Emphasizing collaborative practices in learning to teach: Coteaching and cogenerative dialogue in a field-based methods course

ABSTRACT: This manuscript details a field-based methods course for preservice teachers that has been designed to integrate shared teaching experiences in elementary classrooms with ongoing critical dialogues with a focus on highlighting the complexities of teaching. I describe the structure of the course and explore the use of coteaching and cogenerative dialogue as approaches to learning how to teach. Vignettes that typify experiences in this course are analyzed, and two main findings explored. First, coteaching provided critical support to preservice teachers as they taught their first lessons to children. Second, cogenerative dialogues mediated reflexive dialogue around the complexities of teaching, and provided for participants a foundation to examine their epistemological assumptions. It is argued that at a time of increasing segmentation of teacher education, teacher educators need to support dialogic, multi-perspectival approaches that emphasize the complex nature of teaching and learning in elementary classrooms.

Keywords: Methods courses; shared responsibility; preservice teacher education; coteaching; cogenerative dialogue.

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Introduction

An enduring challenge in teacher education lies in creating opportunities for preservice teachers to integrate university coursework with teaching practice and reflection. The disparity between theory and practice, and the importance of bridging this "gap" has long been a focus of teacher education literature (e.g., Korthagen, 2001). This binary is perhaps most evident in the historical separation between universities and K-12 schools (Grossman, Hammerness & Mc Donald, 2009) which reinforces a split between university courses and practice-centered fieldwork based in schools. The dichotomy between university courses and teaching practice represents "the fragmentation of knowledge from lived experience" (Britzman, 1991, p. 54). To push back at these separations and recognize the intricacies of teaching, I contend that the integral relationship between coursework and field placements needs to be particularly emphasized within "methods" courses. Informed by Joe Kincheloe's "critical epistemology of complexity" (2001), the teacher education that I envision embraces the complexities of teaching, of learning to teach, and of being a teacher.

Recent literature in teacher education reveals extensive recognition of the need for stronger integration specifically between preservice courses and field experiences (e.g.; Gardiner & Shipley Robinson, 2009; Grossman & McDonald, 2008; Moore & Sampson, 2008; Nugent et al., 2008). The need to integrate university coursework and field experiences is predicated on the understanding that in lived worlds, theory and practice are inseparable. Theory informs practice, which, in turn develops and refines theory. To reinforce this inherent inseparability, I have developed a science methods course that integrates coursework and field experiences into a structure for analyzing shared classroom experiences with an explicit focus on discussing different perspectives in order to refine our teaching. In this course, preservice teacher participants and I collaboratively develop and coteach a 10-week unit to children in an

elementary school and then engage in weekly discussions around teaching and learning. Maxine Greene has written about the need to "cultivate multiple ways of seeing and multiple dialogues in a world where nothing stays the same" (1995, p. 16) and it is the importance of recognizing and embracing multiple perspectives that I seek to encourage in this collaborative field-based approach to learning to teach. This manuscript describes the structure of the course and explores ways that the combination of shared teaching and ongoing dialogues served as a basis for participants' reflexive analyses of their own teaching, and mediated their emerging understandings of the complexity of teaching and learning. In doing so, I draw implications to call for collaborative approaches in teacher education courses that dismantle the traditional separation of coursework and fieldwork to emphasize teaching as a complex, multifaceted process.

A collaborative field-based framework

Many teacher education programs incorporate field-based experiences within courses prior to student teaching, and there is strong recognition of a need for preservice teachers to participate within schools as a part of their overall preparation (Goodnough, et.al, 2009; Grossman, Hammerness, & McDonald, 2009; Zeichner, 2010). Within methods courses specifically, a variety of approaches have been used for field-based experiences, including peer feedback, in which preservice teachers observe one another teaching to provide reciprocal consultation (Wilkins, Shin, & Ainsworth, 2009), and paired field placements, in which preservice teachers are paired for observations in the same classroom (Gardiner & Shipley Robinson, 2009). These and other structures within field-based courses are designed to integrate preservice teachers into schools collaboratively as they gain experience with the practice of teaching.

