Exploring Students’ Conceptions of Research and Inquiry

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Abstract

While there is an abundance of literature on the pedagogy of teaching research methodology, little scholarship exists on the perspectives that research methodology students hold about inquiry. As instructors of an introductory research methodology course for graduate student practitioners, we know that students’ conceptions of “research” play a pivotal role in how they approach learning.

In methodology courses, students are exposed to and harbor a variety of different, even contradictory, ideas about what research entails. It is thus crucial for us to understand the ways students make sense of diverging and competing notions about research. It is also pedagogically important for us as instructors to structure class content and employ pedagogy in ways that effectively facilitate student learning based on this understanding. For these reasons, our investigation asks the following research questions: (1) How do graduate students in an introductory research methods course conceptualize the notion of “research”? (2) What are the pedagogical implications that emerge from understanding students’ conceptualization of “research”? (3) How does participating in this course engage and shape students’ conceptualizations and understandings of “research”? The results of the study should inform an improved framing and delivery of introductory research methodology courses with respect to both pedagogy and content so as to more effectively meet the needs of students at Indiana University and in graduate programs in other institutions of higher education. Pertinent to this Phase II proposal, should contribute to improving the teaching in Y520 at Indiana University, as well as extending pedagogical materials, including producing a textbook, for broader impacts. There are 92 student participants in the study with other 1000 pages of data and a budget of $4,991.30 to be used over 1.5 years.
A. Research Narrative

1. Purpose of the investigation and research objectives

The overarching purpose of this study is to understand how graduate students in an introductory research methodology course (EDUC-Y520: Strategies in Educational Research) conceptualize “research.” By better understanding students’ understanding of this fundamental concept (initially, formatively, and summatively), we hope to improve course delivery, as well as student engagement and learning outcomes. We also anticipate being able to use these understandings to produce a text and other curricular materials which speak more directly to the dynamic and varied nature of those understandings. Our proposal continues a study begun under Phase I.

Given our previous teaching experiences in this class, we determined that students’ conceptions of “research” and of their own relationship to the research process play a central role in how they approach learning in this course. Many Y520 students assume that doing research is irrelevant to their professional experiences (i.e. teaching, counseling, language education, and higher education administration), which often greatly undermines their motivation and engagement in this class. We expect that at the most basic level, students’ life experiences and identity claims shape both their understanding of what research entails and their motivation for learning. Furthermore, students often bring a “positivist-like” understanding of research to class and tend to hold to a limited idea that conducting research in the social sciences is all about experiments, control group, numbers and procedural elements associated with the scientific method.

During this course, students are exposed to a variety of different, even contradictory, ideas about what research entails, reflecting ongoing debates on the paradigms within the field of research methodology itself (Lather, 2006). It is thus crucial for us to understand how students make sense of diverging and competing notions about research, and how their understanding relates to their professional and everyday life contexts. It is also pedagogically important for us, as instructors, to structure class content and pedagogy in ways that effectively facilitate student learning based on this understanding. We ask the following research questions: (1) How do graduate students in an introductory research methods course conceptualize the notion of “research”? (2) What are the pedagogical implications that emerge from understanding students’ conceptualization of “research”? (3) How does participating in this course engage and shape students’ conceptualizations and understandings of “research”? Our goals for Phase II include: (1) answering these research questions more deeply and thoroughly (see report from Phase I), (2) disseminating the findings across local, national, and international audiences, (3) creating opportunities in the School of Education at IU for substantive dialogue about the course content and pedagogy with faculty whose master’s programs require the course, and (4) using the findings to develop pedagogical materials, most specifically a text.

To address the research questions, we collected data from both face-to-face and on-line sections of Y520 in Spring and Summer 2013, leaving open the possibility of collecting additional data in additional semesters as well. During Phase I of the study, we primarily focused on the first research question. We articulated themes and pedagogical insights from our preliminary analysis that we hope to further investigate during Phase II. Phase II will involve a more extensive analysis of the data and an effort to move from pedagogical insights to the systematic development of a text informed by the pedagogical insights. This proposal covers 1.5 years with a budget of $4,991.30.

2. Existing Scholarship

What little research exists relevant to teaching inquiry courses can be organized into two main categories: 1) effective pedagogical approaches and methods for teaching a research class, and 2) students’ and researchers’ general conceptualizations of the concept of research. The first

As a whole, authors of this scholarship argue for the merits of incorporating problem-based tasks and student-centered learning elements into research methods classes. Despite being pedagogically informative, these studies focus primarily on the logistics or outcomes of implementing these pedagogical methods. Yet, those studies failed to explore issues surrounding how students and teachers conceptualize “research” in the context of learning and teaching inquiry, as well as its intersection with pedagogical dynamics. Our study takes an inverse approach. Understanding starting conceptualizations and how those conceptualizations develop over the life of the course and building pedagogy to meet the structure and substance of those conceptualizations.

The second body of literature addresses how “research” is conceptualized from the perspectives of students, research supervisors and senior researchers. For example, Meyer, Shanahan, and Laugksch (2005) conducted a survey to explore how doctoral students conceptualize research and they identified seven categories of descriptions of those conceptualizations. Two other studies examined research supervisors’ conceptions of research in general. Bill (2004) identified that university-based research and researchers are privileged in participants’ discourse. That is, the idea that research is linked to particular jobs oriented toward research privilege the idea of research as a specialized domain of activity. Kiley and Mullins (2005) investigated how research supervisors of doctoral students conceptualize research and how they perceive the relationship between their own conceptualization and those of their students. In addition, Brew (2001) also examined how established researchers conceptualize research from qualitatively different perspectives. Our study will be put into dialogue with this body of literature (primarily out of Australia).

We found only a few studies related to teaching graduate-level research/inquiry courses. It is clear that our current understanding of students’ conceptualization of research as well as the evolution of this conceptualization throughout a semester is weak. We also note that many studies are descriptive or prescriptive in nature and not necessarily oriented towards taking action to change and improve teaching practices based on the results. The scholarship of teaching and learning has much to contribute here. Shortcomings in the literature affirm the need to carry out more student-centered action research that focuses both on student understanding and pedagogical innovation in the teaching of inquiry courses.

We expanded our literature review to include contemporary popular texts for courses like Y520 and found only two prominent organizational approaches. One approach, exemplified byFraenkel and Wallen (2006), is to organize the chapters according to research design, discussing the research process within those specified design types, for example, experimental design. Another approach, exemplified by Creswell (2013), is to have chapters oriented toward aspects of the research process, for example, quantitative data collection. Both organizational approaches proffered a single pedagogical orientation – namely, didactically inundating the student with research information as if inquiry is primarily a procedural, technical endeavor. Findings from Phase I suggest that a more learner centered approach to the content is warranted (see Section D for scholarly papers reporting on the findings from Phase I).

3. **Significance and impact the study may have upon undergraduate or graduate teaching, learning and assessment**

   As a core course required for most of the graduate students in the School of Education, at
Indiana University, Y520 plays a significant role in both (1) exposing students to the fundamental principles of social science research and (2) providing them with hands-on skills to conduct and consume research. However, both goals are not as learner-centered as they could be. Discussions within the Inquiry Methodology Program in IU’s School of Education indicate a need to significantly changing the delivery method of Y520 in the coming academic years to better meet the research-consumer identity of most students and enhance their engagement and learning outcomes accordingly. Our study will not only offer a platform for us as instructors to reflect upon and improve our own teaching practice, but will also benefit the forthcoming course reform. Moreover, implications will extend beyond Y520 since similar methodological courses are taught at the master’s level across universities nation-wide.

We anticipate a two-fold impact of this study. Our initial analyses (supported through Phase I) produced an articulation of students’ baseline understanding of research and how it relates to their identity and pedagogy. Now, we have a foundation from which to think about, and move more deeply into, exploring the pedagogical implications of students’ conceptualizations. In the first place, these findings have already begun to inform how we might frame the course, adjust course curriculum, and make appropriate pedagogical decisions. Additionally, we hope that tracking changes in students’ understanding of the concept of research over time and reaching a better understanding of how changes occur (i.e., through critical teaching moments vs. other life experiences, etc.) will also help us adjust the course curriculum and choose appropriate pedagogical designs and techniques. It will also help us to develop new instructional methods and substance that align with students’ identity claims in relation to research and, thus, optimally enhance their motivation and engagement in the class. Moreover, this approach nuances the way knowledge of research is structured. Secondly, we expect that our continued and deeper analysis of the data will facilitate extending our own ideas of pedagogy into a text that refrains from recapitulating a research cannon and instead invites students to engage conceptually and practically with research substance by invoking, challenging, and nuancing the conceptual structures and affinities we come to understand.

4. Outcomes of the work and how they will contribute to the assessment of student learning at Indiana University

The first phase of the study has resulted in a number of outcomes that have benefited the teaching and learning community of Indiana University. We have included our Phase I report so that you might you see the accomplishments from which we are moving forward through Phase II. In the second phase of the study, we anticipate the following contributions to the assessment of student learning at Indiana University:

1. Consolidate the collaborative reflection practice among Y520 instructors and associate instructors. Make substantive recommendations to the inquiry program regarding Y520. This course remains our most highly enrolled course and its success factors into nearly every master’s program in the School of Education. We will also convene a meeting with coordinators of master’s degrees programs in the School of Education to share our findings.

2. Continue to explore innovative teaching approaches for online and hybrid Y520 classes and similar methodology courses at other institutions. Recent years there have seen a significant increase in the interest of online and hybrid classes among higher educational institutions. Online and hybrid teaching platforms are still quite new for instructors in research methodology and as such, deserve more reflection and facilitation from the instructors.

3. Extend our contributions to pedagogy and curriculum reform by producing an innovative textbook and set of pedagogical activities for introductory level graduate research methodology courses. Our review of popular textbooks and our experiences with how students fail to relate well to the texts indicate the need for an updated textbook with a more refined understanding of philosophic assumptions of research methodology, as well as a delivery approach that better engages students. We aim to write the book so that students in
such courses will be (a) exposed in a more relevant way to philosophical, methodological, and practical elements of research and (b) engaged reflectively and critically in examining what structures their own conceptualizations of research.

5. **Research methodology**

We designed this study as a critical action research project. Its critical orientation is visible in the following ways. (1) Action research designs both blur the traditional distinction between researchers and practitioners and effectively impact the transformation from academic findings to educational practice – critiquing the status quo of power relations typically invoked through social science. (2) Our research draws on critical qualitative research methodology (Carspecken, 1996) and metatheory. (3) Its aims include creating a critical pedagogical approach.

During Phase I, we collected data primarily through archived class discussions and student assignments from both face-to-face and online sections of Y520, including formal course assignments, in-class discussions (for the face-to-face class) and online postings in the Oncourse forum (for the online sections) for over a thousand pages of data across 92 student participants. The study is approved by Indiana University’s IRB. For Phase I, we focused our analysis on initial essay assignments.

During Phase II of this project, we plan to extend our preliminary analysis of student understandings and identity claims by examining more of the data and pushing our analysis to more subtle layers of meaning. We will also engage in analysis of specific pedagogical practices and student engagements. We will appropriate our findings and insights into an expanded notion of pedagogy which translates insights into textbook ideas.

6. **Means by which you will measure the success of your project.**

The goals for Phase II of the project are to draw on what we have learned about student conceptions of research in order to (1) further our understanding how students’ conceptions of research develop through the engagement in the course activities and (2) extend our pedagogical approaches to include teaching learning engagements in the course and the production of a text that draws on the findings for how it positions and engages students.

1. Furthering our understanding of student conceptions will be assessed through dissemination of findings (see plans below) in scholarly venues; by engaging in validity checks on the research; and by identifying insights relevant for pedagogical innovations.

2. Measuring the success of our pedagogical goals will involve:
   - Applying pedagogical insights specifically to IU’s Y520 instruction (but potentially also to two other campuses);
   - Creating/integrating at least 4 learning activities into the instruction and into the text;
   - Providing an outline for reform and dialogue to the Inquiry faculty;
   - Developing a new text for courses like Y520;
   - Fostering dialogues with inquiry faculty and other school faculty to discuss reforms; and
   - Monitoring implementation through course evaluations and conferencing with faculty in substantive areas who require their students to take the course.

Assessing our contributions to the Scholarship of Teaching and Learning will include presenting our study at a Scholarship of Teaching and Learning (SoTL) conference, sharing through SoTL workshops, and/or publishing in a peer-reviewed journal focused on the scholarship of teaching and learning.

7. **Dissemination of results**

Our successful dissemination during Phase I (see the attached Phase I report and Section F below) foretells our potential for dissemination in Phase II. Give our dissemination in Phase I, we were invited to participate in a panel discussion on collaborative inquiry (for ICQI 2015) and to
participate in a new network on inquiry pedagogy. Minimally, we will participate in 2
conferences. Beyond conference presentations, we will submit a minimum of 2 new research
articles for publication in peer-review journals. Most significantly, Phase II focuses on the
development of a textbook that shifts the pedagogical orientation and content for courses like
Y520. We intend to disseminate our results in several forums related specifically to SoTL. These
include SoTL events at Indiana University-Bloomington, as well as submission of a paper
proposal to the International Society for the Scholarship of Teaching and Learning (ISSoTL)
2015 conference. Based on feedback in SoTL and other forums, we intend to submit a manuscript
for submission at a SoTL-oriented journal, such as *College Teaching*.

8. **Reflective teaching practices**

As a group, all investigators of this study have been engaged in a variety of reflective
practices since this study was first conceived. These practices relate to this project, specifically,
but also more broadly to our individual and collective efforts as instructors of Y520.

As instructors of this course, our reflective practices prior to and during the early stage of
Phase I included the following:

- Individual reflections on our own conceptualizations of research and assumptions
  regarding research/teaching research, as well as a group discussion on these written
  reflections.
- Individual reflections on our own expectations and pedagogical assumptions regarding
  teaching Y520, as well as group discussions and comments to one another on these
  written reflections.
- Individual reflections on our perceptions regarding learning objectives for Y520, both
global and specific topic-based objectives in the class, and group discussions about these
  individual reflections.

Through these discussions, we reached consensus regarding our overarching objectives for
Y520 as well as objectives for different content area topics, such as ontology/epistemology and
objectivity/subjectivity in research. Concretely, these reflections enabled us to decide upon
readings, activities, and assignments that we felt would best meet the learning objectives that we
developed.

During the spring and summer 2013 semesters, we engaged in ongoing reflection to jointly
reflect upon our experiences utilizing new tools for teaching this introductory research
methodology course. In the Fall 2013 and Spring 2014 semesters, those of us teaching Y520
continued to engage in reflection about our teaching and drew upon our experiences from the
Spring and Summer 2013 semesters to make changes to course content and structure. We have
also shared our reflections with other Y520 instructors and with instructors of similar courses at
other institutions and engaged them in our joint reflection and learning efforts.

