher centered, what are some of the drawbacks of each from your perspective? 

[P]: Well, with the teacher led, I think it’s good to get the top down approach when they tell you what to do and you may or may not use it in the lab and figure out to use it yourself or you might not learn that way. The student centered one is fun because you get to do the project, work with the programs, make sure you know how to do it, and make sure that it’s functioning right. That can be a lot more useful in the job hunt. Also, I think you feel more confident in your abilities at that point because you’ve done it yourself and you know how to make it work and you’ve gone through problems with the programs if you can’t get it to work right. You now know the tricks so that everything goes properly.

[I]: When you think about a new course, what’s the most effective way for that to happen? 

[P]: I suppose for this fall semester, I went on my [inaudible at 13:35 sounds like, “field year”] program that I’m doing is not really outlined so well, and I’m getting to my last semester so it’s kind of pick and choose whatever I want to take. I pretty much just looked up what departments I could use as electives and I went through the class schedule to find something that looked interesting.

[I]: How do you go about evaluating the long term value of the course to you and your professional career? 

[P]: I basically, when I was reading, I was trying to decide if it was something I found interesting that I would like going to class. Also, if it was something that would actually serve me going forward since I’m going to graduate this year; give me something to talk about in interviews on how to do this, how to do that, I’ve done this and that. There are more relevant to what I want to do as opposed to the theoretical courses. I like to get into the meat of everyday life.

[I]: If you were to enroll in the mixed methods course, what would be the most highly valued learning outcome for you? 

[P]: I would say for the engineering side of things, maybe not as much because that’s pretty much if you don’t have the numbers to back it up, then you don’t get to do it. But, for the planning, I think it would be good to just have the interpersonal skills of actually running the survey and conducting interviews and doing all that. Also, breaking all of that down into numbers you can use to deal with [inaudible at 16:16 sounds like “doctors and castles’”] to say, “This is why I want to do this plan” or “This is why I want to do that plan.” Here are the numbers to back that up.
[I]: Is there anything you’d like to add on your perspective on mixed methods, learning, or course design? What’s the ideal course for you like? #00:016:50-0#

[P]: I think mixed methods is good depending on what career you’re going into and the relative usefulness of it. Like I said before, engineering is all of about the numbers, surveys aren’t so important. I think it’s always good to know the reasons behind the numbers. So, it’s important that way when you do have numbers and you don’t know what they mean that’s kind of worthless and you’re doing very incorrect things with those numbers. I would say the best way that I learn is normally by doing. I like to do projects and actually figure out how to do it myself instead of watching someone else because then I don’t know for a month or two then I’ll try to remember how to do it. If I haven’t done it myself I’m not going to remember that at all.

[I]: you mentioned getting the story behind the numbers and it sounds like you use see that as a way to develop further validity for the numbers. #00:018:27-0#

[P]: Definitely, there’s been times in classes that I’ve been like, “Those numbers don’t look right.” But, you have to make sure you have the right numbers so otherwise you could be doing something very incorrect and that’s not good.

GS

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: I am in math education and it’s still relatively new and we’re figuring things out. I think mixed methods is a good way of trying to collect information that you’re looking at. You’re not limited to just quantitative or just qualitative. You can really think about here is what I want to look at and this is what makes the most sense to try to collect; I’m going to interview these people and then I’m going to do this survey for this large group of people. I just think it’s a way to be flexible about collecting information.

[I]: How does mixed methods fit into the portfolio of skills you’re hoping to acquire in your time as a graduate student? #00:02:07-0#

[P]: That’s a difficult question.

[I]: when you think of yourself as a scholar, as you’re gearing yourself toward an academic career and you think about the skills you’re building and the things you’re learning about. You’ll emerge with a portfolio, a tool bag, of these skills. How do you see mixed methods fitting in there for you? #00:03:06-0#

[P]: I haven’t done a lot of research myself but obviously in grad school you look at a lot of research. So, where I see it fitting in right now for myself as a scholar is helping me to open my eyes and understand the research that I’m looking at better and be able to
critique it and to be able to see “this is a strength” or “this is a weakness” and “that limitation isn’t a big deal because of this” or “that really should affect their findings.” So, I guess right now I see it helping me understand things a lot more. It will help me better design research studies when I get to that level of designing research studies.

[I]: How would you describe what it means to get more information or get more knowledge? #00:04:48-0#

[P]: I would consider myself a very reflective learner and I think that means I sit around a lot and really think things through. So, if I get to a point where I’m stuck or that I need to know other things, that’s when I try to break free of sitting and thinking myself to find another source of information that could help me. That could be from getting on the internet and looking around or asking my colleagues what they think.

[I]: It means different things to different people, some people believe they need to take a class in this other people are more proactive in terms of looking for themselves. How would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:06:21-0#

[P]: It kind of matches with how I feel myself as a learner. I feel like a lot of [inaudible 6:47 sounds like “endearment”] for people to just jump in and speak and join the discussion. For me, what I would tell people is that’s good but there’s a lot more listening that you could be doing and there’s a lot more reflection that you think a lot about before you say things. I think that’s often an engaged way that is forgotten. That would be my advice.

[I]: When you’re doing this reflection as part of the learning process, what are you doing mentally as part of that reflection? #00:07:37-0#

[P]: If I’m in a discussion, a small discussion group, I try to really listen to what the person is saying, what is their body language saying, what do I know about this person, how can I interpret this? Do I have a reaction to this, an initial reaction? Then I pose a lot of questions to myself.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:08:41-0#

[P]: Probably at the point where I feel the most comfortable about what I’m thinking and I feel the most safe which is not always the best way, I should probably say more when I’m uncomfortable. Let me back up, I will absolutely pose questions if I’m struggling with questions and I’m not getting anywhere with them but I have to be sure that I’ve really sat and given it a good try. For me, it’s not going to make the most sense if I really haven’t thought about that question. I need to have thought about it a while and feel confident in my thinking; that will open me up to letting other people talk with me about things. Then I can try to make the most connections and have those “Aha!” moments.
[I]: You wrestle with it for a while until you have these points, when you have that discussion with others, what role does that play in your learning, how does that help you when you discuss with other people? #00:010:34-0#

[P]: Sometimes it helps me feel validated about things that I’ve thought. Sometimes they will say something that I have not thought about and I’ll be uncomfortable because I haven’t thought about it. Or, I’ll say, “Oh that’s a really different perspective, not that I disagree with it, but I appreciate you saying things I haven’t thought about.”

[I]: What do you value about a teacher or expert led learning experience? #00:011:23-0#

[P]: I think I really value courses that have been really well thought out and that teachers have, and you can tell the professors have selected readings intentionally, you can see that there is a method to their madness. I appreciate that thought because what I value is that they’re setting up that space for people to think through on their own which is what I do more of.

[I]: When you consider a teacher led versus a student centered experience, do you see advantages and drawbacks from each? #00:012:40-0#

[P]: I think with teacher led experiences, there are positives and negatives. One of the positives is that you have this expert there that has thought a lot about what they’re teaching about and tend to point out [inaudible at 13:21 sounds like “the eight team said”] or the big concepts. The negative there is that you didn’t get to construct that on your own; it might not hit you as hard as if you were constructing it. On the other hand, if you have this student led class then one of the positives is that you’re really getting to know the people around you and getting to know what they have to think which can often be very different than what you think or the same as what you think. So, you have that experience but one of the biggest negatives of student led environments is that not all of the time students come into class prepared for the discussions that the teacher has set up or that the class has set up. You get off topic and then it becomes really hard to sort out what’s important for you to listen to and what’s not necessarily important for you to listen to. It can be kind of annoying.

[I]: What’s the most effective way for you to learn about new courses and what motivates you to take a new course? #00:015:18-0#

[P]: Other than my advisor telling me I have to take certain courses, the most effective way I’ve been informed about courses is word of mouth through other people, “This course was amazing, I learned a lot, you should take it if you have time.” That’s definitely been the most effective way I’ve learned about which courses to take. I think the biggest motivation is knowing myself and where I feel like I’m weak or maybe I don’t feel quite as confident or I haven’t had enough experience and if there’s a course there that would be a big motivation for me to sign up for that course.
[I]: How do you go about evaluating the long term value of the course to you and your professional career? #00:016:44-0#

[P]: I’m thinking about courses that I took way back when that sticks out in my mind and why I considered them a valuable course for me. One of the things I can say is that if two or three years from now I can think back to that course and think of things that still really resonate with me, then that’s my long term evaluation. I can say, “That course was extremely important to me because I can still resonate with this subject or this idea.”

[I]: When you come across things that have resonated in the long term, can you describe that experience; was it learner driven, or personal epiphany? What made it so compelling that you’ve held on to it for a long time? #00:017:59-0#

[P]: I’m not sure. You can reflect within the moment in the class or shortly after the class, maybe a week later. But, a couple of years later I think sometimes things just look differently or they fit differently in my mind so I see them another way. It’s another “Aha!” moment where I think, “That’s what we were saying there” or “we said that there, now I’m seeing it a different way.”

[I]: When you took the mixed methods course, what was the most highly valued learning outcome for you? #00:019:28-0#[P]: I should be honest and tell you that was the first methods course that I took. I took that before I took qualitative and I still haven’t had the first statistics course yet, I’m taking it in the fall. The instructor was very generous and let me stay in it and it was partly, well, I don’t know why he let me stay in it. I was trying to work on a mixed methods project that I had developed but unbeknownst that it was a mixed methods project at the time. So, I was thinking that staying in the class would help me with this project I’m supposed to be doing. That course, the biggest thing I took away from it because clearly I couldn’t take away all the nitty gritty parts of research with qualitative or quantitative, but I took away the big picture. I really thought a lot about, “there are these intentional ways of putting together this quantitative data and this qualitative data and when should you be intentional with this? How should you be intentional when you put them together?” It was a great experience for me, it actually helped revise what I was doing in the research study I was working with.

[I]: If you were to revise that learning experience, what would have made it more perfect for you? #00:021:44-0#

[P]: I don’t know. I thought it did fit me a lot. I really appreciated the component where we critiqued a mixed method article. I really appreciated the component of designing a mixed method article and making sure you knew why you were making each decision for your research. For me, that’s the thing I wasn’t necessarily doing beforehand. I don’t know what I would change about it. Maybe more discussions about the philosophy behind things or more discussions about shared readings, shared articles that we’ve read

[I]: What about the experience of doing a project in the class? #00:023:09-0#
[P]: I really loved it. I was able to take the project I was currently working on and hadn’t been getting very far with due to factors like time and it allowed me to go back and look at decisions that had already been made and justify them or go back to look at decisions that had been made and say, “That was a really bad decision.” Even though I need to change how I wanted to connect the quantitative and qualitative data so it was extremely helpful for me. He gave a little flexibility for it to fit my needs that semester, it was super helpful.

[I]: If you were going to advise someone about to take the course, what would you tell them they need to know to get the most out of the class? Do you think if you had taken qualitative and quantitative before mixed methods, would it have affected what you took away from it? #00:025:02-0#

[P]: Absolutely. I think, like I said earlier, what I took away from that class was the big picture but I didn’t get as much of the nitty gritty part of the research which is super important. I think I would have gotten more of those things had I taken qualitative and quantitative before I took mixed methods. There’s still a part of me trying to believe that, especially for me, I learn a lot more by actually doing things. For me, I’m going to learn a lot of those nitty gritty details when I get put into a situation where I’m doing those research studies, like a case study or a survey study. There’s that battle of how much do you learn in the classroom versus how much do you learn when you’re actually on the job doing the job. I feel a little torn about that.

[I]: How important do you think it is to come into the class with some research ideas already in place? #00:026:23-0#

[P]: I think it was really helpful for me to come into the class with research ideas already in place. It gave me that real life example to go back to and have that concrete idea that I can think about. It wasn’t just up in the clouds, I could touch it and feel it, it was really helpful.

[I]: So, since you came into this class with the project, when you were learning about mixed methods, you were able to take this theory and examples and look at your own project to revise and understand more clearly? #00:027:16-0#

[P]: Yes, absolutely.

FT

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: Well, I’m in the music education field and I would say from my perspective, mixed methods is an emerging part of our field. Probably qualitative research is also more
emerging that something that is being used readily. I personally am just one year into a three year PhD program, but I have taken both quantitative and qualitative course work. As a part of my qualitative coursework, we briefly mentioned mixed methods and I really feel like it’s going to be- as researchers begin to use the mixed methods approach, I think it’s going to be really important. Especially because music is one of those fields that’s a little bit hard to describe somewhat in terms of quantitative methods, but in terms of the learning part, there’s a lot that can be done quantitatively. From my perspective, especially my research interest areas, the areas of empathy and socio-emotional learning and its relationship with music, I feel like the mixed methods approach can be really powerful and more accepted by a larger audience. Especially when it comes to the public school teacher audience or reader.

[I]: When you think of yourself as a scholar, how does mixed methods fit into the portfolio of research methods that you aim to acquire? #00:03:33-

[P]: In terms of being a scholar or a student, or a professor or teacher-learner, I think mixed methods is a way of approaching research that offers a deeper and maybe even wider way of understanding issues that are going on in music education. I think it’s really important and I’m excited to take more courses in the mixed methods and to do more reading about it just to inform my own background as a researcher. I’m really hoping- I haven’t developed my dissertation project yet, I’ll be doing it next semester here in the fall- but I’m hoping that with my advisors help and probably some outside help as well, I might be able to do a mixed methods project for my dissertation.

[I]: When you consider continuous learning after your PhD, do you see mixed methods fitting into that? #00:05:09-

[P]: Absolutely, I think part of it is just becoming more informed about the approach and also giving it a try and doing some smaller scale projects in that approach. I think the other piece of it is helping to maybe advocate for that approach in our profession. Like I said before, there aren’t really very many people using it. I can’t speak for other fields, but I’m guessing it’s a fairly new kind of approach in many fields. So, explaining it as I go to conferences and as I interact with other people in the field, getting the word out there that this is a new approach, it’s not quantitative, and it’s not just qualitative, but we can use both of these approaches in a mixed way to really inform what’s going on in a particular issue.

[I]: How would you describe what it means to get more information or get more knowledge?

[P]: Last semester I took the “Intro to Qualitative” course and it was like mind explosion, “Oh, this is what qualitative is.” There’s this language of all of these terms and words that are out there and you read them, and when you’re reading an article and different things, but to get a better understanding of what it really means, I think it actually take the practice of doing the research or the practice of mock projects. So, what I would expect to
get out of a course is to do a mini-project, or a short term, small scale project with a professor who has the experience using that approach. I was really pleased to do that in my qualitative course. I feel like I, not only from the textbook and reading, seeing the examples, and reading it, but it’s really [inaudible at 8:38 sound like “occurring”] out of the research which really informs your understanding. Of course, learning how to apply that to your given area of research interests

[I]: How would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:09:10-0#

[P]: I guess I would say to be active and I’m not sure if we’re talking about in a course, but I would say to be active in the discussions, to really carry out assignments and projects for the class in a way that is meaningful to you, not just thinking about each task as something to check off of a list, but what you’re going to get out of it that’s going to help you in the future. Perhaps a participatory learner thinks about each task as preparation for future learning or preparation for future research instead of thinking of it as a hoop to jump or a step to climb.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:010:28-0#

[P]: I’m kind of a really excited puppy when it comes to things that I’m learning, I can share things right away maybe even before I have a complete understanding or mastery. If it’s something I’m excited about or something that I feel is important to me as my skills as a teacher or a musician, I can be pretty willing to share those things. Not only other people I’m around at school, but my family and friends too.

[I]: What role do you think discussing plays in your learning? #00:011:21-0#

[P]: I think it’s pretty big for me. I’m kind of one of these people that until I teach it or have to explain it, it completes the whole picture. That’s probably why I ended up becoming a teacher, maybe. That’s the way I learn, through that teaching process. I think you have to have a pretty good understanding of something before you can teach it. In a way, sometimes that teaching process really deepens the learning, there are things that I’ve taught that maybe I haven’t taught them for years, but I still have a really deep or permanent understanding of because I had to do the teaching, I had to help others understand it.

[I]: What do you value about a teacher or expert led learning experience? #00:012:38-0#

[P]: I’ve had lots of different experiences. I’ve had classes that were like a distance ed kind of class where the professor presence wasn’t really high. I’ve had a doctoral class, like a seminar, with master teachers and researchers so I’ve had the gamut of in between those two. I really value, I know some people that I know might disagree with holding people on a pedestal, but the people who I have learned the most from and I have gained
the most value from what they have taught me, or people I know I can trust their opinion, I can trust what they’re teaching to be valuable and I know they have my best interest and that of students at heart. I think that’s what I value the most, their expertise, and on top of that, I know that they have such a passion for their field and what they’re teaching that it comes across with the way they present their material and interact with students.

[I]: When you consider a teacher led versus a student centered experience, do you see advantages and drawbacks from each? 

[P]: I think different kinds of information can be taught in different ways. Student-centered learning is really important for just about anything you can be learning. Then, there’s also sometimes, a time for that kind of concentrated, teacher-centeredness that you can gain a lot from too. The thing about student centered learning, is that piece that we talked about before when you have to explain or share what you’re learning, how that deepens your understanding. I think the best model might be a blend of both. There’s time for teacher-centeredness, but also time for student centeredness and letting those students have that empowerment to learn in a way that may be best for them. The thing about student-centered, is that if the student learns best from watching a video, then they watch a video. If a student learns best by reading, they read, if a student learns best by tactile or getting out and doing something or kinesthetic learning experiences, then that’s the way they do it. If you can hit all of those kinds of learning and also still have some left of teacher focus at time, I think that’s good.

[I]: What motivates you to take a new course? 

[P]: Well, I think areas of interest, things that I’m interested in, but also things that I feel that I have neglected, or areas I feel deficient in, those are the kinds of classes I look for beyond my course requirements but things that are going to inform me or come from a different perspective.

[I]: How do you go about evaluating the long term value of the course to you and your professional career? 

[P]: I would evaluate it by the things that I’ve been able to retain, the knowledge I’ve been able to retain without a lot of reminders or notes. Probably even more important than that, things that have actually changed my mind or courses that have turned my focus or changed my thinking on a certain topic; those would be the ones that I would value the highest.

[I]: If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you? 

[P]: I would have to say the practice of doing a mixed methods project and really feeling that I have a good understanding of how that happens and how to do it on my own in the future.
[I]: Is there anything you’d like to add on your perspective on mixed methods, learning, or course design? What’s the ideal course for you like? #00:018:44-0#

[P]: I’m kind of a baby student in terms of what kind of course helps me to learn the best. I know courses that offer a variety of ways of learning, reading in addition to that, course discussions, discussion board, courses that integrate technology are really intriguing to me because I’m an on campus and off campus student. I kind of have this bubble of mixed methods where I really like the idea of it, but I sort of get the angel on one shoulder and the devil on the other shoulder. The angel saying, “This is a great way of doing research and how much more deep can you get by combining these methods.” On the other shoulder I have people whispering, “That’s going to take forever, and you’re not going to get done on time.” I hear that kind of same thing about qualitative, at some point, I have to say, “That’s worth the risk of maybe having a bit longer project. It’s worth the risk to do that in order to be the kind of researcher I want to be.” I’m hoping that by taking a mixed methods class will kind of dissolve some of that, “What is this all about?” every project is going to be different. In terms of a dissertation, I know that I can be careful with my timelines if I need to be. I can design my project tin a way that it is possible to be done in a certain timeline.

I guess I would say I’m really hoping to have some of that cloudiness dissipate with taking a course and maybe doing a semester long project. Part of it is, too, in my field is that there are really relatively few articles being published that are using this approach. I hope that by taking these on and maybe looking to other fields for examples that it will become clearer to me. [I]: [Description of overall dissertation project]

[P]: The time constraint of the semester - the current of doing it. It almost would be better to have it a yearlong project or one semester be a course and then tied to an independent study in the following semester.

[I]: We could definitely be more aggressive in establishing learning groups within our department. Maybe you’re not the only one doing a mixed method study, maybe you’re working with 3 other people who are also doing their studies. That sort of assistance and those are the ideas that come to my mind in seeing the data and considering the social interaction in mixed methods. It’s very easy within our program, especially if you are a part time student, to be isolated from people who are doing things similar to you.

DV

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: I see it as a good way to create a dialogue between qualitative and quantitative research, which I think, in sociology, can have sort of a tendency to form two camps and not communicate with one another. It’s a good way to bridge that gap and create
collaboration between the two groups. There is a lot more of it going on but sometimes it’s a little slower in some departments than in others. Some departments are more heavily quantitative than others, my department included. I was one of the few qualitative researchers, a lot of the others were heavily quantitative, the majority. Some of my work was quantitative, but the majority was using qualitative methods, various types of methods. I think it’s important that sociology takes a real in depth look- and criminology which is my field. My PhD is in Sociology but my field is Crime, so I label myself as a criminologist. I can apply for jobs as a sociologist in general or a criminologist.

Both of those fields look at that type- that’s going to be the future of research I think. Bringing in both the qualitative perspective and the quantitative perspective, looking at both sides of the coin. Neither side presents a perfect or complete picture, they both has a symbiotic relationship as far as I’m concerned. In a nutshell that’s what I think it brings to the table and why I support it.

[I]: How does mixed methods fit into the portfolio of research methods you’ve acquired and continue to develop in the future? #00:02:48-0#

[P]: I see using it in the future. I took my position at a liberal arts university so most of my focus initially will be on instruction. For my tenure process, it’s 75% instruction and 25% research, so it will be heavily focused on instruction. That may change in the future depending on which career path I take, it’s common to make moves in your career. I see it being something that I’ll utilize at some point because it’s important to me that I stay fresh in both quantitative and qualitative methods. I’ll always label myself probably far more qualitative, using ethnographic/life history/ content analysis; I’m more adept at qualitative methods or even grounded theory. I’ll bring in quantitative methods in some of my research in the future too because it’s a bit part of the research. It’s important to the discipline to create a complete picture yet I am sort of critical as I critique the disciplines of criminology and sociology for being too reliant on positivistic quantitative data, statistical analysis as presenting the complete picture or being respected as the end all presentation of sociological or criminological research when it obviously presents a very incomplete picture of crime and/or sociological phenomenon. I’ll be using it. As far as right now or in the past, how has it been part of my portfolio? I took a mixed methods course with Vicki Plano-Clark through EdPscyh, I’ve taken multiple quantitative and multiple qualitative courses also. So, I’ve had experience utilizing both methods separately and both methods in the mixed methods course. I did a project in the mixed methods. Now, my dissertation used multiple methods of qualitative which maybe sort of qualifies as mixed methods but I wasn’t using qualitative/quantitative, that balance which some very strict mixed methods practitioners is not true mixed methods. I’ve used quantitative/qualitative work in separate contexts, so I’ve done a lot of different things, a mixed bag. Most of my research is either quantitative or qualitative using multiple methods of either/or. I see in the future to put forth integrated research, mixed methods will be necessary especially catching the eye of popular journals, you’re going to have to present some pretty advanced methodology and mixed methods would create that situation.
[I]: Because it’s an innovative approach right now? #00:06:57-0#

[P]: It’s growing. In sociology, for instance, it’s becoming more popular, it’s kind of a cutting edge research bringing both sides of the spectrum in and presenting a complete picture. The nuance detail that only qualitative research can create, the, how they presented it was, the deep, thin slice of data in a phenomenon when you’re looking at something. One small spectrum or sphere, you’re looking at a bar what’s that Elijah Anderson study? Something in a bar in Southside Chicago, a Corner Bar, Juicy’s Bar? Something like that, don’t quote me. Or looking at the broad scale, thin spectrum of quantitative where it looks at the crime trends for the state of Alabama, looking at homicide rates in the South in ten states. You could bring in both the thin spectrum of the in-depth stuff and the wide spectrum and create a picture that needs to be presented. Criminology, my field, often misses by only following the path of quantitative, statistical. Big studies and why they do it is because those big studies get federal grants, which federal funding is the name of the game in this day and age. People follow the money, I understand it but both need to be presented if you want an accurate picture. If not, you’re not presenting your critical analysis you’re just sort of following along presenting research that is apologetic to the dysfunctional criminal justice system. I just about went on a rant!

[I]: How would you describe what it means to get more information or get more knowledge? #00:09:27-0#

[P]: From what perspective, when I’m in the middle of data collection?

[I]: Let me rephrase that. You hear about something new and think, “I need to know more about this” what are your next actions? #00:09:54-0#

[P]: I think that just what I know best which is my “bread and butter” academic work. Of course Wikipedia, which is what every undergraduate does. If you want to get real general, I’ll go broad based, go to Wiki and look something up then go look up the references and start following those around. For academic work, I’ll go to Google Scholar or I’ll go to the library and go through the electronic resources to start chasing down studies, papers, literature through JSTOR or Academic Search Premier or any of the academic search engines. I’m a big fan of using those, Google Scholar, start finding books on it. If there’s news about it, chase that down, articles, books, news coverage. If it’s something that’s a recent development, something that’s going on as a current event, chase down what the current status is, the news, or [inaudible at 11:27 sounds like “math America”] society or globally. From then, I’ll look at the literature surrounding it; who has been saying what, who are the initial scholars who approached it. Is it someone well known with research in this topic? Start broad and then start narrowing it down to the more concrete academic focus or however you want to state it. Maybe calling people, too; I forgot that part, calling friends, utilizing my social network of friends, acquaintances, and colleagues. That’s a big one. I go to friends or colleagues who would know about the subject. If you want to know how to survive a course, go to your friends who took it
before you and say, “What do you got? Can I look at some of your materials? How did you do this project? What do you know? How do you find this data?” They are the ones that will guide and help you as much as the instructor will. That’s the way that I find that’s an efficient way of accessing the key points quickly instead of having to hatch around the nonsense and sift through it. To me, that’s been a really helpful track to follow.