However, field-based experiences are often not connected to university courses as a whole and this can further the disconnect between coursework and fieldwork (Zeichner, 2010). In addition to the need for fieldwork to be closely integrated with coursework, an important component of learning to teach is providing opportunities to discuss actual teaching experiences and focus on unpacking approaches to make explicit differing pedagogical choices and perspectives (Loughran, 2006). To that end, the approach examined herein grounds learning to teach science in elementary schools in a collaborative practice of coteaching supported by ongoing cogenerative dialogue (Tobin & Roth, 2006). The approach to coteaching implemented in these courses is focused on learning to teach 'at the elbow' of another teacher (Roth & Tobin, 2002) and incorporates shared experiences in which preservice teachers learn how to teach *together* as they develop and teach a unit collaboratively to children.

Cogenerative dialogues are conversations between stakeholders in an educational setting, with the explicit purpose of cogenerating plans for working towards success (Tobin, 2006). They are an integral part of the coteaching process, as they provide opportunities to reflect on experiences with others, in an effort to learn about teaching and improve practice moving forward. Among extensive research on cogenerative dialogue, the combination of coteaching and cogenerative dialogue has been shown to support the establishment of social networks in teacher education (Scantlebury, Gallo-Fox, & Wassell, 2008) and to create resources for preservice teachers as they learn how to teach (Roth, Tobin, Carambo, & Dalland, 2004). In methods courses specifically, coteaching and cogenerative dialogue create a structure that enables preservice teachers to explore and generate theories of teaching and learning science in practice (Author, 2010), and provides support to deconstruct classroom events together in order to collectively create shared meanings.

This study is grounded in Mikhail Bakhtin's notion of dialogism (1981). Dialogue in a Bakhtinian sense is much more than exchanges within a conversation. It is a way of being that acknowledges, accepts, and values difference and multiple perspectives. Collaborative experiences in teacher education can serve to counter the conception that there is one "right" way to teach, or that there is one set of best practices that must be followed. Gordon Wells draws on Bahktin to argue that educators ought to "adopt a 'dialogic stance'"(2007, p. 255) and stresses "while all discoursing is potentially dialogic, it is in the dialogue that arises from inquiry and is realized in 'knowing together' that individual understanding is most powerfully enhanced" (2007, p. 271). Instead of presenting a predetermined set of methods for teaching science, I encourage preservice teachers to adopt a dialogic stance that recognizes the plurality of experiences, and responds to this recognition by collectively inquiring into and expanding teacher practice.

This manuscript examines the ways coteaching and cogenerative dialogue supported preservice teachers' emerging understandings of teaching. Coteaching and cogenerative dialogues seek to develop responsibility among all participants (Scantlebury, Gallo-Fox & Wassell, 2008), and this paper explores ways that emphasizing shared responsibility through coteaching mediated the emergence of a dialogic stance and becoming reflexively aware of the complexity in teaching. I do not intend to present a formulaic, step-by-step set of strategies for teacher education courses. In contrast, I explore coteaching and cogenerative dialogues as openended approaches for learning to teach. After examining findings relative to our specific experiences, I draw implications for incorporating greater opportunities for preservice teachers to engage in the practice of teaching *together* with the integration of opportunities to critically deconstruct classroom experiences.

Context of the research

This approach to a methods course has been developed to emphasize the complex nature of teaching, and connections between the children, classroom environment, and student learning and development. Preservice teachers and I have come to refer to these courses as *collaborative field-based courses* to emphasize the dual foci of field-based experiences and collaborative practices (through cogenerative dialogue and coteaching).

The setting and participants

This research is part of a larger study that focuses on such collaborative field-based methods courses in an urban public school in the US (Author, 2009). It takes place at Alexander Bell School¹, which has a professional development school partnership (PDS) with a local college at which I was a faculty member. Participants in this data set include 25 children in a third grade class (ages 8-9), their teacher, six preservice teachers, and me. This manuscript specifically focuses on the preservice teachers, who were college juniors and seniors, ranging in age from 19-21, and highlights Lauren, Marisol, Tracie and Emma. The classroom teacher, Mrs. Turner, had taught for 31 years and was an active collaborator in teaching and planning the science unit.

