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Reforming Only Half: A Study of Practice-Based Teacher Education in Traditional Field Placements

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*P**ractice-based teacher education is poised to improve teacher education by focusing on interns' enactment of complex teaching practices and helping them develop these professional skills. However, much of this work has yet to study the trajectory of learning between university training and field experiences. This article explores seven history and social studies interns' experiences with their cooperating teachers as they utilize two practices from their teacher training. Findings suggest that though interns were trained with carefully scaffolded experiences to use ambitious models of teaching and learning at the university, once they moved to the field classroom they were often on their own to use their teacher training. This article concludes with a call to action for universities to create more alignment between the field and the university to help interns develop professional skills.*

Introduction

Teacher education is difficult work. Teacher educators must help interns develop "knowledge and understanding of subject matter, children, teaching strategies, and the school curriculum, and to help them draw upon this knowledge in the shaping of their classroom practice" (Calderhead, 1991, p. 1). This momentous task is to be completed in a relatively short time frame, usually a year to eighteen months, and amidst numerous enduring problems. For instance, we must help interns develop skilled instruction though they often do not understand, nor understand their need for, unfamiliar and complex educational principles (Britzman, 1986; Korthagen & Kessels, 1999; Korthagen, Loughran, & Russell, 2006; Lortie, 1975). Regardless of longstanding and earnest efforts by individuals, teacher education as a whole has underprepared novices for the instructional demands of the classroom (Ball & Cohen, 1999; Grossman, Hammerness, & McDonald, 2009).

Recent efforts to improve teaching and teacher education have been aimed at shifting our attention from "what teachers know and believe to a greater focus on what teachers do" (Ball & Forzani, 2009, p. 503; see also McDonald, Kazemi, & Kavanagh, 2013; Zeichner, 2012). In other words, proxies of teacher readiness, such as writing a lesson plan or knowing educational theories in a college course, are insufficient gauges of teacher skill. Instead, the emphasis of teacher preparation—from university classroom to field classroom—should focus on developing widely agreed upon professional skills that teachers utilize often in the classroom, and that are effective for student learning (Grossman, Hammerness, et al., 2009; Morris & Hiebert, 2011). These skills are often called high-leverage teaching practices (Ball & Forzani, 2009, 2011).

While this shift toward teaching practice shows some promise in helping novices become more skilled (Lampert, Franke, Kazemi, et al., 2013; Windschitl, Thompson, Braaten, & Stroupe, 2012), this complex work requires carefully scaffolded experiences and the involvement of

multiple knowledgeable mentors. For decades, universities and field schools have attempted to provide these experiences. However, these separate spaces and the core teacher educators in each—university field supervisors, cooperating teachers, and university faculty—are often weakly aligned with one another, both conceptually and experientially (Bain & Moje, 2012). In other words, they often share little agreement about what skilled instruction looks like and the professional training it takes to produce effective beginning teachers (Ball & Forzani, 2009, 2011; Morris & Hiebert, 2011). In light of this, a question emerges: In a system that focuses on the development of specific practices in interns, do field experiences, in their current form, continue on the same developmental path that university teacher education began? If not, what do these placements emphasize for teaching intern development?

This article explores seven history and social studies interns' perceptions of their experiences with their cooperating teachers as they utilize two practices from their teacher education: a concept-focused lesson called *concept formation* (Ehrenberg, 1981; Parker, 2009) and using central questions to drive student inquiry (Bain, 2005; Caron, 2005). These interns were in their final semester student teaching placement for a university-based, secondary teacher education program in the Midwestern United States. The data I draw upon come from a larger study in which I sought to understand how interns used, modified, or disregarded practices they learned at the university and the challenges and supports they perceived in doing so. For this article, I consider a smaller, targeted set of questions about the connections between intern perceptions of their cooperating teachers' support and two specific practices they have learned:

1. How did interns perceive their cooperating teachers' impact on their use of university-learned strategies and practices?
2. How did the interns' perceptions of their cooperating teachers' views impact their use of university-learned strategies and practices?

I begin this article with a brief review of the literature about the connections between the university and the field. I then explain the methods I used and the results of my exploration of interns' perceptions of their cooperating teachers' influence on their use of practices. I end with conclusions and recommendations based on my findings.