[I]: How would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:013:37-0#

[P]: How would I explain to an undergraduate what it means to be engaged and participatory?

[I]: Or a new graduate student. #00:013:46-0#

[P]: Engaged like- I want to clarify, engaged like pro-social events and activism or in the course and academic work?

[I]: Let’s narrow it down to on the course level. You’ve probably also taught several courses and you’re looking to be teaching courses very soon, you think about the learners who are going to be coming into your class. If you were going to call them engaged learners, what would be some of the advice you would give them? #00:014:35-0#[P]: Of course, you give them the basics, follow the course, do your readings, but also look up current events about the topic you’re engaging with. Don’t be afraid to bring in outside sources; don’t rely on my sources within the course. If you have a current event or an outside source that you want to bring in for discussion- bring it. That livens up class discussion; it brings in ideas that create dialogue. Another thing is engagement in critical analysis. Be critical about things, question things, you don’t have to agree with the instructor, I’m not there to teach you the new bank model of education where you’re an open bank and I scoop garbage into your head. [inaudible sentence at 15:40, poor audio quality]. If that doesn’t work, lecturing is a waste, you do a little bit of lecturing to set up, I guess I shouldn’t say that. Some people utilize lecturing and I could be insulting people. Generally, there’s a [inaudible at 16:04 sounds like “NPR Study”] that says about 10% of people learn from lecturing and that’s the percentage of people who would learn on their own anyway. There’s a percentage of people who would read the quotes on their own, or are just self-engaged learners. Graduate students are generally a different breed of students. They’re generally more self-motivated and usually more engaged because of their focus. You engage the students as active learning participatory class activities, service learning, getting active and involved in the community, that sort of thing. That’s something that has to be orchestrated by the instructor usually. It’s a bad idea to send a group of students out and say, “Go get engaged” and not tell them exactly what it’s going to be. They’re ambitious, they want to learn, and they’re generally go getters. But, you have to orchestrate that properly and manage that.
So, critical analysis, bringing in outside materials, being able to ask questions, taking notes, writing down questions, these are things that engaged learners do. Of course, asking questions, as far as coming in after office hours if you want to discuss during office hours or after. Arranging to talk to me, emailing me if you have questions, being in a dialogue with me if you need to be. Never being afraid to figure out what an issue or problem is. A lot of grad students are very proud and they want to learn and do things on their own. They’re afraid to engage with the instructor. I’m here basically as your colleague in a sense, treat me like that, as a resource, not as a student-undergraduate instructor relationship where you’re here in this sphere and I’m here in this sphere and we stick to our roles. We can sort of start interacting more so don’t be afraid to do that. It’s what was told to me by some of my best instructors in graduate school. I really appreciated that advice.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:019:11-0#

[P]: I would probably try to get a gauge, a sense, find my bearings: what’s the course like? In every new course you try to figure out your position, how does it work, what does the instructor expect, what kind of instructor are they. We’re trying to figure out how to maximize our benefit from the course and of course perform as well as we can in the course and so on. Once I’ve got a good beat on that situation, what’s the workload like, what’s expected, what’s the instructor expect from us. That might even be after the first assignment though, where you get an idea of how they grade their courses. The thing about your second and third year of graduate school is that you’re probably already had the instructor before, it’s likely to happen multiple times. You can already have an idea what they’re like. Almost initially after you get the sense of what the course is like, you start asking questions but you can also figure out ahead of time, how to navigate the course, how to get the maximum benefit, how to learn, just by asking right off the bat. So, I would start asking before the class even started, “What’s the course like, what’s expected, how do you do well, how does the instructor grade, how are they like, are they going to expect you to pay more attention to this detail instead of another.” Each instructor is nuanced into their own expectations. Some have an expectation from the students that the others don’t expect at all.

[I]: What role do you think discussing plays in your learning? #00:021:46-0#

[P]: When I’m talking to a colleague about...

[I]: You have a new topic you’re learning about, you have a new domain, or you’re in a new course and you’re learning new things, you’re making a transition from novice to competency and expertise, and in that journey, as you’re discussing this content, when you first start learning with colleagues or friends, what role does discussing play in your own learning? #00:022:24-0#

[P]: As far as the discussion of the new topic with colleagues, probably has a large part to play. From the perspective of it will often determine how I begin to study for this course
and how I begin to engage with the course. It will determine basically the coordinates of my journey through the course, if you want to state it like that. If they’re going to tell you to focus this literature more than another, or “They assign this book but we use it for one assignment so don’t spend your time reading Book B that has 400 pages when you could read Book C that has 200 pages.” It needs more focus. That way, it saves me time, I can engage in this. Also, be sure to be very strict about your literature review in your final project, or your reference section, be wary of those things. They place more emphasis on the discussion activity more than the reaction papers than they do on their final papers. That way, you can engage your energy properly but also you’re learning the things that you need to learn. Yes, I understand you’re supposed to engage in courses syphoning in all of the material at once. But, this is graduate school and if you’re in an assistantship with a full load, you’re probably trying to figure out how to survive the course while teaching your overload- which is often what I was doing, teaching double courses. Then also writing a dissertation on top of that, working on papers, and doing conference presentations at the same time. It’s a balancing act, figuring out how to approach that. Also, how do you walk that fine line between short siding yourself or hamstringing yourself, you’re trying to get the maximum amount of learning you can from the course yet not ripping yourself off at the same time.

[I]: For you, it’s strategic, it informs your strategy for learning, would that be accurate?

[P]: That would state it quite well. To me, it was sprint. You have to learn strategy to survive graduate school adequately. It’s not about who is the smartest anymore which I’m sure you’ve figured out. It’s all about . . . everyone is smart, but it’s also the idea that it’s the marathon. Who works the most efficiently and the hardest, that’s who survives. There’s a lot of people who were far smarter than me- I can easily say far smarter than me, didn’t survive graduate school. The workload, they didn’t work efficiently, they wrapped up a bunch of in completes, they didn’t strategize or plan properly or learn how to navigate through courses well or learn the proper materials. They failed a comprehensive exam and so on. They just didn’t complete their course of study. To me, I felt like that process was of vital importance.

[I]: What role does that discussion with friends and colleagues play in your own learning?

[P]: Well, similar. It’s still similar, you start all over again, it’s the tenure process, a six year process of getting tenure which is oddly quite similar to graduate school. You have your yearly evaluations and it culminates in a final evaluation of your tenure committee to determine if you meet the requirements to qualify for tenure. Your best idea, your best strategy is to befriend your colleagues and people in your department who have that expertise or are knowledgeable about how the department operates. It will save your life, literally. Always befriend your administrative assistant, they’re your best friends in the whole world and will make life easier for you. But, also your colleagues, having academic dialogue. Also, don’t be afraid to talk to your colleagues, “How did you teach
this course? I saw your students like you, you get great evaluations, I’d like to get some input from you.” Ask people questions. “How do you do it? How do you perform these tasks? What’s the best journal for me to publish for this topic? What’s the strategy?” I have lots of mentors that I utilize that I use to get advice on publications on strategies or how to navigate academia successfully. They’ve been through the gamut, they understand the process, and they can guide you. When you walk into a department, I’ve been told multiple times, “No one tells you what to do.” You’re left to flounder it’s kind of eerie or weird. It is like that, if you’re an introverted academic, which oddly sociologists are generally anti-social people, you need to learn- you might struggle more. You need to get out there and engage with your colleagues and peers. Tap into their advice, they might not want to help you, some might. It’s a lot of politics in some academic departments. But, once in a while some are willing, you’ll find out who they are quick. Go to them, learn from them, use your mentors. Use their expertise, learn how to navigate the process. To me, very little has changed. As far as I’m concerned I’m still receiving a grade; my grade now is achieving tenure.

[I]: What do you value about a teacher or expert led learning experience? #00:029:57-0#

[P]: The obvious is of course their experience, and hopefully their expertise in the field and providing you with the knowledge that they’ve accumulated from years of experience on a topic that you are trying to engage with or trying to learn about. If they’re a good scholar, a good expert, they can bring forth discussions from real world experiences, not just book regurgitation or scholarly regurgitation, anybody can do that. We can fill our heads full of knowledge and that’s of course necessary for our research but also bringing in their personal experiences with maybe famous scholars they’ve met, field work. Especially if they’re like an ethnographic researcher or qualitative researcher and they’ve been out in the field somewhere fascinating, bring that into the classroom. That experience is invaluable; it’s stuff students need to engage with. They can provide you mentorship from that perspective. If it’s done properly, not just a regurgitation of information, it can provide you with a unique perspective. But, not to devalue just presenting you with scholarly knowledge. If they’re a good teacher, a good instructor, they can present you with the information in a novel way; they have some type of teaching technique that is unique or effective. They can unpack some type of concept for you that you’ve never been able to comprehend on your own. I think some instructors have a gift of being able to do that. Unfortunately, I’ve always thought that teaching is sort of devalued in big research universities; it’s research first and then it’s instruction. I understand, but all of these big name researchers got there through good instructors too. I think there needs to be stronger emphasis placed on stronger instruction. That’s a skill that’s almost a rare skill.

[I]: How do you find out about new courses being offered? #00:033:15-0#

[P]: When I was taking courses?
[I]: Yes, when you were taking courses, how did you find out about new courses that were of interest to you? #00:033:26-0#

[P]: You don’t learn this until later, but first you just run through the course catalogs online because you’re used to doing that as an undergraduate. Back in my day, I got my bachelor’s when I was 30; when I was in my early twenties, you looked in a catalog still. Initially you just find courses online, thumb through and find interesting ones. The final thing to do was to find outer departmental courses that you can spin with your committee to get them to say, “Yeah, you can take that course.” Or just find a way to present it in a unique perspective, this new course in Poli-Sci or Ed Psych that you want to take. That way, that method is useful. Once you’re been in the program for a few years, what you start doing is talking to your colleagues or talking to your instructors. You figure out, “What courses are you teaching in the fall?” Or, “What do I need to be enrolling for next year, the 2014-2015 year? Are you going to offer any interesting courses?” Go to the professors that you like, they can usually say, “Yeah, we’re doing a criminology seminar” or drug crime or drug usage. You could say, “Yeah, I’m really interested in that” and you go and find all other criminology graduate students- the way it works is you need support from graduate students to get a course accepted. So, they rely on some interest being generated. Often times it’s up to us to create that interest and then you can go to the chair and say, “Ten grad students want to take this course, let’s put it on the roster.” Then, you can make it happen. That was a way to get things done too. That’s something that you sort of pick up after a couple of years of graduate school.

[I]: How do you go about evaluating the long term value of the course to you and your professional career? #00:036:12-0#

[P]: Comprehensive exams to your research, how does it tie into your focal area I guess is the best I can say on that. That’s all I knew about it; I’m focusing in on criminology even though it’s a broad focus. As you narrow in on your PhD you become more focused. A lot of my research is on prisons and education; educational programs in prisons within criminology. Once I became more focused, I would start finding more courses that were focused. Initially, as a master’s student, you need a theory course, I really like theory. It’s sort of a learning curve that catches a grad student. Then, the second and third year you’re like, “Well, I like theory but I like crime theory on prisons. How can this course help me access that and become an expert in that field.” You also have to balance it and keep it broad because when you’re working on your doctorate, you also have to pass your comprehensive exam that’s more broad based in crime theory, crime methods and so on. They give you the information you need to pass your comp’s.

[I]: When you took the mixed methods course, what was the most highly valued learning outcome for you? #00:038:00-0#

[P]: UP front, it was the learning of the multiple [inaudible at 38:14] of mixed methods research I suppose, which escape me right off of the top of my head. There were ones that you liked more than others. Quantitative initially then some qualitative intermixed some
multi-phase, there were ones that were initially an exploratory quantitative study that then we used to construct a survey tool for the qualitative portion. To learn how those were constructed, how you create that research and how it was used in the process, that would be what I think, in a nutshell, of what I took from that. Along with then conducting your own sort of miniature mixed method project which was like a preliminary study that I used to focus my dissertation.

[I]: That hands on project, was that extremely valuable to you? #00:039:23-0#

[P]: Absolutely. It was a really valuable tool because it forced me to really start hashing out my dissertation ideas, what’s my research question, what’s my thesis statement? I had to hash those out. It forced me to do that because I was sort of beating around the bush, “Yeah, I want to do this thing where I look at ex-convicts that are . . .” I did my dissertation interviewing academics who had been formerly incarcerated, looking at the journey from prison to academia as professors/researchers. So, I had this idea but it forced me to flush that out. Initially I think I actually wrote my research proposal, to some extent was generally fashioned from that project.

[I]: That’s very valuable then. If you were to describe the perfect learning environment for your learning style, describe that to me. #00:040:46-0#

[P]: My style would be a seminar style class, discussion format, outside literature for you to read and so on. Then, you have segments where you focus on main points of the course in every class, once a week three hour course. That allows you to really focus in on a topic adequately, not divvy it up across which most graduate seminars are. They’re once a week, three hour format. That way it allows you to really tackle some big ideas or big concepts and really adequately grapple with them in a classroom format. Then, hashing through the big projects, you generally have a project that is the focus of your class. The ones that even though I hate saying this, that really work the best are work intensive, you can learn a lot from them. You bitched about them in graduate school because you had to write multiple pages per class but that’s in addition to your big project. You had maybe writing 40-50 pages more during the semester along with a big paper at the end and a heavy reading load. It’s a lot of work in a time, but then to dislike the instructor at the time or depending on, you might be thankful for it. Later on, I was thankful for it. I learned a lot, it really engaged me, it forced me to learn. I’m sort of cognitively lazy sometimes; I’ll try to take the easy track when I want to be lazy. That forced engagement, to me, was useful and beneficial.

KO

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?
[P]: I think it will play a huge role because of the nature of my position currently, I’m the Director of Language Arts Education for the Department of Education here in Nebraska and at the Department of Education, we get a lot of quantitative data. That’s kind of what we’re best known for collecting and we now have a statewide longitudinal data system that will track kids from preschool all the way through higher ed. So, we have all kinds of numbers. I think one of the places we’re moving to now is getting that qualitative data so we have more of the information behind the numbers, those explanations and those things that, to me, humanize it. One of the biggest issues that I have right now with the fact that we collect a lot of data on assessments is that when that’s published in the newspaper, a lot of times I think the press forgets that there are kids behind those figures and that there are teachers and families who are impacted and I think the qualitative data really helps to round that out and give a better picture of what’s happening in schools and the kinds of challenges that teachers and families are facing. I think it brings a more complete perspective.

[I]: When you think about the portfolio of research approaches that you are building and have built over your graduate studies, how does mixed methods fit into that portfolio? #00:02:09-0#

[P]: I think it fits in very well. I think it’s actually what I’m going to use for my dissertation. I haven’t gotten a lot of classes under my belt yet as far as the methods but I’ve had enough and I’ve certainly read enough for different classes that I think it will, like I said, in the same way it applies in my job. I think it’s going to give me a more complete picture of what I’m seeing in my own research and kind of give some explanation so for the folks who really are more numbers driven and want to see that information it’ll be there. I also think it will fit in with the qualitative data giving that more humanizing side of it and helping people to perhaps look at phenomenon that are occurring in my study or looking at individuals who have benefitted from the methods that we’re going to be using. Again, it will give a better picture of things.

[I]: How would you describe what it means to get more information or get more knowledge? #00:03:52-0#

[P]: I think just perhaps exposure to more studies, having the opportunity to work alongside someone who is doing a mixed methods study or even picking qualitative or quantitative data studies and working with them. Just having that experience being able to get my training wheels on, so to speak, so I have a better idea of what I’m doing before I kind of am turned loose and am attempting to do this on my own. When you haven’t done it before, it’s pretty overwhelming and I feel pretty confident in my abilities to write, I feel very confident in my abilities to speak, but there’s something about that data piece that is scary and about the research piece I want to make sure I do it with fidelity and correctly. I want to make sure it’s done correctly to yield the best results even if I don’t necessarily agree with what they’re saying.
[I]: How would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:05:22-0#

[P]: I look at graduate students or students in general and you see those people who are jumping through the hoops and going through the motions because that’s what they have to do. They know that they- it’s more performance driven. They know they have to have a certain grade or they know they have to do well to keep on the scholarship. Or, “I have to get this doctorate in order to maintain my job” or whatever it might be and I think I see an engaged learner who crosses that threshold between I have to do this and I get to do this. As you know, with these programs there’s a lot of reading, a lot of studying, and a lot of thinking that goes on. At first, it’s a little overwhelming but I think I found that place where it was changing how I was thinking, it was changing and how I was stretching my head in new directions. It was painful at times, but there’s something about that learning that once you’re really engaged in the material, you know you’re passionate about it, you know you’re excited about it, you don’t feel like you’re learning anymore because you have to, it’s because you get to and because you want to.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:07:14-0#

[P]: I guess I’ve always done that. After a while I learned that not everyone gets as excited about content area pedagogy as I do or that certain pieces of cognitive psychology are just not real thrilling to some people. I guess I try to share with people who share my passion but I also share it with people for whom it might be valuable information. I think its great practice to do that because you can distill it down and kind of help other people to learn about it and get them excited about things. I guess I’ve always enjoyed sharing. It’s a part of my personality maybe.

[I]: What role do you think discussing plays in your learning? #00:08:57-0#

[P]: It does a couple of things. First of all, it helps me to recalibrate my instrument, so to speak. I know that by talking to other people that maybe what I’m thinking or what I’m understanding is jiving with what they’re learning and understanding. But, I also love the fact that there’s that [inaudible at 9:26 sounds like “dissonance”] and sometimes something I’m thinking or feeling about a subject is not what one of my peers is thinking or feeling. It’s ok to have that sort of conflict because then new ideas come from that and you can discuss it. I think those conversations are so critical. If you’re trying to learn in a vacuum you really lack that great piece of discussion and interaction.

[I]: What do you value about a teacher or expert led learning experience? #00:010:11-0#

[P]: I think the thing that I value the most is someone who has the depth of knowledge and breadth of experience but also at the same time understands that other learners may not have that same depth or breadth and that they are kind about that. I took a course
recently where I had an instructor who struggled to understand why I couldn’t understand some of the things we were working on and it was frustrating with me. I’m not used to feeling stupid in a class; the further we went on, I felt like I was dumber than a box of rocks. It was really tough. It took me going into his office and almost breaking down into tears to get him to understand that I needed him to understand things. He couldn’t just go over answers and be done and move on. I needed more from him. I think that was part of growth process too, he’s new and hopefully he’ll be a better instructor for it.

[I]: So a characteristic you value in a teacher is the ability to understand the different levels. What about valuing a teacher expert led learning experience as opposed to a student centered learning experience? #00:012:02-0#

[P]: I think to some degree it depends on the course or the level you’re at. At all levels there’s a place for both: a teacher centered learning experience and a student centered learning experience. There’s times when a teacher does need to be providing information for the learners but there’s also that place where, like I said before, those learners need to interact [inaudible at 12:40 sounds like “down to be making off”] with each other and thinking about thinking. That metacognition piece that [inaudible at 12:50 sound like “protects and expressed the lab”] that’s so valuable. One of the things I like the best about the student centered or student driven learning, is that it allows the teacher to sort of ascertain how much the student know, what they’re lacking, what they’re thinking, and maybe what they’re learning. But, also go off down the rabbit trail sometimes. I think we’ve all been in places where that’s happened and we all sort of feel like we get short changed. Sometimes you need to have that teacher centered piece where they’re bringing it back and getting back to what the course is supposed to be about and bringing it back to the conversation. I’ve perceived, as I’ve gone to from undergraduate to graduate in my master’s program and now on to a doctoral program, I’ve seen that spectrum and it’s gone from definitely teacher driven to a lot more student centered kinds of learning.

[I]: What’s the best way for you to learn about a new course? #00:014:12-0#

[P]: I haven’t been at this but a year and a half. The way I’ve learned about them is if we have instructors who are visiting our course for some reason, they hand out a flyer or the instructor will hand out a flyer. That’s been a great way to give us a preview of it. The grad student group on Facebook has been fabulous for learning about new things, it’s just been awesome. I think it would be kind of nice if we had, one of my wishes and wants is that they would post a list of the classes that are coming up for the next year or year and a half so that I could sort of plan out my courses. There have been a couple of courses that I wanted to take and I have not been able to take them because I had to take other things that were on my program of study that I knew I needed to have in order to get other things and I didn’t know if they were going to be available again or how soon they would be available. It’s hard to plan that schedule without a general guideline as to when things would be offered.
[I]: What motivates you to take a new course? #00:015:47-0#

[P]: I think I first begin by looking at who is teaching the course. I’ve heard it said many time, “Sometimes there are instructors that you should take a course from no matter what they’re teaching.” If they were teaching pig grooming, you should go and take that. They’re just a great instructor and you can learn so much from them by the way that they think and the way that they work with students and that kind of thing. The other thing I’ll look at too is what kind of value this will bring to me in terms of my research and in terms of the job that I do five days a week. So, I guess it’s a balance between those two things.

[I]: If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you? #00:017:19-0#

[P]: Actually I’m enrolled in it starting in July. I actually found out that another student I worked with in another class is going to be there and one of the guys that I work with here at the office is also going to be in it. We’re already starting to talk about what we’re going to do for our project. I think what I want to most walk away with is a better clear understanding of how mixed method works. Just in the understanding of maybe the types of studies that work better together, ways to work smarter not harder, and I really want to become a very savvy researcher so that when I’m ready to launch into my own study I’m able to do it in the best way possible and not just mumble through it.

[I]: Describe the perfect learning experience for you. #00:018:48-0#

[P]: I think that the best way is really a lot of discussion and a lot of looking at perhaps some of the work is looking at authors that have done some innovative things, done some research that maybe has created the frameworks for things that we’re doing now that we’re not even aware of who they are by the time it gets down to the classroom level. I’ll give you an example, one of my very first classes was with Ted Harmon. We did, if you’ve ever taken a class with Ted you know that it makes your brain hurt because the man knows everything and forgets nothing. We were reading almost a book a week and it was really grueling to keep up with that reading but it was sad too because we would go in and connect it to other things and it was great to hear from other people who have very different backgrounds and perspectives and I loved that interaction in his course. Going into a text and really looking at all of the different pieces, I thought that was great. I also think I took a class from [instructor name] which was also very grueling but in a different way because he very unapologetically stomped all over things that I had believed as a baby teacher and had been taught in my undergrad program and basically said, “This is all garbage, you need to think about things in this way.” It was very hard because he was very adamant in that. There was a lot of struggle for me to kind of wrap my head around some of the new things without fighting them. The outcome was that I was able to assimilate some of this new information and integrate it with what I knew and what I had observed and be ok with disagreeing with things and moving on. To me, that was a great learning experience too. To be able to look at someone who is an expert in an area and
say, “I don’t necessarily agree with you on everything and I’m ok with not agreeing with you.” A nice little moment of independence.

[I]: Is there anything else you’d like to add? #00:023:57-0#

[P]: I can’t think of anything else to add which would be enlightening to you. I’m really excited that you’re doing it, I’m excited to read your study and your dissertation because I think more people need to move in this direction. I understand that mixed methods is not for everyone. I’ve even had people who have questioned my sanity in wanting to do this, but it isn’t the first time my sanity has been questioned. That’s ok because anything worth doing is worth doing well. I think mixed methods is a great tool for doing research well.

AZ

[I] When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P] Specifically mixed methods? Well, it makes me think of the course I’m taking now, I don’t know, I have an idea that I will go on and get my PhD, but will I work in higher education? I don’t know yet. But, I think that having a good understanding of research whether it is quantitative, qualitative, or mixed methods, I think is essential to what I want to do in my graduate work. Whether it has I directly use it like in a professional setting is irrelevant, because what is immediately in front of me is graduate work and I need to have a thorough understanding of different research methods.

[I] How would you describe what it means to get more information or get more knowledge? #00:03:34-0#

[P] The course that I’m taking now are exactly for that reason, to gain more knowledge in research. They’re not necessarily designed to set me up to do research, but it’s to have an understanding of research design so I can interpret something accurately. Again, I go back to the course I’m taking now and the whole idea for this curriculum is that we’re going to be able to identify whether something has validity, or whether an experiment was done right, was the research done properly, whether it tests what it’s trying to test. That’s how I describe the process of how I go about doing that; I need to gain a deeper understand and being able to identify how research is done since I’ll be doing it later on in life.

[I] What is the best way for you to go about getting more information or knowledge? #00:05:17-0#

[P] I need to know how to go about it. In the course I took previously with Dr. X, he, through the assignments and through his teaching, we were instructed how to identify
certain components of the research and talk about them. I think that having somebody who is really knowledge in that area, first and foremost, is necessary. Then, being shown the steps that you go through research designs, in a classroom setting, is helpful.

[I] How would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:06:09-0#

[P] I would say that it’s constantly on your mind. You have a dedication, in a sense, where you are quite single minded in the sense that anything can relate to your material, that’s how I’ve felt and that’s how I’ve tried to practice when I have been. When I have been taking courses that’s how I choose to be engaged with them so if I’m constantly turned on to the material, it helps to supplement my writing, it helps to supplement my learning, and I’m constantly making further associations with the material. It’s not just bound to the book, the material, the text and reading, or in a classroom setting it’s being reminded of it in a real world sense. I think that it’s being engaged and turned on to it, being available to learning about that at all times.

[I] In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:07:40-1#

[P] Immediately, even before I understand what it’s about. I’m constantly questioning things. I’ll start reading material once I have the text, immediately before the course begins. It’s continual because I still talk bout the course I’ve taken, I’m still engaged in that material, not to the extent I was when I was in the course, but it’s immediate.

[I] What role do you think discussing plays in your learning? #00:08:23-1#

A; Huge, I think that in discussion, not just discussion with your classmates, but discussion with your friends, with family, and colleagues and different other realms of your life. It’s huge; you’re making other associations with the material outside of just those circumstances that strengthen that content itself. I think discussion is huge, that’s how you should be participating.