The structure of the field-based course

This course is designed to provide semester-long sustained experiences with elementary children, and is generally the first time preservice teachers interact with children while in the role of teacher. These courses differ from traditional student teaching or practica, in that the preservice teachers all taught in the same classroom, and the teacher and I taught with them. The preservice

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¹ All names in this manuscript are pseudonyms.

teachers shared responsibility as they collaboratively planned science lessons, and the teacher and I shared responsibility for supporting their planning and teaching.

The course met bi-weekly, with one session devoted to coteaching, and the other session for cogenerative dialogues. The preservice teachers and I collaborated (with ongoing support of Mrs. Turner) to connect our unit with the school's curriculum, and lessons were planned by our group during initial class meetings. The preservice teachers also met with Mrs. Turner individually to connect their lessons to her curriculum. A key component of this collaboration is that classroom experiences are shared by all members of the course. As such, participants cotaught all lessons, and were collectively responsible for planning and implementing the science unit. Each week a different preservice teacher led the lesson and after a brief introduction by the day's lead teacher, the remaining preservice teachers facilitated small group activities. This structure enabled participants to enact various ongoing roles; working in small groups, leading a whole group discussion, and working individually with children.

This common experience allowed for individual and group analysis, and opportunities for further inquiry within cogenerative dialogues. These conversations took place weekly on the college campus, and provided a space to deconstruct classroom events and share experiences and interpretations. Our conversations focused on reflexively considering past events with the goal of sharing differing perspectives and cogenerating plans of action for upcoming lessons, as we asked key questions about our teaching and students' learning. Some of these questions were:

What did we notice with our own groups of children? How does this connect with what we have planned? What could we do differently in upcoming lessons? Rather than solely reflecting on what occurred in the past, focusing on reflexivity requires reflecting with the explicit purpose of improving practice.

Mode of inquiry

In order to arrive at a view of participants' experiences, the research design employs critical ethnography (Carspecken, 1996). A critical orientation to ethnography gives meaning to the experiences of participants, while acknowledging the political nature of research. All class sessions, cotaught lessons, and cogenerative dialogues were videoed and digitized, and serve as the primary data sources, and study participants and I identified key vignettes that provide evidence or contradiction of preservice teachers' demonstrating a recognition of the complexity inherent in teaching young children.

Data analysis and interpretation

The analysis focused on vignettes that represent typical interactions and reveal participants' emergent understandings of teaching. Discussions with preservice teachers about these vignettes served to clarify my interpretation and add their perspectives to the research. The main findings speak to the importance of including supported, shared classroom experiences early in teacher education combined with opportunities to deconstruct events, with the goal of revealing different experiences and improving practice. Findings include: (1) coteaching provided critical support to preservice teachers as they taught their first lessons, and (2) analyzing teaching in cogenerative dialogues enabled reflexive conversations around the complexities of teaching and provided a foundation to examine epistemological assumptions.

Coteaching with others provided support to preservice teachers

The preservice teachers engaged in a variety of roles; they facilitated small group instruction, worked one-on-one with children, observed their peers leading lessons, and led their own

lessons. Each of our lessons began with a brief whole-class discussion that introduced the science activities. These discussions were led by the preservice teachers, and Mrs. Turner and I participated as well. The following vignette is of a discussion led by Emma, who was in her third year of the four-year program, and demonstrates how coteaching with others provided support to her as she taught her first lessons.

Emma's lesson had expressed concern initially about covering all she wanted to in her discussion with the children. The unit we developed was about water, and she began by introducing temperature to prepare for activities measuring water temperature. Emma attempted to elicit from the children their current understandings of Fahrenheit and Celsius as scales for measuring temperature, and in the following vignette, she asks the third graders which words are represented by F and C on a thermometer. Although we spent considerable time as a group planning lessons, the preservice teachers took the lead on the conversations. We had not discussed Emma's idea to have children guess the names Fahrenheit and Celsius, and in the following exchange, it becomes quickly obvious that they did not have a basis from which to guess. Emma began to hesitate when she realized that the children may have not heard the term Celsius before, and she appeared unsure of how to move the discussion forward.