For Phase II, we intend to continue reflecting as a group using technologies like Skype and
Dedoose to meet weekly. We anticipate that discussions surrounding the co-authored
development of a new textbook will play an important role in shaping our teaching practices. We
also plan to continue reflecting with other Y520 instructors, and are taking steps to develop a
structured forum for sharing reflective and pedagogical materials. We will pilot some of the
pedagogical materials developed and we will engage in reflective dialogue with current
instructors. This particular Phase II proposal supports 3 in-person writing retreats to facilitate the
reflective dialogue and writing process.
References:


B. Budget narrative

The proposed budget covers funding for 1.5 years totaling $4,991.30.

- Dedoose (web-based qualitative data analysis software): We have been using Dedoose to engage in collaborative data analysis and plan to continue doing so over the next 2 years. For groups of 3 or more, Dedoose access costs $10.95/month/person. We will need access for 3 investigators across 18 months. (One investigator has other funding providing her Dedoose access). Total cost: 10.95x3x18 = $591.30

- Writing Retreats: We will hold three weekend writing retreats during which all four investigators (now physically located in different parts of the USA) will come together for a weekend of intensive work on our textbook. In the past year, we have been meeting each other regularly to discuss our project via Skype. We will continue to do this in the coming year. However, it has become important to carve out larger working space together in a face-to-face context in order to move our discussions and writing to greater sophistication and efficiency, and that is why there is a need for writing retreats to create additional synergy for this project. Anticipated costs for each of these retreats include travel ($250, estimated flight cost for the investigator (Barbara Dennis) located furthest away to come to the area where the three other investigators are living (the northeast)); $50/investigator for gas costs for the other three investigators), housing ($500, estimated for all four investigators for 2-3 nights, assuming shared accommodations), and meals (approximately $100). Total cost: $1000 x3 = $3000.

- Conference attendance: We will present findings from this study at three different conferences during 2016 (AERA, ICQI, and the annual ISSoTL conferences). Two or more team members from the program will attend each of the conferences. Thus, we intend to use Phase II funding to help fund the cost of attendance for team members attending these conferences. We request approximately $1400 in conference attendance to help defray a major part of the costs of presenting.

<table>
<thead>
<tr>
<th>Budget Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Dedoose software</td>
<td>$591.30</td>
</tr>
<tr>
<td>Conference funding</td>
<td>$1400</td>
</tr>
<tr>
<td>Writing retreats (3 total)</td>
<td>$3000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$4991.30</strong></td>
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C. Research plan and timeline

Over the coming year, we plan to continue conducting analyses that we will use to inform future semesters of Y520 instruction. Our research timeline during 2014-2015 is as follows:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Activities</th>
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<tbody>
<tr>
<td>Summer 2015</td>
<td>• Continue analysis of data from 4 sections of Y520</td>
</tr>
<tr>
<td></td>
<td>• Submit conference proposal for AERA</td>
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<tr>
<td></td>
<td>• Write text proposal and obtain book contract</td>
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<tr>
<td>Fall 2015</td>
<td>• Continued data analysis</td>
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<td></td>
<td>• Submit abstract to a SoTL conference based on continued analysis</td>
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<tr>
<td></td>
<td>• Submit peer-reviewed article based on extended analyses</td>
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<tr>
<td></td>
<td>• Conduct 1st intensive writing retreat</td>
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<td></td>
<td>• Prepare pedagogical materials Submit conference proposals</td>
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<tr>
<td>Spring 2016</td>
<td>• Conduct 2nd intensive writing retreat</td>
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<td></td>
<td>• Implement pedagogical materials</td>
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<tr>
<td></td>
<td>• Present paper at a national/international conference (TBD)</td>
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<tr>
<td></td>
<td>• Engage in formative assessment of pedagogical implementations</td>
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<tr>
<td></td>
<td>• Conference with faculty</td>
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<tr>
<td>Summer 2016</td>
<td>• Conduct 3rd intensive writing retreat</td>
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<tr>
<td></td>
<td>• Reflection with others on the process</td>
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<tr>
<td></td>
<td>• Submit second paper for publication in peer-reviewed journal</td>
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<tr>
<td>Fall 2016</td>
<td>• Complete text manuscript and submit for publication</td>
</tr>
<tr>
<td></td>
<td>• Conduct summative assessment of pedagogical implementations</td>
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D.  

From Tacit to Deliberate Reflection:  
Consensus Formation and Position Taking in a Collaborative Action Research in  
Teaching Research Methodology  
Pengfei Zhao, Peiwei Li, Karen Ross, Barbara Dennis  
(Presented at the 25th Annual Ethnographic & Qualitative Research Conference, Dayton, Ohio, June 2013)

Introduction  
When teaching research methodology, reflection is always one of the most important learning objectives that, as instructors, we hope our students can grasp. However, a brief review of the literature on reflective teaching practice reveals that, although there are extensive discussions on this topic across various subfields of education, very few studies have been done in the field of research methodology. This in no way means that our field is too clear to be able to get rid of reflection. On the contrary, there are a myriad of unsolved questions in our field that a methodology instructor needs to address before even stepping into her classroom, such as the ceaseless discussion on the paradigm war, or the connection between educational research and practice. We thus see a necessity to engage in the conversation on reflective practice in teaching research methodology.  

Many of the current studies on this topic have a theoretical orientation, with the emphases on applying or synthesizing one or several philosophic underpinnings, whereas in this paper, we want to investigate it from a more empirical based approach, namely from the findings of a collaborative action research on teaching an introductory level research methodology class. The study was initiated last fall and its full title is “Exploring Students’ Conceptions of Research and Inquiry”. The purpose of the study as a whole is to understand how graduate students in an introductory course of social research methodology conceptualize “research” and “inquiry”, and to examine whether and how these conceptualizations might change as a result of participation in the course. In this paper, we report the preliminary findings of the action research with a focus on the instructors’ self-reflection.

Background of the Action Research  
The methodology course, “Strategies in Educational Research”, is an introductory level master degree course offered by Indiana University, School of Education to all the master students. For many of the students, this is the very first research class they take in school. Because the class is offered both online and face-to-face, sometimes this is also the first on-line class for the students. The goal of the class is to prepare the students to become more informed educational research consumers instead of producers, since most of them will become teachers, counselors and school administrators rather than professional researchers. All of the four action researchers, Barbara Dennis, Peiwei Li, Karen Ross and Pengfei Zhao have taught this class for at least twice as independent instructors. Among them, Barbara Dennis is the faculty member of Inquiry Methodology Program of Indiana University, who is also in charge of designing the class and coordinating all the teaching practice.  
The reason why we initiated this action research is that, as we keep having conversations about this class, we realize that we have many “how” and “what” questions related with the daily teaching practice that we could not figure out in a snapshot. After having many conversations and reading relevant literatures, we realized that these questions are not contingent questions, but rather questions any instructor teaching similar classes in our field could encounter. For example, we noticed there is a disconnection between students’ expectation of a research class and their daily practice. Many Y520 students assume that doing research is irrelevant to their professional experiences (i.e. teaching, counseling and higher education administration), which often greatly
undermines their motivation in learning. We suspect that at the most fundamental level students’ life experiences and their identity tend to shape their understanding of what research entails and their motivation to learning. Furthermore, Students often bring a predominant “positivist-like” understanding of research to class and tend to hold the idea that doing social scientific research is all about experiments, control group, numbers and so on. In addition, throughout the class students will be exposed to a variety of different, or even contradictory ideas, which reflect the ceaseless debates on the paradigms within the field of research methodology itself (Lather, 2006). In other words, we think this is a typical context in which a methodology instructor needs to navigate her practice.

Therefore, collectively we started this action research in the hope of finding our own way to approaching these questions and supporting each other in the decision-making process. After finishing the teaching practice that constitutes a major part of the study, we became interested in not only how these “how” and “why” questions are answered and practiced, but also how the consensus on various decisions has been achieved in our collective reflection process. Thus this paper is concerned not so much on the answers to these “how” questions as on how the consensus is achieved through deliberate reflection. Our research question is: How does the reflective practice facilitate the decision making process in teaching research methodology? In the typical context described above, what will be the primordial modes and internal structure of reflection and how can we probe its nature?

Preliminary Literature Review and Theoretical Framework

Reflective practice has been widely discussed during the last 30 years in various subfields of education (Schön, 1983, Freire, 1997, Lyons, 2010, Crducci, et al., 2013). Researchers approach this issue from different philosophic underpinnings. Noticeably, Dewey’s pragmatic version of “reflection” has exerted great influences on this issue. (Dewey, 1933) Schon’s groundbreaking articulation of reflection in and on action draws people’s attention to the tacit learning process taking place on the level of “know-how”. (Schön, 1983) In the book Pedagogy of the Oppressed, Freire made the insightful connection between critical reflection with the pursuit of social justice and the hope of transformation of the world. (Freire, 1997) It is here that reflection is integrated within the whole emancipation enterprise and become more dialogically oriented. Recently the discussion on reflection encountered the challenges from post-modernism. The concept of “reflexivity” is proposed to substitute “reflection”. The essential part of this challenge is a different understanding of the “subject” of reflection. Rather than an integrated actor with agency, post-modernists argue that the “subject” is fragmented and always determined and shaped by different social power. (Crducci, et al., 2013) We found out that an implicit theme that has not been explicitly addressed in the philosophic discussion is the relationship between subject and object in regard to reflection. It seems that Dewey’s version of reflection is still within the subject-object framework. It is in Freire’s work that we start to see the emergence of intersubjectivity. However, we see the best formulation of the intersubjectivity of reflection in Habermas’s theory, whereas in the literatures we have reviewed so far, this feature has not been noticed yet.

Based on Mead’s and Habermas’s insights, Carspecken developed the thoughts of “position-taking” and reveals its close connection with reflection in general. It deserves a long quote to illustrate this point:

Reflection is structured in relation to the formal speech positions. […] Reflection is basically an internal shift of position, so that a former state could in principle be talked about with others. The former state I am referring to could be any subjective or communicative state. If communicative it would be structured by a typification: a culturally shared understanding of a meaningful situation in which agents interact. When a reflection occurs the former state becomes an objectification framed within a new typification for communicating with others. The former state was something to be and act through; after reflection it becomes something
to talk about. A former state can be talked about when one occupies a new state in which to be and act through: a new typification. One must take a new position in order to represent an older position to an audience. Reflection is therefore internalized position-taking. One either talks about the former state with others or thinks about it in relation to an internalized audience. The sorts of internalized position-taking that can bring about a reflection may be specified as various points along a continuum. (pp. 259-260, Carspecken, 1999) Carspecken expounds the position-taking theory in a manner that reveals its close connection with reflection. Compared with reflection theories emphasizing on the “know-how” feature of reflection, we believe that a theory like this using the formal speech positions is more helpful in understanding the deliberate reflection, whereas in the scenario of conducting action research, the action researchers’ reflection is exactly this type of consciously conducted research. Therefore, we think it is appropriate to utilize the Carspeckenian version of reflection theory to examine the internal structure of reflection. Nevertheless, in the following section of this paper, Carspecken analyzes five different types of third-person positions involved in reflection, which we will not do in our analysis. We argue that it is possible and probably more appropriate to investigate the empirical types of positions involved in this specific scenario of reflective teaching practice instead of applying the pre-defined position-taking types. In this way, we can better unpack the particularity of the reflection in teaching practice with more details.

Meanwhile, researchers have also examined the different orientations and components of reflections. (Nelson et al, 2013). Nelson and his colleagues analyzed different orientations of reflection including technical reflection, reflection-in and on-action, deliberative reflection, personalistic reflection and critical reflection. (Refer to Figure 2 cited from Nelson et al’s paper, Nelson et al, 2013) In the following discussion, we will see the reflection involved in the decision-making process mainly falls into the category of deliberative reflection, but some of its contents also reach the category of personalistic reflection and critical reflection. In the same paper, Nelson also mapped out the different components of reflection that are the stimulus, content, process and outcome. (Refer to Figure 3 cited from the paper, Nelson et al, 2013) The following analysis focuses more on the “process” of reflection, its internal structure and dynamics, than on its content or outcomes.
Methods
The whole study is framed as a collaborative action research. All the four researchers assume
dual roles in the study, the role as instructors and the role as researchers. All of the instructors
have taught the class at least twice and obtained some pre-understanding on the course. The study
as a whole involves approximately 90 graduate students from 4 sessions of the “Strategies in
Educational Research” courses, including 3 online sessions and 1 face-to-face session taught in
spring and summer 2013. It is divided into three stages: Stage One is in the fall semester of 2012,
which is before teaching the course. At this stage all of the instructors had regular meetings in
2012 fall to reflect on their previous experiences of teaching this class and composed formal
reflection notes. This was also the primary time when the decision-making took place. These

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(Figure 2 is cited from Nelson et al, 2013)

(Figure 3 is cited from Nelson et al, 2013)
decisions include: a more refined curriculum of the course; the primary learning goals of the class, namely, what we want our students to take out of the classrooms; how to deal with the discrepancy between research and practice; the main pedagogical and evaluation strategies, and so on. Stage Two is the spring semester of 2013, when most of the teaching practices were conducted and data from the students’ side were collected. On this stage, the action researchers also held regular meetings to talk about the progress of the class and reflect on their practice. There were also email exchanges discussing pedagogical and substantial issues. Within this stage, the team also presented their ongoing research on a Brown Bag session hosted by Inquiry Methodology Program, Indiana University. Stage Three is from May of 2013 to the end of the summer, when all the data from both the instructors’ and the students’ sides will be finally collected and analyzed.

Since the paper mainly focuses on the reflection in decision-making process, we use the data primarily from the first stage of the study. The data include: (1) self-reflections on research assumptions written by the instructors prior to teaching the course for the given semesters, based upon knowledge gained through past teaching experiences in this particular course and other inquiry courses; (2) self-reflections on teaching pedagogy for this course, based on previous teaching experiences and students’ feedbacks; (3) the notes and audio recordings of the reflective meeting held regularly among the instructors prior to the teaching; (4) regular email exchanges on pedagogical or methodological issues.

Critical qualitative research methodology (Carspecken, 1996) and position-taking theory of reflection are employed to analyze the data, since it offers sophisticated analytic tools to delineate the holistic meaning horizons delivered by the data. Some of its methods, such as validity horizon analysis and role analysis, also offer insights on approaching the relationship between one’s self-reflection and her identity claims.