[I] What do you value about a teacher or expert led learning experience? #00:09:04-0#

[P] I think that I more readily accept what they’re saying and I can engage with it quickly. It still doesn’t slow me from questioning, from wanting to challenge, and to push back but there’s a certain sense of safety in it. There’s also a sense of expectation, if I’m paying an expert to teach me, they should be at the top of their field or game- the best.

[I] Do you feel that raises your game and likelihood you’ll seek outside information? #00:11:03-0#

[P] Yeah, absolutely. I think they should have that expectation of the students as well.
When you consider a teacher led versus a student centered experience, do you see advantages and drawbacks from each?

Yeah, when its peer led, in my experience, we question a lot. One person has a question, then another turns off of that, then they tell their story and have a question for the group. There’s a lot more questions, there’s really good discussion, but we don’t necessarily generate answers. For me, I’m a problem solver; I’m always driving toward the result of something, so that’s difficult for me. I think I value it less because it’s great to have a peer led discussion, but in the end, I want to talk to the expert. I could see the drawback of having an expert that dominates the classroom too, that doesn’t allow for discussion, that doesn’t allow for questions, who is insecure about the idea of questions. Whether it’s “This is my text, I wrote it, I’m the expert” if they don’t allow that it’s like, “How can students evolve in those areas?” we need to leave room for that as well.

What motivates you to take a new course?

I love learning and never want to stop.

How do you go about evaluating the long term value of the course to you and your professional career?

I think that I want to spend my time learning how to be an efficient learner. In all of my courses, that’s what I want to do; I want to learn how to get from point A to point B and retain said knowledge for as long as possible. I think that there’s immense value in that, it’s being able to reach that material to my friends and to be able to teach that material to my employees in whatever context. There’s high value in that. I think that’s how I’ve narrowed it down to taking the courses that I want to take and wanting to be taught certain things. There’s also the idea that I’m trying to gain specific skills that will have monetary value when it’s all said and done. I don’t want a piece of paper, “Great, awesome knowledge.” I actually have real life skills that I can take into a job, it’s not just this idea or I don’t know just theory or I don’t know just research. I actually have skills that I will have after I have this degree. Those pieces dictate the courses that I’m taking and the things I want to focus on.

If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you?

In the course that I’m taking now, when we’re going over all three piece briefly, qualitative, quantitative, and mixed. The idea is to understand research design in those three different types of designs. It’s hard for me to answer that question because I’m at the point where I want to thoroughly understand, did this person do this correctly, did this person get from here to there, what were the steps, what were the variables? I’m at that stage right now where I’m trying to understand the design of it so it’s hard to answer that questions.
[I] When you look to the future, what do you see how research fits into your professional portfolio of skills? What would you most like to add to that professional portfolio? #00:15:54-0#

[P] I think it would be nice to be well rounded. I think that people pay particular attention to certain kinds of research designs in one of those three areas. I think it would be nice to be well rounded and I feel like the courses that I have taken and that I will be taken, that they will be doing that. They’re going to be focusing in all three of those different areas; they won’t focus on one particular design. I think that the benefit would be to be well rounded and be able to pick apart any of those three different research methods.

[I] Is there anything you’d like to add on your perspective on mixed methods, learning, or course design? What’s the ideal course for you like? #00:17:21-0#

[P] To be honest, I think that it’s interesting; I’m taking a little survey in instructional technology and Dr. X’s class on teaching learners how to learn. I think there would be a good combination of those courses; knowing how a learner, for me it would be knowing how a learner, how a person takes information, processes it, stores it, and retains it. Being able to take the technology and know to apply what technology is going to best used for a particular content and to be able to apply that. That’s kind of my own perfect design of a course, I feel like there’s a lot of psychology that goes into learning, so I’m taking some of those courses. The foundation of it is knowing how somebody processes and learns information then what technology is going to reach them, what learning processes can best be applied to said situation. That would be the design of the course.

[I] So you like highly designed, you wouldn’t say you like more free form or just discussion? #00:19:08-0#

[P] No, very specific, here is a person, here is how the human mind works, here is how we learn and process information. There are so many different theories of learning in general, so many different ways to apply technology and be able to teach. That would be like a yearlong course. That’s what I want to get out of my coursework; it’s what I want to learn about.

[I] How important to you is it to have your instructor explain the learning benefits of a particular approach that they’re using in classroom? For example, if they were going to do a blended approach or something like that, if they explain the course design and how it’s better for your learning, is that helpful to you? #00:20:41-0#

[P] Absolutely, you’re learning about learning. You’re having a Meta cognitive understanding of- it reminds me of Dr. X’s course- you can’t just teach somebody, this is the best way to learn and then not have your course go against the grain of what you’re teaching. It’s really important, he would go through and for example, he talked about the SOAR model of learning, you select, you organize, you associate, and you regulate. That’s the design of SOAR, the process of how people learn. Then he brings in all of the
components of it and then exercise a lot of what he taught in the book in the classroom. So, he would start off a lecture, “A quick one minute review of what we learned last time, here’s what we’re going to be learning about today, here’s why and the purpose of it. Here’s what we need to pay particular attention to.” Then he would get into the lecture, when he started to talk about assignments, we would have discussion first. The outline of that course replicated what we were being taught about learning, how it’s best learned. He would talk about that, having a Meta cognitive process happen with learning about learning. It was embedded into the course, it’s really important. I think it’s really important for the instructor to have feedback too, that’s working, can we spend more time doing these things, or I need help in these areas. He would tailor to that, I think that’s really important. I’m not somebody who can just sit back and not question that. I question that because I care and I want to understand the processes.

[I] When you envision learning about mixed methods or any of your research approaches, what do you think is going to be the best way for you to learn those? #00:22:54-0#

[P] I think case studies help me a lot; I think that having a case study and then have a reflection writing about the case study helps me a lot. Having discussion about it you learn more, but having the expert saying, “These are the things I want you to be able to pick apart in this.” Then, being able to read it on my own, write a reflection piece, then having discussion about it, and coming back to the expert helps me immensely. In learning about mixed methods of whatever research designs I think is going to be, I feel is going to be the ways I’ll learn best.

[I] How do you envision how important it would be to actually be doing a research project? #00:24:04-0#

[P] I think regulation is super important in learning, to really test a student to see what they learned; you should have them teach back the material that you taught to them. You connecting your own research design, that’s the ultimate way of testing what have you learned mixed methods or fill in the blank to the point you can demonstrate mastery. The best way to do that is to reteach it back or to design your own research design. I think it’s imperative, we need to be able to do that and I think most of the courses, if not all of them, it’s been a requirement.

[I] Other comments? #00:24:55-0#

[P] My perception of mixed methods? Intimidated. I have that opinion because we spend so little time with it. Even looking ahead, it’s only going to be a piece. Looking ahead to the course that I’m taking, it’s literally less than a third, it’s going through each of the qualitative, quantitative, and mixed, then there’s the other 40% of the class that we need to get through as well. It’s like a third of 60%. I think that it’s not sufficient to really grasp what it looks like to do mixed methods, but it’s been my experience in the courses I’ve looked into as well, it’s just a small piece.
What’s the best way for you to learn about a new course?

Email, just because my account is not populated frequently, I don’t go to a college website ever unless I need to do something specific. I’m not a part of any Facebook or College of Education thing at all. I’d say email, not even through mail. Email is perfect.

BX

When you said concrete data, would you elaborate in regards to your career as you perceive it?

I think, and some of this emerges as part of an ongoing joke that I have which is as a storyteller and a film maker; I made a documentary called “When we stop counting.” So, the joke is how much further away from quantitative research can you get than making a documentary that is so clearly skewed toward being qualitative. But, that film did start out with statistics and this is something that I personally don’t have the affinity for statistics both in the gathering and I have not had the same sort of response, emotionally, to using statistics to prove a point. However, I recognize that this is, in many cases, something that hinders the perception of my work and my research because there are many people, maybe half of the population, respond better to those kinds of numbers and statistics and see greater value in evidence being presented by numbers than they do by stories. I think to me, the appeal in learning more, and I know I have very surface level knowledge of mixed methods at this point in time, so I have a pretty pedestrian understanding save that it combines two methodologies. But, I see there being real value in being able to present the story as I want to present it and being able to back it up, in a sense, in this other dimension of data collection. As an ethnographer, it only serves to substantiate the work I do in telling stories. It helps, if you look at it from a political perspective, I’m a very politically minded person and I’m looking to do work that has a political impact and I know that there is a certain political population, a population of policy makers and lobbyist, and politicians, things like that, that are simply not going to act on information unless they see numbers. It doesn’t matter to them, oftentimes, how valid those numbers are but, they want to see numbers. So, to me, and a lot of the way that I work is partnering with other people who can fill those strengths that are not my own strengths. So, I’m looking to, hopefully, move into an arena where I can not only do mixed methods, but collaborative mixed methods so I can handle a lot of that qualitative story telling type thing, which I know is my strength, and be working in ways that synthesize what I’m doing with potentially a partner researcher who is strong in the quantitative field.

There’s tremendous value in, much like how you separate the dichotomy of right brained and left brained people, if you want to have maximum impact, you have to be able to address all sorts of learners, all sorts of information processors. So, that means being able
to provide ways for people to connect with research as well as ways for them to understand it if they are minded in a sense that numbers speak to them.

[I]: How would you describe what it means to get more information or get more knowledge? #00:05:07-0#

[P]: I think, for me, I know that my learning style and I like to learn by reading but I also really like to learn by case studies. I haven’t taken any formal coursework, I’m at this point intending to take formal coursework in research methodology in the fall and I learn best by seeing it done. If I can take a case study and see where a mixed methods approach has been applied that to me will be my best way to learn. At this point, I simply haven’t had the formal exposure to it, at least not knowingly. I’m sure I have but I haven’t knowingly understood what that is. I think really on the quantitative side of things too, that I have seen quantitative research and not recognized it as such just because I don’t have the formal knowledge of it. I think really being able to see how something is executed in reality; not in theory but in reality. So, how do you make sense of a research project that includes a couple of different methodologies and put them together then the end result is, that’s how I think I learn best by seeing it done.

[I]: Would you describe yourself as an engaged and participatory learner? If so, how does it manifest itself and how would you explain that to someone else if you were going to encourage them to be the same way? #00:6:40-0#

[P]: I would definitely describe myself as an engaged and participatory learner. I think it’s interesting that I’m coming off of a three week ethnographic field school experience in anthropology where I was a graduate student with four undergraduates. We were tasked with learning on the job, as it were, in an outdoor environment, building things in our outdoor environment, learning how to problem solve without a lot of tools. It was a pretty remarkable synthesis of skills, learning styles, and techniques that involved a lot of talking through the process. I think it was, to me, interesting to see with a professor who was very hands off how we, as students, made sense of our environment and how we learned to tackle what was presented to us, what we did and didn’t accomplish. I think it really reaffirmed in me that while I love nothing more than a great lecture class, I absolutely love if it’s done well, but there are so many ways to reconceive of the classroom environment and how learning happens. A class size of five was remarkable because of what could be accomplished and how learning was symbiotically happening in that environment.

Q: When you think about learning behaviors and strategies that you take that represent your participatory nature within your learning, what sort of things do you do that represent or manifest that engagement? #00:08:34-0#

A: I think I’ve always naturally been a person who is very inclined to discussion and to helping steer discussions. I am probably easily faulted as being one who can kind of take over a discussion but I think, especially in this environment that I was just in and others
where I have been in mixed undergraduate and graduate classes, I’m really interested in seeing how to engage students who are not typically as participatory themselves and I guess this is some of my potential formation as an emerging teacher which is something I have got this reluctant and sort of complicated relationship with. But, how do I steer a question in a discussion or bring up a new topic in a discussion that leads people to share and leads people to bring in their perspective and their opinion?

So, I think I guess the talk therapy approach, or the working and learning through discussion and building on information is something that I think in many ways is the strongest. Then, partnering that with some sort of work which again in this field school was very interesting because it was literally being partnered with physical labor that was pretty far up field from anything you’d see in a typical classroom. So, how does going and raking a bunch of rakes with someone lead to a discussion on education policy? It happened numerous times and I think that’s, if you want to go into the learning styles theory about that, it was engaging with kinesthetic learners in a pretty non-traditional way. But, I think that the idea of instead of having professors or instructors assign group projects without a lot of thought into the design where you throw students in to a situation in which their grade depends on the work of others and you end up having a couple of people shoulder the burden of the work and others kind of ride along for free, I think there’s a lot to be said for kind of rethinking what a group project means and in conceiving in that kind of work differently and so how do you gauge participation in a group project outside of maybe the traditional, “Here’s what this group has to do.” “Here’s your rubric.” Instead, you think about how you can do that within a class period, in a class environment that you’re doing group work. I think a lot of that comes down to establishing relationships with people who are working on something prior to this group project assignment beginning. Being as I’ve had experiences there where it really is a complete failure and it ends up being the work of one or two people and not five, and not ten, if it’s a really unwieldy large group. It ends up being the work of one or two and on the flip side then you could conceive of something in which you had the relationships built between them and they’re working toward a real, tangible goal. Not just a grade, but a tangible goal. I think that there’s a lot to be done to get there in most classroom environments.

[I]: If you were talking to a new graduate student and you were to encourage them to be more participatory similar to the way you are, what advice would you give them? What should they be doing or thinking about? #00:12:34-0#

A: I think that’s a very challenging question. I feel very lucky that I’ve been afforded the luxury to work focus on my graduate school full time; I know that’s not the case for some of my peers. I see some of them who are not doing it full time that are successful at really being engaged and participatory, but I think it’s really difficult. This is a larger systemic change that needs to happen at the university provide resources for students so that they are able to afford it because it really does change your ability to contribute to the classroom environment to the entire culture of the graduate program if it’s everything on your mind. I know the differences between my fellow students who are also full time
students, maybe we had one or two classes together first semester, we see each other more frequently, the level of engagement and buy-in is different and it’s not because of the personalities of the people, it’s often times simply because we may have a life outside of school, but we don’t also have a work life that is a full and separate commitment.

So, that’s in some ways a cheap answer to your question, but I think it really does make a big difference and if the university is interested in having more engaged, more productive graduate students, it would behoove them to look at the way they fund graduate education. That said, I think for any students within a graduate program, I think it really matters to form connections with your cohort members or your fellow students as much as possible to also form them across campus with other graduate students. I think there’s a lot to be said for that and I think there is really a benefit in taking some of those mixed level classes and engaging with particularly the senior level undergraduates and honing our own skills as emerging researchers, emerging instructors, or whatever the case may be and learning from our experiences in working with the brightest of the undergraduate population as well. I know that I’ve been in one class experience where this was a total failure and it really didn’t work. But, at the same time, I’ve had a couple of mixed classes that have been tremendously valuable to me in understanding my place in the larger picture. I think in many cases, doctoral seminars can get really insular and really lovely and fun echo chambers and it’s great to be in them and it’s great to have these three hour discussions once a week, but I think we can lose ourselves in that and not realize our piece of the bigger academy as well as the community that we live in. So, I think any ways that graduate students can branch out and find out how do I, for example, as a graduate student in teaching learning and teaching education, how do I connect with an undergraduate student in anthropology? What do I have to share with them and what can I learn from them? I think that’s an important piece of it too; we don’t do ourselves any favors by isolating ourselves.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty?

[P]: All of the time, almost instantly. It’s funny to do this right after this field school because it has so many tangible examples for this; so, within the first three days of class we had done a lot of native plant identification. I went for a bike ride with a friend and the only thing I was doing was scanning the sides of the trail looking for the plants that I had just learned to identify so we could find some of the edible ones for us to eat. It was instant, “I just learned something and I’m dying to share it.” To the point of nearly crashing I’m dying to share this information! I’m scanning; I need to find this plant!

I think it morphs and it changes and sometimes it takes a back burner; sometimes an idea needs to sit in the back of my mind for a while, even if it had been shared earlier it might need to go back and sort of incubate for a little longer before coming out again. But, I think it’s a process by which I am very, very tied to peer review and in both formal and informal capacities. I think I would much rather get some feedback that may or may not
be helpful early on an idea I have just by floating it out there to a friend or colleague or
advisor even if it’s not fully formed because sometimes I feel like I might get on some
track in my mind that I think is brilliant and it’s not. Or, it needs help or maybe it needs
revision, or maybe it just needs to branch out in a different direction that I hadn’t thought
of. I think, to me, it is the diversity of my friend population in terms of the interests that
they have, in terms of their career paths, is tremendously beneficial to me in being able to
see dimensions to my work and to my interests that aren’t readily apparent because I’m
not a physicist, I’m not an architect, I’m not a musician, whatever that other dimension
may be. I am well served by people who think differently so I think there’s sharing
things early on can help shape that. Of course there’s a risk to it going too far up field but
its worth it to me to risk some little bird walks and divergences into other directions that
may not be the eventual one because I keep track of all of these things. It might come up
some day that in fact, what I really interested in how a school interacts in the
neighborhood is where it’s sited and what the landscape architecture looks like. That
might have a tremendous impact on how I eventually come to conceive of what a
neighborhood school looks like. That’s not something that happens even within the
classroom, it’s very external to it. My friend S, the architect who builds schools knows
that that’s how things work.

[I]: What do you value about a teacher or expert led learning experience?

[P]: Some of my course work in the spring really dealt with looking at teacher centered
versus student centered classrooms and design. I really think there is so much to be said
for a good match between a teacher centered teach and a teacher centered classroom, a
student centered teacher and a student centered classroom. When you cross over the two
or try to blend them, it can often really not go that well. I don’t think, personally, that
either one is better than the other though I will say, and part of this is influenced by my
undergraduate experience which was going to a school which is renowned for teacher
centered teachers who are rock stars. It’s mission is, it’s purpose is, primarily as an
undergraduate institution where every single professor teacher undergraduate students. It
is not a research university. That was one of my primary reasons for wanting to attend
there because every class I take is going to be taught by a professor who is an expert in
their field. I value that deeply, I think this is also influenced by my father being a very
teacher centered professor. I think if I would have to choose between the two, I think I
would much rather be in a teacher centered classroom with a good teacher than a student
centered classroom with great students because I’m paying for it. I’m paying to learn
from that instructor, ultimately. On the economic level, what am I paying for? I’m not
paying to learn from some other students. I could see where it could be argued that’s
what you’re paying for; you’re making this cohort experience and you’re developing
networks. Ultimately, I think that’s particularly at the university level, that’s not what
we’re paying for. That said, a blend where a teacher can understand how to engage in
good student driven work is excellent. Having a teacher centered classroom where the
instructor is not particularly good at lecturing is terrible and I think is really potentially a
lot more frustrating because then there isn’t the same onus of control within the student
such as myself to say, “Well, this is the card we’ve been dealt. How can we make the best
of this?” If you’re in a lecture class with a bad lecturer there’s not much you can do, as a student, to make it any better and that’s really frustrating.

[I]: What differentiates a good lecture experience from a bad one? #00:23:51-0#

[P]: I think there are so many variables which make it a little difficult to answer. Public speaking skills in the instructor are critical; being able to have an instructor walk in and whether or not they’re assisted by any sort of technology is irrelevant. I’ve seen it done well and I’ve seen it done completely without technology. If they know their story and they’re able to tell it so their story could be a recap of a brief period of history, their story could be an analysis of research within a certain arena. If they can tell their story within the confines of that lecture period, they’re succeeding if it’s a story I’m listening to. I think every lecture is a story. I think there is skill involved in doing it well and like I said, sometimes this can be supported with technology, but a good lecturer is able to do it with or without. It may be better with, it may be better without, it doesn’t matter. When it’s bad is when the story is inconsistent, when the story runs far up field, and not to say that it can’t bird walk because that can make for a good story too. When it’s disorganized, when the story is lost; it goes back to who I am as a storyteller myself. If I’m losing attention they’ve failed because I will listen to any good story. If they’re losing my attention then the lecture has failed. I’ve been in lecture classes in well over 100 students where it felt like we were a room of eight because of the way that the professor was able to keep going, he knew his content in and out. I think that’s the marker of expertise in an area that you’re able to just roll with it and get that across, that’s succeeding at the teacher centered model. It takes content knowledge and also public speaking skill.

[I]: What are some of the things about having access to that expertise that you really value? #00:26:38-0#

[P]: I think what’s really valuable about it is seeing that person’s passion shine through. You can see that they have spent hours and years of their life dedicated to a topic that they really care about. I think that, regardless of what the topic is, it’s engaging and captivating to watch someone who is passionate about something speak about it and share about it. They care, you can see that they care, they’re really excited. To put it in vernacular, they’re “nerding out” about something in front of a whole bunch of other people and it’s exciting to see. I think that can get me engaged in the lecture on content that I am not familiar with or not passionate about. If somebody else is passionate about it, it’s contagious. I think that goes a long way to building on that learning which is also one of the challenges in the student centered environment. Where that student centered environment works really well is when you have students that are really passionate about the content in that class. That’s just not always the case. Sometimes we have classes that we’re taking because they’re a requirement; we have classes that we’re taking well they have to fill this or that or somebody else suggested it. Maybe it’s not exactly what it’s advertised as being. Maybe we’re just not that into this class because we’re all coming from different backgrounds and we’re not necessarily the experts in this. So that natural passion isn’t always there. I think again what kind of delineates this field school
experience is that we were all students who signed up to spend three weeks in the woods; there’s a certain type of student who does that. There are a lot of student show don’t. There was a certain bond that we all had at the outset from wanting to be in a pretty alternative classroom that helped tremendously. There was a comment made by another student, “I looked at this list and I was really hoping we wouldn’t have somebody who is a Germaphobe or who is afraid of bugs or who wouldn’t put in the work.” I think it’s very easy and common for you to get into a class where you have students who are there with their own agenda’s, potentially.

I think especially at the graduate level we’re taught to specialize, we’re taught to focus; we’re channeled to narrow our focus. When we enter into these classrooms, to what extent are we simply beating the war drum of our own focus rather than looking at the focus of the class, rather than building on the expertise of that instructor. I think we’re so channeled into working on our own agendas that when we’re put into a student centered environment at that level, we really can’t stray away from it very well. I find myself time and again in classes like that sort of pulling my hair out about the fact that we’re operating across purposes. As much as we’re trying to engage in the specific content of that class, we keep going back to our own little, “Well, in my view.” “Well in my world.” Instead of really working on the content that maybe the instructor thought to take a bigger role in saying, “This is where my expertise is and you’re here because of this too.”

[I]: What’s the best way for you to find out about new course and then, once you do, how do you go about evaluating the long term value of the course to you and your professional career? #00:31:04-0#

[P]: This is something that is going to be heavily influenced by my undergraduate experience. I’ll preface my answer with an explanation of that since it’s pretty unconventional. So, I’ve alluded many times to my undergraduate experience at Brown University. The way that Brown approaches an undergraduate education, first of all, there’s no core curriculum, the onus is on the student to choose all of their classes. You do have credits within your concentration field that you have to fulfill. Other than that it’s free reign to take whatever courses you want; there are not general core requirements, no distribution requirements, nothing like that. This has some profound impact on the entire economic course selection at Brown. For example, think about the fact that there is no English 101. This means that because students are free to select whatever classes they want, they’re relying pretty heavily on course descriptions to figure out how the hell in hundreds of classes they’re going to find four to take each semester. The language of the course catalog at Brown is quite florid. Instructors seem to be quite concerned with developing really interesting sounding course descriptions. Here’s what happens the first two weeks of each semester.

The first two weeks are called “Shopping period” and you shop for classes. You take your course catalog and circle the courses that you’re interested in taking and you might go to seven or eight classes the first couple of days checking them out, picking up a syllabus, meeting the instructor, getting a spiel on the class, and seeing if it fits what you
think it fits, if it fits your needs. At night after the first day of classes, you get together with your friends, you swap syllabi, you talk about, “This instructor seems really interesting, seems like a total oddball, might want to check this class out I think it would suit you, or don’t waste your time going to this one, it’s going to be a drag.” So, you sort through and eventually, by the end of the two weeks, you’ve settled on your four classes for the semester. You might preregister for four classes and take none of them. You might end up enrolling in four completely different ones; you might end up with the four you signed up for based on their descriptions in the course catalog.

So, the economic system shifts entirely. If an instructor is regularly putting out boring sounding course descriptions and not knocking it out of the park on the first day of class, nobody is signing up for their class. So, eventually they’re not having people sign up for their classes, they’re out of a teaching position at a certain point, or they’re going to get a serious talking to about, “Hey, make your classes a little more interesting.” Even the names of course there are interesting because you have to capture the attention of students. On the flip side, as a student, it’s all your fault if you take a class that’s boring. If you take a class that you don’t like, it’s all on you, you had the chance, you shopped, if you didn’t shop well enough and you have buyer’s remorse, it’s your fault. I kind of only had one class in my years there that I thought, “I could have done a little better with this one.” Overall, I often did take the classes that I preregistered for.

That’s been an interesting shift for me now coming into the graduate environment and a school which this is very much not the case and not the way the system is designed. Where I’ve even had, about this ethnographic field school, people in my cohort asking, “How did you take that class? Is that ok? Could you take that class?” Well, why not? It sounds interesting, I can connect it to my work, they advertised it in our college, I don’t see why not. I don’t see why it’s not part of fulfilling my requirements. I think that there is a lot to be learned from that Brown model of providing course descriptions that don’t just rely on the fact that students have to take a certain set of classes. I’ve been exceedingly frustrated time and time again in the now three terms that I’ve been enrolled here and looking to enrolling in the fourth term. I’ve got a list of classes I’ve got in my shopping cart that I’m enrolled in; I don’t know if I’m going to take any of those, which is an impact from Brown. I looked at those and maybe a one sentence description of this course, I’ve got no idea what’s going to be taught. I can maybe glean a little if they’ve posted the books, but still, I’m not getting information like that. I’m relying more on reputation of the instructor and talking to my peers about who is this instructor and who is that instructor, trying to do some ancillary research, but I really think that this is somewhere where I’m not pleased with the way I’m able to discern whether a class will be useful for me and I don’t really see the point in taking classes that aren’t going to be useful.