Episode 1. Do you know what C stands for?

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01
              Do you know what C stands for? Yes? ((points to student))
    Emma:
02
    Student:
              Ummmm...
03
    Emma:
              You can take a guess
04
    Student:
              Cirrus?
              Cirrus.... oh.... we've been studying clouds ((nodding)),
05
    Mrs. T.:
              that's a word that starts with C....
06
    Emma:
              ((laughs))
              ((to Emma)) that's a hard word to quess
07
    Author:
80
   Mrs. T.: ((looks to Emma and nods her head))
09
    Emma:
              ((nodding and smiling))
    Student:
10
              OOOOOHHHH, maybe cumulus?
              ((to the class)) I don't know if I could just guess that
11
    Author:
              word if I didn't know
              Oh, right.... well, these are really good weather guesses, but
12
   Emma:
               it actually stands for Celsius, which is one of the ways we
              measure temperature. Sooooo, you want to see how we use it?
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The conversation continues, with Emma explaining why there are two different scales. A few minutes later, she writes down the freezing point of water and draws the symbol used to represent degrees (°). Mrs. Turner realizes that the children likely have not been exposed to this symbol before, and she enters the conversation and compares the symbol to others that the children are familiar with.

One of the key features of coteaching is a stepping forth / stepping back flow (Tobin & Roth, 2006). This can provide support to coteachers, as well as opportunities to maximize student learning. In this episode, the stepping back and forward of Mrs. Turner and me enabled us to provide two points of support for Emma. First, as the student guesses a word that begins with C (turn 04 "Cirrus?") Mrs. Turner steps forward to clarify for Emma that the class has been studying clouds. Second, the question Emma was asking was quite random for the lesson. It is challenging to consider possible questions to ask of children while teaching initial lessons, and having the support of other teachers provided details she did not consider at the moment. My comment (turn 07 "That's a hard word to guess") and Mrs. Turner's head nodding in response

provided an indication that the question was possibly too disconnected with their prior knowledge and experience. As the second child excitedly guesses ("OOOOOHHHH maybe cumulus?" turn 10) I turn and say "I don't know if I could just guess that word if I didn't know" (turn 11) and this provides support for Emma to realize that the question was not strong and to move on. Coteaching provides a sense of security as new teachers teach their first lessons (Tobin & Roth, 2006), as they know there are others teaching with them, and this study indicates that this can be a comforting scenario for initial teaching.

In later conversations, Emma recalled how the question had just come to her then, and while in hindsight she realized it was not productive, at the time she was unsure how to move forward, and she felt "stuck". The coteaching structure enabled Mrs. Turner and me to participate in the conversation so that Emma could return to her focus on explaining the activities that were to follow. This enabled her to move on to her actual focus on using thermometers to measure water temperature (turn 11 "Oh, right, well, these are all really good weather guesses, but it actually stands for Celsius, which is one of the ways we measure temperature. Sooooo, you want to see how we use it?")

The emphasis on sharing responsibility means that all teacher participants are responsible for the success of each lesson, and often we found that as participants stepped forward to contribute to, or clarify, a portion of a lesson, others were able to "catch their breath" and regroup in order to be sure the lesson was moving in the direction that was intended. In the cogenerative dialogue that followed Emma's lesson, we discussed the importance of stepping back, and stepping forward. As we recalled previous lessons, Lauren began to talk about hers, which had been before Emma's, and was the first time she had taught. Prior to her lesson she expressed her

desire to include all the questions she intended for the introduction, and in the following excerpt she reflects on her own lesson in relation to Emma's.

Lauren: Yeah, like with Emma's lesson, one way this coteaching was kind of helpful to me is I could stop and think about what I was going to say next. When you jumped in ((points to Author)), and then I jumped in ((points to self)), it's like we are trying to get across the same point, but we each have a different way, so it's helpful to have the two voices together as we are teaching, and we know you are there if we need you.