Analysis
When we first started to analyze our data, we encountered a difficulty: It is hard to pin down “reflection” discursively on the data. Let’s see three sets of examples below:

Example Set 1:
I was so into reading that for quite a long time, diving into a novel or a collection of poems was the biggest fun in my life. What drew my most attention in my reading was the myriad of experiences that the characters in the novels or stories have gone through. I could so easily resonate with them and sometimes almost felt like I was living in dual worlds—the world of reality and the world of my books. (Pengfei’s reflection)
I see research with human participants as best conducted as a sort of a conversation, where the aim is to learn about others’ experiences. (Karen’s reflection)

Example Set 2:
I do not view the publication of research as an end-state but rather as a part of the larger process of learning more about the world of which we are a part. (Karen’s reflection)
The predominance of quantitative studies across many disciplines in social sciences makes people easily get lost in the forest of numbers. I am not saying that I am against quantitative research, what I hold as a crucial belief is that we shouldn’t take the manipulation of numbers as the ultimate task of social researches or let ourselves lost in the truncated view that once you work out the computational result in SPSS or R, you work is done. (Pengfei’s reflection)

Example Set 3:
We both talked about our interests in working with people. Making connection with people probably satisfies some of our identity needs and it is about who we are and who we want to be. (Peiwei’s comment on Pengfei’s reflection)
Karen’s reflection is more oriented toward how research is conceptualized. Compared mine with Karen’s, I feel that this one is more formal and more systematic, whereas my own one is more narrative-based, and more related with my own experience of doing research. (Pengfei’s comments on Karen’s thought)

All of the examples here are from our data of the written reflection on our own assumptions about “research”. The two examples from the third set are from the following comments that we wrote to each other’s reflection using “comment” function in word document. Ideally, they are all part of the whole reflection process, but what we find difficult is that it is very hard to pin down the reflective components in the examples in the first set. For us, they are more like self-expression than self-reflection. So what is the difference between self-expression and self-reflection? It seems that by doing reflection, one needs to distance herself from the original action or experiences and then take another position to re-examine it. So is it possible for one to distance herself and re-examine herself without occupying other referential point? We noticed that different philosophers may have different answers to this question. For Husserl, this seems to be possible in his phenomenological reduction, whereas Habermas will argue with him that this subject-object model is never possible in reflection. In order to do reflection, one needs to be able to take a third person’s position to look at her previous action or experiences. However, this is not a good place to scrutinize the philosophic debate. What we want to demonstrate and all we want to say here is that the difficulty in discursively pinning down the reflective component reminds us of the different levels of reflection. When we as instructors taught the class, we have already conducted tacit reflection there. It still stays in the pre-linguistic stage. It is part of the teaching practice itself and could hardly be differentiated from it. When we teach, we navigate our action with the anticipation of the consequences and effects of the teaching in our view. We constantly adjust our teaching practice according to this anticipation and along with the adjustment of our teaching action, our anticipation changes, too. That is how tacit reflection takes place, but here we are concerned more about the deliberate reflection.

How does different levels of linguistically formulated reflection differ from each other? What is the difference between the examples in the three sets? As we have noticed here, the examples in the first sets are more expression-like, which is to say, discursively we can only pin down one formal speech position there. One may argue that as long as a person starts to use language to articulate her own experiences, she has already distanced herself to some level from her previous position and thus obtained a certain degree of reflection. This thought makes sense to us, but “linguistically”, we think there is only one first person position involved in the examples. Therefore, we think that the claim that Set 1 is more self-expression-like claims holds valid. In this sense, Set 2 is very different from Set 1. By saying “I do not view the publication of research as an end-state but rather as a part of the larger process of learning more about the world of which we are a part”, the speaker implicitly indicates that there is another position holding that the publication of research is an end-state. What this sentence conveys is that yes, I see the existence of another position and I understand its claim, but I don’t agree with it. Engaging another position makes it possible to clarify the speaker’s own position. This implicitly indicated position serves as an internal audience for the speaker or writer. In order to make such a claim, the speaker not only needs to understand her own position, but also needs to understand her counter-position, which thus enables her to stand in a position different from either the very first-person position or its counter-position. Instead, through the reflection she obtains a new position beyond the two.

Set 3 is also different from Set 2. For Set 2, the dialogue is still within the text itself. Internal audiences are implicitly indicated and the speaker’s position is clarified and elucidated. In Set 3, the dialogue takes place in reality between different action researchers. When my colleague comments on my reflection, she wrote: “We both talked about our interests in working with people. Making connection with people probably satisfies some of our identity needs and it is about who we are and who we want to be.” (Peiwei) Her comment makes it clear that we stand in
the same plane in understanding the connection between working with people and doing social scientific research. The same as in the examples in Set 2, the comparison here also allows the emergence of a new position, a “we” position here. The emergence of “we” position is possible only if she understands both her and my positions and also validates my position. This is the initial step toward the formation of consensus in the collaborative action research. It can be realized only through various position-taking processes and deliberate reflection.

Based on above analysis, Table 1 shows the difference between tacit reflection, and reflections in the three different sets:

<table>
<thead>
<tr>
<th>Table 1: Comparison of Different Levels of Reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Whether it is in pre-linguistic stage or not</strong></td>
</tr>
<tr>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Tacit reflection</td>
</tr>
<tr>
<td>Example 1</td>
</tr>
<tr>
<td>Example 2</td>
</tr>
<tr>
<td>Example 3</td>
</tr>
</tbody>
</table>

**Discussion and Conclusion**

In our analysis, we reveal how reflection takes place and its internal structure in our collaborative action research. We compare types of reflections taking place in the process of our study according to their different levels of deliberateness. Since our primary focus is on the emergence of deliberate consciousness in the linguistic stage, the analysis mainly focuses on the latter three types of linguistic reflections. However, this does not mean that we will degrade tacit reflection. On the contrary, we strongly feel that without the accumulation of everyday teaching practice and the embedded tacit reflection, it would be quite difficult for us to articulate our reflection and conduct this action research deliberately. Therefore, we see the tacit reflection as a foundation for our deliberate reflection.

We also notice that the emergence of deliberate reflection evolves from the more tacit, less explicit levels of reflection in teaching practice. It is not quite possible to have deliberate
reflection at the very beginning point of the teaching practice. It usually takes some effort and time to cultivate the more formal, more deliberate reflection. As in our case, we have both taught the class for several times and have been discussing teaching research methodology in a less formal way for more than 3 years. Thus, we suggest that a culture of reflection needs to be patiently and consciously cultivated in order for us to become reflective instructors.

What is more, the analysis also shows the significance of position taking both in the formation of deliberate reflection and in decision-making process. There is no other time than now that we see a most urgent need in our field for researchers to talk with each other and to form some consensus. And this urgency can be seen most vividly in the process of teaching research methodology. As practitioners, we know how confused and struggling we could be if we still trap ourselves in the lonely practice of ourselves.

Finally, we want to say that all the above analyses, including the analysis of position-taking, different levels of reflection and its facilitation on decision-making as well as consensus formation, show that deliberate teaching reflection is intrinsically inter-subjective. We can see the feature of intersubjectivity not only in the internal position-taking of our written reflection texts, but also in the dynamic of the dialogic consensus formation process itself. This feature, we may infer, does not belong to the particularity of the reflective practice of teaching research methodology, but deserves the attention from all the researchers who have interest in studying reflective practice in education.

References:
Exploring Students’ Conceptions of Research and Inquiry
Karen Ross, Pengfei Zhao, Peiwei Li, Barbara Dennis
(Presented at the annual American Educational Research Association conference, April 2014, Philadelphia, PA)

Introduction
While there is an abundance of literature on the pedagogy of teaching research methodology, little scholarship exists on the perspectives of beginning research methodology students—especially students who are not preparing for academic careers—regarding this subject. Yet, via our experiences as instructors of an introductory research methodology course for graduate student practitioners, we have come to a consensus that students’ conceptions of “research” play a pivotal role in how they approach learning. For example, we have noticed a disconnection between students’ expectations regarding research and their daily (professional and personal) practices. Many students assume that doing research is irrelevant to their professional experiences (for example, in teaching, counseling, or higher education administration), which often undermines their motivation in this class. Furthermore, students often bring a “positivist-like” understanding of research to class and tend to hold to the idea that conducting research in the social sciences is all about experiments, control groups, numbers and so on.

In methodology courses, students are exposed to a variety of different, even contradictory, ideas about what research entails, reflecting ongoing debates on the paradigms within the field of research methodology itself (Lather, 2006). It is thus crucial for us to understand the ways students make sense of diverging and competing notions about research. It is also pedagogically important for us as instructors to structure class content and employ pedagogy in ways that effectively facilitate student learning based on this understanding. All these reasons serve as the impetus for carrying out this investigation, which asks the following research questions: 1) How do graduate students in an introductory research methods course conceptualize the notion of “research”? 2) How does participating in this course shape students’ conceptualization and understanding of “research”? In this paper, we focus primarily on the first question and on students’ conceptualizations at the start of the semester.

Background and Theoretical Framework
The empirical literature on teaching inquiry courses can be organized into two main categories: 1) effective pedagogical approaches and methods for teaching a research class, and 2) students’ and researchers’ general conceptualizations of the concept of “research.” The first category focuses on pedagogical methods, which include: “active cooperative learning” (Ball & Pelco, 2006), “student-centered approach” (Barraket, 2005), “student-centered tutor-led approach” (Edwards, 2004), “experiential and heterodoxical approach” (Hubbell, 1994), “problem method” (McBurney, 1995), “group project teaching technique” (Ransford & Butler, 1982), “learning by doing” (Takata & Leiting, 1987; Winn, 1995), and “mixed method approach” (Tashakkori & Teddlie, 2003). Overall, authors of this scholarship argue for the merits of incorporating problem-based tasks and student-centered learning elements into research methodology classes. Despite being pedagogically informative, however, these studies focus primarily on the logistics or outcomes of implementing these pedagogical techniques. These studies fail to explore issues surrounding how students and teachers conceptualize “research” in the context of learning and teaching inquiry, as well as the intersection of these conceptualizations with pedagogical dynamics.

The second body of literature addresses how “research” is conceptualized from the perspectives of students, research supervisors and senior researchers. For example, Meyer, Shanahan, and Laugksch (2005) conducted a survey to explore how doctoral students conceptualize research and identified seven categories of conceptualization. Two other studies
examined research supervisors’ conceptions of research in general. Bill (2004) identified that university-based research and researchers are privileged in participants’ discourse. Kiley and Mullins (2005) investigated how research supervisors of doctoral students conceptualize research and how they perceive the relationship between their own conceptualization and those of their students. In addition, Brew (2001) examined how established researchers conceptualize research from qualitatively different perspectives.

While our study fits better with this set of studies than with the first, we found only a few studies related to teaching research methodology at a graduate level. It is clear that our current understanding of students’ conceptualization of “research” as well as the evolution of this conceptualization throughout the course of a semester is weak. Moreover, existing studies tend to focus on producers and future producers of research rather than students whose primary relationship to inquiry will be as consumers of research in their personal and professional endeavors. We also note that many studies are descriptive or prescriptive in nature and not necessarily oriented towards changing and improving teaching practices based on the results. These patterns affirm the need to carry out more student-centered action research in the domain of teaching inquiry courses, focusing both on student understanding and pedagogical innovation.

**Methods and Data**

We have designed this study as a critical action research project. Action research design blurs the traditional distinction between researchers and practitioners and effectively shortens the distance of the transformation from academic findings to daily practices. In this study, we take on dual roles as instructors and researchers, which brings the integration of our own practices and research into purview. We consider the research design critical in the sense that we do not take notions such as “knowledge” and “research” for granted. We aim to make students’ and our own assumptions more explicit through the reflective process of research. We also hope to explore how students’ identity claims influences their conceptualizations of “research” and perhaps their underlying motivation during learning. This aim of making the implicit explicit is best supported by a critical approach. Our methodological design is guided by Carspecken’s (1996) critical qualitative research methodology. As both a meta-social theory and a methodology theory, this approach is built on a critical epistemology that draws heavily on Frankfurt School critical theory (Habermas, 1972, 1981) and includes the value orientations and methodological implications for conducting research.

The project involves 4 instructors and approximately 90 students from 4 sessions of an “Introduction to Educational Research” class. Data from this project was collected primarily through archived class discussions and student assignments. The larger study from which this paper is drawn also includes data generated through written self-reflection on our own assumptions about research, email exchanges among instructors on pedagogical issues, and notes and audiorecordings of reflective meetings regularly held among the instructors throughout the teaching process.

Our analysis thus far has consisted of open coding of written course materials, in particular an introductory assignment asking students to describe their background and associations with ‘research’ and ‘inquiry.’ Coding was conducted collaboratively utilizing the qualitative data analysis software platform Dedoose (SocioCultural Research Consultants, LLC.). In this early part of our analysis and reflection on initial coding schemes, we have focused on elucidating emergent themes related to students’ understanding of research/inquiry, how their understanding evolves, and in what sense they connect this understanding to their educational practice and their own identity. We will continue to analyze this and other data as the project progresses.
Results

Through our analysis thus far, several important themes have emerged related to the way that students conceptualize the terms “research” and “inquiry.” The predominant theme relates to a perception of research and inquiry as externally-oriented, purposive action conducted in isolation. Firstly, many students describe both research and inquiry as concepts related to finding answers or solutions. In students’ descriptions of these terms, inquiry and research are thus conceptualized in ways linked to Weber’s concept of purposive action – action undertaken in order to achieve a specific end (Weber, 1925; Merton, 1936). Secondly, students seem to think that conducting research is a means of discovering, accumulating, and evaluating knowledge, which itself is assumed to exist externally to the knower, as part of the objective world. Finally, students’ descriptions suggest that those who conduct research are experts working in isolation; very few students address the communicative feature inherent in the research process.

Although overall research and inquiry were both characterized as purposive endeavors, we also note several key distinctions. Most students differentiated between research conducted in formal (academic) and informal (“daily life”) settings. The term “research” was often associated with more formal processes, while “inquiry” was used to describe processes of investigation undertaken informally. Likewise, “inquiry” was connoted as a “curiosity driven,” “enjoyable,” “open” process undertaken in a non-systematic manner. “Research,” on the other hand, was often described utilizing terms such as “systematic,” “scientific,” “tedious,” and “formal,” and in many cases was described as a part of broader “inquiry” processes that encompass all forms of investigation. These distinctions suggest that students make a clear differentiation between investigations that occur as part of an academic endeavor and those that occur elsewhere, even as similar processes take place in both cases. Moreover, the distinctions point to a perception that “research,” as a “formal,” “systematic” endeavor, is something that is distant from students’ own experiences, whereas “inquiry” is something more ordinary that resonates with the way students make meaning of their everyday lives.

Finally, we note that students made a wide range of connections between past experiences and their understanding of the notions of inquiry and research. Previous educational experiences seem to be most influential in shaping their conceptions of these terms: many students mentioned inquiry-based class projects, work experiences and their undergraduate majors as significant. Some students also discussed the significance of family background, as well as their own characteristics and identity as contributing to their understanding of research and inquiry.

It is important to note the preliminary nature of our analysis thus far. In our on-going analysis, we will also use counter-examples to explore the boundaries, trouble the consistencies, question the conceptualizations, and critique hegemonies that are reconstructed through these themes. Counter-evidence invites us to think more complexly about the data and encourages us to think of oppositional structures through which the divergences can be understood.