I struggle with that quite a bit, primarily because of the financial sacrifices I’m making to be here. I feel like I need to be better informed and I don’t know if the shopping period model probably isn’t going to work, but something beyond what I’m getting now is pretty key. Some of that is probably part of what’s happening is that I feel like because
instructors in this environment have never been challenged to think about how . . . They’re not thinking about advertising themselves, they can pretty much until they get to a point where they don’t have a high enough enrollment, I don’t even know if they’re thinking about that. They’re not thinking about how to advertise and how to get people to sign up for their class, they’re lazy. I think, to challenge instructors to think about whether they would take this class. Would I take my colleagues class and talk to each other about that. If you see an instructor has a class posted . . .

[I]: If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you? #00:38:53-0#

[P]: I think, for me, the opportunity to find that collaborator who is on the other brain side of the equation that would be the ticket. I think as much as I would like to think that I would become an expert in it all, I don’t see that as my strength. I don’t really see that, I see that as potentially diverting or distracting from what I know is my strength. But, to be able to find somebody who I can collaborate with who also understands the value of this mutual collaborative work and of combining forces and maximizing our impact. That would be the ticket for me.

[I]: Any other questions or comments? #00:40:18-0#

[P]: I think there would be a benefit to finding ways, and I think this comes from my background in technology integration, of not viewing research methodology as a separate thing just like you don’t view technology as a separate thing; it’s an integral part of the work. So far, I haven’t seen that being addressed in the course work I’ve taken. I think maybe finding ways in which the research methods’ specialists can pair with some of the other instructors to integrate that into all of the other coursework would be beneficial.

DV

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: I see it as a good way to create a dialogue between qualitative and quantitative research, which I think, in sociology, can have sort of a tendency to form two camps and not communicate with one another. It’s a good way to bridge that gap and create collaboration between the two groups. There is a lot more of it going on but sometimes it’s a little slower in some departments than in others. Some departments are more heavily quantitative than others, my department included. I was one of the few qualitative researchers, a lot of the others were heavily quantitative, the majority. Some of my work was quantitative, but the majority was using qualitative methods, various types of methods. I think it’s important that sociology takes a real in depth look- and criminology which is my field. My PhD is in Sociology but my field is Crime, so I label myself as a criminologist. I can apply for jobs as a sociologist in general or a criminologist.
Both of those fields look at that type- that’s going to be the future of research I think. Bringing in both the qualitative perspective and the quantitative perspective, looking at both sides of the coin. Neither side presents a perfect or complete picture, they both has a symbiotic relationship as far as I’m concerned. In a nutshell that’s what I think it brings to the table and why I support it.

[I]: How does mixed methods fit into the portfolio of research methods you’ve acquired and continue to develop in the future? #00:02:48-0#

[P]: I see using it in the future. I took my position at a liberal arts university so most of my focus initially will be on instruction. For my tenure process, it’s 75% instruction and 25% research, so it will be heavily focused on instruction. That may change in the future depending on which career path I take, it’s common to make moves in your career. I see it being something that I’ll utilize at some point because it’s important to me that I stay fresh in both quantitative and qualitative methods. I’ll always label myself probably far more qualitative, using ethnographic/life history/ content analysis; I’m more adept at qualitative methods or even grounded theory. I’ll bring in quantitative methods in some of my research in the future too because it’s a bit part of the research. It’s important to the discipline to create a complete picture yet I am sort of critical as I critique the disciplines of criminology and sociology for being too reliant on positivistic quantitative data, statistical analysis as presenting the complete picture or being respected as the end all presentation of sociological or criminological research when it obviously presents a very incomplete picture of crime and/or sociological phenomenon. I’ll be using it. As far as right now or in the past, how has it been part of my portfolio? I took a mixed methods course with Vicki Plano-Clark through EdPscyh, I’ve taken multiple quantitative and multiple qualitative courses also. So, I’ve had experience utilizing both methods separately and both methods in the mixed methods course. I did a project in the mixed methods. Now, my dissertation used multiple methods of qualitative which maybe sort of qualifies as mixed methods but I wasn’t using qualitative/quantitative, that balance which some very strict mixed methods practitioners is not true mixed methods. I’ve used quantitative/qualitative work in separate contexts, so I’ve done a lot of different things, a mixed bag. Most of my research is either quantitative or qualitative using multiple methods of either/or. I see in the future to put forth integrated research, mixed methods will be necessary especially catching the eye of popular journals, you’re going to have to present some pretty advanced methodology and mixed methods would create that situation.

[I]: Because it’s an innovative approach right now? #00:06:57-0#

[P]: It’s growing. In sociology, for instance, it’s becoming more popular, it’s kind of a cutting edge research bringing both sides of the spectrum in and presenting a complete picture. The nuance detail that only qualitative research can create, the, how they presented it was, the deep, thin slice of data in a phenomenon when you’re looking at something. One small spectrum or sphere, you’re looking at a bar what’s that Elijah Anderson study? Something in a bar in Southside Chicago, a Corner Bar, Juicy’s Bar?
Something like that, don’t quote me. Or looking at the broad scale, thin spectrum of quantitative where it looks at the crime trends for the state of Alabama, looking at homicide rates in the South in ten states. You could bring in both the thin spectrum of the in-depth stuff and the wide spectrum and create a picture that needs to be presented. Criminology, my field, often misses by only following the path of quantitative, statistical. Big studies and why they do it is because those big studies get federal grants, which federal funding is the name of the game in this day and age. People follow the money, I understand it but both need to be presented if you want an accurate picture. If not, you’re not presenting your critical analysis you’re just sort of following along presenting research that is apologetic to the dysfunctional criminal justice system. I just about went on a rant!

[I]: How would you describe what it means to get more information or get more knowledge? #00:09:27-0#

[P]: From what perspective, when I’m in the middle of data collection?

[I]: Let me rephrase that. You hear about something new and think, “I need to know more about this” what are your next actions? #00:09:54-0#

[P]: I think that just what I know best which is my “bread and butter” academic work. Of course Wikipedia, which is what every undergraduate does. If you want to get real general, I’ll go broad based, go to Wiki and look something up then go look up the references and start following those around. For academic work, I’ll go to Google Scholar or I’ll go to the library and go through the electronic resources to start chasing down studies, papers, literature through JSTOR or Academic Search Premier or any of the academic search engines. I’m a big fan of using those, Google Scholar, start finding books on it. If there’s news about it, chase that down, articles, books, news coverage. If it’s something that’s a recent development, something that’s going on as a current event, chase down what the current status is, the news, or [inaudible at 11:27 sounds like “math America”] society or globally. From then, I’ll look at the literature surrounding it; who has been saying what, who are the initial scholars who approached it. Is it someone well known with research in this topic? Start broad and then start narrowing it down to the more concrete academic focus or however you want to state it. Maybe calling people, too; I forgot that part, calling friends, utilizing my social network of friends, acquaintances, and colleagues. That’s a big one. I go to friends or colleagues who would know about the subject. If you want to know how to survive a course, go to your friends who took it before you and say, “What do you got? Can I look at some of your materials? How did you do this project? What do you know? How do you find this data?” They are the ones that will guide and help you as much as the instructor will. That’s the way that I find that’s an efficient way of accessing the key points quickly instead of having to hatch around the nonsense and sift through it. To me, that’s been a really helpful track to follow.
[I]: How would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:013:37-0#

[P]: How would I explain to an undergraduate what it means to be engaged and participatory?

[I]: Or a new graduate student. #00:013:46-0#

[P]: Engaged like- I want to clarify, engaged like pro-social events and activism or in the course and academic work?

[I]: Let’s narrow it down to on the course level. You’ve probably also taught several courses and you’re looking to be teaching courses very soon, you think about the learners who are going to be coming into your class. If you were going to call them engaged learners, what would be some of the advice you would give them? #00:014:35-0#

[P]: Of course, you give them the basics, follow the course, do your readings, but also look up current events about the topic you’re engaging with. Don’t be afraid to bring in outside sources; don’t rely on my sources within the course. If you have a current event or an outside source that you want to bring in for discussion- bring it. That livens up class discussion; it brings in ideas that create dialogue. Another thing is engagement in critical analysis. Be critical about things, question things, you don’t have to agree with the instructor, I’m not there to teach you the new bank model of education where you’re an open bank and I scoop garbage into your head. [inaudible sentence at 15:40, poor audio quality]. If that doesn’t work, lecturing is a waste, you do a little bit of lecturing to set up, I guess I shouldn’t say that. Some people utilize lecturing and I could be insulting people. Generally, there’s a [inaudible at 16:04 sounds like “NPR Study”] that says about 10% of people learn from lecturing and that’s the percentage of people who would learn on their own anyway. There’s a percentage of people who would read the quotes on their own, or are just self-engaged learners. Graduate students are generally a different breed of students. They’re generally more self-motivated and usually more engaged because of their focus. You engage the students as active learning participatory class activities, service learning, getting active and involved in the community, that sort of thing. That’s something that has to be orchestrated by the instructor usually. It’s a bad idea to send a group of students out and say, “Go get engaged” and not tell them exactly what it’s going to be. They’re ambitious, they want to learn, and they’re generally go getters. But, you have to orchestrate that properly and manage that.

So, critical analysis, bringing in outside materials, being able to ask questions, taking notes, writing down questions, these are things that engaged learners do. Of course, asking questions, as far as coming in after office hours if you want to discuss during office hours or after. Arranging to talk to me, emailing me if you have questions, being in a dialogue with me if you need to be. Never being afraid to figure out what an issue or problem is. A lot of grad students are very proud and they want to learn and do things on their own. They’re afraid to engage with the instructor. I’m here basically as your
colleague in a sense, treat me like that, as a resource, not as a student-undergraduate instructor relationship where you’re here in this sphere and I’m here in this sphere and we stick to our roles. We can sort of start interacting more so don’t be afraid to do that. It’s what was told to me by some of my best instructors in graduate school. I really appreciated that advice.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:019:11-0#

[P]: I would probably try to get a gauge, a sense, find my bearings: what’s the course like? In every new course you try to figure out your position, how does it work, what does the instructor expect, what kind of instructor are they. We’re trying to figure out how to maximize our benefit from the course and of course perform as well as we can in the course and so on. Once I’ve got a good beat on that situation, what’s the workload like, what’s expected, what’s the instructor expect from us. That might even be after the first assignment though, where you get an idea of how they grade their courses. The thing about your second and third year of graduate school is that you’re probably already had the instructor before, it’s likely to happen multiple times. You can already have an idea what they’re like. Almost initially after you get the sense of what the course is like, you start asking questions but you can also figure out ahead of time, how to navigate the course, how to get the maximum benefit, how to learn, just by asking right off the bat. So, I would start asking before the class even started, “What’s the course like, what’s expected, how do you do well, how does the instructor grade, how are they like, are they going to expect you to pay more attention to this detail instead of another.” Each instructor is nuanced into their own expectations. Some have an expectation from the students that the others don’t expect at all.

[I]: What role do you think discussing plays in your learning? #00:021:46-0#

[P]: When I’m talking to a colleague about... #00:021:46-

[I]: You have a new topic you’re learning about, you have a new domain, or you’re in a new course and you’re learning new things, you’re making a transition from novice to competency and expertise, and in that journey, as you’re discussing this content, when you first start learning with colleagues or friends, what role does discussing play in your own learning? #00:022:24-0#

[P]: As far as the discussion of the new topic with colleagues, probably has a large part to play. From the perspective of it will often determine how I begin to study for this course and how I begin to engage with the course. It will determine basically the coordinates of my journey through the course, if you want to state it like that. If they’re going to tell you to focus this literature more than another, or “They assign this book but we use it for one assignment so don’t spend your time reading Book B that has 400 pages when you could read Book C that has 200 pages.” It needs more focus. That way, it saves me time, I can
engage in this. Also, be sure to be very strict about your literature review in your final project, or your reference section, be wary of those things. They place more emphasis on the discussion activity more than the reaction papers than they do on their final papers. That way, you can engage your energy properly but also you’re learning the things that you need to learn. Yes, I understand you’re supposed to engage in courses syphoning in all of the material at once. But, this is graduate school and if you’re in an assistantship with a full load, you’re probably trying to figure out how to survive the course while teaching your overload- which is often what I was doing, teaching double courses. Then also writing a dissertation on top of that, working on papers, and doing conference presentations at the same time. It’s a balancing act, figuring out how to approach that. Also, how do you walk that fine line between short siding yourself or hamstringing yourself, you’re trying to get the maximum amount of learning you can from the course yet not ripping yourself off at the same time.

[I]: For you, it’s strategic, it informs your strategy for learning, would that be accurate?

[P]: That would state it quite well. To me, it was sprint. You have to learn strategy to survive graduate school adequately. It’s not about who is the smartest anymore which I’m sure you’ve figured out. It’s all about . . . everyone is smart, but it’s also the idea that it’s the marathon. Who works the most efficiently and the hardest, that’s who survives. There’s a lot of people who were far smarter than me- I can easily say far smarter than me, didn’t survive graduate school. The workload, they didn’t work efficiently, they wrapped up a bunch of in completes, they didn’t strategize or plan properly or learn how to navigate through courses well or learn the proper materials. They failed a comprehensive exam and so on. They just didn’t complete their course of study. To me, I felt like that process was of vital importance.

[I]: What role does that discussion with friends and colleagues play in your own learning?

[P]: Well, similar. It’s still similar, you start all over again, it’s the tenure process, a six year process of getting tenure which is oddly quite similar to graduate school. You have your yearly evaluations and it culminates in a final evaluation of your tenure committee to determine if you meet the requirements to qualify for tenure. Your best idea, your best strategy is to befriend your colleagues and people in your department who have that expertise or are knowledgeable about how the department operates. It will save your life, literally. Always befriend your administrative assistant, they’re your best friends in the whole world and will make life easier for you. But, also your colleagues, having academic dialogue. Also, don’t be afraid to talk to your colleagues, “How did you teach this course? I saw your students like you, you get great evaluations, I’d like to get some input from you.” Ask people questions. “How do you do it? How do you perform these tasks? What’s the best journal for me to publish for this topic? What’s the strategy?” I have lots of mentors that I utilize that I use to get advice on publications on strategies or how to navigate academia successfully. They’ve been through the gamut, they understand
the process, and they can guide you. When you walk into a department, I’ve been told multiple times, “No one tells you what to do.” You’re left to flounder it’s kind of eerie or weird. It is like that, if you’re an introverted academic, which oddly sociologists are generally anti-social people, you need to learn- you might struggle more. You need to get out there and engage with your colleagues and peers. Tap into their advice, they might not want to help you, some might. It’s a lot of politics in some academic departments. But, once in a while some are willing, you’ll find out who they are quick. Go to them, learn from them, use your mentors. Use their expertise, learn how to navigate the process. To me, very little has changed. As far as I’m concerned I’m still receiving a grade; my grade now is achieving tenure.

[I]: What do you value about a teacher or expert led learning experience? #00:029:57-0#

[P]: The obvious is of course their experience, and hopefully their expertise in the field and providing you with the knowledge that they’ve accumulated from years of experience on a topic that you are trying to engage with or trying to learn about. If they’re a good scholar, a good expert, they can bring forth discussions from real world experiences, not just book regurgitation or scholarly regurgitation, anybody can do that. We can fill our heads full of knowledge and that’s of course necessary for our research but also bringing in their personal experiences with maybe famous scholars they’ve met, field work. Especially if they’re like an ethnographic researcher or qualitative researcher and they’ve been out in the field somewhere fascinating, bring that into the classroom. That experience is invaluable; it’s stuff students need to engage with. They can provide you mentorship from that perspective. If it’s done properly, not just a regurgitation of information, it can provide you with a unique perspective. But, not to devalue just presenting you with scholarly knowledge. If they’re a good teacher, a good instructor, they can present you with the information in a novel way; they have some type of teaching technique that is unique or effective. They can unpack some type of concept for you that you’ve never been able to comprehend on your own. I think some instructors have a gift of being able to do that. Unfortunately, I’ve always thought that teaching is sort of devalued in big research universities; it’s research first and then it’s instruction. I understand, but all of these big name researchers got there through good instructors too. I think there needs to be stronger emphasis placed on stronger instruction. That’s a skill that’s almost a rare skill.

[I]: How do you find out about new courses being offered? #00:033:15-0#

[P]: When I was taking courses?

[I]: Yes, when you were taking courses, how did you find out about new courses that were of interest to you? #00:033:26-0#

[P]: You don’t learn this until later, but first you just run through the course catalogs online because you’re used to doing that as an undergraduate. Back in my day, I got my bachelor’s when I was 30; when I was in my early twenties, you looked in a catalog still.
Initially you just find courses online, thumb through and find interesting ones. The final thing to do was to find outer departmental courses that you can spin with your committee to get them to say, “Yeah, you can take that course.” Or just find a way to present it in a unique perspective, this new course in Poli-Sci or Ed Psych that you want to take. That way, that method is useful. Once you’re been in the program for a few years, what you start doing is talking to your colleagues or talking to your instructors. You figure out, “What courses are you teaching in the fall?” Or, “What do I need to be enrolling for next year, the 2014-2015 year? Are you going to offer any interesting courses?” Go to the professors that you like, they can usually say, “Yeah, we’re doing a criminology seminar” or drug crime or drug usage. You could say, “Yeah, I’m really interested in that” and you go and find all other criminology graduate students- the way it works is you need support from graduate students to get a course accepted. So, they rely on some interest being generated. Often times it’s up to us to create that interest and then you can go to the chair and say, “Ten grad students want to take this course, let’s put it on the roster.” Then, you can make it happen. That was a way to get things done too. That’s something that you sort of pick up after a couple of years of graduate school.

[I]: How do you go about evaluating the long term value of the course to you and your professional career? #00:036:12-0#

[P]: Comprehensive exams to your research, how does it tie into your focal area I guess is the best I can say on that. That’s all I knew about it; I’m focusing in on criminology even though it’s a broad focus. As you narrow in on your PhD you become more focused. A lot of my research is on prisons and education; educational programs in prisons within criminology. Once I became more focused, I would start finding more courses that were focused. Initially, as a master’s student, you need a theory course, I really like theory. It’s sort of a learning curve that catches a grad student. Then, the second and third year you’re like, “Well, I like theory but I like crime theory on prisons. How can this course help me access that and become an expert in that field.” You also have to balance it and keep it broad because when you’re working on your doctorate, you also have to pass your comprehensive exam that’s more broad based in crime theory, crime methods and so on. They give you the information you need to pass your comp’s.

[I]: When you took the mixed methods course, what was the most highly valued learning outcome for you? #00:038:00-0#

[P]: UP front, it was the learning of the multiple [inaudible at 38:14] of mixed methods research I suppose, which escape me right off of the top of my head. There were ones that you liked more than others. Quantitative initially then some qualitative intermixed some multi-phase, there were ones that were initially an exploratory quantitative study that then we used to construct a survey tool for the qualitative portion. To learn how those were constructed, how you create that research and how it was used in the process, that would be what I think, in a nutshell, of what I took from that. Along with then conducting your own sort of miniature mixed method project which was like a preliminary study that I used to focus my dissertation.
[I]: That hands on project, was that extremely valuable to you? #00:039:23-0#

[P]: Absolutely. It was a really valuable tool because it forced me to really start hashing out my dissertation ideas; what’s my research question, what’s my thesis statement? I had to hash those out. It forced me to do that because I was sort of beating around the bush, “Yeah, I want to do this thing where I look at ex-convicts that are . . .” I did my dissertation interviewing academics who had been formerly incarcerated, looking at the journey from prison to academia as professors/researchers. So, I had this idea but it forced me to flush that out. Initially I think I actually wrote my research proposal, to some extent was generally fashioned from that project.

[I]: That’s very valuable then. If you were to describe the perfect learning environment for your learning style, describe that to me. #00:040:46-0#

[P]: My style would be a seminar style class, discussion format, outside literature for you to read and so on. Then, you have segments where you focus on main points of the course in every class, once a week three hour course. That allows you to really focus in on a topic adequately, not divvy it up across which most graduate seminars are. They’re once a week, three hour format. That way it allows you to really tackle some big ideas or big concepts and really adequately grapple with them in a classroom format. Then, hashing through the big projects, you generally have a project that is the focus of your class. The ones that even though I hate saying this, that really work the best are work intensive, you can learn a lot from them. You bitched about them in graduate school because you had to write multiple pages per class but that’s in addition to your big project. You had maybe writing 40-50 pages more during the semester along with a big paper at the end and a heavy reading load. It’s a lot of work in a time, but then to dislike the instructor at the time or depending on, you might be thankful for it. Later on, I was thankful for it. I learned a lot, it really engaged me, it forced me to learn. I’m sort of cognitively lazy sometimes; I’ll try to take the easy track when I want to be lazy. That forced engagement, to me, was useful and beneficial.

LN

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: Looking ahead both for my own dissertation and also future research within my profession. As a little bit of background, I work at the library at UNK, I’m actually on the faculty. So, there are expectations upon me to conduct scholarship and publish; probably not at the same rate as other traditional faculty members but there is the expectation none the less that I do contribute to scholarship. Mixed methods as a research method is of interest to me because of the ability to go to the next level beyond doing quantitative types of research. A lot of the research that I’ve seen in librarianship in particular tends to
lean heavily on survey design for a number of different purposes whether it’s surveying students, surveying library users in a public library domain, just as a couple of examples. That’s helpful, but I think what’s also been lost in that type of research design is getting into the details of why participants in a survey responded the way that they did. I think both in your own study, as an example, has an appeal to me as a researcher in a librarianship and also as a potential research design for my own potential dissertation design in that following up a survey, getting the big picture in the quantitative sense and following that up with more detailed interviews with selected participants can help fill in a lot of the qualitative details that the survey by itself wouldn’t allow for much detail or in depth analysis.

[I]: How would you describe what it means to get more information or get more knowledge? #00:03:36-0#

[P]: I’m taking a class with Dr. X on survey design and what I expect to learn in that class will be techniques and methods for designing surveys and writing questions that hopefully eliminate ambiguity as the survey is disseminated. What I learned in one class with Dr. X in my 800 class this last spring, an overview on research methods, is that it’s helpful, when conducting a survey, is to perhaps conduct a pilot survey with a small group of people, that way you can screen out potential problems or concerns about questions that may not have come to mind as you’re designing the survey. So, you have some of those safeguards in place, but inevitably, I really think it’s going to be difficult for a survey instrument, just by the nature of its design, it’s a two-way conversation medium, but it’s a snapshot capturing person’s attitudes maybe in response to a question at that one moment in time. It also leans heavily on that one person, the participant’s, interpretation of that question which introduces a lot of latitude right there no matter how well-crafted the question may be written. There’s still margin for differences there in interpretation in a survey. What I would expect, in a mixed method design, as I understand it, is particularly in conducting follow up interviews, is that you could really engage a participant in an extended conversation and get a better understanding of why they answered a question in the way that it did and it may even introduce a better understanding of how the participant read the question which could really change the understanding of the response that came back from the general population of participants being surveyed.

I’m still pretty early in my doctoral program, so I have a lot to learn on qualitative methods and mixed methods research design.

[I]: What is the best way for you to go about getting more information or knowledge? #00:07:18-0#

[P]: Are we looking at any subject domain? Education?

[I]: If you wanted to learn more about mixed methods in this next week, how would you go about that? #00:07:34-0#
I think my approach if I wanted to learn more about mixed methods if I weren’t already signed up for a class or planned to enroll in the class in the very near future, I would refer back to the text books that I have accumulated over my master’s program and now the start of my doctoral program for background information. I say that because I’m a good librarian and I put a lot of value in books. I don’t know if my younger counterparts, millennial students, would take the same approach, but I would start with text books that I have in my collection or the library’s collection. As I’m reading through those books, I would try to see if there are any other books or articles referenced in the bibliography that might give additional citations or other works that I should refer to in order to get a better understanding of mixed methods research. I won’t say, I sure won’t say that I’m going to go on the internet, using Google and Wikipedia, I will tap into those sources, and again leaning on my background, I feel like I’ve had a great deal of experience in vetting those sources for authority and accuracy, currency and so forth. The “crap test” we call it in the library world for evaluating a website. I would also refer to the internet, off the top of my head, I’m not sure I could suggest a website I would immediately go to that would instruct me on mixed method design. I would probably start with Google and go from there to start evaluating the results I see from the search list. It’s possible, maybe EDUCAUSE may have something about mixed method design, that’s one website I frequent although it’s generally more technology related issues than methodology. But, who knows, maybe EDUCAUSE would have something on that as well.

I may be dating myself in referencing books, but maybe I’m also not giving enough credit to younger students too. My first reaction would not automatically to dive in to the internet and just bang away at Google. That would not be my first reaction.

I: How would you explain what it means to be an engaged or participatory learner to a friend or fellow student?