Lauren's comment illustrates the importance of stepping back and stepping forward ("*jumping in*") and explores the support provided by multiple coteachers ("*two voices*"). The structure of coteaching provided multiple perspectives to the preservice teachers and enabled them to recognize the value of collaborating in teaching. As we each contributed to the moment, we supported developing a critical reflexivity, as participants were encouraged to consider their individual and shared insights and apply their experiences to their teaching practices in upcoming lessons. This vignette illustrates the multiple perspectives that come together in a lesson that is cotaught and immerses preservice teachers in classroom experiences as they begin to recognize how to navigate the unpredictability of teaching young children.

Analyzing teaching together revealed different interpretations

After each lesson, the interpretations of events were discussed in cogenerative dialogues and the excerpts that follow are from a dialogue in which participants shared their different experiences facilitating small group activities. In this section I focus on the reflexive dialogues and the epistemological assumptions regarding teaching and learning that emerged within our conversations.

Tracie: You know, my table of kids was great, but out of four students they are all so different. One student doesn't like to write anything down, so I have to keep reminding her of what to do next, then I have a child, Alberto, who wants to do all the experiments, and not write it down, but then there are two who work really well by themselves. It's amazing that there are four kids in the same class at the same age, and two work really well by themselves, and two prefer to do it all and not write any of it down.

Marisol: Yeah, at my table too! There are five kids, and one little girl she don't want to talk to any of the others, and there is one little boy he's like, "let's answer the question, that is what it is time for", but she's like, "nah, I'm gonna keep checking it out." Then there is a third student who I have to tell everything to, it's so amazing how these three kids do it so different. I never realized that it could be so different in the same class.

This exchange illustrates the preservice teachers developing a realization of the complexities of elementary classrooms. Education courses held on college campuses and removed from schools can create the illusion that all children of a given age will react in similar ways to activities, or that age can limit students' abilities. Young children are quite capable of reasoning scientifically (Kirch, 2007) and first-hand experiences in navigating conversations and engaging in investigations with children can provide opportunities to experience young children as they participate in science and reveal the diversity of children's development.

As this dialogue unfolded, Emma reminded us about her lesson and acknowledged that the terms Celsius and Fahrenheit were not the main point, and actually began to create disruption, as children shouted out a variety of science terms that began with "c." She described emphatically how important it was that we were all present and could thus discuss the moments retrospectively. As the conversation moved to the importance of coteaching, Emma acknowledged the teacher's role in explaining the symbols for recording temperature, and my role in redirecting her away from the word Celsius. Her reflexive analysis of these experiences included how to work towards being able to similarly redirect conversations or find ways to become "un-stuck" in the future. The conversations brought an awareness of the complexities of teaching, and as such, dialogue facilitated our exploration of the benefits of shared responsibility as we discussed the value of having others present to successfully enact first lessons.

One issue that was continuous throughout the semester was that at the end of each lesson the group wondered how to know if the children really learned what they had intended. The shared

teaching coupled with cogenerative dialogue provided a foundation to examine epistemological assumptions and analyze different ways we might ascertain what children have learned.

Lauren: I was thinking about how when we taught water the first time, it seemed like they didn't have a clue afterwards, but when we came back they could talk about it. It may not be clear right away, but when we go back to them and have a sit-down they seem to know it. They show us what they know even if it's been a week or so in between.

Lauren's comment reveals that she initially thought the children might not have learned what she intended. Her expectations were that she would immediately be able to see that children knew what she expected them to know. On the contrary, the children demonstrated that they could discuss their understandings of water a week later, and this challenged her initial ideas that if children didn't appear able to talk about the concepts intitially, they hadn't learned the material. Talking and writing *about* teaching differs ontologically from teaching as praxis (Tobin & Roth, 2006) and the experiences of coteaching in this course revealed to Lauren unexpected ways in which children interact with a lesson. The dialogues before and after teaching provided the space to examine differences between talking about teaching, and actually teaching. This can be instrumental to new teachers examining their own practices and beliefs in light of their classroom experiences. As this dialogue continued, the preservice teachers discussed connections that emerged during coteaching and their higher comfort levels towards teaching science.