Significance

Results of our preliminary analysis point to a number of implications for the structure, content and pedagogy of introductory research methodology classes. For instance, it is important to consider the significance of students viewing research and inquiry as endeavors limited to the realm of purposive action. This is particularly relevant for social research where communicative action is more foregrounded in constituting knowledge and the research process itself. In this conception, issues such as value or ethical conflicts cannot be addressed via inquiry and are excluded from the vision of doing research. Such a perspective suggests the need for instructors of research methodology courses, not only to help guide students towards an expanded understanding of epistemology and methodological approaches that are part of the investigative
process, but also to emphasize a broader notion of the purposes research serves and the opportunities it creates in the communicative and transformative realms.

Similarly, the distance students place between themselves, their everyday experiences, and what it is that constitutes “research” points to a need for making stronger connections between the content emphasized in methodology courses and its application not only in academic, but equally important in personal, and other professional contexts. This is particularly important in courses where students are primarily practitioners rather than future academic or other producers of empirical scholarship. Interestingly, this distance is well reflected in the drastic differences in students’ conceptualization of “research” and “inquiry”. It is striking that “inquiry” carries the connotations of being curious, open, and critical – orientations we strive to cultivate during a research class, which nonetheless seem to be missing from how students conceptualize “research”. This suggests it might be fruitful to integrate such spirit of “inquiry” more fully in students’ understanding of “research”.

In sum, we suggest that in order to improve the quality of research methodology instruction, it is necessary to integrate students’ initial conceptualizations into the content and structure of the course. Explicating these underlying understandings will not only facilitate mutual understanding between instructors and students, but will also enable pedagogical and theoretical reflections that can improve the relevance of such courses for professionally-oriented students.

References


Methodological Reflections on Using Qualitative Data Analysis Software (QDA) in Collaborative Qualitative Projects
(Presented at the annual International Congress of Qualitative Inquiry, May 2014, Urbana, Illinois)

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Abstract:
It is widely assumed that analyzing qualitative data collaboratively means that all researchers code the data using the same set of codes. Qualitative data analysis software programs, such as NVivo and Dedoose, have embedded this assumption in their designs, which in turn reinforces researchers’ assumptions and constrains their perceptions of collaborative qualitative data analysis. What underlies this assumption is a theory of meaning that decontextualizes and reduces the pragmatic meaning of data, and a theory of validity that is based on repetition rather than consensus.

Drawing upon collaborative action research focused upon teaching an introductory research methods class, we argue for a more dynamic and dialogue-oriented approach to conducting collaborative data analysis. We also call for more reflection on the role of qualitative research software, arguing that it should not be viewed simply as a toolkit, but as a medium through which we can creatively and methodologically develop a relationship with the data.
Exploring Graduate Students’ Understanding of Research: Links Between Identity, Validity, and Research Conceptions

Submitted September 2014

Karen Ross, Barbara Dennis, Pengfei Zhao, Peiwei Li

Abstract
Graduate students are exposed to competing notions of what constitutes research. As research methodology faculty, we would benefit from understanding how students make sense of this concept. In this paper, we explore conceptualizations of “research” as expressed by graduate students in a research methodology course, as well as the way that student narratives illustrate their own identity claims in relation to research. We develop the analytical concept of “pragmatic fissures” to explain the tension often present between the way students conceptualize research and the way they perceive themselves in relation to the research process. We suggest that these pragmatic fissures provide an opportunity for expanding pedagogical approaches to course delivery as well as approaches to methodology textbook design.

Keywords: research, identity, methodology, teaching & learning
Introduction

While there is an abundance of literature on the pedagogy of teaching research methodology, little scholarship exists on the perspectives of graduate students at the beginning of their research methodology coursework. Yet, via our experiences as instructors of an introductory research methodology course for graduate student practitioners, we have realized that students’ conceptions of “research” play a pivotal role in how they approach learning the methodological material. For example, we have noticed that many students perceive research as something academic experts do and not something they themselves might engage in through their daily (professional and personal) practices. Thus, many of our students assume that doing research is irrelevant to their professional experiences (as, for the most part, teachers, counselors, or administrators) – an assumption which can undermine their motivation for learning. Furthermore, students often bring a “positivist-like” understanding of research to class and tend to hold to the idea that conducting research in the social sciences is all about experiments, control groups, numbers, and so on, which coincides with the notion that a certain kind of expert rather than educational practitioner carries out research. We argue that a better understanding of student conceptions could facilitate the teaching/learning process and help instructors better guide students to appreciate the relevance of methodological issues to their own professional lives.

Typically, in methodology courses, students are exposed to a variety of different, even contradictory, ideas about what research entails, reflecting ongoing debates on the paradigms within the field of research methodology itself (Lather, 2006). Yet, for practitioner-focused programs in education, those debates and paradigms are often reduced to non-practical arguments, which do not easily translate into professional action. In our experience, moving toward a more dialogically-engaged learning opportunity requires us to understand the ways students make sense of these diverging and competing notions about research. In the absence of an understanding of student conceptions of research, texts and instructors must make assumptions about the learner, which impact both the substantive and pedagogical aspects of the course.

Given the paucity of studies on graduate student conceptualizations of research, our larger exploratory study asks the following research questions: 1) How do graduate students in an introductory research methods course conceptualize the notion of “research?” and 2) How does participating in this course shape students’ conceptualization and understanding of “research”? The larger project has been funded through a university Scholarship of Teaching and Learning program. This paper focuses only on findings related to students’ conceptualizations at the start of the semester. Specifically, drawing on student essays about their conceptions as articulated during the first week of class, we develop the concept of “pragmatic fissure,” which describes a contradiction between the way students position themselves pragmatically in relation to their talk about inquiry and the substance of that talk itself. We discuss the implications of these fissures for developing pedagogically appropriate approaches for teaching introductory research methodology.

The primary contribution of this paper to the literature is our emphasis on student identity and conceptualization, and the relationship of each of these to one another. We contrast this with much of the existing literature on research methodology courses (and the proliferation of texts for use in such courses), which focuses more on the substantive
content rather than on the students and their perspectives. We suspect that doing this serves to perpetuate a positivist theoretical model of knowledge because these studies and texts fail to take up a dialogic relation with students’ own ways of thinking and being. In this paper, we draw on critical pragmatism as the theoretical framework in our conceptualizing of knowledge relevant to the course itself and the methodology for conducting the study. The concept “pragmatic fissure” provides us with the opportunity to relocate the content-based goals of introductory research courses within an understanding of student learning possibilities.

**Empirical Milieu**

There is a small body of empirical literature addressing how “research” is conceptualized from the perspectives of students, research supervisors and senior researchers. For instance, Meyer, Shanahan, and Laugksch (2005) conducted a survey to explore how doctoral students conceptualize research. Students were asked to describe how they would explain research to a stranger, how research is seen in their discipline, why research is done, what successful researchers actually do, and what constitutes good research. Responses from 156 students were thematically analyzed to explore student categorization, resulting in eight emergent conceptions of research: as information gathering, as discovery of truth, as insightful exploration and discovery, as analytical and systemic inquiry, as about incompleteness, as re-examination of existing knowledge, as focused on identifying, studying, and solving problems, and as a metaphor. (The eighth category, termed “misconceptions,” included statements demonstrating incorrect knowledge about the research process). Survey response excerpts were then operationalized as discrete items that were utilized to create the first Students’ Conception of Research Inventory (SCoRI), which was presented to a second set of graduate students. Factor analysis of student responses demonstrated the independence of the eight dimensions presented in the first part of the study.

Meyer et al.’s (2005) study is helpful not only for providing a relatively comprehensive account of how students understand and conceptualize research, but also, through the second part of the study, for indicating the strength of variations in these conceptualizations. As such, the study provides an important foundation for considering how instructors might respond pedagogically to students with varied perspectives on what constitutes research and its importance. The focus solely upon doctoral students, however, limits the utility of these conceptualizations in considering how to approach teaching research methodology to students with a practitioner focus; moreover, the authors’ thematic analysis provides little opportunity for examining how conceptualizations intersect with student perceptions of self and their identity claims.

Pitcher (2011) utilized metaphor analysis to illustrate dominant conceptions of research held by 59 doctoral students at an Australian university. Pitcher’s analysis points to four dominant metaphorical concepts characterizing the way that research is conceptualized. First, the metaphor of research as explorative encompassed student responses that related to discovery and exploration. The second metaphor, research as spatial, included responses referring to research as actions covering an “area” or “field” of interest and “spreading” one’s knowledge in that space. Third, research as “constructive,” encompassed responses that privileged adding to existing knowledge as well as those referring to the construction of a research question/research methodology.
Finally, the metaphor of research as organic was used to describe responses that “gave the feeling of research being alive and organic for the researcher” (Pitcher, 2011, pp. 979).

Beyond his description of research conceptualizations, Pitcher’s study is important in that his use of metaphor analysis provides some insight into the identity claims of respondents to his survey. As Pitcher notes, “Since the metaphors are often unconsciously [or tacitly] generated they will reflect the person’s underlying feelings and understanding, which they may be unable or unwilling to express consciously [or explicitly]” (2011, pp. 973). While his analysis does not extend beyond reconstruction of the metaphors themselves, these underlying feelings are a starting point that might be used to reconstruct the way individuals perceive themselves in the research process, as well.

Other studies in this body of literature also provide implicit connections to the identity claims of those conceptualizing research. Of this body, three studies in particular, described below and analyzed as a whole, are relevant for this study. First, Brew (2001) conducted a phenomenographic study, interviewing 57 senior researchers at an Australian university to better understand their conceptions of research. Her analysis yielded four main conceptions of research. First, the “domino variation,” focused upon research as a series of tasks, activities, and so forth, to be combined to produce a final product. Brew described the second conception as the “trading variation,” foregrounding the products of research (publications, grants, etc.) as things to be created and then exchanged for prestige, money, or recognition. Both the domino and trading variations emphasized an external orientation (with a focus on producing something), in contrast with the other two conceptions, which emphasized achieving understanding (internal orientation). Those conceptualizing research with what Brew referred to as the “journey variation” focused on the growth or transformation of the researcher through the research process; conceptions fitting into the “layer variation” focused on bringing to light underlying explanations or ideas backgrounding data or existing theoretical ideas. Moreover, Brew also differentiated between those variations of research conceptualization in which researchers were present (as in the layer and trading variations) and those where researchers were separated from the research process described (the domino and layer variations).

In another study, Kiley & Mullins (2005) investigated how research supervisors of doctoral students conceptualize research and how they perceive the relationship between their own conceptualization and those of their students. Fifty-three doctoral supervisors in Australia, New Zealand, South Africa, and the UK were asked how they defined research and what they considered good research and good researchers, as well as how they defined good student researchers and how their own views of research differed from those of their students. The descriptors utilized by participants in the study to describe good researchers – including personal and intellectual qualities as well as research skills – implicitly suggest claims they would make about their own identities. In other words, a description of researchers as, for instance, “curious and open to new ways of thinking,” implicitly suggests how participants in this study using such a description might describe themselves as researchers.

Finally, Bills (2004) utilized an ethnomethodological approach to identify the descriptive categories research supervisors utilized when describing their
conceptualizations of research. Through her analysis of focus group transcripts, Bills highlighted the way that supervisors described research using the dichotomous categories of university and non-university researchers/research, and how this dichotomy reflected a construction of university research/researchers as “proper,” and privileged over other forms of knowledge, contrasting with the construction of non-university research as “not research.” While her analysis did not explicitly address the identity claims of supervisors participating in the focus groups, her analysis implicitly suggests how these research supervisors, all of whom were university-affiliated, saw themselves in contrast with individuals outside of university settings.

As a whole, these studies provide an initial understanding of how “research” is conceptualized by individuals affiliated with academic settings. However, existing studies tend to focus on producers and future producers of research (i.e. doctoral students) rather than students whose primary relationship to inquiry will be as consumers of research in their personal and professional endeavors. As consumers we might expect the identity connection to research will look different than it would for producers, though this is certainly something that warrants more investigation. Moreover, the relationship between research conceptualizations and identity claims is implicit at best in most studies. These studies are also primarily descriptive in nature, and lack an explicit focus on how conceptualizations of research – especially in relation to identity claims – might provide a space for re-imagining pedagogical approaches to teaching research methodology or approaching research supervision.

In addition to studies on conceptualizations of research, also relevant to this study is the empirical research on teaching methodology courses (see, e.g., Ball & Pelco, 2006; Barraket, 2005; Edwards, 2004; Hubbell, 1994; McBurney, 1995; Ransford & Butler, 1982; Takata & Leiting, 1987; Tashakkori & Teddlie, 2003; and Winn, 1995). Yet, our review of this literature shows that these studies focus primarily on the logistics or outcomes of implementing pedagogical techniques, without grasping how students and teachers conceptualize “research” in the context of learning and teaching inquiry, or the intersection of these conceptualizations with pedagogical dynamics. These patterns in existing scholarship affirm the need to carry out more student-centered research in the domain of teaching inquiry courses. In particular, there is a need for scholarship focusing on student understanding and self-identification as well as upon the population of students whose interaction with research will primarily be as consumers rather than producers, with an eye to fostering pedagogical innovation.

**Methodology and Data**

We have designed this study as a critical action research project (Fine et al, 2003) contributing to the Scholarship of Teaching and Learning practices (Huber and Hutchings, 2005), which is devoid of literature on the teaching and learning of research methodologies. Action research design blurs the traditional distinction between researchers and practitioners, and effectively shortens the distance of the transformation from academic findings to daily practices (Fine et al, 2003). In this study, we take on dual roles as instructors and researchers, which brings the integration of our own practices and research into purview. We consider the research design critical in the sense that we do not take notions such as “knowledge” and “research” for granted. We aim to make students’ and our own assumptions more explicit through the reflective process of
research. We also hope to explore how students’ identity claims influence their conceptualizations of “research” and perhaps their underlying motivation during learning. This aim of making the implicit explicit is best supported by a critical approach. Our methodological design is guided by Carspecken’s (1996) critical qualitative research methodology and the Frankfurt School critical theory (Habermas, 1972, 1981), which acknowledges value orientations and advances methodological implications.

The project involves four instructors and 92 students from four sessions of a graduate “Introduction to Educational Research” class. The formats of those classes varied (there were three online sections and one face-to-face section). Data analyzed for this particular paper included student introductory essays on the meaning of research/inquiry, assigned as part of the first week’s work. The assignments were similar but not identical across the four sections: in two sections, students were asked to define both research and inquiry, and to discuss their own experiences with each of these concepts, while in the other two sections, students were simply asked to respond to the prompt, “What is research?” Since in two of the sections, students were specifically asked to address the relationship of the word “inquiry” to “research,” this focus was quite foregrounded for students writing from those sections, but not at all present in the student essays of the other two sections. This distinction was dealt with analytically, by reconstructing interpretations implicit in the distinctions made, without focusing on the idea of the distinction itself.