P: I think, in my own view and what I see as I teach undergraduate students from time to time during a lot of our instruction classes. I think self-motivation is a key component of learning and I know it’s a challenge for us as educators to try to instill that or encourage that within students if they have not grown up with that mindset from an early age. If a student has just coasted through K-12 and they’ve gotten good grades, A’s and B’s, they’ve done the work put before them, but if they’re not engaged and inspired in a way to take ownership of their own learning and to look beyond the basic materials that are put before them: reading materials, text books, course readings, lectures, whatever and think critically about what they’re hearing and what they’re reading, mull that over and challenge it in their own mind. Even take the next step and look for additional information on a topic of particular interest to them. If that process, that self-motivation isn’t instilled in a student, it’s going to be a hard row to hoe I think. I confess, I’m not the only one I suspect many educators feel this way, how do you build that into a student if they’ve been coasting along through life and maybe skated by with decent grades but haven’t developed those critical thinking skills and self-initiative to take ownership of their education. Trying to build that into a first year experience for an undergraduate
student is a big challenge. I don’t have all of the answers on how to do to that. What I try to do is I try to teach with enthusiasm when I’m presenting a library instruction session to first year students and I try to explain how the techniques I’m presenting in the class can make their life easier, how it can diminish the amount of time that may be required to do research in a variety of subject areas. I try to sell it that way, which maybe doesn’t appeal to the larger scale of critical thinking skills and self-development, those types of things. Hopefully it engages them long enough to pick up those skills and apply those skills in a variety of subject areas, not just that one class.

[I]: Put yourself in your student role again, what types of behaviors, actions are indicative of your engagement in the course? #00:016:02-0#

[P]: I think what I try to do, I do try to walk the walk, I try to practice what I preach. When I read material online- all of my courses so far have been online- so as I’m reading my textbook, reading discussion posts on Blackboard for example, I’m reading all of that with critical thinking skills engaged and trying to objectively look at the information and ask myself the question, “How do we know this to be true? Can we take this particular claim at face value? What might be some other perspectives or contributing factors to the experience or the information that’s being conveyed in that material?”

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:018:29-0#

[P]: I think it’s been much easier in a course by course basis, so far in my experience in online learning, the discussion forums, particularly Dr. X’s Ed Psych 800 course from this past spring where there was a requirement to not just post an answer to a question in the discussion forum but also to reply to three other people on the same question. There was a grade and incentive of course to participate at that level; you’ve got your carrot, the grade so to speak dangling out there in terms of participation. But, it was, in spite of that, I think there was some good conversations that came out of that in many of those discussion posts. I think there were some you would read that the student was probably doing the minimum level of effort required to post something about the reading material that we had been assigned for that particular week. Other students you could pick out that were really thinking critically and challenging, raising questions about whether certain techniques would work well or whether certain ethical issues might come up with a certain type of research design, for example. Those would be fruitful discussions in an online setting. The challenge that I see for myself, and maybe for other online students, it would be interesting to survey would be what type of discussions and conversations about learning are occurring outside of class. My spring classes ended in May, I’ve had no other interaction with students from that class or students from future classes or any other students since that time. I wonder if there’s a disconnect between what graduate students, doctoral students there on campus in Lincoln experience versus what distance students are experiencing. I imagine you rub shoulders with other students there from past classes maybe at the student union or somewhere else on campus, you may have
developed friendships with some of those folks too, so those conversations continue outside of class which I think is dynamic and outstanding. But, that’s an area where speaking for myself, distance students don’t have that same type of connectedness with each other and those type of conversations on a regular basis. I do find it very easy to have conversations within the context of the class once the class is done, that conversation pretty much stops. That’s not to pick, on the way the classes or the program are designed in Lincoln that was my experience in another institution where I did my master’s work too. I’m not sure anyone has figured out a good way to overcome that. There are Facebook groups, I am a member of the TLTE graduate student group on Facebook, but there hasn’t been a conversation on there that I’ve seen to date. I haven’t contributed to that myself, so I’m as guilty as anyone else, I’m not trying to jump start something like that.

[I]: Where you’re at, do you discuss with other faculty or committee members? #00:024:19-0#

[P]: I’ve not talked about it with my program committee, is that what you mean? [Yeah.] Not a great deal in part because of the distance factor, I’ve only had one formal meeting of my committee thus far and that was to approve my program this spring. My experience is probably going to be a little different as a distance student compared to what you may hear from your interview subjects there in Lincoln. I do talk about my program, what I’m learning with one or two other colleagues at the library where I work at UNK. One of my colleagues does have a PhD in education as well from Kansas State. He’s twenty some years older than I am so I regard him as something of a mentor even though it’s not a formal mentoring relationship. So, I’ve enjoyed talking with him and sharing a little bit about the courses I’ve taken so far and picking his brain a bit from what he remembers from his doctoral program. That’s been fun, I won’t say that happens frequently; if I have to quantify that I would say those types of conversations happen maybe once every two months. A conversation will come up where we’ll talk about those types of things. I hope that maybe that will increase this colleague I mentioned who I regard as a mentor is working on a research proposal which will likely involve me as a secondary investigator at least. I suspect as we’re working together on this there will be more opportunities to start to apply what I’m starting to learn already.

[I]: What role do you think discussing plays in your learning? #00:027:01-0#

[P]: I know in talking with Ron, it’s been motivational for me, I can’t immediately put a finger on a conversation where I felt like he brought up something that augmented my knowledge base of what I was getting in class, but there has been more of a motivational effect, for me, in talking with him. It’s strange to describe, it’s made things more exciting and had a greater sense of reward for me personally, emotionally when I talk with Ron about what I’ve learned and compare experiences with what he went through at K State many years ago. I guess it’s not something to downplay, but I would point more to the emotional support of those conversations in helping me both with my doctoral program and just to be more motivated and excited about continuing my learning and conducting
research in our field. That emotional aspect, I think, so far has been far more the fruit of those types of conversations that learning bits and details about doing chi square analyses or those types of nuts and bolts of qualitative and quantitative research. It’s been more encouragement and the emotional reinforcement that has come from having those types of conversations.

[I]: What do you value about a teacher or expert led learning experience? #00:030:00-0#

[P]: For myself, I don’t know how other people might answer this question, my first thought that comes to mind brings up the idea of moocs, I’ve been reading a lot about moocs lately, Massive Online Open Courses and I admire people who can enroll in those moocs and see it through to the end; depending on the subject maybe I could do that too. Moocs so far, have gained some notoriety of having a low completion rate, maybe around 10%. The value in having instruction on mixed method research design from an instructor is that I’ll have added incentive and motivation to complete the coursework, to complete the readings, engage in the discussions and so forth. I’ll also have the benefit of a smaller ration of maybe 1:15 or 1:30 in which I can engage with the instructor, by having a smaller group of people engaged with the instructor, there’s a greater chance I’ll have to interact with the instructor, ask follow up questions, clarification on lecture content, particularly if it’s a recorded lecture which is the case for all of my online classes so far. There’s been nothing synchronous, no lecture experience. To follow up and have conversations, engage with an instructor with the smaller instructor to student ratio is a very valuable component of a mixed method research course, something that I wouldn’t get if I were to pick up a textbook or Google a website about mixed method research design. That’s great for background information and I’m sure I’ll do that in the future after I complete a course to refresh my memory or to see if there’s new developments in terms of how mixed method research is conducted but for me to have, maybe I’m old school, it’s still valuable to me to have the insights of the instructor and to be in a formal class setting both from a motivational stand point but also from the stand point of being able to engage, ask questions, and have follow up with the instructor instead of just reading the text book and having that one way information have a two-way exchange of information to further my learning process.

[I]: When you consider a teacher led versus a student centered experience, do you see advantages and drawbacks from each? #00:034:10-0#

[P]: I’m trying to think of examples of a student centered learning experience. Would an example be picking up a text book and reading about mixed method research design? Or a group of students collaborating or teaching themselves like the Facebook group?

[I]: More of the latter.

[P]: My first reaction would be some of the pitfalls of the student centered learning in a group sense would be that no one person may have either the personal experience to help lead the group or guide the conversation or the research or the learning process in the way
that a traditional instructor led class might have. I’ve participated in group projects as a student and depending on the personalities involved and the assignment, some have been better than others. I’m not sure that I could point to those group assignments being necessarily a replacement for what the instructor brings to the learning process. I don’t think it would be fair to put that expectation to my peers necessarily, that’s my first reaction. I’m not sure I could see- I’d have to see more details of what a model like that might look like to have more confidence in a student centered approach in a group setting could accomplish the same outcomes as an instructor led course on mixed method design.

[I]: How do you learn about new courses available to you as a student? #00:037:53-0#

[P]: I’m not confident that I do, to be perfectly frank. There was a survey that came out not too long ago from the College of Education and Health Sciences; they were asking several questions about communication methods. I didn’t address this question specifically, but thinking of that survey, right now unless the college would have put out an email or set up a Facebook page or something like that that would push the information to me, I honestly don’t’ know how I would find out about new classes being offered at UNL in our program unless my advisor happened to take the initiative to shoot me an email. I know he’s busy, I wouldn’t expect him to do that. The only way that I know to look for courses so far is to search UNL websites, I’ve been through the course catalog three or four times now in the process of building my program of study. I feel like I’ve surveyed everything that’s there, but if a new class came online, I don’t know how I would find out about that at this point because I’m kind of locked into my program of study. Unless somebody hits me in the face with it, me being an online student. Unless someone sent out an email, “Hey, here are some new courses being offered in Fall 20013.” Unless they push that information to me, I’m just not going to know about it. The UNL website is so vast and large that if I knew there was some place to go and look for new courses being offered, I’m not above bookmarking it and checking it frequently, but at this moment, I can’t tell you if it exists. I’m not aware of such a web page.

A lot of those courses aren’t even offered any more. Are you in the internet based education trend?

[I]: I have done my program face to face, I live in Lincoln and work for the university. As my role at the university, I’m the blended learning coordinator and I support design in both blended and online courses. What you’re telling me is interesting not only for my dissertation work and this study, but it’s also a great way to get a perspective on the online experience, I’m cataloging what you’re saying for dual purposes.

[I]: If you do learn about a new course, how do you evaluate the potential value of that new course to you? #00:042:21-0#

[P]: I think the factors that would most weigh in my mind, one is it offered online. I will be taking classes on campus this fall; I’ll be taking one class. That’s a four hour round trip for me to participate in that class, I can’t do that too frequently in my program, so if
the class is offered online, that’s going to be a big factor in my decision right off the bat. The course description is a close second in terms of my consideration process. If the course is not offered online, the time and day when the course is offered will be a consideration. If it’s not offered in the evenings, then I probably won’t be able to consider that class. I’m trying to think of other factors that might prompt me to make a change to my program of study.

[I]: What about professional utility and your own portfolio of knowledge and skills and tools as you move forward as a scholar? #00:043:56-0#

[P]: I think all of those I would agree, if I could see from the class description beyond the title, the description, that the content of that course would augment my skills in a particular research methodology or a particular content area. For example administering online education programs in a higher education setting. Right now, I’m not aware of a class at UNL that addresses that specifically, that would be something I would be interested in and I could either glean that information from the title or the description of the course. I would sign up for that in a heartbeat.

[I]: It sounds like you go through and try to find some type of match. #00:045:24-0#

[P]: I do, that’s the process I’ve applied using the catalog on the web of courses and came up with a big wish list of classes I’d like to take knowing I could never take them all or I would never finish my program in a timely manner and talking with my advisor, he informed me that some of these classes aren’t even offered any more. I’m trying to think of the department name, ALCTS, something with agriculture. They were apparently doing a lot of distance education and that faculty member retired so that’s a whole slew of courses that are no longer on the menu so to speak. Well, they’re on the menu but they’re not available at this time. I just scoured the catalog at least three times in developing that wish list and my advisor suggested some classes that weren’t on my radar initially but those titles and descriptions are pivotal. If I could see a syllabus for a course that would be even more informative I’m sure. Again, to my knowledge nobody does that, it’s not just at UNL, it’s at every institution I’ve ever been enrolled at. Part of it is on the faculty, part of it is maybe on the communication systems that are in place. You’re hard pressed to find a syllabus for a course in advance of enrolling of the course and the class actually occurring. In most cases, you don’t see the syllabus until the first day of class. So, you’re really flying blind in terms of what the expectations will be for reading, how’s it graded, what’s the rubric for grading, and whether the nuts and bolts- what’s the detailed outline for how the course calendar is laid out, what topics are addressed and for how long. You just won’t get that kind of detail in a class description unfortunately.

[I]: That would be quite useful, especially if you had to plan a four hour round trip drive!

[P]: If there were a database of syllabi that you could narrow down to just UNL or just graduate students but that would be handy. I’ve not seen that done anywhere or heard of
that being done anywhere where students could get a closer look before registering and before showing up for the first day of class.

[I]: If you were to enroll in the mixed methods course, what would be the most highly valued learning outcome? 

[P]: I think a better understanding of integrating quantitative and qualitative research methods and for myself personally, with the type of research often done in libraries, integrating survey research design with individual interview design. I think it’s very close to what you’re doing right now in your own study. Getting a better understanding of how to integrate the two, what challenges there might be, what ethical issues might be involved, if any- I’m sure there are some in terms of IRB approval and so forth. That would be the main learning outcome for myself looking down the road for how I could see using mixed method design. As a secondary goal, I would also suggest that I’d be interested in learning about other types of mixed method design. The only I can picture in my mind from personal experience and what I’ve read so far is the survey followed up by either a focus group or individual interviews. There are probably other variations out there that I haven’t imagined or come across and I’d be interested to learn more about those combinations.

[I]: Anything else you’d like to add? 

[P]: I can’t think of anything else I would add about mixed methods. In the course design aspect, I think it’s helpful, what I’ve seen at least in one class so far is if you cannot just read about a research design but actually practice, to some degree, actually execute that. Whether it be drafting a research proposal, for example, for me that would be particularly helpful in better learning and retaining how to conduct a mixed methods research design. So far, what I’ve done in my classes, just in my first year are a couple of literature reviews, which were helpful in their own way. I’m suspect in the class I’m about to take with Dr. X next week on survey design I need to look at the syllabus because I just got access to it yesterday, the impression is that there’s going to be a group exercise where a small group of students will be putting together a research proposal and maybe a sample questionnaire, sample survey. That’s the type of going beyond just reading and obtaining information; we’re starting to apply it in a practical sense. Those types of exercises in a class help me to, personally, integrate those concepts to memory and apply what I’ve learned more effectively in the long term instead of just reading something. If I just read about it, I’ll retain maybe 10% of that. If I practice applying what I’ve read about or heard in lecture, other studies have shown this too, the odds of retention and application go up significantly so I know that would be the case for me too.
When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

Well, I’m in the music education field and I would say from my perspective, mixed methods is an emerging part of our field. Probably qualitative research is also more emerging that something that is being used readily. I personally am just one year into a three year PhD program, but I have taken both quantitative and qualitative course work. As a part of my qualitative coursework, we briefly mentioned mixed methods and I really feel like it’s going to be- as researchers begin to use the mixed methods approach, I think it’s going to be really important. Especially because music is one of those fields that’s a little bit hard to describe somewhat in terms of quantitative methods, but in terms of the learning part, there’s a lot that can be done quantitatively. From my perspective, especially my research interest areas, the areas of empathy and socio-emotional learning and its relationship with music, I feel like the mixed methods approach can be really powerful and more accepted by a larger audience. Especially when it comes to the public school teacher audience or reader.

When you think of yourself as a scholar, how does mixed methods fit into the portfolio of research methods that you aim to acquire?

In terms of being a scholar or a student, or a professor or teacher-learner, I think mixed methods is a way of approaching research that offers a deeper and maybe even wider way of understanding issues that are going on in music education. I think it’s really important and I’m excited to take more courses in the mixed methods and to do more reading about it just to inform my own background as a researcher. I’m really hoping- I haven’t developed my dissertation project yet, I’ll be doing it next semester here in the fall- but I’m hoping that with my advisors help and probably some outside help as well, I might be able to do a mixed methods project for my dissertation.

When you consider continuous learning after your PhD, do you see mixed methods fitting into that?

Absolutely, I think part of it is just becoming more informed about the approach and also giving it a try and doing some smaller scale projects in that approach. I think the other piece of it is helping to maybe advocate for that approach in our profession. Like I said before, there aren’t really very many people using it. I can’t speak for other fields, but I’m guessing it’s a fairly new kind of approach in many fields. So, explaining it as I go to conferences and as I interact with other people in the field, getting the word out there that this is a new approach, it’s not quantitative, and it’s not just qualitative, but we can use both of these approaches in a mixed way to really inform what’s going on in a particular issue.
[I]: How would you describe what it means to get more information or get more knowledge?

[P]: Last semester I took the “Intro to Qualitative” course and it was like mind explosion, “Oh, this is what qualitative is.” There’s this language of all of these terms and words that are out there and you read them, and when you’re reading an article and different things, but to get a better understanding of what it really means, I think it actually take the practice of doing the research or the practice of mock projects. So, what I would expect to get out of a course is to do a mini-project, or a short term, small scale project with a professor who has the experience using that approach. I was really pleased to do that in my qualitative course. I feel like I, not only from the textbook and reading, seeing the examples, and reading it, but it’s really [inaudible at 8:38 sound like “occurring”] out of the research which really informs your understanding. Of course, learning how to apply that to your given area of research interests.

[I]: How would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:09:10-0#

[P]: I guess I would say to be active and I’m not sure if we’re talking about in a course, but I would say to be active in the discussions, to really carry out assignments and projects for the class in a way that is meaningful to you, not just thinking about each task as something to check off of a list, but what you’re going to get out of it that’s going to help you in the future. Perhaps a participatory learner thinks about each task as preparation for future learning or preparation for future research instead of thinking of it as a hoop to jump or a step to climb.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:010:28-0#

[P]: I’m kind of a really excited puppy when it comes to things that I’m learning, I can share things right away maybe even before I have a complete understanding or mastery. If it’s something I’m excited about or something that I feel is important to me as my skills as a teacher or a musician, I can be pretty willing to share those things. Not only other people I’m around at school, but my family and friends too.

[I]: What role do you think discussing plays in your learning? #00:011:21-0#

[P]: I think it’s pretty big for me. I’m kind of one of these people that until I teach it or have to explain it, it completes the whole picture. That’s probably why I ended up becoming a teacher, maybe. That’s the way I learn, through that teaching process. I think you have to have a pretty good understanding of something before you can teach it. In a way, sometimes that teaching process really deepens the learning, there are things that I’ve taught that maybe I haven’t taught them for years, but I still have a really deep or
permanent understanding of because I had to do the teaching, I had to help others understand it.

[I]: What do you value about a teacher or expert led learning experience? #00:012:38-0#

[P]: I’ve had lots of different experiences. I’ve had classes that were like a distance ed kind of class where the professor presence wasn’t really high. I’ve had a doctoral class, like a seminar, with master teachers and researchers so I’ve had the gamut of in between those two. I really value, I know some people that I know might disagree with holding people on a pedestal, but the people who I have learned the most from and I have gained the most value from what they have taught me, or people I know I can trust their opinion, I can trust what they’re teaching to be valuable and I know they have my best interest and that of students at heart. I think that’s what I value the most, their expertise, and on top of that, I know that they have such a passion for their field and what they’re teaching that it comes across with the way they present their material and interact with students.

[I]: When you consider a teacher led versus a student centered experience, do you see advantages and drawbacks from each? #00:014:18-0#

[P]: I think different kinds of information can be taught in different ways. Student-centered learning is really important for just about anything you can be learning. Then, there’s also sometimes, a time for that kind of concentrated, teacher-centeredness that you can gain a lot from too. The thing about student centered learning, is that piece that we talked about before when you have to explain or share what you’re learning, how that deepens your understanding. I think the best model might be a blend of both. There’s time for teacher-centeredness, but also time for student centeredness and letting those students have that empowerment to learn in a way that may be best for them. The thing about student-centered, is that if the student learns best from watching a video, then they watch a video. If a student learns best by reading, they read, if a student learns best by tactile or getting out and doing something or kinesthetic learning experiences, then that’s the way they do it. If you can hit all of those kinds of learning and also still have some left of teacher focus at time, I think that’s good.

[I]: What motivates you to take a new course? #00:016:10-0#

[P]: Well, I think areas of interest, things that I’m interested in, but also things that I feel that I have neglected, or areas I feel deficient in, those are the kinds of classes I look for beyond my course requirements but things that are going to inform me or come from a different perspective.

[I]: How do you go about evaluating the long term value of the course to you and your professional career? #00:016:56-0#

[P]: I would evaluate it by the things that I’ve been able to retain, the knowledge I’ve been able to retain without a lot of reminders or notes. Probably even more important than that, things that have actually changed my mind or courses that have turned my
focus or changed my thinking on a certain topic; those would be the ones that I would value the highest.

[I]: If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you? #00:017:43-0#

[P]: I would have to say the practice of doing a mixed methods project and really feeling that I have a good understanding of how that happens and how to do it on my own in the future.

[I]: Is there anything you’d like to add on your perspective on mixed methods, learning, or course design? What’s the ideal course for you like? #00:018:44-0#

[P]: I’m kind of a baby student in terms of what kind of course helps me to learn the best. I know courses that offer a variety of ways of learning, reading in addition to that, course discussions, discussion board, courses that integrate technology are really intriguing to me because I’m an on campus and off campus student. I kind of have this bubble of mixed methods where I really like the idea of it, but I sort of get the angel on one shoulder and the devil on the other shoulder. The angel saying, “This is a great way of doing research and how much more deep can you get by combining these methods.” On the other shoulder I have people whispering, “That’s going to take forever, and you’re not going to get done on time.” I hear that kind of same thing about qualitative, at some point, I have to say, “That’s worth the risk of maybe having a bit longer project. It’s worth the risk to do that in order to be the kind of researcher I want to be.” I’m hoping that by taking a mixed methods class will kind of dissolve some of that, “What is this all about?” every project is going to be different. In terms of a dissertation, I know that I can be careful with my timelines if I need to be. I can design my project tin a way that it is possible to be done in a certain timeline.

I guess I would say I’m really hoping to have some of that cloudiness dissipate with taking a course and maybe doing a semester long project. Part of it is, too, in my field is that there are really relatively few articles being published that are using this approach. I hope that by taking these on and maybe looking to other fields for examples that it will become clearer to me.

[I]: [Description of overall dissertation project]

[P]: The time constraint of the semester- the current of doing it. It almost would be better to have it a yearlong project or one semester be a course and then tied to an independent study in the following semester.

[I]: We could definitely be more aggressive in establishing learning groups within our department. Maybe you’re not the only one doing a mixed method study, maybe you’re working with 3 other people who are also doing their studies. That sort of assistance and those are the ideas that come to my mind in seeing the data and considering the social
interaction in mixed methods. It’s very easy within our program, especially if you are a part time student, to be isolated from people who are doing things similar to you.

GS

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: I am in math education and it’s still relatively new and we’re figuring things out. I think mixed methods is a good way of trying to collect information that you’re looking at. You’re not limited to just quantitative or just qualitative. You can really think about here is what I want to look at and this is what makes the most sense to try to collect; I’m going to interview these people and then I’m going to do this survey for this large group of people. I just think it’s a way to be flexible about collecting information.

[I]: How does mixed methods fit into the portfolio of skills you’re hoping to acquire in your time as a graduate student? #00:02:07-0#

[P]: That’s a difficult question.

[I]: when you think of yourself as a scholar, as you’re gearing yourself toward an academic career and you think about the skills you’re building and the things you’re learning about. You’ll emerge with a portfolio, a tool bag, of these skills. How do you see mixed methods fitting in there for you? #00:03:06-0#

[P]: I haven’t done a lot of research myself but obviously in grad school you look at a lot of research. So, where I see it fitting in right now for myself as a scholar is helping me to open my eyes and understand the research that I’m looking at better and be able to critique it and to be able to see “this is a strength” or “this is a weakness” and “that limitation isn’t a big deal because of this” or “that really should affect their findings.” So, I guess right now I see it helping me understand things a lot more. It will help me better design research studies when I get to that level of designing research studies.

[I]: How would you describe what it means to get more information or get more knowledge? #00:04:48-0#

[P]: I would consider myself a very reflective learner and I think that means I sit around a lot and really think things through. So, if I get to a point where I’m stuck or that I need to know other things, that’s when I try to break free of sitting and thinking myself to find another source of information that could help me. That could be from getting on the internet and looking around or asking my colleagues what they think.

[I]: It means different things to different people, some people believe they need to take a class in this other people are more proactive in terms of looking for themselves. How
would you explain what it means to be an engaged or participatory learner to a friend or fellow student? #00:06:21-0#

[P]: It kind of matches with how I feel myself as a learner. I feel like a lot of [inaudible 6:47 sounds like “endearment”] for people to just jump in and speak and join the discussion. For me, what I would tell people is that’s good but there’s a lot more listening that you could be doing and there’s a lot more reflection that you think a lot about before you say things. I think that’s often an engaged way that is forgotten. That would be my advice.

[I]: When you’re doing this reflection as part of the learning process, what are you doing mentally as part of that reflection? #00:07:37-0#

[P]: If I’m in a discussion, a small discussion group, I try to really listen to what the person is saying, what is their body language saying, what do I know about this person, how can I interpret this? Do I have a reaction to this, an initial reaction? Then I pose a lot of questions to myself.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:08:41-0#

[P]: Probably at the point where I feel the most comfortable about what I’m thinking and I feel the most safe which is not always the best way, I should probably say more when I’m uncomfortable. Let me back up, I will absolutely pose questions if I’m struggling with questions and I’m not getting anywhere with them but I have to be sure that I’ve really sat and given it a good try. For me, it’s not going to make the most sense if I really haven’t thought about that question. I need to have thought about it a while and feel confident in my thinking; that will open me up to letting other people talk with me about things. Then I can try to make the most connections and have those “Aha!” moments.

[I]: You wrestle with it for a while until you have these points, when you have that discussion with others, what role does that play in your learning, how does that help you when you discuss with other people? #00:09:34-0#

[P]: Sometimes it helps me feel validated about things that I’ve thought. Sometimes they will say something that I have not thought about and I’ll be uncomfortable because I haven’t thought about it. Or, I’ll say, “Oh that’s a really different perspective, not that I disagree with it, but I appreciate you saying things I haven’t thought about.”