Emma: I feel so much more comfortable now that I have done a lesson, and prepared it and done it with the group, I now know that with doing a lesson and having to do it with students...I know how much time you have to prepare. I actually got to understand what ...it's going to be like...I think coteaching was so helpful because you and Mrs. T came in and put your own stuff into it. I loved that, because even though I did a lot of research and prepared myself, she came in and combined it with what she was doing, and it was awesome to see how to connect what we are doing to other things the kids are learning.

As these conversations were based upon shared classroom moments, they connected actual teaching experiences with the more theoretical readings they had experienced. In the structures of this course, diverse perspectives were explored through cogenerative dialogues as participants

focused on things that surprised us during the lesson, or unexpected moments that might have been unnoticed if not for the number of teachers.

Challenges and inherent tensions

There are inherent tensions within a collaborative approach intended to work around, and across, institutional hierarchical structures. Knowledge is seen as distributed across our different positionings in this course. This is often new and unusual to participants in the beginning, as power has conditioned us into the hierarchy of education that we are socialized in. Trying to confront this is challenging for all of us. However, once participants actively begin to contribute to decision-making and share responsibility in an authentic way, they push back at these hierarchical structures themselves, and their perceptions of the roles of "student" and "teachers" begin to shift. Kenneth Zeichner (2010) has called for teacher education to move to a focus on a "nonhierarchical interplay between academic, practitioner, and community expertise" and it is precisely this notion that is paramount to cogenerating plans of action for teaching together in classrooms.

A further tension in this course is the role of evaluation, especially given the shifted roles for all of us. It was often surprising to preservice teachers that neither Mrs. Turner nor I formally evaluated their teaching. There certainly was evaluation, as I was required to assign grades at the end of the semester, however part of working towards sharing responsibility is to remove the focus on individuality and replace it with a collective focus on achieving success in teaching together. Within the other structures of the course, preservice teachers were assessed on a variety of components including a project that combined their lesson plans with a paper that reflected upon their experiences carrying out the unit.

There are obvious logistical challenges in teaching a course that is responsive to the everchanging needs of participants (including the children and their teacher). A primary challenge is time and scheduling, and this requires flexibility, as each participant needs to be flexible about meeting times around school / university calendars, etc. The number of preservice teachers is also a logistical challenge, in that in order to share classroom experiences, the numbers of adults needs to be low. However, the number of teachers is also a strength, as it provides additional supports for the classroom and the various voices can reveal the multiplicity of perspectives as we each participated in the same moments.

Discussion and implications

The analysis of this collaborative field-based course reveals strategies for developing approaches in teacher education that explore the multiplicity of perspectives and experiences within a classroom, to mediate the emergence of a reflexive, dialogic focus on the complexities of teaching. Coteaching allowed exploring the complexities of teaching in an elementary classroom and a focus on the value of collaborative supports. Cogenerative dialogues provided opportunities to explore ways to move the course forward and examine children's learning and the participants' growth. Cogenerative dialogue by definition incorporates having multiple voices expressing different perspectives, and in welcoming various perspectives there can emerge a dialogic understanding to counter the "best practice" approach that teacher education often is inundated with, and to recognize the fluidity and complexity of classrooms.

While many programs have clinical experience or practica, they rarely provide opportunities for preservice teachers to teach with their classmates and course instructors together. Certainly there are no panaceas to solving the long-standing dilemma of how to integrate coursework and

fieldwork, and there are many ways a field-based course can be structured. Recognizing this, this manuscript has revealed one open-ended way to provide support, field experience, and feedback to and with preservice teachers. Methods courses typically are designed to give "tools" or specific strategies for hypothetical situations. However, a field-based collaborative structure can push against this, as our course became a place to generate theory about teaching and learning through exploring practices that we had together as teachers.

Taken as a whole, the approach to this course provided structures for preservice teachers to develop reflexive perspectives on the complexities inherent in teaching and learning. This is highly relevant in a time of increasing segmentation of teacher education. Emphasizing collaborative practices and reflexive dialogue around teaching within methods courses can bring together coursework and fieldwork to support participants as they learn about teaching in an integrated approach. To that end, I contend that teacher education programs need to find new ways to emphasize shared field-based activities so that these experiences can serve to guide preservice teachers' analyses of their own teaching development and children's learning.

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