In two of the four sections, the essay was graded on a pass/fail basis; in the third and fourth sections, the essay was worth 10 points out of a total of 100 and 295 points to be earned over the semester, respectively (though everyone who submitted the assignment earned 10 points, effectively then a pass/fail score). Across the four sections, 96 students submitted the essay assignment; however, four students opted out of the study and their assignments were not analyzed. The length of student essays ranged from approximately 250-700 words, with most students responding in approximately 350-500 words. The data collected in all sections were read by all four of us. Data were collected after the end of the course, with grades having been submitted as approved by the university Internal Review Board.

The larger study contextualizing our discussion in this paper also includes archived class discussions and other student assignments in addition to data generated through instructor written self-reflections on our own assumptions about research, email exchanges among instructors on pedagogical issues, and notes and audiorecordings of reflective meetings regularly held among the instructors throughout the teaching process.

Our analysis for this manuscript consisted of reconstructive, emergent coding of the introductory assignment described above (Carspecken, 1996). Reconstructive analysis draws on Habermas’s insights and best fits our dialogically and socially-enriched conception of knowledge and meaning; we believe that reconstructing the meaning of student texts is the best way to articulate the rich and complex meaning involved in the writings. Reconstructing stands in contrast to the idea of “representing” meaning through a correspondence between a code and an element of the meaning. Instead, reconstructions involve making explicit a range of implicit, plausible meanings that actors and their interlocutors might presume to share. The hermeneutic aspect of this approach refers to the situated, interpretive process implicated in reconstructing meaning (Carspecken 1996). This process is characterized by the act of position-taking with respect to research
participants, but also by being reflexive about the norms upon which one depends and how they influence meaning reconstruction, then using this reflection as the basis for modifying impressions of meaning, continuing to reflect, modify, and so on. In other words, a hermeneutic, reconstructive approach to research is an iterative process that enables meaning reconstructions to more and more closely approximate meaning as it is made and understood by participants in research studies.

Our approach to coding was to reconstruct the meaning of student texts through dialogue with one another. We used the qualitative data analysis software platform Dedoose (SocioCultural Research Consultants, LLC.) to coordinate our coding process and outcomes. The collaboration was an important structure of the analysis process because through it we explicitly engaged in dialogue about the meaning of the texts we were analyzing and our own theoretical ruminations. Thus, the dialogue implicit to every analysis process was brought to the foreground as we were asked by one another to explain, revisit, re-articulate, and affirm interpretations. In the early part of our analysis and reflection on initial coding schemes, we focused on elucidating emergent themes related to students’ understanding of research, how this understanding evolved (prior to the course), and in what sense students connected this understanding to their educational practice and their own identity. Our discussions led us to identify emergent themes centered on the relationship between students’ conceptualizations of research and their own identity claims. This analysis not only drew upon thematic coding of course materials, but also included reconstructive analysis of narrative structure and language utilized, as well as identity claims explicitly and implicitly made by students in their written assignments. Changing perspectives allowed us to see more nuances in our data – for instance, it enabled us to address the disconnection between students’ analytic conceptualization of research and the narrative form they used to present how they come out with this specific conceptualization. Utilizing this approach also enabled us to examine the underlying tension between students’ identity claims and their feeling of being alienated by doing research.

Validity Concerns and Strengths

Validity is internal to meaning (Habermas, 1981; Carspecken, 2003; Dennis, 2013, Korth, 2002). This conception of validity was part of our approach to analysis (as we discuss below) and it is also taken up as an assessment of the study as an empirical research study. The validity questions relevant for this research include: Are the data what we say they are? That is, did people write what we say they wrote? To what extent are our interpretations plausible? Were participants able to relate to the claims we made about their understanding and identity? [1]

To establish the validity of our analysis, we used peer debriefing, consistency checks, negative case analysis, strip analysis, and long term engagement with the data (Carspecken, 1996). We worked together recursively and challenged our interpretations over months, meeting regularly as a group of four and in pairs to review our interpretations. When we did not agree on interpretations, we kept the disagreement alive and retained the complexity of meaning. The findings we report below will reflect those complexities.

Critical Pragmatism: Our Meta-theoretical Perspective
As alluded to above, our own methodological and substantive perspectives draw from critical pragmatism as our methodological meta-theory. Such an approach assumes that meaning is social constituted and always has uncertainty embedded within it, even if it is not necessarily experienced as uncertain. Uncertainty emerges in meaning because an act always could have been otherwise, there is never a one-to-one correspondence between an act and meaning, and it is not possible to entirely explicate meaning in a way that satisfies existential needs for certainty (Carspecken, 2003; Dennis, 2013). Knowledge is always fallible and should be critiqued to better understand its limitations, biases, blind spots, and ideological roots (Kincheloe, McLaren and Steinberg, 2013). Engaging in research always positions the researchers in relation to the participants and the effects of power in such a situation must not be ignored (Korth, 2005). Knowledge is not neutral and is always at least a reflection of the cultural context within which it is established (Korth, 2005). Knowledge is also communicative accessible and is best understood as dialogically constructed. In fact, our own conceptualizations of research carry forth these same assumptions. This means that we anticipate the outcomes of our inquiry to plausibly and faithfully reconstruct participants’ conceptualizations in order to dialogue with those conceptualizations and begin a conversation that takes seriously the perspectives students bring to the knowledge-imparting context of learning. Our aims do not include generalizing to other students on the level of conceptualization, though the dialogues made possible through this study ought to indicate the potential for such dialogues and for improved understandings of the range and structure of students’ thinking. Primarily, we hope to spark dialogue about the link between identity and learning, conceptualizations of research and pragmatic fissures associated with one’s identity engagements.

**Understanding students’ writing of the assignments as a “speech act”**

Central to our analysis is an engagement with the written assignments of our students as “speech acts.” Understanding speaking and writing (and indeed, all forms of communication) as “speech acts” means that we do not look at speaking simply for the sake of “speaking” at a semantic level, but as something in which individuals engage for the sake of “doing things”. That is, speech acts are acts of communication that people utilize with an intentions and effects in specific contexts where their actions are likely to be understood (Austin, 1975; Searle, 1965, 1969).

In face-to-face communication, understanding a speech act means taking into consideration not only the literal meaning of the speaker’s words, but also her tone, her facial expressions and gestures, and the underlying meaning she intends to convey through the semantics, as well as the way in which the words “act” in an interaction – for example, acting as an request for more guidance or as a shield from questions. When this is translated to understanding the writing assignment analyzed to produce this paper, it is important to consider a number of factors beyond the essay content. For instance, we considered impeti for the assignment itself and remembered that students wrote their assignments both to meet a course requirement and to gain new understandings of research through self-reflection. Moreover, we considered the intended audience of the writing. In this case, students wrote these essays with a clear reader in their mind: their instructors. Their purpose, therefore, is to communicate with instructors about their understanding of research, and for some of them, this assignment also served as an
opportunity to establish a constructive relationship with course instructors at the starting point of the semester. That is partly why some of them not only wrote about how they understood research, but also about how eagerly they wanted to learn more about research and how open they were in terms of changing their existent understandings. The tone, choice of words, and style of completing the assignment was part of how students enacted their perspectives on research. We did not treat these as invisible or unimportant. Finally, we can examine this speech act in terms of intended format. In this assignment, students presented a final product in the form of an essay. While as instructors we did not explicitly require a specific writing format or genre, students knew that for an academic graduate assignment, they were not supposed to write, for example, a poem or something fictional, but rather were expected to reveal their actual understanding of “research.” In our analysis, we addressed these considerations as well as the semantic content of students’ responses to the assignment prompt.

**Speech acts and validity**

As stated above, the critical perspective of this study means that we see knowledge as socially constructed as a communicative achievement. This has implications for the validity of communicative acts. Here, we draw upon the understandings of validity articulated by the sociologist and philosopher Jürgen Habermas, discussing them in limited form as adapted by Carspecken (1996) and Korth (2002)/Dennis. [2] Habermas (1981) states that every meaningful act references objective, subjective and normative-evaluative claims, some of which are foregrounded and some of which are consciously and unconsciously assumed by the actor (Carspecken, 1996; Habermas, 1981). Likewise, Habermas distinguishes between objective, subjective, and normative categories of validity. For example, objective claims are about things that can be accessed by everyone in the same ways (i.e., through agreed-upon forms of measurement); therefore, they can be verified on the basis of accuracy. Subjective claims, which are claims to which only the actors has access, are verified on the basis of the sincerity and authenticity of the subject. Finally, normative-evaluative claims are verified “by examining whether the given acts ought to be considered good or bad, right or wrong” (Korth, 2002, p.384). In tandem, the cluster of validity claims implicated in any communicative act (speech-based or non-linguistic communicative act) constitutes its meaning, which is always open to critique.

Of particular importance for this manuscript is the way that Habermas theorizes the relationship between validity, validity claims, and meaning. According to Habermas (1981), this relationship is such that in terms of pragmatic understanding, understanding a speech act means understanding the conditions under which a falsifiable validity claim might be considered true, or, in other words, the validity criteria according to which this speech act might be assessed. Moreover, Habermas asserts that responsibility for demonstrating the validity of any given speech act falls upon the actor. That is to say, if any of the validity claims (objective, subjective, normative-evaluative) are challenged by others, the person making the speech act (speaking or writing) is responsible for demonstrating that she means what has been said or written. Here is an example: If you are cut in line, and you tell the person who cut you in line, “You should not cut me in line,” you must be able to offer grounds or reasons for why you have made this statement. For another to understanding the meaning of your statement, she must at least tacitly
understand the justification you could provide to support your statement, if she were to disagree. This element of Habermas’ Theory of Communicative Action is particularly important for understanding students’ conceptualizations of research and the validity claims inherent within these conceptualizations, as we discuss in more detail below.

To make this crucial point, Habermas’s validity theory points us not only to the three categories of validity, but how, from a pragmatic understanding, a statement always implies the validity criteria according to which the statement could be assessed. Furthermore, a speech act (speaking or writing this statement) carries with a RESPONSIBILITY to demonstrate that the statement is valid if challenged by others. In other words, the actor, in principle, needs to be able to demonstrate what she really means that when making the statement.

Reconstructing students’ identity claims

In addition to the three categories of validity discussed above, Carspecken (1996) expanded on Habermas’ theory by identifying a fourth validity claim inherent in all acts. This claim has to do with the nature of the actor’s self-reference – a reference that is enacted not both verbally and non-verbally. According to Carspecken, every time an actor acts meaningfully she is positing herself as a particular kind of person through that act. This positing of one’s identity is pragmatic because it is meaningfully constituted through one’s actions. Additionally, it is a kind of validity claim because as it is posited, it is made available for critique. This kind of claim is not captured by the other three categories of claims.

Reconstructive horizon analysis offered us a precise way to articulate the relationship between students’ understanding of “research” and their own identity claims. [3] As discussed above, in our analysis, both validity and “identity” were reconstructed in a pragmatic rather than purely semantic manner. While in some essays, students’ understanding of their own identity were thematically foregrounded, in other assignment submissions, it was reconstructed through the use of writing style, language, narrative structure, and so forth. Again, therefore, our analysis went beyond thematic content to reconstruct (not represent) identity claims, in order to examine them in relation to simultaneously held conceptualizations of research (Korth, 2007; Carspecken, 2003). These claims were mapped onto the co-produced claims students made about research. For example, some students said they were not researchers and simultaneously held a conception of research as something experts did. Both aspects co-informed our analysis, leading to the interpretation that these students did not perceive themselves as being or becoming experts, or as utilizing research expertise.

Validity and Research, Identity Claims, and Pragmatic Fissures

Our analysis of student responses led us to develop the concept of “pragmatic fissures,” which we will discuss in detail further on. For now, what is important to understand is that pragmatic fissures lie at the intersection between students’ conceptions of research, including their validity notions associated with research, and their own identity claims. We note here that validity also shows up as part of our analysis process (as we discuss in the following paragraph) – and not only in our discussion of methodology – because validity is internal to meaning and interpretation in the everyday context and is not merely or primarily a research concept (Habermas, 1981; Carspecken,
1996). Thus, in the following pages, we discuss the development of the “pragmatic fissures” concept as emergent from our analysis of student essays discussing their conceptualization of “research.” We first explain the relation of validity to student conceptualizations prior to presenting different conceptions of research and the tension sometimes present between these categorizations and student identity claims. In this section of the paper, we present findings and discussion in an integrated fashion.

Addressing validity in relation to student conceptions of “research”: Two aspects

Prior to discussing student responses to the assignment prompt, we return to the concept of validity, as reconstructing students’ understanding of research necessitates an examination of validity in relation to their written assignments. According to Habermas, a pragmatic statement, such as the articulation of conceptions of “research” by our students, brings with it two aspects of validity: the responsibility for the actor/speaker to demonstrate that the statement is valid which itself indicates validity criteria presupposed by the statement through which its truthfulness might be assessed (I) and the validity assumed through the mode of expressing one’s ideas about research (II). In other words, the specific claims students make related to underlying assumptions of “research” as a concept carry validity aspects such as whether or not they think that only research conducted by experts is valid AND the validity of the way in which they report their perspectives about what research is, such as whether or not they use personal experience to make their point.

The first aspect (I) is linked most directly to the content and involves what the student takes to be valid research. For example, in our project, if a student wrote that she understands research as so and so, and if she really means that (sincerely express her opinion), then she simultaneously bears the responsibility to defend her statement (to explain why she thinks that so and so is research) when others (like her instructor) challenge her. In other words, the student must be able to make a rational argument explaining her perspective if she is challenged. [4] This is the first aspect of, or requirement for, validity in the student claim.

The second aspect (II) is entailed in the pragmatics of the communicative act. To use the same example, when this student makes a series of statements regarding research, the statements will proffer certain (usually implicit) assumptions about validity criteria based on which this student would consider (1) a research process or product as valid, and (2) a statement about “research” as valid. These assumptions constitute the second aspect of validity, or the second requirement for the student’s statement to be valid. Some examples of this would include whether a certain way of articulating research is valid, such as using formal language versus personal narrative and what assumed relationship to research is being manifested through the narrative mode chosen by the writer, such as writing in third person or writing in the first person.

In examining our data, our first task was to reconstruct these two aspects of “validity” in students’ responses to the written assignment prompt. While the first aspect of validity can be reconstructed primarily from thematic meanings in the text, the latter aspect of validity is mostly backgrounded in student responses and requires a different analytical approach. To exemplify this, take the case of a student who has written in her essay that “research should be objective,” but has also written in a narrative way about the way she has come to this understanding about research through various life
experiences. In this case, the first aspect of the validity claim is: objective research is valid. This understanding, while implicit, can be reconstructed through analysis of the content, or semantic aspect, of the student’s response. The second aspect of the validity claim might be: my experiences played a legitimate role in the formation of my conceptualization of “research”. This aspect of validity, however, cannot be reconstructed through thematic analysis, but instead requires approaching the essay in an integrated manner that takes into account its narrative structure, the formality of language used, and so on, in addition to semantic content. The two aspects of validity, together, comprise this student’s holistic understanding of “validity” in relation to her conceptualization of “research.”