[I]: What do you value about a teacher or expert led learning experience? #00:10:23-0#

[P]: I think I really value courses that have been really well thought out and that teachers have, and you can tell the professors have selected readings intentionally, you can see that there is a method to their madness. I appreciate that thought because what I value is
that they’re setting up that space for people to think through on their own which is what I do more of.

[I]: When you consider a teacher led versus a student centered experience, do you see advantages and drawbacks from each? #00:012:40-0#

[P]: I think with teacher led experiences, there are positives and negatives. One of the positives is that you have this expert there that has thought a lot about what they’re teaching about and tend to point out [inaudible at 13:21 sounds like “the eight team said”] or the big concepts. The negative there is that you didn’t get to construct that on your own; it might not hit you as hard as if you were constructing it. On the other hand, if you have this student led class then one of the positives is that you’re really getting to know the people around you and getting to know what they have to think which can often be very different than what you think or the same as what you think. So, you have that experience but one of the biggest negatives of student led environments is that not all of the time students come into class prepared for the discussions that the teacher has set up or that the class has set up. You get off topic and then it becomes really hard to sort out what’s important for you to listen to and what’s not necessarily important for you to listen to. It can be kind of annoying.

[I]: What’s the most effective way for you to learn about new courses and what motivates you to take a new course? #00:015:18-0#

[P]: Other than my advisor telling me I have to take certain courses, the most effective way I’ve been informed about courses is word of mouth through other people, “This course was amazing, I learned a lot, you should take it if you have time.” That’s definitely been the most effective way I’ve learned about which courses to take. I think the biggest motivation is knowing myself and where I feel like I’m weak or maybe I don’t feel quite as confident or I haven’t had enough experience and if there’s a course there that would be a big motivation for me to sign up for that course.

[I]: How do you go about evaluating the long term value of the course to you and your professional career? #00:016:44-0#

[P]: I’m thinking about courses that I took way back when that sticks out in my mind and why I considered them a valuable course for me. One of the things I can say is that if two or three years from now I can think back to that course and think of things that still really resonate with me, then that’s my long term evaluation. I can say, “That course was extremely important to me because I can still resonate with this subject or this idea.”

[I]: When you come across things that have resonated in the long term, can you describe that experience; was it learner driven, or personal epiphany? What made it so compelling that you’ve held on to it for a long time? #00:017:59-0#

[P]: I’m not sure. You can reflect within the moment in the class or shortly after the class, maybe a week later. But, a couple of years later I think sometimes things just look
differently or they fit differently in my mind so I see them another way. It’s another “Aha!” moment where I think, “That’s what we were saying there” or “we said that there, now I’m seeing it a different way.”

[I]: When you took the mixed methods course, what was the most highly valued learning outcome for you? #00:019:28-0#

[P]: I should be honest and tell you that was the first methods course that I took. I took that before I took qualitative and I still haven’t had the first statistics course yet, I’m taking it in the fall. The instructor was very generous and let me stay in it and it was partly, well, I don’t know why he let me stay in it. I was trying to work on a mixed methods project that I had developed but unbeknownst that it was a mixed methods project at the time. So, I was thinking that staying in the class would help me with this project I’m supposed to be doing. That course, the biggest thing I took away from it because clearly I couldn’t take away all the nitty gritty parts of research with qualitative or quantitative, but I took away the big picture. I really thought a lot about, “there are these intentional ways of putting together this quantitative data and this qualitative data and when should you be intentional with this? How should you be intentional when you put them together?” It was a great experience for me, it actually helped revise what I was doing in the research study I was working with.

[I]: If you were to revise that learning experience, what would have made it more perfect for you? #00:021:44-0#

[P]: I don’t know. I thought it did fit me a lot. I really appreciated the component where we critiqued a mixed method article. I really appreciated the component of designing a mixed method article and making sure you knew why you were making each decision for your research. For me, that’s the thing I wasn’t necessarily doing beforehand. I don’t know what I would change about it. Maybe more discussions about the philosophy behind things or more discussions about shared readings, shared articles that we’ve read

[I]: What about the experience of doing a project in the class? #00:023:09-0#

[P]: I really loved it. I was able to take the project I was currently working on and hadn’t been getting very far with due to factors like time and it allowed me to go back and look at decisions that had already been made and justify them or go back to look at decisions that had been made and say, “That was a really bad decision.” Even though I need to change how I wanted to connect the quantitative and qualitative data so it was extremely helpful for me. He gave a little flexibility for it to fit my needs that semester, it was super helpful.

[I]: If you were going to advise someone about to take the course, what would you tell them they need to know to get the most out of the class? Do you think if you had taken qualitative and quantitative before mixed methods, would it have affected what you took away from it? #00:025:02-0#
[P]: Absolutely. I think, like I said earlier, what I took away from that class was the big picture but I didn’t get as much of the nitty gritty part of the research which is super important. I think I would have gotten more of those things had I taken qualitative and quantitative before I took mixed methods. There’s still a part of me trying to believe that, especially for me, I learn a lot more by actually doing things. For me, I’m going to learn a lot of those nitty gritty details when I get put into a situation where I’m doing those research studies, like a case study or a survey study. There’s that battle of how much do you learn in the classroom versus how much do you learn when you’re actually on the job doing the job. I feel a little torn about that.

[I]: How important do you think it is to come into the class with some research ideas already in place? #00:026:23-0#

[P]: I think it was really helpful for me to come into the class with research ideas already in place. It gave me that real life example to go back to and have that concrete idea that I can think about. It wasn’t just up in the clouds, I could touch it and feel it, it was really helpful.

[I]: So, since you came into this class with the project, when you were learning about mixed methods, you were able to take this theory and examples and look at your own project to revise and understand more clearly? #00:027:16-0#

[P]: Yes, absolutely.

HR

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know?

[P]: Yeah, I’m doing civil engineering so it has to do with making sure the numbers make sense with what the people are going to be doing and also a degree in planning as well. Although the stuff that we do, we need numbers to back up what we do, but the stuff that we’re doing is all about what people want. So, you have to go out and do surveys, listen to what they’re saying, get comments, and you also need to qualify that, so combining this together is important to make sure you make the best decisions for the most people.

[I]: How do you see mixed methods fitting into your specific skill set and the application of mixed methods? #00:02:03-0#

[P]: I would say I personally like going out and doing surveys, I like talking to people. So, usually like public meetings and stuff, if you make a plan, a couple of different plans, people come in and talk about what they like. Then, trying to get those into broader categories that you can use to then pick the plan that would least hurt the most people. Being able to talk to people is a real strength for that would help.
[I]: What is the best way for you to go about getting more information or knowledge? #00:03:09-0#

[P]: I would probably go online to try to find something to read and depending on how that went, I might talk to some of my older classmates to see if they’ve taken classes in it before. Then, I would say my last resort would be talking to my professors. Although that could be backwards, generally they tend to be busy so I tend to leave them alone as best I can.

[I]: Sounds like your area is highly quantitative.

[P]: Yeah, the planning is a lot more quantitative than the engineering, so not a ton of mixed methods with that.

[I]: Have you taken the mixed methods course here at UNL? #00:04:25-0#

[P]: I have not, we have, in the planning program, you have to take qualitative analysis one semester and then quantitative analysis is another semester. So, you get both and can then blend them together.

[I]: Did you know there’s a mixed methods course at the university? #00:04:46-0#

[P]: I did not.

[I]: You’re not alone! One of the things I’m finding with graduate students is that many graduate students consider themselves to be highly engaged and participatory learners; do you see yourself as engaged? What about your learning style reveals that you are both engaged and participatory? If you were going to explain what that meant, how would you do that? #00:05:33-0#

[P]: I would say that I’m fairly engaged and participatory. If the professors ask questions, I generally answer them because no one in my classes talk very much because many of them are international students. So they are not as confident in their English abilities so I do a lot of the talking during classes and then if the other students have questions, they normally come and talk to me in my office instead of the professors. I don’t really know why that is, but they do.

I would say to talk during class and ask questions that they have. Also, to not just do the bare minimum for the project. Realize that it’s stuff you will be doing when you graduate, so don’t skate by.

[I]: In your own learning, at what point in your journey towards understanding or mastery, do you begin to discuss what you’re learning with friends, colleagues, and/or faculty? #00:07:56-0#
[P]: It depends on how interesting what I’m learning is. If it’s something I really enjoy doing and it’s something that is relevant to stuff I see every day, I’m way more likely to talk about it than if it’s something that’s kind of boring but I need to know to get other stuff done. It also depends on who I’m talking to. The people I live with are all civil engineers also, so we’ve taken most of the same courses. We talk about that stuff a lot more than I would with my other friends that I don’t live with that aren’t civil engineers. Basically, if it’s entertaining, if it’s something that I see on the street and I know about it, I’m likely to talk about it more than if it’s just random theory that I don’t know that I’ll ever use.

[I]: What role do you think discussing plays in your learning? #00:09:18-0#

[P]: I think it makes it seem more important maybe, that we can then talk to each other and explain things that are happening. It’s kind of cool because then we’ll say, “I know how that works” or “I know how to do that” or “I could design that if I needed to.” It makes it more worthwhile to me I guess.

[I]: What do you value about a teacher or expert led learning experience? #00:010:26-0#

[P]: I would say that I value actual real world experience. So, the stuff that they’re talking about are things that are actually going on in the real world, so when I go and get a job they’re things I’ll actually need to know or that will be good things I can talk about in an interview. If I can say, “We did this in school” or “I can use this program.” It’s things that are useful to me instead of theories—they’re fun and cool to think about, but I need to be able to do things to get a job.

[I]: In the student centered experiences that you’ve had and teacher centered, what are some of the drawbacks of each from your perspective? #00:012:14-0#

[P]: Well, with the teacher led, I think it’s good to get the top down approach when they tell you what to do and you may or may not use it in the lab and figure out to use it yourself or you might not learn that way. The student centered one is fun because you get to do the project, work with the programs, make sure you know how to do it, and make sure that it’s functioning right. That can be a lot more useful in the job hunt. Also, I think you feel more confident in your abilities at that point because you’ve done it yourself and you know how to make it work and you’ve gone through problems with the programs if you can’t get it to work right. You now know the tricks so that everything goes properly.

[I]: When you think about a new course, what’s the most effective way for that to happen? #00:013:17-0#

[P]: I suppose for this fall semester, I went on my [inaudible at 13:35 sounds like, “field year”] program that I’m doing is not really outlined so well, and I’m getting to my last semester so it’s kind of pick and choose whatever I want to take. I pretty much just looked up what departments I could use as electives and I went through the class schedule to find something that looked interesting.
[I]: How do you go about evaluating the long term value of the course to you and your professional career? #00:014:25-0#

[P]: I basically, when I was reading, I was trying to decide if it was something I found interesting that I would like going to class. Also, if it was something that would actually serve me going forward since I’m going to graduate this year; give me something to talk about in interviews on how to do this, how to do that, I’ve done this and that. There are more relevant to what I want to do as opposed to the theoretical courses. I like to get into the meat of everyday life.

[I]: If you were to enroll in the mixed methods course, what would be the most highly valued learning outcome for you? #00:015:34-0#

[P]: I would say for the engineering side of things, maybe not as much because that’s pretty much if you don’t have the numbers to back it up, then you don’t get to do it. But, for the planning, I think it would be good to just have the interpersonal skills of actually running the survey and conducting interviews and doing all that. Also, breaking all of that down into numbers you can use to deal with [inaudible at 16:16 sounds like “doctors and castles’”] to say, “This is why I want to do this plan” or “This is why I want to do that plan.” Here are the numbers to back that up.

[I]: Is there anything you’d like to add on your perspective on mixed methods, learning, or course design? What’s the ideal course for you like? #00:016:50-0#

[P]: I think mixed methods is good depending on what career you’re going into and the relative usefulness of it. Like I said before, engineering is all of about the numbers, surveys aren’t’ so important. I think it’s always good to know the reasons behind the numbers. So, it’s important that way when you do have numbers and you don’t know what they mean that’s kind of worthless and you’re doing very incorrect things with those numbers. I would say the best way that I learn is normally by doing. I like to do projects and actually figure out how to do it myself instead of watching someone else because then I don’t know for a month or two then I’ll try to remember how to do it. If I haven’t done it myself I’m not going to remember that at all.

[I]: you mentioned getting the story behind the numbers and it sounds like you use see that as a way to develop further validity for the numbers. #00:018:27-0#

[P]: Definitely, there’s been times in classes that I’ve been like, “Those numbers don’t look right.” But, you have to make sure you have the right numbers so otherwise you could be doing something very incorrect and that’s not good.
This recording began with the participant speaking

[P]: My MA in Instructional Education and then some specialty credits in my field which is interior design. But, the school that I’m- and they were going to pay for the education ones - but the school that I’m part of changed their accreditation so now they’re requiring an MA in my field which makes more sense anyway. I have some credits from, I think I took [inaudible at 00:35 sounds like “I don’t know long forever but”] twelve units in, it was more of a math but education and then [inaudible at 00:44 sounds like “18 of interior design before he”] transferred. So, they transferred 12 units of those into this program. In terms of what I’ve had, so I’m not sure what you mean by mixed methods. I took a class when I was in the education program called “Research in Education” and we talked about mixed methods. So, but it wasn’t just that particular subject.

[I]: I believe that’s a survey of research methods used in education. They probably touch on quantitative, qualitative approaches, and mixed methods.

[P]: Yep, all three of those.

[I]: Well, you’ve had a circuitous route so this will be a great perspective to have.

[P]: So, I have five classes left.

[I]: You said you’re getting your masters? #00:001:54-0#

[P]: I’m getting a Masters in Architecture with a specialization in Interior Design. Just so you understand my goals, I’m actually changing from being an Interior Designer in the field to be a faculty, college level, that first degree instructor in Interior Design, which I’ve already been doing for five year. In the field of education, but I’m in higher education. It’s an interesting perspective because my dean has a PhD in education, so I’m exposed to it all of the time as opposed to if I was getting a degree in Interior Design [inaudible at 3:39 sounds like “it would be in the stuff”] getting exposed to education at all.

[I]: When you think about your future career, what role do you think mixed methods could play in your profession, based on what you know? #00:05:03-0#

[P]: [Inaudible at 05:09 sounds like “and um number it 2009 mixed methods”] when I did that course on the qualitative [audio cuts out] but my thesis at the time [inaudible at sounds like “I don’t know the”] mixed methods is that just [audio cuts out] if you could refresh my memory I could answer your question better.

[I]: Mixed methods is typically considered an integration of using both qualitative and quantitative approaches to get more breadth and depth in order to get a better understanding of a particular phenomenon. #00:05:54-0#
[P]: And that’s what I thought [inaudible at 5:58 sounds like “to make sure I was answering”] so what was the question again?

[I]: Looking to the future, since you’re going to be a scholar in higher education, how do you perceive the role that mixed methods could play in your discipline and your life as a scholar? #00:06:16-0#

[P]: I’ve been thinking about that and I’m just about to start working on my thesis so it’s probably a good thing for me to think about anyway. I’m doing my literature review this summer. In Interior Design, one of the things that’s very unique about it is it’s typically a small group of students so I never have more than 14 students in a class; the whole field is relatively small compared to something like education. It’s hard to get the larger quantitative study information so I think it’s good to have the qualitative information when you’re sort of getting some feedback [audio cuts out] questions and getting some information where there’s not as much data out there is in something like education. Then, going to do something more qualitative, going out and getting something for specific in an area. One thing that I’m interested in is how we use technology in interior design. So, I’m actually thinking I should maybe go out into how do students use technology in the classroom and how does that translate into the field. I thought about just trying to get some information from local architecture and interior design firms in terms of what they’re using and how much this program and how much of that program. That would be part of what would be helpful for me to know rather than just assuming that I have the answer and then specifying something about that technology that makes things too complicated so narrowing it down specifically to what I’m interested in. We have this new trend in our field called Building Information Modeling. It’s fairly new so you can design, on a computer, the whole building including all of the pertinent pieces, the wood frames and the nails and everything. It’s very different than what we’ve been doing for really the last thousands of years, all just drawing. It’s a big transition and we as educators help kids learn that so they can use it out in the field. Some people in the field aren’t using it as much and there are all these different programs.

[I]: It sounds like you have an excellent opportunity to explore both quantitative and qualitative, things like software programs are used, how often, how much, as well as qualitative with the experience of using this, the experience of change, especially throughout the organization I’m sure that would be fascinating.

[P]: I see students struggle and I also talk to my peers out in the field. They all have a completely different answer and take on it. So, my assumptions that when a firm is using a specific program, which I’ll ask them, they’re like, “No, I don’t really use that.” Even though their company says they do. Trying to right the right data as opposed to common information which is just too narrow.

[I]: I see how that would inform what you would do in an academy in terms of a scholar and teacher. When you look at the continuous learning that you’ll be doing, how do you
perceive fitting in learning more about research methodology and in particular, how might mixed methods be part of that continuous learning as a scholar? #00:010:24-0#

[P]: In the program?

[I]: In your future as a professor, that type of continuous learning that scholars pursue in their professions. Do you perceive a role for mixed methods in that respect? #00:010:44-0#

[P]: I guess it kind of depends on what my particular school wants to do. So I’m part of the Art Institute and we have forty or fifty schools. I know there’s elements in our school where they’re spending time and investing money working on research, they talk about that all of the time. You have to have a reason why you’re doing something and we use data to have a strong foundation for we do something with our program. I know it’s an important thing in our school [inaudible as 11:28 sounds like, “but for us’”] perspective but as an instructor, that’s not part of my job, typically. So, it would be, it might be that in a specific course but, the only time I see it on a regular basis is either [inaudible at 11:45 sounds like, “d support’”] they have to do a survey and so I guess I’m not actually teaching those courses right now because I don’t have my master’s so I could see that maybe way in the future helping students do a better job of that. They send me questionnaire’s and I’m thinking, “This isn’t a questionnaire.” It covers about information about what my perspective is. So, maybe helping students do something in their survey that is not just quantitative. Typically what they send out is, “Would you do this or that?” “Would you do this or that?” It kind of leaves things that I know they should be addressing off of the table. There’s never a “Write in your comments section” because of course it [inaudible at 12:41 sounds like “would fit in with’”] quantitative survey.

[I]: Is there anything you’d like to add about mixed methods and career and discipline types of things? #00:013:02-0#

[P]: I guess in terms of our discipline, we’re also moving, just in the last decade or decade and a half, we’ve moved as a profession into actually designing., There’s a whole thing called “Evidence Based Design.” It’s funny because a lot of what we do in interior design part of the architecture and building industry so a lot of it is really driven by statistics and things that have been proven in the field. We have to put fire retardant materials in a building, for example, because of large fires that have happened in the 1920’s and every time some major crisis happens like a building falls down it’s really in the news a lot. Its part of our profession, are we doing something that could potentially be that building that’s had a serious accident? Were we part of it? So, it’s definitely related to the research that’s had been done drives what we do in a project. Even stuff that isn’t such a crisis: how do people work in their environment? Does it cause any health problems? All of that stuff is part of what we do. As interior designers, sometimes it’s hard to gather all of that information when it’s constantly moving and changing. We have an older population and you might do stuff because it’s dictated by a law but we need to
up it a little bit because the law sort of drags behind. People who, maybe we had
[inaudible at 14:57 sounds like, “bothered”] doing a study on how many people really
have vision problems, do you do something with every project that you’re [inaudible at
15:05 sounds like, “leg isn’t at”]? How far do you take things and asking the right
questions when you’re working on specific projects. One of my interests is I think a lot of
people want to go into the institution as they age, but we don’t really design homes so
that people can live in their house so they have to leave their house because they can’t
make their own meals. That information is out there, but it doesn’t seem like it’s
coalesced very well. There are still tons of buildings being built that aren’t using what we
know. How do you bridge that gap and convince people, do the right thing?

Maybe we need to ask more questions broadly when we do our projects instead of pulling
out one things that we find, the most recent thing that we’ve read.

[I]: Describe what it means to you to get more information or more knowledge. When
you fill that need or desire, what’s your usual procedure that you follow? #00:017:20-0#

[P]: I usually, since all of my courses have been online. There’s no interior design
master’s program where I live so that makes it kind of hard to pursue this requirement for
my job. I was, “I don’t want to do online, why would I do that?” I actually learned to
really appreciate it because it forces you to have to find things on your own and your
teacher’s not hand holding you. Our students, the hardest thing to teach them is you’re
coming to class and [inaudible at 18:00 sounds like, “You’re my bless this I didn’t
explain to you”] the whole point is that you have to actually read this material and not
buy it. It’s a really hard skill to teach them and to get them to have that light bulb to turn
on. It’s not really anybody’s fault but my own if I don’t take the time to really understand
something. So, with online, I’ve had to learn how to look on the online data basis in
education. I haven’t done it yet through UNL but at [inaudible at 18:24 “ark. Oh, the
things that you”] online resources and I’m sure they’re similar. That’s what I would do, I
would look up mixed methods and see what I could find that was somehow related to my
field and look at that. That’s where I’d start. After that, I usually look through the
literature that they’ve read in the bibliography, works cited, and find things that are
maybe narrowing the information down. So, if I’m stumped at where to even start, I
would try to find something that talks about mixed methods in more detail. I guess I’ve
always felt that it’s not that hard to learn things.

My bachelor’s degree was an unusual program, I went to Evergreen State College, have
you heard of that? [I: I haven’t heard of it.] There’s no grades at all. They actually have a
really strong program in education too. You learn from day 1. You’re sitting in- what
they do is have you write goals, write your own objectives so you learn how to do that.
You evaluate yourself, you evaluate your professor, you’re constantly reflecting. None of
this, what I think traditional education kind of waiting to be [inaudible at 20:28 sound
like “signed by whatever my Dean says”] you can’t just spoon feed them like they’re
little baby chicks. You have to get them to want the information. We don’t really teach
our students that way, for the most part, which is kind of a shame. I think they like it when they figure out what it is themselves.

[I]: If you were going to explain what it meant to be an engaged or participatory learner to a friend or a new graduate student, how would you describe it? #00:021:20-0#

[P]: I think, as an instructor, you have to bring them some sort of task or assignment that forces them to ask questions, just be patient with them and encourage them to push through the “I don’t know what to do” phase and guide them, help them, but don’t answer the questions for them. Just make it part of the process and usually I try to do it in baby steps at a time so they start seeing it right away. One of the other things I’ve done is to have them write their own goals so they are focused on something in class instead of just doing what the teacher is telling them they have to do. Probably writing the goals is the best thing they can do- write goals for themselves in the class. [It sounds like it helps them keep their focus is that what you find?] That’s what I was going to write my thesis on in the education one so I’ve spent a lot of time thinking about that. There’s actually a lot of evidence that says that, it’s called mastery goal setting, that process has a much better educational outcome than traditional education where I take this test, I pass it, I get an A. [Which disappears pretty much right after they get their A.] They don’t retain as much because they’re not engaged in it as well.

[I]: At what point do you start talking about what you’re learning with others: friends, colleagues, or faculty? #00:023:34-0#

[P]: Probably right away. I think it depends on the situation but I think it’s good to toss around ideas. For the master’s thesis I’m doing now, I actually took a course on [inaudible at 23:58 sounds like, “quartered assessment”] that kind of helped me get an idea. I was in this other program and all set to do that one; I’m trying to rethink my purpose so it’s more interior design focused as opposed to education itself. With the concepts of writing a program for a course to help students use technology and developing it’s sort of technical and maybe they don’t know the field it might be like, “What is she talking about?” There’s a challenge when you’re teaching this Building Information Technology, what you have to do is build modules, so to speak inside of the program. So, figuring out a way to have that more premade for students for interior design purposes. The industry is so vast, it’s engineers and electricians, interior design is really small. We tend to get little crumbs, it’s very time consuming. I met with an architect last quarter and asked him what he thought. I guess I tend to figure out what it is I’m trying to resolve and run that by someone as opposed to just talking about everything I’ve learned to help me answer a questions. Or a series of questions. He thought it was a great idea he said, “Yes, and you should probably [inaudible at 25:32 sounds like “cap”] that.” So, that made me feel like- he had been an architect for like fifty years and he needs to know how to use the computer.

[I]: In that respect, it probably felt like validation.
[P]: Yeah, like that’s something that’s really needed in the field, from an architect standpoint. Really, that’s one of the big employers of interior designers is the architect. There are little firms and there’s giant firms, what a great opportunity to be in the field to walk in and get a job as an interior designer with a team that builds hotels in Dubai and say, “What do you need? Would this be helpful?” Time is a really huge factor in architecture and interior design and education. The more time you spend on something it’s the return; you’re spinning your wheels and not making a profit.

[I]: It also sounds like when you talk about your ideas it helps to clarify your own thoughts, is that accurate? #00:026:54-0#

[P]: Oh definitely. When I talked to him, I tried to ask as many questions so he could give me more information. There’s that [inaudible at 27:12 sounds like, “file cabinet in huh?”].

[I]: Absolutely. What do you value about a teacher or expert led learning experience? #00:027:20-0#

[P]: Probably just the satisfaction of watching them master something that you’ve worked toward teaching them in a whatever, our classes are 11 weeks long, so they’re a little shorter than UNL. It’s not very long just to be able to break it down enough so that they stick with it and be engaged and then a lot of critical thinking, that’s where students really need to get into that in interior design fairly early in the program. You can feed it to them in little baby steps to get them to really master something and feel how, on their side, how rewarding it is. It feels really good. One way that I quantify that is that I give them a survey after class: how was your experience, what would you change, what would you not change, how much homework did you have. That way I know right away what they thought, otherwise you’re still kind of wondering what it was like for them.