Review of the Literature

The dominant model of teacher education is where "the university provides the theories, methods, and skills; schools provide the classroom, curriculum, and students; and the student teacher provides the individual effort; all of which combine to produce the finished product of professional teacher" (Britzman, 1986, p. 442). This model implies that knowledge acquisition happens in the teacher education classroom and application of that knowledge occurs in the field classroom (Feiman-Nemser & Remillard, 1995; Korthagen & Kessels, 1999). Over the past thirty years, scholars have become critical of this relationship where "[t]he hidden curriculum of teacher education tends to communicate a fragmented view of knowledge, both in coursework and in field experiences . . . knowledge is 'given' and unproblematic" (Ben-Peretz, 1995, p. 546; see also Wideen, Mayer-Smith, & Moon, 1998). This model of teacher education produces a highly variant learning experience for interns with few opportunities for systematic improvement

(Levine, 2006) and "has failed to change, in any major way, what happens in our schools" (Korthagen et al., 2006, p. 1038).

One core problem area is the student teaching semester. While student teaching is viewed by many in-service and pre-service teachers as the most valuable part of their professional learning (Levine, 2006; Lortie, 1975), research has long questioned its value. This culminating experience is often filled with conflicting visions, competing practices, and insufficient guidance that often fail to carry the teacher education programs' goals to completion (Feiman-Nemser, 2001; Ng, Nicholas, & Williams, 2010).

Within the student teaching experience, cooperating teachers are of unquestionable influence. No person spends more time, sees more of the interns' teaching, or provides more feedback than the cooperating teacher (Clarke, Triggs, & Nielsen, 2014; Cuenca, 2011; Darling-Hammond, Hammerness, Grossman, Rust, & Shulman, 2005; Feiman-Nemser, 1987). Yet the feedback cooperating teachers offer "rarely include[s] in-depth explorations of issues of teaching and learning" (Borko & Mayfield, 1995, p. 515) and is filled with "well-meaning praises" (Feiman-Nemser, 1987, p. 272) from the desire to "maximize comfort and minimize risks" (Borko & Mayfield, 1995, p. 515), and the feedback often focuses on classroom management rather than improving instruction (Feiman-Nemser, 1987). Additionally, cooperating teachers can negatively influence student teachers' use of the practices learned in education courses (Clarke et al., 2014) by often "encourage[ing] imitation rather than exploration" (Pape, 1992, p. 59). Rozelle and Wilson (2012) asserted that pre-service teachers follow their cooperating teachers much like a "template for practice" in both teaching methods and practical aspects of teaching (p. 1204). Clinical experiences, in this traditional and common format, are frequently disconnected from the university (Bain & Moje, 2012) and emphasize enculturation into the norms of didactic instruction and control-based management (Feiman-Nemser, 2001; Korthagen et al., 2006).

Scholars have explained these shortcomings of teacher education in numerous ways. For instance, some have asserted that pre-service teachers often experience a "transfer problem," or difficulty using the knowledge and practices they learned in professional courses in the field classrooms (Korthagen & Kessels, 1999; see also Eraut, 1994; Feiman-Nemser, 2001; Korthagen, et al., 2006). Others scholars claim field experiences actively "wash-out" out the attitudes, beliefs, knowledge, and practices that novice teachers acquired during teacher education courses (Zeichner & Tabachnick, 1981). In the search for a cause of these failures, studies have explored interns' personal biography (Lortie, 1975; Britzman, 1986), interns' attitude toward their education coursework (Katz, Raths, Mohanty, Kurachi, & Irving, 1981), and the field classrooms where they are placed (Britzman, 1991; Darling-Hammond et al., 2005).

An additional explanation is teacher education's failure to create effective learning experiences for interns as they move through the university and into the field classroom. While most teacher education programs agree on the importance of "conceptual explanation about pedagogical approaches tied to direct opportunities for inquiry and application" (Darling-Hammond et al., 2005, p. 403), few provide necessary support for interns to bridge the divides between the university and the field (Bain & Moje, 2012, p. 62). Without explicit connections between the university and the field, the novice teacher—the person least prepared to make connections— "has the job of coordinating these into a meaningful and useful whole" (Bain, 2012, p. 515). In

other words, while many teacher education programs focus their efforts at the university on interns' understanding of pedagogical and disciplinary concepts of teaching, few support them in implementing these in their practice in actual classrooms (Ball & Forzani, 2009; Grossman, Compton, et al., 2009). With such a disconnect between these spaces, few opportunities exist to accumulate evidence about what works and we have virtually no way of developing a "science of improvement" (Kenney, 2008, p. 140), or means of improving teacher education over time.