Since these two aspects of validity claims always exist simultaneously in student responses, ideally they will complement or corroborate one another. However, as we discuss in detail below, across our data we see a large degree of tension or disjuncture between these two aspects of validity claims. It is this disjuncture that we refer to as a form of “pragmatic fissure.” The tension between these two aspects of validity also points toward situated identity claims that are tenuously poised at the precipice of the tension, and that provide a possible opportunity for exploring teaching and learning practices in relation to research methodology.

Conceptualizations of research and student identity claims: exploring the tensions

In our initial analysis, we noticed that students’ claims about research also provided insights into their identity claims and specific action orientations. In other words, our analysis focused not only on how students understand and express what research is and does, but also how they position themselves in relation to this understanding of research. In the following section, therefore, we highlight examples of four different conceptualizations of research, organized by underlying action orientations, and we discuss these conceptualizations in relation to student identity claims. This discussion enables us to further elucidate the “pragmatic fissures” inherent in our students’ writings, by highlighting where there are disjunctures between action orientations and identity claims.

Research as a means of problem solving: For many students, research is presented as a way to “solve a problem”, “answer a question”, or “gather information”. In students’ descriptions of research, the term is thus conceptualized as externally oriented. Research is deemed as an act or intervention carried out by a researcher, a means of discovering, accumulating, and evaluating knowledge. Research perceived in this way is also linked by students (in their essay responses) to a process with “a series of steps to be completed,” or structured steps or procedures toward achieving the intended goal. Both the goal and the steps to reaching it are sufficiently known in advance of the engaging the process itself and are discrete enough to be articulated.

With this conception in mind, students often position themselves as problem solvers in relation to the act of research. In fact, some students provided concrete examples that occur in their everyday life (for instance, doing Google research before buying a product; collecting information to assist decision making) to explain their definitions of research. As one student put it, “I now can research anything I want at my fingertips. Broadly, I believe research to be a quest for further knowledge about a desired
topic. We research everything: products to buy, vacations to go on, job descriptions.”

These students drew a parallel between the act of research and every day acts in terms of their shared purposive action orientation – in other words, they see themselves as individuals who are a part of the research process. In the words of one student, “It’s really been since… I returned to academia as an employee that my opinion has be[en] pushed to ‘the other side’ by my experiences. I see on a daily basis the holes in what I know, and I finally have developed a thirst to fill them. My world is a constantly evolving one and I’m excited it now has room for interest in things like ‘research’”. Another student wrote, “Research is not that unapproachable. Everyone can design and conduct a research. And even, research shares the similar logic with the process of problem solving in our daily life.” Yet, as this latter example suggests, students differentiate the “act of research” as a “formal” process, whereas the latter process (problem solving in every day life) is “informal.” Thus, a contrast can be seen between the “informal” activities undertaken by students and the “formal” activities that constitute valid research.

Here is another example of a disjuncture between conceptualization of research and student identity, in relation to research as problem solving. One student noted, “When researchers have questions they want to answer, they need to go through research to substantiate the answers that they find. Research provides the evidence or proof of how the individual came to their conclusions in answer of the question that was guiding their search.” This student further noted, “I would often say as a teacher that ‘I may not have any published research, but here is what my students have taught me works for their individual learning…and followed by a story of what I had discovered worked for the learners in my care. I believe everyone has learned something new based on experience (many times due to a curiosity that an individual may have), but we often times don’t justify or substantiate our findings through a formal research process.” With this statement, s/he positioned him/herself as making the identity claim, “I am a researcher, but not in the sense of formal research.” Instead of grounding formal research in everyday life, this student sees formal research as something alienated from everyday life. Thus, this is another contrast between the formal vs informal nature of research, where the problem solving in which the student engages is not sufficiently substantiated so as to constitute research in a formal sense.

Research as a form of expertise: A second conceptualization of research was as a form of expertise requiring specialized knowledge and skills. Students who described research in this way perceived researchers to be experts who receive specific training in reading literature, writing academic papers, and with knowledge in statistics. For instance, one student noted that research was a “serious” endeavor with “more opportunities to mess things up.” In this way research becomes a “profession” for the experts in the academic domain. Graduate school training provides the opportunity for individuals to develop necessary levels of “expertise” and to be socialized into this profession.

Students who conceptualized research in this way tended to position themselves as outsiders in relation to the profession, or at least novices standing at the edge of the professional boundary. With this positionality, many students expressed feelings of “intimidation,” cynicism, or alienation toward the identity of being an expert. For example, one student commented that research constitutes, “an academic process that requires enormous amounts of talent, time, and effort in hopes of boosting one’s
reputation in the overly competitive world of academia.” The language utilized to describe research in this example – specifically, use of negative tone as indicated by the phrase “overly competitive world” – illustrates the way this student positions herself as an outsider to the “world of academia” and the research process that occurs within it. When taken in contrast with the relatively neutral language used at the start of the student’s sentence, stating that research is an “academic process,” this example serves to highlight another example of the insider/outsider tension between student conceptualization and student identity, in other words, the tension inherent in the requirement for researchers to be experts, whereas the student is not.

Here the tension is more stark than that presented in the conceptualization of research as problem solving, where there is a possibility for students, even those who see themselves as outside of the world of those conducting “formal” research, to take part in “informal” elements of problem solving and information gathering. Another student noted, “I think of research as something that scientists, people in think tanks, or people with PhDs do,” and continued, “I have so rarely done intensive research that the concept still seems a bit foreign to me, a bit undefined.” This example, too, suggests that the student sees him/herself as standing apart from the research world – in particular, not having the expertise to even fully define what research constitutes.

Research as science: A third conceptualization is one in which students equated research with science and presented research as a process of testing hypotheses, or acquiring evidence to prove or disprove certain beliefs. Such a conception of research is solely based on a scientific worldview and rationality, in which the researcher always takes a universal third-person position to examine the truthfulness of a claim about a phenomenon. This conceptualization may be thought of as a specialized form of the conceptualization of “research as expertise,” with an emphasis on a specific type of knowledge.

Students who conceptualize research in this way often focus on the position of a scientist in relation to research. Their conceptualizations emphasize notions of “objectivity”, “scientific methods”, “numbers”, “experimentations”, quantitative methods, and statistics. One student described research specifically as “the pursuit of information through the scientific method.” With respect to this conceptualization of research, our data indicates both complementary and mutually exclusive student identity claims. For instance, the identity claims emergent from the assignment of one student who was raised by two parents working in professions related to natural sciences, and who also was an undergraduate researcher in a university-based laboratory, suggests that he perceives himself as someone who is both comfortable with and who can be a part of the research process. On the other hand, another student with a similar conceptualization of research described herself as being “overwhelmed” by the research process when encountering it in an undergraduate class; her narrative presented her position as being “intimidated” by the research process. The insider/outsider dynamic discussed with respect to other conceptualizations of research is thus present here as well, although in this case the “fissure” revolves around facility and comfort with the scientific process, something that for some students has been garnered through previous experience. In other words, students’ positionality vis-à-vis research, when it is presented as “science,” is
based upon exposure to the research process and to situations where the scientific method is utilized.

Research as a situated practice: Finally, a very few number of students discussed research in terms of it being a practice situated in a community of researchers (i.e. the process of peer review and critique in the public domain). We include here, just to illustrate the range of conceptualizations. For these students, research entails a communicative action that involves more than one actor and is examined based on certain norms and standards created by a community of researchers. For instance, one student noted, “Sharing the results with the scientific community is an essential part of research. The objectivity and the validity of research can be confirmed by others within the community by the discussions and further explorations of the topic by others in the field.” Another student wrote, “Getting as many viewpoints as possible is another aspect of research. This can help in discovering confounding variables or just giving you a fresh look might help you to look at your research in a way you never thought of before.” Some students also referred to the potential for replicability: “The beauty of research is its ability to be redone and tested. If the research is right, then someone else should be able to repeat and get similar results or find something new.”

In contrast with the other conceptualizations, this perspective on research is one that places less of a focus on the outcome or technical knowledge associated with the concept, but rather one that brings the researcher towards the center of the research practice and requires an ability to reflect on the practice itself. Students who conceptualized research in this way did not position themselves as alienated outsiders but rather as part of a community, even if they see themselves at its periphery in this stage of their lives as novice researchers. This can be seen in the essay response of a student who wrote, “Another aspect of research that I find to be especially significant is that the process of research is cyclical in nature. In other words, research is never ‘finished’. There are always unanswered questions and researchers are always curious. The findings of one study may produce several new potential research questions that all require investigation, so the process of research begins all over again. As we continue to discover new and improved methods of obtaining data, research fields will continue to grow.” Here the use of “we” to refer to the research process suggests that the student sees him/herself as part of the research community, and capable of moving closer to the center of the community with increased experience and expertise gained through his/her learning process. This conceptualization stands in critical relation to the other more prominently expressed conceptualizations.

Exploring pragmatic fissures

Our analysis of research conceptualizations and identity claims helps us to see how identity claims relate to student understandings of the two aspects of validity discussed above. While in our analysis we saw this relationship expressed both in terms of tensions or disjunctures and in terms of continuity and complementarity, in this manuscript our primary focus is on the disjunctures, due to the pedagogical insights these disjunctures can provide to us as methodology instructors. We discuss pedagogically relevant examples of pragmatic continuity as well.
To go back to the example of the student who understood research as “objective” – in her response, this student concluded that she felt she is a practitioner, rather than a researcher, as do many of our participants. This tension between how she sees herself and how she views research provides an explanation for the disjuncture in narrative form and content: the reason why she distances herself from research may be due to the alienation she feels in relation to the way she conceptualizes its validity. In other words, this student is a practitioner, and it is okay for a practitioner to use narrative form to talk about her understanding of research. Yet, this understanding of the validity of research may also function as a barrier that impedes this student from identifying herself with research and the research process.

Another example of this tension can be seen in the words of the student who wrote, “I think of research as something that scientists, people in think tanks, or people with PhDs do.” This constitutes a claim about the nature of research, reflected in the content of the essay response. Yet there is a disjuncture between this statement and the student’s continued response, “I have so rarely done intensive research that the concept still seems a bit foreign to me, a bit undefined.” This tension is present not only in content but also in the nature of language utilized in the narrative: whereas the initial statement is declarative, presented with confidence, the student’s later comment suggests uncertainty through the use of terms such as “a bit” and “undefined.” The linguistic differences between the first and second statement reflect the tension between the student’s conception of research and his or her own sense of identity in relation to it.

This tension between the two aspects of validity elucidated in student conceptualizations of research and their own identity claims exemplifies the concept we refer to as “pragmatic fissures.” Specifically, these fissures lie at the intersection of the two aspects of validity and students’ own understanding of their identity. We suggest that they are “pragmatic” fissures both because they reflect a pragmatic element of students’ communicative acts, as discussed above, and because we see these tensions as having practical ramifications for learning. These fissures present opportunities for considering different pedagogical approaches that might enable a broadening of student perspectives on research and themselves as researchers, while still respecting the identity claims that students express. The fissure opens a space for a teachable moment. For the most part, pragmatic continuity might follow along more straightforwardly in terms of teaching content (we discuss one exception below), but fissures can indicate a perturbation ripe for shifts in conceptualizations.

In considering the concept of pragmatic fissures, it is helpful to think about the relationship of the three theoretical concepts discussed in this paper (what constitutes valid research; what constitutes valid ways of discussing research; how do students perceive themselves in relation to research), as presented in the following chart:

A careful examination of these relationships suggests that pragmatic fissures in fact exist at multiple levels, and that pragmatic continuity may also provide a space for pedagogical intervention in certain cases. First, in examining the relationship between A (valid research; validity aspect I) and B (valid ways of discussing research; validity aspect II), we found the pragmatic fissures when our analysis went from the
content/foregrounded level of “what is counted as valid research,” to the deeper, pragmatic/backgrounded level of “what are valid ways to talk about research.” Specifically, fissures were expressed as a disjuncture between the content of student responses and the modes of expression utilized to articulate student thoughts. As noted above, the fissure was not present in all student responses; however, it is a salient fissures for many of them.

Second, we examined the relationship between A (valid research) and C (student identity claims). Our analysis suggests that while there are fissures here, they do not always lie at a disjuncture between students’ understanding of research and their own positionality. The reason is that, for example, if a student believes that research is valid only if it is done by experts and then he continues to claim that he is not an expert, then there is no incoherence or fissure between these two statements. He first defines what is valid research and then count himself as someone who cannot do valid research. Instead, in this case, the fissure lies more at the level of action orientation. In other words, although this student defines himself as an outsider of the research according to his own definition of research, he has to stay in the classroom to study how to do research. Here, therefore, there is an action-related fissure, as opposed to the expression-related fissure discussed above.

In our analysis, we perceived connections and coherence between A&B and A&C, but it is the disconnections/tensions (pragmatic fissures) between them that drew our analytic attention. However, in terms of the relationship between B (valid ways of discussing research) and C (student positionality vis-à-vis research), which are both backgrounded, there might be some coherence that deserves attention. For example, there are many examples in our data of students who believe themselves to be outsiders to research using modes of expression inconsistent with their foregrounded understanding of valid research (say, a narrative form) to express their ideas about research, but we seldom see students who believe themselves to be research outsiders expressing their understanding of valid research using a mode of expression consistent with that conceptualization or understanding. That is to say, students may implicitly understand certain mode of expression as non-research-oriented (for example, narrative forms of expression), and utilize those modes as ways of highlighting the tension between their perspectives regarding valid research and their own claims as non-research-oriented individuals. Here, therefore, it is the continuity between a student’s positionality and understanding of what constitutes valid modes of discussing research that opens up possibilities for pedagogical innovation and course instruction as a whole, as we discuss in the section below. Coherence across backgrounded claims is interesting and the disconnect between backgrounded and foregrounded claims might be a site for further exploring the pragmatic fissures that have caught our attention.

Finally, although we believe this analysis is worthwhile and will be useful to others, it is important to acknowledge the limitations of our findings as discussed above. In particular, we believe that our findings are limited by a lack of dialogue with our student research participants about their written essays and about the accuracy of our interpretations. Ideally, we would like to be able to invite students to respond to our analysis and interpretation. This would accomplish two things: from a research perspective, it would enhance the validity of our study. Moreover, such a dialogue would serve to facilitate instructor-student interaction on issues such as these that have
significant pedagogical implications. Given this limitation, we want to emphasize that there is more to do in the future, for example we hope to utilize more dialogical interaction with our students as they articulate their conceptualizations of research.

Conclusions, Implications, and Reflections

In this section, we wish to discuss the implications of the concept of pragmatic fissures. First, however, we return to a discussion of the conceptualization of research presented in student essay responses and their relationship to identity. Through reconstruction of the relationship between student conceptualizations of research and their own identity claims, our analysis provides a basis both for extending the scholarship on research conceptualization and for exploring implications for pedagogy.