[I]: What was your experience as a student, from that perspective? #00:029:27-0#

[P]: Absolutely the feedback. Some courses I’ve taken I feel like there’s a little too much emphasis on the students interacting with each other without the teacher chiming in and going, “that’s a really good point but have you thought of this?” Or this person is on track, this is really what I want you to be learning.” Without that interaction, which can be really successful online, I don’t know that every course can be taught that way, but I think it gives you time to really think about it and absorb things in a way that is different than a classroom where everything is so fast paced then you’re out of there. If you didn’t get the chance to interact with your teacher . . . I went to interior design at a community college for a while and I only got to talk to my teacher once a quarter. So, as a student, I appreciate that feedback. The course I just took I thought she did a really good job because she would have that interaction with us as a group so we kind of got her perspective on other students and whether they’re getting what they’re supposed to be learning or if they overachieved. It was typically a cross section of one student was the best; it was really helpful that way. She also took the time; we wrote papers every week,
so she took the time to really comment on everything, not go, “That was a B paper.” That more detailed feedback really helped me as a student, especially in the master’s program since I feel like I have a lot of it under my belt. What do you, as a master educator, think I need to work on? One of the instructors said, “You need to pare down your focus and write an outline, you’re getting to a point that you need to focus. Each point needs to really relate to your topic.”

[I]: If you don’t mind me asking which course or instructor was that? #00:032:12-0#

[P]: It was Suburban Housing, which I really wanted to take that class. I wasn’t supposed to be able to take it but I got an exception. I can’t remember the instructor.

[I]: That was spring semester? I also do a newsletter for online and blended learning and I’m always looking for good examples to show what people are doing.

[P]: I’ve only taken 2 courses and UNL and the other instructor was really good too, but then I had this next one and it was even better. The first one was just a writing class which was really hard to do, it was really a lot of not specific content, just get this concept in your paper. It was good to have as a master’s course for the writing. And just the more evolved way of writing that what you’re typically taught which is good. We have an active verb, relatively simple stuff, I wrote a 50 page paper for my bachelor’s degree, so it’s not like I haven’t done any of that. I did a bunch of research. My mom was a teacher. So, when I was in high school, she was an English teacher, she would say, “Here’s the thesaurus.” She didn’t even read my words.

[I]: When you consider a new course, what motivates you to take a new course and how do you evaluate the long term value of the course to you personally and your professional career? #00:035:15-0#

[P]: I guess it depends on the course. What I like about this program is I’m sort of an odd duck, so I didn’t get a bachelor’s degree in engineering design, I have a bachelor’s in [inaudible at 35:44 sounds like “cow litigation”] and at this time I had 15 years’ experience in interior design and a three year program that I’d gone through in community college, there just wasn’t- I didn’t want to get another bachelor’s degree, it’s too expensive. I didn’t even know I would be teaching at the time, they needed a teacher so they hired me! So, she had to prove to the search committee what my value was.

What I try to do when I take a course it to figure out what I’m going to get out of it. Some of the courses I’ve thought, well, I’m already an interior designer. I can get this done and I don’t have to start at the beginning. I took some classes at the Academy of Art and I thought, “I already know lighting.” So, I had to focus on things that I didn’t know already even though I’ve done lighting plans for senior housing and there were people in the class who had never done a lighting plan. Sometimes I think about a course and say, “Well, I don’t have to spend as much time on that because I have been there, done that, and I can that done in less time and still accomplish what I need to learn.” Other times, when I took
some of the education, “I don’t know anything about this.” I like to learn and the education stuff was, “Well, now I’m a teacher, I need to look at what is going to benefit me as an individual as well as in my career.” If I don’t have it connected to me as an individual, things get more frustrating I guess.

[I]: If you were to enroll in a mixed methods course, what would be the most highly valued learning outcome for you and why? #00:038:01-0#

[P]: Probably to do that I would, to me it starts to steer me away from my personal goals and my personal career which is teaching. So, it would have to be not only a mixed method course, but something where what I was actually doing was my thesis work so I’m able to spend most of my time doing something that is directly related. I just finished a class that was really hard to do because nothing was related to my particular- it was hard to relate to what I’m doing in my life as an instructor. We’re not really working with statistics for the most part, maybe 10% of my job, if that; probably 3% really.

[I]: That direct relationship in helping you produce an artifact, in this case your thesis, would be most important? #00:039:30-0#

[P]: Right, so it’s going to further what I’m going to do and I have someone guiding me and giving me specific feedback like, “You’ve bitten off too much here.” I think that’s what typically happens when you start these things. You’re trying to save the world even though you’re not going to do that even though it’s like 3 courses that you’re working on. It’s not a PhD.

[I]: If you were going to describe the perfect learning experience for you, how would you describe that? #00:040:14-0#

[P]: I guess it would be nice to have some [inaudible at 40:40 sounds like “odd ground”] compared to my master’s program, time with students who are in the same program as me and having that peer to peer relationship along with that instructor who gives you clear feedback.

[I]: Do you feel disconnected with your peers in the online environment? #00:041:06-0#

[P]: Definitely, like in statistics, there’s one person out of forty who was in interior design, everyone else was in education. The other courses that are in interior design, there’s just not a forum for online students to be connected. Our students, they work in groups on their projects, and I encourage them because I think they learn more that way. There’s no social environment, which is one of the drawbacks of online courses. I don’t know how you fix that when we’re all over the country. Maybe using some of the technology, even a face we could put a picture. There’s no face-to-face interaction.

[I]: that is one thing we’re considering in terms of attrition for online students.
[P]: I’ve worked with a lot of really big corporations in interior design like Intel, Hewlett Packard, so actually the company that I worked with a lot for three years is [inaudible at 42:30 sounds like “fraudulent’] and they’re actually a spinoff of Hewlett Packard and they have a couple of people who work all over the world. They use technology so they’re either brought in through chat rooms or online conference calls and you’re still working on the same document. It’s still not perfect, but at least I think the business world has had to deal with it a lot more.

[I]: Right, it’s been forced on them and they’ve had to adapt. Is there anything else you’d like to add in terms of mixed methods? #00:043:17-0#

[P]: I’m glad you’re forcing me because I have to use a mixed methods process for my thesis piece. I think that you have a good, I don’t know exactly what you’re dissertation is on, but helping us all to think about things in terms of the evidence and not being so narrow is really something that you [inaudible at 44:04 sounds like, “sum up on education’] and you’re thinking, that’s not what they’ve taught. Where are these people coming up with this stuff? We’re so bombarded with these things and when our behavior changes it’s not always based on anything real, just people talking.

[I]: Right, we have a feeling about it and if you get too quantitative and too focused in, too tight on that, you lose the point or the people. #00:044:35-0#

[P]: I did learn a lot from statistics, but it was a hard course. One of the things I realized is how easy it is to tweak the data to serve yourself or what you’re trying to accomplish. It’s still better than people’s random opinions, but you have to really understand what the data is and reporting results before you say, “That’s solid evidence.” I guess I’m realizing I don’t know enough about mixed methods, but that’s the process of going through the program and having someone help you with the thesis.

[I]: I will tell you the mixed methods course, since you have your question and thesis, it is occasionally offered online. It’s wholly focused on a project and you could do your thesis with that kind of guidance.

[P]: Is that the literature review?

[I]: The mixed methods course takes you through the whole thing. If you go in there with a research question, or even if you’ve done your lit review already, you can pretty much, a lot of the people in that class are PhD students that emerge from that class with their proposal ready to present to their committee. Even if they don’t get all of the data collected during that, everything is ready, everything is set up.

[P]: I’ll have to talk to my mentor about that and see if that fits. He’s been very flexible and very knowledgeable.

[I]: That happens in the mixed methods course and it also happens in some of the purely qualitative courses, especially if you get in with [instructor name] or in anthropology,
[instructor name]. In either of those set ups, since you have a well-developed idea and are looking to shape that, I would strongly recommend a course that centers all of the learning around your project and tying what you’re learning to your project.

[P]: Is that part of- I’m running out of courses to take.

[I]: You may want to investigate it a little bit. The mixed methods course is offered through EDPS, it fills really quick. There are some other routes; we’re looking at some workshops and the need to build more community. Especially for grad students, even if you’re on campus it’s very easy to be isolated.
Appendix L

Codebook for Perceived Benefits of Using Mixed Methods
**Codebook for Perceived Benefits of Using Mixed Methods**

Open-ended survey item: “What do you perceive to the benefits of mixed methods?”

Table L1

*Codebook: Codes, Definitions, and Examples for Perceived Benefits of Mixed Methods*

<table>
<thead>
<tr>
<th>Code</th>
<th>Child Code</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth and Depth</td>
<td>*</td>
<td>General idea of “more is better” whether it is more detail, more comprehensive, more data, etc.</td>
<td>“More resources to answer research questions”&lt;br&gt;“Broader analysis, understanding of the problem”</td>
</tr>
<tr>
<td>Breadth and Depth</td>
<td>Flexibility</td>
<td>The concept of retaining or creating options that would be restricted using a single approach</td>
<td>“Flexibility”&lt;br&gt;“It takes away unrealistic restrictions…”</td>
</tr>
<tr>
<td>Breadth and Depth</td>
<td>Completeness</td>
<td>Concept of thoroughness – looking at everything – as if something is left undone if a single approach is used “more thorough representation of research”</td>
<td>“a more holistic and comprehensive approach leaving no stone unturned”</td>
</tr>
<tr>
<td>Strengthens</td>
<td>*</td>
<td>Concept that combining qualitative and quantitative approaches adds robustness, strength, or make up for the weaknesses of the other</td>
<td>“it answers questions where quant and qual do not do a good job on their own.”&lt;br&gt;“It [MM] often requires a team approach thus additional intellectual capital is applied to given research questions”&lt;br&gt;“Reach a wider methodological audience”</td>
</tr>
<tr>
<td>Strengthens</td>
<td>Explanation</td>
<td>The idea that mixed methods addresses the “why” of quantitative findings.</td>
<td>“Sometimes statistical data simply doesn’t go very far to explain some results”&lt;br&gt;“explores why a result is what it is”</td>
</tr>
<tr>
<td>Code</td>
<td>Child Code</td>
<td>Definition</td>
<td>Example</td>
</tr>
<tr>
<td>---------</td>
<td>------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Strengths</td>
<td>Context</td>
<td>Without knowing the context of findings, one cannot fully understand the findings</td>
<td>“gives more depth to display facts”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“a deeper understanding”</td>
</tr>
<tr>
<td>Strengths</td>
<td>Validity</td>
<td>Substantiation of qualitative or quantitative claims</td>
<td>“More evidence to support points”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“Since I am primarily a storyteller, this would add some more concrete data to my research.”</td>
</tr>
</tbody>
</table>
Appendix M

Quote Matrix Table for Perceived Benefits of Mixed Methods
**Quote Matrix Table for Perceived Benefits of Mixed Methods**

Table M1

**Quote Matrix Table for Perceived Benefits of Mixed Methods**

<table>
<thead>
<tr>
<th>Mixed Methods Prior Experience Quartiles</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breadth and Depth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to create complex studies that document how specific conditions affect human behavior.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More data?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seems more holistic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perhaps combining types of data.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A more well-rounded study.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mixed method approach provides both a sense of generalizability as well as rich detailed information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More research to find data.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using both methods (qualitative and quantitative) together and use the data gathered by both approaches would help the research to be both rational and sensual. Using mixed method helps the researchers to cover a broader realm of human knowledge regarding the subject of the research. More resources to answer research questions Broader analysis, understanding of the research problem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to explore complex issues Combining both types of research reinforces my thoughts on nutrition and exercise theory. You can use both observational and statistical evidence You have the ability to capture not only the generalizability of quantitative data, but also the impact of “at this given point in time” data of qualitative data.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It blends both quantitative and qualitative approaches Getting a fuller picture of the data and a deeper understanding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Methods Prior Experience Quartiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>It takes away unrealistic restrictions I may encounter b/c of the approach or design if I chose only qualitative or quantitative</td>
<td>allows me the freedom to gain more insight into the lives of my subjects</td>
<td>Affords the researcher greater level of flexibility</td>
<td>It’s a natural way of attacking a problem. Sometimes limiting an approach to QUAN or QUAL forces you to change your question and thus limiting your understanding. Flexibilty</td>
</tr>
<tr>
<td></td>
<td>More options for research</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Completeness</strong></td>
<td>Combining two methods would, in theory, provide a more holistic and comprehensive approach leaving no stone unturned.</td>
<td>both the quantitative and qualitative aspects</td>
<td>It makes a research more complete. Answer my research questions more deeply and thoroughly.</td>
<td>provides a more holistic, complete way of viewing the research problem. Gain a more complete picture.</td>
</tr>
<tr>
<td></td>
<td>More thorough representation of research</td>
<td>More flexible and able to capture results that are not easily captured by either method alone.</td>
<td>a more through and complete research analysis, a more persuasive research result</td>
<td>fuller picture of the data</td>
</tr>
</tbody>
</table>
In some of my own work, I have illustrated the theoretical utility of mixed methods in cultural psychology. Mixed methods is inherently suited to cultural psychological approaches in that it helps to ground research paradigms within the context of study. I feel that, overall, mixed methods affords an opportunity to ask complex questions and integrate complex sets of data to foster a better sense of understanding of a given phenomenon.

Teaching and learning are hardly quantifiable subjects, but do allow some quantification. I also appreciate that the reverse can be true, that descriptive data can be used to illuminate numerical finding and create a more complete picture of a phenomenon.
<table>
<thead>
<tr>
<th>Strengths</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>You get to make use of the strengths of both qualitative and quantitative research.</td>
<td>it answers questions where quant and qual do not do a good job on their own.</td>
<td>helps minimize subjectivity and maximize objectivity</td>
<td>it has the characteristics of a bridge between the two methods and honestly today I am against any dichotomy.</td>
<td></td>
</tr>
<tr>
<td>interview to get information about abstract ideas, e.g. how people define friends</td>
<td></td>
<td></td>
<td>It demonstrates a level of research competency that future employers are looking for. It provides a more pragmatic approach to answer more fundamental questions of given disciplines. It often requires a team approach thus additional intellectual capital applied to given research questions.</td>
<td></td>
</tr>
<tr>
<td>get advantages from both quantitative and qualitative methods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think the benefits of using this approach would be that you have the option of both approaches and can use the benefits of both to create a good mixed-methods approach.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>Strengthens (cont')</td>
<td>I think that it provides the more human quality to quantitative research that can often neglect the stories behind the numbers. To me, it helps to answer some of the questions with which we are left after reading quantitative research alone. I think it also helps the reader to begin to ponder the subject more deeply to think about future research questions. The quantitative side satisfies those who don’t feel that qualitative methods alone paint the complete picture.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mixed Methods Prior Experience Quartiles

<table>
<thead>
<tr>
<th></th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthens (cont')</td>
<td>Withing mixed methods, the benefits: are the use of both qualitative and quantitative methods compensate for each other’s weaknesses. For example: a researcher could use qualitative methods to conduct exploratory research, and then based on the results of this research, could construct a more reliable Quantitative survey instrument. Also qualitative data has the benefit of capturing individual nuance, or more in-depth qualities that small groups. While quantitative data can access a larger population, and has the benefits of being generalizable to a broader population. Reach a wider methodological audience.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Methods Prior Experience Quartiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Q1</strong></td>
<td><strong>Q2</strong></td>
<td><strong>Q3</strong></td>
<td><strong>Q4</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Explanation</strong></td>
<td>Sometimes statistical data simply doesn’t go very far to explain some results.</td>
<td>could explain the data better under a specific context</td>
<td>Quality of data enriched data explanations of numerical data</td>
<td></td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>It gives more depth to display facts.</td>
<td>Juxtaposing data that shows a result with data that explores why that result is what it is</td>
<td>Could provide a story along with whatever quantitative trends may be present.</td>
<td></td>
</tr>
<tr>
<td><strong>Validity</strong></td>
<td>It gives accurate results.</td>
<td>Since I am primarily a storyteller, this would add some more concrete data to my research.</td>
<td>better able to answer my research question - triangulation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>rigorous testing</td>
<td>More evidence to support points</td>
<td>Also to back up comments from participants with data.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>It sounds like a very worthwhile pursuit in using various methods to analyze data.</td>
<td>... gather more detailed information from a smaller population to see if answers from both align and are conclusive.</td>
<td>I appreciate that numbers can be used to situate descriptive data and add credibility to such evidence.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>There are lots including looking at the research problem from both a quantitative and qualitative standpoint.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Mixed Methods Prior Experience Quartiles

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
</table>

#### Validity (cont’d)

A variety of ways to test the validity of data.

I do believe that mixed-methods strengthens the claims that you can make out of your research. It utilizes the strengths of both qualitative and quantitative approaches. Mixed-methods approaches give legitimacy to qualitative results by including quantitative proof of phenomena. On the other hand, mixed-methods approaches do give the needed context for quantitative data.
Appendix N

Bar Chart Depicting Merge of Benefits and Prior Experience
Bar Chart Depicting Merge of Benefits and Prior Experience

Figure 24. Bar chart merging perceived benefits and prior experience data. Viewers are able to make relative group comparisons using the differently shaded bars. The chart could be improved with the addition of the total number of coded segments and if made larger, could have a code definition under the theme heading.
Appendix O

Codebook for What it Would Take to Use Mixed Methods
**Codebook for What It Would Take to Use Mixed Methods**

The following table contains the codes and child codes used with the open-ended question “What would it take for you to use mixed methods?”

Table O1

*Code, Definition, and Example Segments*

<table>
<thead>
<tr>
<th>Code</th>
<th>Child Code</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience</td>
<td>*</td>
<td>A desire to try mixed methods in a hands-on way.</td>
<td>“exposure and experience to feel comfortable”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“more experience in research”</td>
</tr>
<tr>
<td>Course</td>
<td>*</td>
<td>Need for teacher or expert-led learning experience</td>
<td>“at least one course”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“learning more, taking a class in it”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“the mixed-methods course”</td>
</tr>
<tr>
<td>Knowledge</td>
<td>*</td>
<td>Need for more general knowledge, not quite sure what specific needs are.</td>
<td>“more information about the subject”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“knowing more about mixed methods”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“first, to learn about it”</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Confidence</td>
<td>Insecurity about skills or ability</td>
<td>“A different brain”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“exposure and experience to feel comfortable”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“confidence with statistics”</td>
</tr>
<tr>
<td>Code</td>
<td>Child Code</td>
<td>Definition</td>
<td>Example</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Purpose</td>
<td>*</td>
<td>Need a reason to use mixed methods</td>
<td>“the right research question”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“more information about it and if it fits well with my inquiry”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“when neither qualitative nor quantitative approach alone will suffice for my project”</td>
</tr>
<tr>
<td>Guidance</td>
<td>*</td>
<td>Desire for external guidance of an unspecified type</td>
<td>“guidance of consultations”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“support and guidance from faculty”</td>
</tr>
<tr>
<td>Guidance</td>
<td>Collaboration</td>
<td>Desire to work with others in order to do MM research</td>
<td>“Collaborative work with another person”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“I only plan to use a mixed-methods approach if I am collaborating with another researcher”</td>
</tr>
<tr>
<td>Guidance</td>
<td>Mentorship</td>
<td>Specifically uses the word ‘mentorship’ or refers to more one-on-one types of relationships and guidance from someone with more expertise.</td>
<td>“A good advisor who has used mixed methods”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“…working with that professor would also be necessary”</td>
</tr>
<tr>
<td>Conditions</td>
<td>*</td>
<td>Conditions that must be met in order for MM to be considered.</td>
<td>“advisor insistence”</td>
</tr>
<tr>
<td></td>
<td>Time</td>
<td>Perceived need for plenty of time to do MM.</td>
<td>“lots of time”</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>“I would need an extended period of time”</td>
</tr>
</tbody>
</table>
Appendix P

Quote Matrix for What It Would Take to Use Mixed Methods
# Quote Matrix for What It Would Take to Use Mixed Methods

## Quote Matrix Table for What it Would Take to Use Mixed Methods

<table>
<thead>
<tr>
<th>Themes</th>
<th>Q MM = Q1</th>
<th>Q MM = Q2</th>
<th>Q MM = Q3</th>
<th>Q MM = Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>More training and experience.</td>
<td>More knowledge; I have plans to take a class this summer if offered.</td>
<td>At least one course</td>
<td>More formal training</td>
</tr>
<tr>
<td></td>
<td>More knowledge, as in the mixed-methods course.</td>
<td>More focus of this in a methods course.</td>
<td>More training, particularly in quantitative methods.</td>
<td>Additional training and faculty mentors who can demonstrate the process to me.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Learning more, taking a class in it</td>
<td>I understand that researcher needs to have grasp on both QUAN and QUAL methods but I do not feel completely competent in either approach so I would also need some confidence in my research abilities to so that I can appropriately combine methods to answer the research questions of given study.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>I would need more training or instruction</td>
<td>A good class in it</td>
</tr>
</tbody>
</table>
Typically it would come from training. Most methodology classes taught at the University of Nebraska-Lincoln either emphasize qualitative or quantitative approaches. Thus, mixed methods is seen as an afterthought in the process. If there were more classes that emphasized mixed-methods (from my understanding Ed Psych only has one) then it would be more utilized.

Currently I am trying to get enrolled in a mixed methods course in my graduate program, but it is full. If I can’t take the course, I may be less likely to use the approach in my study because my advisor primarily focuses on qualitative research.

| Experience | More training and experience. Lots of guidance and hands on experience | Exposure and experience to feel comfortable | More experience in research; a topic for research Experience, mentorship, training. |
Knowledge  
A clearer understanding of both qualitative and quantitative methods as well as the benefits and shortcomings of each.  
More information about the subject  
With a model research design template, I will be more motivated to get started with designing and outlining the study.  
More information need to complete further research on this approach  
Basic knowledge of and experience in both qualitative and quantitative research.  
More knowledge  
More knowledge on the mixed methods approach!  
I would need to learn more about the mixed-methods approach before I would be comfortable using it.  
First, to learn about it.  
Knowing more about mixed methods.  
Learning how and when and why.  
a lot more knowledge about it  
More knowledge and experience  
More knowledge (via course work, independent research, professional guidance, etc.) to ensure that I have a relatively good grasp on what the approach requires and how to go about completing such a study. I know of a few individuals who are currently using a mixed-methods approach to their own work, so they would be a valuable resource for the future.  
More information  
More information about the pros and cons of the mixed-method approach and more information in general about the approach.  
More information on how to use this approach.
Confidence

A different brain. exposure and experience to feel comfortable

Collaborative work with another person who is stronger in the quantitative methodology approach

A lot more confidence with statistics; a fundamental shift in my belief that a person’s thinking can be measured.

I would need to take a course in it - I see the benefit but my skills as a researcher are very weak.

Additional training and faculty mentors who can demonstrate the process to me. I understand that researcher needs to have grasp on both QUAN and QUAL methods but I do not feel completely competent in either approach so I would also need some confidence in my research abilities to so that I can appropriately combine methods to answer the research questions of given study.

Purpose

If I was really interested in the topic and wanted to see the comparison of the data.

The research question would have to dictate the type of research approach to use

A question that is best answered by a mixed methods approach

An applicable problem.

A research project that would require me to use mixed-methods. Most of the research done in my office is pretty much exclusively quantitative. There are one or two projects that are mixed-methods so working with that professor would also be necessary.

Theses

In current situation, I think I don’t need mixed method because my research is completely historical and qualitative.

Well, I’ll use it if my project requires a mixed-methods approach, that is, when neither qualitative nor quantitative approach alone will suffice for my project.

A topic for research

Application to my area of interest

The right research question

Nothing. I would decide whether a mixed methods approach is appropriate based on the project and the questions.

An appropriate research question that requires it.

I plan on doing so with my project.

I would need to convince myself that both quan & qual gathered appropriate information for the topic & participants involved.