As a whole, the four conceptualizations of research presented here – as problem solving, expertise, science, and as a situated practice – reflect a tension between externally- and internally-oriented views of research. In particular, the concept of research as problem solving emphasizes an external or product-focused orientation, in which research is assumed to exist outside of the researcher. This concept aligns with what Brew (2001) refers to as the “domino variation” of research conceptualization, and to some degree with Pitcher’s (2011) metaphor of “research as constructive.” It can also be linked to what Weber described as purposive action, or in Habermasian terms, instrumental action – action undertaken in order to achieve a specific end (Habermas, 1981; Weber, 1925; Merton, 1936).

The concept of research as science also reflects, to some degree, an external orientation: the emphasis here is on a series of objective steps that make up the research process, independently of the researcher herself. In contrast with the concept of research as problem solving, however, conceptualizations falling into the category of research as science are process- rather than product-oriented. In other words, this conceptualization focuses on the steps undertaken as part of conducting research, rather than on the end result. This conceptualization best aligns with the description of research as “analytical and systematic inquiry” as categorized by Meyer et al (2005). It is also closely related to the conception described above of research as expertise, particularly in the sense that the expertise referred to is primarily expertise in the specialized set of skills that are part of the systematic research process. However, there seems to be a salient difference between these two conceptualizations with respect to how students see themselves in relation to research. Students describing research as science are aware (at least in a general sense) of the steps that make up the research process; while they may not view themselves as individuals who engage in that process, this separation of self from the research process, according to student essay responses, seems to be due to lack of exposure or training. On the other hand, although “research as expertise” also entails exposure to and facility with specialized skills, this conceptualization seems to emphasize an internal characteristic that is not present in the conceptualization of “research as science.” In other words, the expertise gained through training as an academic or formal researcher is presented as something that these students – graduate students who are not going into academia but who see themselves primarily as research consumers – are not doing themselves. While students may have some exposure to research and may have even conducted research as
part of their undergraduate or graduate courses, they do not see themselves as having sufficient skills or having been socialized into an identity that positions them as a part of the research community.

In contrast, the concept of research as a situated practice does not place students conclusively as insiders or outsiders. While students did not necessarily utilize language in their responses that placed them within the community of researchers, their responses, both in content and tone, were not characterized by the stark insider/outside dichotomy emphasized in those conceptualizing research as “expertise.” On the other hand, the conception of research as expertise is similar to the conception of research as situated practice in the sense that, like the “journey” and “trader” variations described in Brew’s (2001) study, it is not characterized by an external or product-oriented orientation. The conception of research as situated practice, in particular, emphasizes the idea of research as a process that is undertaken by a community and that is cyclical, rather than a linear or step-by-step process in which an individual researcher moves from initial question to knowledge building. In this sense, the concept of research as situated practice can be characterized as an example of what Habermas (1981) refers to as communicative action – action oriented towards achieving understanding. Unlike instrumental or purposive action-based conceptualizations of research, in other words, this conceptualization emphasizes the inter-subjective nature of knowledge building and the necessity of communication as part of the research process.

What are the implications of these conceptualizations? First, the four conceptualizations described here, while aligning with conceptualizations discussed in academic literature, also extend existing scholarship by focusing explicitly on how these conceptualizations relate to student identity or positionality. For instance, while the external vs internal orientation dichotomy has been utilized in the existing literature on supervisor research conceptualizations (Brew 2001), we emphasize not only whether research is perceived as product- or understanding-focused, but also how these perceptions are related to how students see themselves as part (or not) of the community of those engaged in research. Our emphasis likewise relates Bills’ (2004) discussion of conceptualizations of research that privilege university-based inquiry and university-affiliated researchers. Specifically, the conceptualization in our student responses of “research as expertise,” along with the accompanying identity claims positioning students as outsiders to this form of research (a positionality nearly universal among those students conceptualizing research in this way) suggests that it is not only senior researchers who perceive their own research as “superior” to that conducted outside of academic settings. There also seem to be social norms that socialize students into believing that research must be conducted in a university setting, by research experts, often using a specific method (hypothesis testing), in order to be valid research.

The seeming socialization of individuals into believing that only certain forms of research are valid is perhaps a reason for the existence of the “pragmatic fissures” we discuss above, that is, the tensions or disjunctures between the way students conceptualize the research process and the way that they make claims about their own identity in relation to research. As such, we suggest that a second implication of our analysis is its significance in terms of pedagogy for teaching research methodology. Specifically, we would like to suggest that it is important to understand “pragmatic fissures” as a pedagogical opportunity, instead of a problem. Identifying these fissures is
an important first step that can provide insights into our students’ thought processes, and therefore opportunities for us to make pedagogical changes that improve the effectiveness of research methodology instruction. It provides us, as instructors, with a space where we might be able to integrate students’ positionality or identity claims into the content and structure of research methodology courses rather than distancing them from the concept of research. In other words, we can create spaces in a way that respects student identities, but ideally also allows them to develop broader conceptualizations of research and the research process.

At this juncture we wish to note that there are opportunities for pedagogical innovation not only when there are pragmatic fissures, but also when aspects of validity and identity claims are all aligned. For instance, any one of the four of us answering the same assignment prompt as our students would probably come up with a definition of research that is not limited to problem solving or expertise (A), and we likely would express this in a reflective form of narrative that accounts for the “I” of the researcher instead of completely bracketing it (B), and we would also likely have an identity claim that positions ourselves in aligned with critical theory, in other words, a cristicialist identity through which we engage in research with the intention to make the world a better place, (C). Meanwhile, for others, there might be an alignment between A, B, and C in which someone holds a positivist view on research (A), and writes exclusively from a third-person perspective and completely bracket the “I” of the researcher (B), and considers her identity aligned with the worldview of a positivist. While these are both examples of alignment between identity claims and both aspects of validity, the former reflects an open and inclusive view of research, while the latter is reflective of a much more limiting, and exclusive, understanding of what constitutes research, how it can be discussed, and who might be considered a researcher. In this latter case, too, therefore, we would seek to create spaces for helping students expand their horizons.

As instructors, the four of us we use opportunities to learn more about our students’ identities (such as the essay responses from which data for this manuscript are drawn) as an integral tool to help us teach. What does this look like concretely? One example is our continuous emphasis throughout the semester on the importance of practitioner-focused and non-traditional forms of research, alongside but not replacing discussions that focus on specific research techniques or steps in the research process. In other words, we try to help students find elements of the research process with which they can identify, regardless of whether this is research as a hypothesis testing endeavor in an academic setting or not. We do not discount the importance and relevance of specific skills, but we try to help students understand that research can extend beyond the positivist views with which they often enter our classrooms. We suggest that the process of doing so, by making these fissures explicit, can not only facilitate mutual understanding between instructors and students, but also enables pedagogical and theoretical reflections that can improve the relevance of research methodology courses for professionally-oriented students. That is to say, like opening a window, our analysis of “pragmatic fissures” enables us to see the pedagogical opportunities that might help broaden students’ horizons on “research” and re-situate themselves to see beyond a researcher-practitioner dichotomy. For example, for some students, on the one hand, constraining research to the rigid scientist realm impedes them from seeing the use of narrative mode in qualitative studies; on the other hand, employing narrative mode in
their essays, they consistently identify themselves as practitioners/outsiders of research. Thus, there is an implicit connection between excluding narrative mode from research and employing narrative mode in their own outsiders’ writing about research. To support these students, instructors can highlight how narrative is widely used in ethnographic, narrative and other studies, broadening students’ horizon and simultaneously facilitating reflections on their positionality in relation to research.

Beyond our own instruction, we suggest that the concept of pragmatic fissures is an important one for improving the teaching of research methodology in university settings as a whole. It is significant not only for pedagogical techniques, but also in relation to methodology texts. Most existing textbooks (Creswell, 2012; Frankel & Wallen, 2009; Gall, Gall & Borg, 2006; McMillan, 2011 privilege discussions of research methods, which are often conflated with methodology and methodological approaches. This is accompanied by a minimal or lack of focus on the philosophical and theoretical foundations of research methodology, which serves to reduce research to a set of steps or techniques that must be followed in a linear manner. As such, existing texts reinforce a certain conception of research that might disengage students whose own conceptions do not align with what is written in the textbook; the way research is presented in these texts can also reinforce a sense of alienation or exclusion from the research process for some students. Ultimately, therefore, we encourage instructors of research methodology and writers of research texts to take a more inclusive view when presenting the concept of research to university students.

Finally, from a methodological standpoint, we also wish to note the importance of a holistic, pragmatic analysis for highlighting the presence of pragmatic fissures in speech acts (in this case, in written student responses to an assignment prompt). As discussed above, our own analysis is based not only on thematic or semantic content, but also on writing style, narrative structure and form, and language. With only a thematic analysis, our ability to uncover implicit meanings is limited to what is directly stated in the text. In fact, this analytical approach alone may pose risks that limit our understanding of students’ conceptualization within the scope of positivism, the very limitation that we try to shield away from in our teaching. In contrast, a reconstruction of the way the two aspects of validity are implicated in students’ textual performances and involving their own positionality vis-à-vis the research process, necessitates an ability to draw out deeper, backgrounded, often very implicit claims.
Notes
[1] This final validity question would best be addressed using the process of member checking, that is, bringing our initial interpretations back to research participants for confirmation. However, we were unable to conduct member checks with this set of data.

[2] Carspecken’s (1996) discussion of validity claims provides a less rich understanding than what can be found in Habermas’ *Theory of Communicative Action* (1981). This richer understanding, which is backgrounded in our work and always present in our thinking, knits together the insights of speech act theorists Austin and Searle with philosophers who distinguish different forms of argumentation and action orientations with hermeneutics. A more detailed explanation of Habermas’ theory requires more space than is possible to include in this short article.

[3] We discuss reconstructive analysis in our section on methodology, above; “reconstructive horizon analysis” refers specifically to the fact that meaningful acts are best understood as surrounded by a horizon structure within which certain claims are foregrounded against other, backgrounded claims (Carspecken, 1996). This validity horizon makes explicit the backgrounded assumptions underlying explicit statements, thus providing insight into the way that individuals perceive themselves, as well as into research participants’ implicit theories and world views, their cultural milieu, and dominant normative assumptions.

[4] Our use of the term “rational” here draws directly from Habermas’ use of the term. Habermas (1981) states, “The rationality of those who participate in…communicative practice is determined by whether, if necessary, communicators, under suitable circumstances, provide reasons for their expressions” (p.17, emphasis in the original). In other words, a rational argument is one that is based on providing justification for one’s speech act in relation to the act’s inherent validity claims.
References


FIGURE ONE

A. What is counted as valid research (foregrounded, validity criteria through which research will be assessed)

B. What is the valid way to talk about research (backgrounded, the validity assumed through the mode of expressing one’s ideas about research)

C. What is students’ position in relation to research practice (backgrounded, identity claims)
E. Vita

BARBARA DENNIS

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EDUCATION

Ph.D. (1998) Educational Psychology, University of Houston. (Dissertation “A Reformulation of Care as a Pragmatic Concept: A Qualitative Study of an Adult Friendship Group). Areas of Expertise (1) qualitative research methods, methodological theory, critical theory and method; (2) sociocultural diversity and schooling (multiculturalism); and (3) care theory, rationality, feminist theory; racism.

M.Ed. (1987) Curriculum and Instruction (Special Education), University of Houston-Victoria

B.S. (1982) Elementary Education (Concentration: Psychology), University of Houston-Victoria

POSITIONS AT INDIANA UNIVERSITY

Associate Professor Inquiry Program Area, School of Education, Indiana University (Promoted with tenure August 2008 to present)

Clinical Associate Professor Curriculum Studies and Inquiry, School of Education, Indiana University (2004 – 2007 Clinical Assistant, promoted in 2007)

Visiting Assistant Professor Multicultural Education and Qualitative Inquiry, School of Education, Indiana University (2001-2004)

PUBLICATIONS (Selection From 2012 – 2014)


**SELECTED PEER-REVIEWED PROFESSIONAL PRESENTATIONS (2012-2014)**


INVITED PAPERS


INVITED WORKSHOPS

Dennis, B. (September, 2013). Photovoice as Curriculum in Early Childhood Projects. Bureau of Indian Affairs. 2 day workshop at the Northwest Indian College, Lummi Nation, Bellingham, WA, September 5-6, 2013


GRANT PROPOSALS FUNDED

Proffitt Research Grant. “Project Homecoming and LGBTQ Bullying in High Schools.” (Fall 2014) $40,000.

Phase I Scholarship of Teaching and Learning Grant (2013). Exploring Students’ Conceptions of Research and Inquiry. The Office of the Vice Provost for Undergraduate Education in the amount of $2000.00.


College of Education Faculty Research Opportunity Award. “A Study of Cyber Culture in the Case of Educational Chat: Sociological and Methodological Issues.” (Fall, 1999) $ 6,000.00

Educational Connections. Stages Theatre, Houston TX. (Funded through Early Stages by MET Life. (Spring 2000) $350,000.00

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ACADEMIC EMPLOYMENT

UMASS Boston, Assistant Professor of Conflict Resolution  As of January 2015
UMASS Boston, Senior Fellow, Center for Peace, Democracy & Development  September 2014-present
Drexel University, Adjunct Instructor of Global & International Education  Spring 2013-present
Indiana University, Adjunct Instructor of Inquiry Methodology  2013-2014
Teachers College, Columbia University, Adjunct Instructor  Summer 2011

EDUCATION

School of Education, Indiana University

• PhD
  August 2013
  • Education Policy Studies (Comparative Education track), Inquiry Methodology (Qualitative track)
  • Doctoral minor: Sociology
  • Dissertation: Sowing Seeds of Change? Education for Partnership Between Jews and Palestinians in Israel
  • Master of Science, Comparative & International Education  2010

Fletcher School of Law and Diplomacy, Tufts University

• Master of Arts in Law and Diplomacy  2005
• Areas of study: Negotiation & Conflict Resolution, Education for Peace & Human Rights
• Thesis: Towards ‘Peace Writ Large’?: Use of Evaluation in Assessing the Impact of Israeli-Palestinian Peace Education

Columbia College, Columbia University

• Bachelor of Arts in Middle Eastern Languages and Cultures, summa cum laude  2001

PUBLICATIONS  (* indicates equal co-authorship)

Peer-reviewed journal articles

Ross, K.  Accepted, “Quality as Critique: Promoting Critical Reflection Among Youth in Structured Encounter Programs.” Journal of Peace Education.


Submitted/in review/in revision


Book contributions


Book reviews/encyclopedia entries


TEACHING EXPERIENCE

Graduate Level

- Strategies for Educational Inquiry – EDUC-Y520 (Indiana University, 2011-2014; Associate Instructor, Summer 2011)
- Conflict Resolution in International Contexts – EDGI 534 (Drexel University, Spring 2013; Fall 2013)
- International Organizations in International Education – EDGI 532 (Drexel University, Summer 2013; Winter 2014)
- Conflict Resolution in the Schools: Applications in Pedagogy and Curriculum – ORJ 4000 (Columbia University, Summer 2011, co-instructor)

Undergraduate Level

- Social Movements in Education: Schools as Sites for Social, Political, and Cultural Contention – EDUC-U212 (Indiana University, Spring 2010, co-instructor)
- Freshman Interest Group Seminar, Jewish Studies – COLL-X111 (Indiana University, Fall 2009)
- Cultural/Community Forces in the School – EDUC-T550 (Indiana University, 2007-2010, Associate Instructor)
- Practicum, Ethnic and Cultural Studies – EDUC-M550 (Indiana University, 2007-2010, Associate Instructor)

**Invited Lectures/Workshops**

- “Reflections on Data Collection and Reflexivity in Fieldwork.” Guest lecturer, *Qualitative Methods [graduate course]*, March 2013 (New York University)
- “Education in Israel.” Guest lecturer, *Education in American Culture [undergraduate course]*, December 2009, April 2010 (Indiana University)
- “Case Study and Organizational-Level Research.” Guest lecturer, *Research Methods and Case Studies in Education [graduate course]*, February 2009 (Indiana University)

**GRANTS, FELLOWSHIPS, AND SCHOLARSHIPS**

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<td>2013</td>
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<td>2008-2010, 2011-2013</td>
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<td>2011</td>
<td>Richard C. Pugh Inquiry Methodology Award, IU School of Education</td>
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<td>2011</td>
<td>Palestinian American Research Center Dissertation Fellowship</td>
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<td>2007-2010, 2011</td>
<td>Faculty Fellowship, IU School of Education</td>
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<td>2009</td>
<td>Foreign Language &amp; Area Studies (FLAS) Grant for Palestinian Arabic study</td>
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<td>2008</td>
<td>Omni Scholar/Activist Travel Grant, Peace &amp; Justice Studies Association</td>
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<td>2003-2005</td>
<td>Student Scholarship, Fletcher School of Law and Diplomacy</td>
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<td>2004</td>
<td>Workshop Scholarship (<em>Fee Waiver</em>) Recipient, Public Conversations Project</td>
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**HONORS AND AWARDS**

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<tr>
<td>2014</td>
<td>Gail P. Kelly Outstanding Dissertation Award, Comparative &amp; International Education Society</td>
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<td>2010</td>
<td>Outstanding Associate Instructor Award, IU School of Education</td>
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<td>2010</td>
<td>Selected Participant, Boyd National Educational Politics Workshop, AERA annual meeting</td>
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CONFERENCE AND OTHER TALKS

Panelist

**Panel organizer/chair/discussant**

“Envisioning Education for All in Developing Contexts: Issues of Access, Equity, and Empowerment in Ghana and Mexico” (2014, March). *Panel organizer, chair, and discussant* for panel presented at the annual meeting of the Comparative & International Education Society, Toronto, Canada.


“Considering the Roles of Teachers in Peace Education Programs and Policy Implementation” (2011, May). *Discussant* for panel presented at the annual meeting of the Comparative & International Education Society, Montreal, Quebec.

**Invited/other presentations**


**CONSULTING & EVALUATION ACTIVITIES**

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<tr>
<td>2014</td>
<td>External evaluator, Bristol Myers-Squibb Climate Change program, Rider University, NJ</td>
</tr>
<tr>
<td>2008</td>
<td>Research consultant, CDA Collaborative Learning Projects, Cambridge, MA</td>
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</tbody>
</table>
Peiwei Li, Ph.D.
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Education

Doctor of Philosophy
Double majors: Counseling Psychology and Inquiry Methodology
Indiana University Bloomington, 2014

Master of Science
Biochemistry
Indiana University Bloomington, 2007

Bachelor of Science
Chemistry
Xiamen University, Xiamen, China, 2003

Selected Professional Experience

• Assistant Professor, 2014 – present, Counseling Psychology Psy.D. Program, Springfield College

• Pre-doctoral psychology intern, 2013-2014, University of Iowa University Counseling Service, August

• Associate Instructor, 2010 – 2013, Counseling and Educational Psychology Department, Indiana University

• Psychology Practicum, 2010-2011, Indiana University Counseling and Psychological Service

• Family Therapy Practicum, 2009-2010, Indiana Family Project applying Functional Family Therapy (FFT), Indiana University

• Assistant Director, 2008-1010, Center for Human Growth Counseling Center, Indiana University

• Research Assistant, 2006-2008, Elementary School Math Assessment Project (EMAP), Center for Research on Learning and Technology, Indiana University
• **Associate Instructor**, 2004-2006, Biology Department, Indiana University

• **Research Fellowship**, 2003-2004, Interdisciplinary Biochemistry Program, Indiana University

### Publications and scholarly work

________

#### Refereed Publications


**Dissertation/thesis:**


**Li, P.** (2003). The application of tris(2,2’-bipyridine) ruthenium electrogenerated chemiluminescence in detecting alkaloids. (Unpublished bachelor’s thesis). Xiamen University, Xiamen, China.

**Selected Papers Presented at international, national and regional conferences:**


**Teaching Experience**

__________________________

**Assistant Professor:**

Graduate Courses:
- Fall 2014: Research Methods for Counseling Psychology
  Provide doctoral students in counseling with the opportunity to refine their
  understanding of research methods, increase their ability to be informed consumers of
  research findings, and improve their skills at developing research proposals.

- Fall 2014: Doctoral Research Practicum
  provide students with direct experience in conducting psychological research. Students
  participate in multiple phases of new and ongoing research projects under faculty
  supervision.

Associate Instructor:

Graduate Course:
  An introductory course to social inquiry and educational research primarily for master level
  professional students from multiple disciplines.

Undergraduate Course:
- Fall 2010, 2011, 2012: Approaches and Issues in Education Research (Primary
  instructor)
  An introductory research seminar offered to senior students in special education to
  help them become critical research consumers.

- Summer 2006: Cell Biology Lecture. (Assistant instructor)
  A large size lecture-based class for junior and senior biology majors.

  A group-based lab class and discussion sessions for junior and senior biology majors.

Teaching intern:
- Summer 2010, online teaching apprenticeship supervised by Barbara Dennis, Ph.D.

Guest lecturers:
- Fall 2014, Practicum in Family/Couples counseling, Counseling Psy.D. Program,
  Springfield College.
- Summer 2010 & Spring 2009, Practicum in Counseling, Counseling Psychology
  Program, Indiana University.
- Fall 2009, Laboratory of Counseling and Guidance, Counseling Psychology Program,
  Indiana University.

Research grant on teaching:
- 2013, Scholarship of Teaching and Learning Grant, Indiana University (with B.
  Dennis, K. Ross & P. Zhao), which funds an action research project focusing on our
  teaching practice: Exploring students’ conceptions of research and inquiry.

Honors and Awards
2013        Richard Pugh Dissertation Award, School of Education, Indiana University
2012        Outstanding Associate Instructor Award, School of Education, IU
2012        Research Fellowship Award, School of Education, IU
2011        Nominated for Outstanding Associate Instructor Award, School of Education, IU
2010        Paul F. Munger Award for outstanding student of the year, School of Education, IU
2010        Won-Joon Yoon Memorial Diversity Award for contribution to diversity, IU
2009 & 2011 Trentham Travel Award (two times), School of Education, IU
2009        Nancy Harvey Bishop Award for contribution to service, IU
2005        Nominated for Outstanding Associate Instructor Award, Biology Department, IU
2003-2004   Graduate Fellowship, Interdisciplinary Biochemistry Program, IU
2001-2002   North Pole Educational Foundation Scholarship for student excellence and achievement, Xiamen University
2000-2003   Outstanding Student Award (three times), Xiamen University
2000-2001   Three-Nine Educational Foundation Scholarship for student excellence and achievement, Xiamen University
Pengfei Zhao, Ph.D. Candidate
Indiana University Bloomington
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New Haven, CT 06511
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EDUCATION

Indiana University Bloomington

Current progress in program: Doctoral Candidate
Anticipated graduation: May 2015
Department: Counseling and Educational Psychology
Major: Inquiry Methodology
Emphasis: Qualitative Research Methodology
Minor: Interdisciplinary minor on Social Theory Studies

Beijing Normal University

Degree: Master of Art, 2009
Major: Literary Theory

Beijing Normal University

Degree: Chinese Language and Literature, 2006
Major: Bachelor of Art

CREDENTIALS

2006-present Certificate of High School Chinese Teacher, China

ONGOING RESEARCH PROJECTS

Dennis, B., Ross, K., Li, P., & Zhao, P. Exploring Students’ Conceptions of Research and Inquiry.

RESEARCH, SCHOLARSHIP & CREATIVE ACTIVITY

Peer Reviewed Article

Editorially Reviewed Article
Zhao, P. Using NVivo to Do a Literature Review. AERA Qualitative Research SIG Newsletter, 2014 spring.
**Other Publications**


**Papers Presented at International and National Conferences (Referred)**


Zhao, P., Li, P., Ross, K., & Dennis, B. (June 2013). The Intersubjective Feature of Reflective Teaching in Research Methodology Classes: Findings from an Action Research. 25th Ethnographic & Qualitative Research Conference, Dayton.


**PROFESSIONAL EXPERIENCES**

**Visiting Assistant in Research, Sociology Department, Yale University, September 2013-August 2014**

Work with faculty mentor Julia Adams and actively engage in the intellectual conversation taking place in Sociology Department specifically and campus wide generally. Other activities include auditing two classes, “Civic Life in Contemporary China” and “Heidegger’s Being and Time”, participating weekly workshops on China studies and comparative research, etc.

**Associate instructor, Counseling and Educational Psychology, Indiana University Bloomington, May 2013-present**

Actively engage in teaching and developing both the online and hybrid versions of a course for master level and EdD students in School of Education. Titled “Strategies of Educational Research”, this course aims at familiarizing students with basic and fundamental concepts in educational research. Duties include online forum-discussion facilitation, materials development, regularly online meeting with instructors, grading and answering students’ questions.

**Instructor, Counseling and Educational Psychology, January 2013-May 2013, August 2011-December 2011**

Designed and taught online course, “Strategies of Educational Research,” closely worked with students online, graded their assignments and answered their questions.

**Associate instructor, Counseling and Educational Psychology, August 2014-December 2014, January 2012-May 2013**

Designed and taught the lab session (1h/week) of doctoral level course, “Critical Qualitative Inquiry I and II”. Major task involved in introducing research software NVivo and its relevant methodological
issues to students and provided consultancy for students when they analyzed their data for the course.

**Intern associate instructor, Counseling and Educational Psychology, September 2010-December 2010**
Closely worked with the instructor to develop a deeper understanding of Y515 class, “Philosophical Foundations of Educational Research”, delivered two mini-lectures on the class and facilitated students’ group discussions.

**Graduate Assistant in Graduate Studies Office, School of Education, September 2010-June 2011**
Closely worked with market director to develop marketing strategies for IU online educational program, IU Connect, conducted pre-marketing survey on potential competitors and target consumers.

**Chinese Language Tutor for students in Education Abroad Program (EAP) of the University of California (UC), Beijing, 2006-2007**
Provided one-to-one oral and written Chinese tutorial to 5 American students.

**INVITED TALKS**

Y611 Class of Qualitative Inquiry in Education, Indiana University Bloomington (February 2013, David Joseph Flinders), Invited talk on using NVivo in qualitative research.

Y520 Strategies for Educational Inquiry, Indiana University Bloomington (October 2014, Jessica Nina Lester), Invited talk on “‘I Have Never Told Anybody Else What I Have Told You’: Reflections on Issues of Accessibility and Research Ethics in Qualitative Field Work.”

**HONORS, AWARDS & GRANTS**

2013, 2014 Trentham Travel Award (twice)
2013 Phase I Scholarship of Teaching and Learning Grant for the research project “Exploring Students’ Conceptions of Research and Inquiry” (team member), Indiana University
2013 Richard C. Pugh Methodology Research Fellowship, School of Education, Indiana University Bloomington
2012 Summer Pre-dissertation Travel Grant, Indiana University
2009—2013 Faculty Fellowship, a four-year full fellowship from School of Education, IU
2009 Excellent Master Thesis, School of Chinese Language and Literature, Beijing Normal University
2006 Excellent Undergraduate Student, Beijing Normal University
2003—2005 Academic Scholarship, three times, Beijing Normal University.
2003 Outstanding Social Work, Beijing Normal University

**PROFESSIONAL DEVELOPMENT**

**Facilitator**
- Growing up with/without a Tiger Mom, Educational Seminar of Dream Corps, IU Chapter, November 2011, Bloomington.

**Participant**
- Comparative Research Weekly Workshop, September 2013-present, Sociology Department, Yale University.
- Ethnography: a Conference and a Retreat, April 2014, Yale Urban Ethnography Project.

**PROFESSIONAL SERVICE**

- President of Brown Bag Committee of Inquiry Methodology Program, School of Education, Indiana University, August 2012-June 2013.
- Member of Student Liaison Committee of 2014 Midwestern Regional Conference of the Comparative and International Education Society (CIES), February 2014-October 2014.

**LEADERSHIP AND SOCIAL SERVICE**

- Vice president of Dream Corps, IU Chapter, a NGO dedicated to promoting reading education among children in rural China, March 2011-May 2013.
- Volunteer teacher in Gaojianba Elementary School, Guizhou Province, China, August 2004.

**PROFESSIONAL AFFILIATIONS**

Association for Asian Studies
American Educational Research Association

**LANGUAGE**

Chinese (native); English (fluent); German (Scholarly)
F. Brief synopsis of accomplishments of Phase I

- Brown-Bag Dialogue. On March 22nd, 2013, our research team presented the conceptualization and research design of this study in a Brown Bag Seminar hosted by the Inquiry Methodology Program at the School of Education. Most faculty members and graduate students from the program attended the presentation and we received positive feedback and constructive suggestions from the attendees. It also provided an opportunity for instructors who taught introductory level methodology classes to collectively reflect on teaching practices following our formal presentation.

- Course Reflection. Our presentation on the 25th Annual Ethnographic & Qualitative Research Conference (EQRC) discussed the inter-subjective feature of reflective teaching practice. Applying this finding into our teaching practice with support from other Y520 instructors, our team members formed a support group to facilitate each other’s reflective teaching. The group worked effectively in exploring innovative online and hybrid teaching approaches. So far we have composed and collected a large pool of online forum discussion questions, critically reviewed several introductory research methodology textbooks, and updated several assignments utilized in the Y520 course. Other presentations and a paper submission have provided many opportunities for such reflections.

- Conference Presentations and Dissemination. Thus far, we have made two presentations at international conferences and one presentation at a national conference. These presentations stimulated lively discussion about the topic at hand and about the work going on IU. Moreover, we have one paper submitted to an international journal. We have a second conference proposal in review. Lastly, with two of our co-authors beginning to teach a similar course at other universities, the visibility of IU’s approach to this course specifically, and the SOTL approach more generally is gaining visibility.

For more details, please see the Phase I Report.