A fitting research question.
<table>
<thead>
<tr>
<th>Guidance</th>
<th>Lots of guidance</th>
<th>Guidance of consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collaboration</strong></td>
<td>Collaborating with someone who is an expert in the qualitative/mixed-methods research. Mixed Methods is probably not in my plan of studies at UNL. Collaborative work with another person who is stronger in the quantitative methodology approach</td>
<td>I only plan to use a mixed-methods approach if I am collaborating with another researcher.</td>
</tr>
<tr>
<td><strong>Mentorship</strong></td>
<td>Access to information and guidance from an advisor or faculty member who will evaluate and provide feedback during the process. A written guide for preparing, conducting and evaluating the results.</td>
<td>A good advisor that had used mixed methods</td>
</tr>
<tr>
<td>Conditions</td>
<td>A different brain. Pursuing a doctorate</td>
<td>A research project that would require me to use mixed-methods. Most of the research done in my office is pretty much exclusively quantitative. There are one or two projects that are mixed-methods so working with that professor would also be necessary. A fundamental shift in my belief that a person’s thinking can be measured.</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Time</td>
<td>More time, energy, and efforts</td>
<td>Lots of time. Especially to transform the transcript from individual subjects.</td>
</tr>
</tbody>
</table>
Appendix Q

Codebook for Qualitative Interviews
**Codebook for Qualitative Interviews**

Table V1

**Codebook Used for Semi-Structured Interviews**

<table>
<thead>
<tr>
<th>Value of Teacher-Led Learning Experiences</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise</td>
<td>Knowledge of the domain, “real-world” experience</td>
</tr>
<tr>
<td></td>
<td>“has the depth of knowledge and breadth of experience”</td>
</tr>
<tr>
<td></td>
<td>“the stuff that they’re talking about are things that are actually going on in the real world”</td>
</tr>
<tr>
<td>Motivation</td>
<td>Passion for topic, Accountability</td>
</tr>
<tr>
<td></td>
<td>“I know that they have such a passion for their field and what they’re teaching that it comes across with the way they present their material and interact with students.”</td>
</tr>
<tr>
<td></td>
<td>“that I’ll have added incentive and motivation to complete the coursework, to complete the readings, engage in the discussions and so forth.”</td>
</tr>
<tr>
<td>Instructional Design</td>
<td>Purposeful design the students’ learning experience</td>
</tr>
<tr>
<td></td>
<td>“I really value courses that have been really well thought out and that teachers have, and you can tell the professors have selected readings intentionally, you can see that there is a method to their madness. I appreciate that thought because what I value is that they’re setting up that space for people to think through on their own which is what I do more of.”</td>
</tr>
<tr>
<td>Interaction</td>
<td>Engaging students, responding to students, giving feedback</td>
</tr>
<tr>
<td></td>
<td>“point of being able to engage, ask questions, and have follow up with the instructor instead of just reading the text book and having that one way information have a two-way exchange of information to further my learning process”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value of Discussion in Learning</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss Immediately</td>
<td>When discussion begins to play a role in one’s learning</td>
</tr>
<tr>
<td></td>
<td>“I’m kind of a really excited puppy when it comes to things that I’m learning, I can share things right away maybe even before I have a complete understanding or mastery.”</td>
</tr>
</tbody>
</table>
### Value of Discussion in Learning (cont’d)

| **Calibration** | Defined as validation, or identifying weaknesses, whatever triggers the learner to evaluate what they’ve learned and confirm or revise it.  
|                 | “it helps me to recalibrate my instrument, so to speak. I know that by talking to other people that maybe what I’m thinking or what I’m understanding is jiving with what they’re learning and understanding. But, I also love the fact that there’s that [inaudible at 9:26 sounds like “dissonance”] and sometimes something I’m thinking or feeling about a subject is not what one of my peers is thinking or feeling.” |
| **New Ideas**   | Discussion triggers new insights or ideas  
|                 | “It’s ok to have that sort of conflict because then new ideas come from that and you can discuss it. I think those conversations are so critical. If you’re trying to learn in a vacuum you really lack that great piece of discussion and interaction” |
| **Get Information** | Getting information from others to succeed as a student or in a course.  
|                  | “So, I’ve enjoyed talking with him and sharing a little bit about the courses I’ve taken so far and picking his brain a bit from what he remembers from his doctoral program.”  
|                  | “I would probably try to get a gauge, a sense, find my bearings: what’s the course like? In every new course you try to figure out your position, how does it work, what does the instructor expect, what kind of instructor are they. We’re trying to figure out how to maximize our benefit from the course and of course perform as well as we can in the course and so on.” |
| **Personal Relevance** | When discussion plays a role depends on the degree of personal relevance  
|                     | “It depends on how interesting what I’m learning is. If it’s something I really enjoy doing and it’s something that is relevant to stuff I see every day, I’m way more likely to talk about it than if it’s something that’s kind of boring” |

### Student-Centered Learning Experiences

| **Confidence** | Related to students’ level of confidence in the learning process or what they have learned.  
|                | “When I learn with my classmates, I am not so nervous because we’re on the same level and it's more easy for us to communicate with each other.”  
|                | “The thing about student centered learning, is that piece that we talked about before when you have to explain or share what you’re learning, how that deepens your understanding” |
Student-Centered Learning Experiences (cont’d)

<table>
<thead>
<tr>
<th>Short-changed</th>
<th>Devaluation of student-centered learning experiences like group work or discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>“But, also go off down the rabbit trail sometimes. I think we’ve all been in places where that’s happened and we all sort of feel like we get short changed.”</td>
<td></td>
</tr>
<tr>
<td>“one of the biggest negatives of student led environments is that not all of the time students come into class prepared for the discussions that the teacher has set up or that the class has set up. You get off topic and then it becomes really hard to sort out what’s important for you to listen to and what’s not necessarily important for you to listen to. It can be kind of annoying.”</td>
<td></td>
</tr>
</tbody>
</table>

What it means to be a participatory and engaged learner

<table>
<thead>
<tr>
<th>Relationship forming</th>
<th>Connect with others for support and to learn from each other</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I think it really matters to form connections with your cohort members or your fellow students as much as possible to also form them across campus with other graduate students”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Student takes ownership of interactions with content, peers, and instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I would say to talk during class and ask questions that they have. Also, to not just do the bare minimum for the project. Realize that it’s stuff you will be doing when you graduate, so don’t skate by.”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reflective</th>
<th>Reflect on your own learning and what it means</th>
</tr>
</thead>
<tbody>
<tr>
<td>“As you know, with these programs there’s a lot of reading, a lot of studying, and a lot of thinking that goes on. At first, it’s a little overwhelming but I think I found that place where it was changing how I was thinking, it was changing and how I was stretching my head in new directions. It was painful at times, but there’s something about that learning that once you’re really engaged in the material, you know you’re passionate about it, you know you’re excited about it, you don’t feel like you’re learning anymore because you have to, it’s because you get to and because you want to.”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Create Relevancy</th>
<th>Students take the responsibility to make the course and its requirements relevant to them personally.</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I would say to be active in the discussions, to really carry out assignments and projects for the class in a way that is meaningful to you, not just thinking about each task as something to check off of a list, but what you’re going to get out of it that’s going to help you in the future.”</td>
<td></td>
</tr>
</tbody>
</table>
### Most valued outcome in the mixed methods course

<table>
<thead>
<tr>
<th><strong>Collaboration</strong></th>
<th>Working or connecting with others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“the opportunity to find that collaborator who is on the other brain side of the equation that would be the ticket. I think as much as I would like to think that I would become an expert in it all, I don’t see that as my strength. I don’t really see that, I see that as potentially diverting or distracting from what I know is my strength.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Hands-On Experience</strong></th>
<th>Learn by doing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“higher learning outcome is that I can adapt this mixed method into my research. I can really use it after I learn it, not only that I know this and I know how to do this but I can use it. Application is the most important thing”</td>
</tr>
<tr>
<td></td>
<td>“I would have to say the practice of doing a mixed methods project and really feeling that I have a good understanding of how that happens and how to do it on my own in the future.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Clear Understanding</strong></th>
<th>Understanding how mixed methods works</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“a better understanding of integrating quantitative and qualitative research methods and for myself personally, with the type of research often done in libraries, integrating survey research design with individual interview design”</td>
</tr>
</tbody>
</table>
Appendix R

Coded Segments for the Value of Teacher-Led Learning Experiences
Coded Segments for the Value of Teacher-Led Learning Experiences

Expertise

I think the thing that I value the most is someone who has the depth of knowledge and breadth of experience but also at the same time understands that other learners may not have that same depth or breadth and that they are kind about that.

I would say that I value actual real world experience. So, the stuff that they’re talking about are things that are actually going on in the real world, so when I go and get a job they’re things I’ll actually need to know or that will be good things I can talk about in an interview.

I think that I more readily accept what they’re saying and I can engage with it quickly. It still doesn’t slow me from questioning, from wanting to challenge, and to push back but there’s a certain sense of safety in it. There’s also a sense of expectation, if I’m paying an expert to teach me, they should be at the top of their field or game- the best.

I think I value it less because it’s great to have a peer led discussion, but in the end, I want to talk to the expert.
That was one of my primary reasons for wanting to attend there because every class I take is going to be taught by a professor who is an expert in their field. I value that deeply, I think this is also influenced by my father being a very teacher centered professor. I think if I would have to choose between the two, I think I would much rather be in a teacher centered classroom with a good teacher than a student centered classroom with great students because I’m paying for it. I’m paying to learn from that instructor, ultimately. On the economic level, what am I paying for? I’m not paying to learn from some other students.

**Motivation**

I think that’s what I value the most, their expertise, and on top of that, I know that they have such a passion for their field and what they’re teaching that it comes across with the way they present their material and interact with students.

The value in having instruction on mixed method research design from an instructor is that I’ll have added incentive and motivation to complete the coursework, to complete the readings, engage in the discussions and so forth.

With teacher-centered, we are more expert, more professional, more polite, more good with suggestions

I think what’s really valuable about it is seeing that person’s passion shine through. You can see that they have spent hours and years of their life dedicated to a topic that they really care about. I think that, regardless of what the topic is, it’s engaging and captivating to watch someone who is passionate about something speak about it and share about it. They care, you can see that they care, they’re really excited. To put it in vernacular, they’re “nerding out” about something in front of a whole bunch of other people and it’s exciting to see. I think that can get me engaged in the lecture on content that I am not familiar with or not passionate about. If somebody else is passionate about it, it’s contagious.

**Instructional Design**

I think I really value courses that have been really well thought out and that teachers have, and you can tell the professors have selected readings intentionally, you can see that there is a method to their madness. I appreciate that thought because what I value is that they’re setting up that space for people to think through on their own which is what I do more of.

If they’re a good teacher, a good instructor, they can present you with the information in a novel way; they have some type of teaching technique that is unique or effective. They can unpack some type of concept for you that you’ve never been able to comprehend on your own. I think some instructors have a gift of being able to do that
Interaction

Absolutely the feedback. Some courses I’ve taken I feel like there’s a little too much emphasis on the students interacting with each other without the teacher chiming in and going, “that’s a really good point but have you thought of this?” Or this person is on track, this is really what I want you to be learning.” Without that interaction, which can be really successful online, I don’t know that every course can be taught that way, but I think it gives you time to really think about it and absorb things in a way that is different than a classroom where everything is so fast paced then you’re out of there.

it’s still valuable to me to have the insights of the instructor and to be in a formal class setting both from a motivational stand point but also from the stand point of being able to engage, ask questions, and have follow up with the instructor instead of just reading the text book and having that one way information have a two-way exchange of information to further my learning process.
Appendix S

Coded Segments for the Role of Discussion in Learning
Coded Segments for the Role of Discussion in Learning

Discuss Immediately

I guess I’ve always done that. After a while I learned that not everyone gets as excited about content area pedagogy as I do or that certain pieces of cognitive psychology are just not real thrilling to some people. I guess I try to share with people who share my passion but I also share it with people for whom it might be valuable information. I think it’s great practice to do that because you can distill it down and kind of help other people to learn about it and get them excited about things. I guess I’ve always enjoyed sharing. It’s a part of my personality maybe.

Probably right away. I think it depends on the situation but I think it’s good to toss around ideas.

I’m kind of a really excited puppy when it comes to things that I’m learning, I can share things right away maybe even before I have a complete understanding or mastery. If it’s something I’m excited about or something that I feel is important to me as my skills as a teacher or a musician, I can be pretty willing to share those things. Not only other people I’m around at school, but my family and friends too.

I would probably try to get a gauge, a sense, find my bearings: what’s the course like? In every new course you try to figure out your position, how does it work, what does the instructor expect, what kind of instructor are they. We’re trying to figure out how to maximize our benefit from the course and of course perform as well as we can in the course and so on. Once I’ve got a good beat on that situation, what’s the workload like, what’s expected, what’s the instructor expect from us. That might even be after the first assignment though, where you get an idea of how they grade their courses. The thing about your second and third year of graduate school is that you’re probably already had the instructor before, it’s likely to happen multiple times. You can already have an idea what they’re like. Almost initially after you get the sense of what the course is like, you start asking questions but you can also figure out ahead of time, how to navigate the course, how to get the maximum benefit, how to learn, just by asking right off the bat. So, I would start asking before the class even started, “What’s the course like, what’s expected, how do you do well, how does the instructor grade, how are they like, are they going to expect you to pay more attention to this detail instead of another.” Each instructor is nuanced into their own expectations. Some have an expectation from the students that the others don’t expect at all.

Immediately, even before I understand what it’s about. I’m constantly questioning things. I’ll start reading material once I have the text, immediately before the course begins. It’s continual because I still talk bout the course I’ve taken, I’m still engaged in that material, not to the extent I was when I was in the course, but it’s immediate.
All of the time, almost instantly.

*Calibration*

It does a couple of things. First of all, it helps me to recalibrate my instrument, so to speak. I know that by talking to other people that maybe what I’m thinking or what I’m understanding is jiving with what they’re learning and understanding. But, I also love the fact that there’s that [inaudible at 9:26 sounds like “dissonance”] and sometimes something I’m thinking or feeling about a subject is not what one of my peers is thinking or feeling.

I guess I tend to figure out what it is I’m trying to resolve and run that by someone as opposed to just talking about everything I’ve learned to help me answer a question.

I think it makes it seem more important maybe, that we can then talk to each other and explain things that are happening. It’s kind of cool because then we’ll say, “I know how that works” or “I know how to do that” or “I could design that if I needed to.” It makes it more worthwhile to me I guess.

Sometimes it helps me feel validated about things that I’ve thought. Sometimes they will say something that I have not thought about and I’ll be uncomfortable because I haven’t thought about it. Or, I’ll say, “Oh that’s a really different perspective, not that I disagree with it, but I appreciate you saying things I haven’t thought about.”

I’m kind of one of these people that until I teach it or have to explain it, it completes the whole picture. That’s probably why I ended up becoming a teacher, maybe. That’s the way I learn, through that teaching process. I think you have to have a pretty good understanding of something before you can teach it. In a way, sometimes that teaching process really deepens the learning, there are things that I’ve taught that maybe I haven’t taught them for years, but I still have a really deep or permanent understanding of because I had to do the teaching, I had to help others understand it.

I think building the discussion we will find more problems. Sometimes it’s difficult for us to get to the proper- the right answer. [audio cuts out during participant speaking] But, by the discussion we know more about the topic and we know more about what we need to do and to recognize that what kind of book do I need to read? We share all of this kind of information, passing notes, and our homework and all kinds of things.

I think I would much rather get some feedback that may or may not be helpful early on an idea I have just by floating it out there to a friend or colleague or advisor even if it’s not fully formed because sometimes I feel like I might get on some track in my mind that I think is brilliant and it’s not. Or, it needs help or maybe it needs revision, or maybe it just needs to branch out in a different direction that I hadn’t thought of.
New Ideas

It’s ok to have that sort of conflict because then new ideas come from that and you can discuss it. I think those conversations are so critical. If you’re trying to learn in a vacuum you really lack that great piece of discussion and interaction.

I will absolutely pose questions if I’m struggling with questions and I’m not getting anywhere with them but I have to be sure that I’ve really sat and given it a good try. For me, it’s not going to make the most sense if I really haven’t thought about that question. I need to have thought about it a while and feel confident in my thinking; that will open me up to letting other people talk with me about things. Then I can try to make the most connections and have those “Aha!” moments.

Other students you could pick out that were really thinking critically and challenging, raising questions about whether certain techniques would work well or whether certain ethical issues might come up with a certain type of research design, for example. Those would be fruitful discussions in an online setting

I imagine you rub shoulders with other students there from past classes maybe at the student union or somewhere else on campus, you may have developed friendships with some of those folks too, so those conversations continue outside of class which I think is dynamic and outstanding. But, that’s an area where speaking for myself, distance students don’t have that same type of connectedness with each other and those type of conversations on a regular basis. I do find it very easy to have conversations within the context of the class, but once the class is done, that conversation pretty much stops.

I think that in discussion, not just discussion with your classmates, but discussion with your friends, with family, and colleagues and different other realms of your life. It’s huge; you’re making other associations with the material outside of just those circumstances that strengthen that content itself. I think discussion is huge, that’s how you should be participating.

I think, to me, it is the diversity of my friend population in terms of the interests that they have, in terms of their career paths, is tremendously beneficial to me in being able to see dimensions to my work and to my interests that aren’t readily apparent because I’m not a physicist, I’m not an architect, I’m not a musician, whatever that other dimension may be. I am well served by people who think differently so I think there’s sharing things early on can help shape that.

Getting Information

When I talked to him, I tried to ask as many questions so he could give me more information.
So, I’ve enjoyed talking with him and sharing a little bit about the courses I’ve taken so far and picking his brain a bit from what he remembers from his doctoral program. That’s been fun, I won’t say that happens frequently; if I have to quantify that I would say those types of conversations happen maybe once every two months. A conversation will come up where we’ll talk about those types of things.

As far as the discussion of the new topic with colleagues, probably has a large part to play. From the perspective of it will often determine how I begin to study for this course and how I begin to engage with the course. It will determine basically the coordinates of my journey through the course, if you want to state it like that.

**Personal Relevance**

It depends on how interesting what I’m learning is. If it’s something I really enjoy doing and it’s something that is relevant to stuff I see every day, I’m way more likely to talk about it than if it’s something that’s kind of boring but I need to know to get other stuff done. It also depends on who I’m talking to. The people I live with are all civil engineers also, so we’ve taken most of the same courses. We talk about that stuff a lot more than I would with my other friends that I don’t live with that aren’t civil engineers. Basically, if it’s entertaining, if it’s something that I see on the street and I know about it, I’m likely to talk about it more than if it’s just random theory that I don’t know that I’ll ever use.

If it’s something I’m excited about or something that I feel is important to me as my skills as a teacher or a musician, I can be pretty willing to share those things. Not only other people I’m around at school, but my family and friends too.

**Appendix A: Contrasting Student-Centered and Teacher-Led Learning Experiences**

**Confidence**

The student centered one is fun because you get to do the project, work with the programs, make sure you know how to do it, and make sure that it’s functioning right. That can be a lot more useful in the job hunt. Also, I think you feel more confident in your abilities at that point because you’ve done it yourself and you know how to make it work and you’ve gone through problems with the programs if you can’t get it to work right. You now know the tricks so that everything goes properly.

The negative there is that you didn’t get to construct that on your own; it might not hit you as hard as if you were constructing it. On the other hand, if you have this student led class then one of the positives is that you’re really getting to know the people around you and getting to know what they have to think which can often be very different than what you think or the same as what you think.

The thing about student centered learning, is that piece that we talked about before when you have to explain or share what you’re learning, how that deepens your understanding.
When I learn with my classmates, I am not so nervous because we’re on the same level and it’s easier for us to communicate with each other.

*Short-Changed*

But, also go off down the rabbit trail sometimes. I think we’ve all been in places where that’s happened and we all sort of feel like we get short changed.

one of the biggest negatives of student led environments is that not all of the time students come into class prepared for the discussions that the teacher has set up or that the class has set up. You get off topic and then it becomes really hard to sort out what’s important for you to listen to and what’s not necessarily important for you to listen to. It can be kind of annoying.

some of the pitfalls of the student centered learning in a group sense would be that no one person may have either the personal experience to help lead the group or guide the conversation or the research or the learning process in the way that a traditional instructor led class might have. I’ve participated in group projects as a student and depending on the personalities involved and the assignment, some have been better than others. I’m not sure that I could point to those group assignments being necessarily a replacement for what the instructor brings to the learning process.

I think I value it less because it’s great to have a peer led discussion, but in the end, I want to talk to the expert.
Appendix T

Qualities of Engaged and Participatory Learners
Qualities of Engaged and Participatory Learners

Initiative

I would say to talk during class and ask questions that they have. Also, to not just do the bare minimum for the project. Realize that it’s stuff you will be doing when you graduate, so don’t skate by.

I think self-motivation is a key component of learning

I do try to walk the walk, I try to practice what I preach. When I read material online- all of my courses so far have been online- so as I’m reading my textbook, reading discussion posts on Blackboard for example, I’m reading all of that with critical thinking skills engaged and trying to objectively look at the information and ask myself the question, “How do we know this to be true? Can we take this particular claim at face value? What might be some other perspectives or contributing factors to the experience or the information that’s being conveyed in that material?”

follow the course, do your readings, but also look up current events about the topic you’re engaging with. Don’t be afraid to bring in outside sources; don’t rely on my sources within the course. If you have a current event or an outside source that you want to bring in for discussion- bring it. That livens up class discussion; it brings in ideas that create dialogue. Another thing is engagement in critical analysis. Be critical about things, question things, you don’t have to agree with the instructor.

So, critical analysis, bringing in outside materials, being able to ask questions, taking notes, writing down questions, these are things that engaged learners do. Of course, asking questions, as far as coming in after office hours if you want to discuss during office hours or after

be more active in learning, to find a more papers and read more papers by themselves, and not just to learn from class. The textbook is limited in what you want to learn. If you really want to do a good job and you want to learn more about that, extra after the class. Cooperate with both your professor and students are learning and discuss with them, you need to learn from each other.

I would say that it’s constantly on your mind. You have a dedication, in a sense, where you are quite single minded in the sense that anything can relate to your material, that’s how I’ve felt and that’s how I’ve tried to practice when I have been. When I have been taking courses that’s how I choose to be engaged with them so if I’m constantly turned on to the material, it helps to supplement my writing, it helps to supplement my learning, and I’m constantly making further associations with the material. It’s not just bound to the book, the material, the text and reading, or in a classroom setting it’s being reminded
of it in a real world sense. I think that it’s being engaged and turned on to it, being available to learning about that at all times.

Create Relevancy

have them write their own goals so they are focused on something in class instead of just doing what the teacher is telling them they have to do.

I would say to be active in the discussions, to really carry out assignments and projects for the class in a way that is meaningful to you, not just thinking about each task as something to check off of a list, but what you’re going to get out of it that’s going to help you in the future. Perhaps a participatory learner thinks about each task as preparation for future learning or preparation for future research instead of thinking of it as a hoop to jump or a step to climb

Reflect

As you know, with these programs there’s a lot of reading, a lot of studying, and a lot of thinking that goes on. At first, it’s a little overwhelming but I think I found that place where it was changing how I was thinking, it was changing and how I was stretching my head in new directions. It was painful at times, but there’s something about that learning that once you’re really engaged in the material, you know you’re passionate about it, you know you’re excited about it, you don’t feel like you’re learning anymore because you have to, it’s because you get to and because you want to.

I feel like a lot of engagement for people to just jump in and speak and join the discussion. For me, what I would tell people is that’s good but there’s a lot more listening that you could be doing and there’s a lot more reflection that you think a lot about before you say things. I think that’s often an engaged way that is forgotten

Form Relationships

I think it really matters to form connections with your cohort members or your fellow students as much as possible to also form them across campus with other graduate students. I think there’s a lot to be said for that and I think there is really a benefit in taking some of those mixed level classes and engaging with particularly the senior level undergraduates and honing our own skills as emerging researchers, emerging instructors, or whatever the case may be and learning from our experiences in working with the brightest of the undergraduate population as well.
Appendix U

Most Valued Learning Outcome from a Mixed Methods Course
Most Valued Learning Outcome from a Mixed Methods Course

Hands-On Experience

So, it would have to be not only a mixed method course, but something where what I was actually doing was my thesis work so I’m able to spend most of my time doing something that is directly related.

I would say for the engineering side of things, maybe not as much because that’s pretty much if you don’t have the numbers to back it up, then you don’t get to do it. But, for the planning, I think it would be good to just have the interpersonal skills of actually running the survey and conducting interviews and doing all that.

I would have to say the practice of doing a mixed methods project and really feeling that I have a good understanding of how that happens and how to do it on my own in the future.

It was a really valuable tool because it forced me to really start hashing out my dissertation ideas; what’s my research question, what’s my thesis statement? I had to has those out. It forced me to do that because I was sort of beating around the bush.

I think the higher learning outcome is that I can adapt this mixed method into my research. I can really use it after I learn it, not only that I know this and I know how to do this but I can use it. Application is the most important thing.

Clear Understanding

I think what I want to most walk away with is a better clear understanding of how mixed method works. Just in the understanding of maybe the types of studies that work better together, ways to work smarter not harder, and I really want to become a very savvy researcher so that when I’m ready to launch into my own study I’m able to do it in the best way possible and not just mumble through it.

That course, the biggest thing I took away from it because clearly I couldn’t take away all the nitty gritty parts of research with qualitative or quantitative, but I took away the big picture. I really thought a lot about, “there are these intentional ways of putting together this quantitative data and this qualitative data and when should you be intentional with this? How should you be intentional when you put them together?” It was a great experience for me, it actually helped revise what I was doing in the research study I was working with.

I think a better understanding of integrating quantitative and qualitative research methods and for myself personally, with the type of research often done in libraries, integrating survey research design with individual interview design.
In the course that I’m taking now, when we’re going over all three piece briefly, qualitative, quantitative, and mixed. The idea is to understand research design in those three different types of designs. It’s hard for me to answer that question because I’m at the point where I want to thoroughly understand, did this person do this correctly, did this person get from here to there, what were the steps, what were the variables?

*Collaboration*

I think, for me, the opportunity to find that collaborator who is on the other brain side of the equation that would be the ticket. I think as much as I would like to think that I would become an expert in it all, I don’t see that as my strength. I don’t really see that, I see that as potentially diverting or distracting from what I know is my strength. But, to be able to find somebody who I can collaborate with who also understands the value of this mutual collaborative work and of combining forces and maximizing our impact. That would be the ticket for me.
Appendix V

Permission to Reproduce TAM Graphic
Permission to Reproduce TAM Graphic

Sydney

You have my permission to reproduce the graphic in your dissertation.

Best wishes,

Fred Davis

________________________________________

From: sydney.e.brown@gmail.com [sydney.e.brown@gmail.com] on behalf of Sydney Brown [sbrown3@unl.edu]

Sent: Saturday, February 08, 2014 2:55 PM

To: Fred Davis

Subject: Permission to reproduce TAM graphic requested

Dr. Davis,

Would you grant me permission to reproduce the attached graphic in my dissertation?

I have described TAM, TAM2, and UTAUT as part of my literature review.

Thank you for your consideration.

Sydney Brown

University of Nebraska-Lincoln

Appendix B: Permission to reproduce TAM2 and UTAUT Figures

Sydney

You have my permission to reproduce the graphics in your dissertation.

Best wishes,
Fred Davis

From: sydney.e.brown@gmail.com [sydney.e.brown@gmail.com] on behalf of Sydney Brown [sbrown3@unl.edu]

Sent: Saturday, February 08, 2014 3:03 PM

To: Fred Davis; vvenkatesh@vvenkatesh.us

Subject: Permission to reproduce TAM2 and UTAUT graphics for dissertation

May I have your permission to use the following graphics as part of my dissertation literature review? I would greatly appreciate it. Thank you.

Sydney Brown, University of Nebraska-Lincoln