Recent efforts to mediate these problems and improve the way teachers learn include a shift toward a practice-based system of teacher education (Ball & Forzani, 2009; Forzani, 2014; Grossman, 2011; Hiebert & Morris, 2012). In brief, practice-based teacher education identifies a core set of professional skills needed for teaching (Ball & Forzani, 2009), focuses interns' learning and experiences around these core skills (Kazemi, Franke, & Lampert, 2009), and articulates frameworks to gauge the competence and improve interns' ability to enact these practices (Danielson, 2013; Marzano, 2007). Research has articulated numerous potential benefits of this focus on practice. Morris and Hiebert (2011) assert that making teaching practice into "public, changeable knowledge products" enables shared problems across the system of teacher education and provides multiple sources of innovation (p. 5). Likewise, Windschitl et al. (2012) report that shifting toward practice afforded interns opportunities to create videos and case study exemplars to represent core practices for interns, establish common conceptual frameworks of practices to critique early attempts, and to create "performance progression" for growth (p. 892). Finally, Lampert, Franke, Kazemi, et al. (2013) found that focusing on a single high-leverage practice (eliciting a student's mathematical knowledge), gave novices opportunities to retry, reconsider, and receive feedback from teacher educators and fellow novice teachers on specific aspects of the complex practice.

As a whole, practice-based teacher education has shown promise in focusing the efforts of multiple people at the university toward interns developing skilled practice, particularly in developing teacher education pedagogies that can be used at the university, including modeling (McDonald et al., 2013), rehearsals (Lampert, Franke, Elham, et al., 2013), and innovative use of video (Ball, 2013). Despite these advancements, one component of practice-based teacher education that has thus far been largely unaddressed is how the identification and focus on core teaching practices works across the university and the field classroom, particularly in the work between cooperating teachers and interns during the student teaching semester. In light of recent calls by the Council for the Accreditation of Educator Preparation (CAEP) for shared responsibility for improvement of candidate preparation across the university and P-12 schools, explorations into these connections are critical.

This paper represents part of a larger study that examined interns' efforts to enact university-learned practices during their final clinical experience, or student teaching, and their perceptions of the affordances and challenges they experienced from both the university and the field school (Francis, 2013). The section of the work contained in this paper focuses in on the core person involved with the intern during the student teaching experience: the cooperating teacher. The underlying framework of this study is based on *cognitive apprenticeship*, or the idea that learners' experiences must be a scaffolded apprenticeship process of modeling, coaching, and fading (Brown, Collins, & Duguid, 1989), and the notion that learning should be situated in authentic settings (Lave & Wenger, 1991).

As such, the foundation of this study is that novice teachers need a carefully aligned, ordered, and scaffolded set of experiences that include modeling and coaching from knowledgeable mentors, followed by experiences of increased responsibility that move from less complex contexts into more complex and authentic contexts. This framework supports the experiences of the interns of this study because each practice was first modeled and explained in their university methods course. Next, they had multiple low risk opportunities, what Grossman, Compton, et al. (2009) call "approximations" of practice, to plan and enact each practice in their methods class and to then receive targeted peer and instructor feedback. The interns then brought these practices into their field classrooms to attempt with real students. Explanations of these learning trajectories are given below in the section about each practice.

To target my analysis, I explore three core areas of cooperating teacher/student teacher interactions that emerged through the study: the resources cooperating teachers provided, the feedback they gave on lessons, and their openness toward university-learned practices. I conclude this paper with a call to action for university schools of education to improve teacher education through a more deliberate alignment between the university and field.

Methodology

Participants

The seven study participants represent one full cohort of a social studies teacher education program in a large Midwestern university. I used pseudonyms for each participant to protect their identity (Jami Lynn, Hans, Ned, Jeff, Phillip, Amanda, and Anthony). All student teachers (ST) were of or near traditional undergraduate age (<25 years old). All cooperating teachers (CT) had at least 10 years' experience in the classroom, and each pair was variant in gender mix. The breakdown of genders and experience amongst the pairs of cooperating teachers/student teachers is listed in Table 1.

Table 1
General Attributes of Cooperating Teacher (CT) and Student Teacher (ST) Pairs

Student Teacher	ST Gender	CT1 Gender	CT1 Experience	CT2 Gender	CT2 Experience
Hans	M	M	10+ years		
Ned	M	F	20+ years		
Amanda	F	F	20+ years		
Anthony	M	F	20+ years		
Phillip	M	F	10+ years	M	10+ years
Jeff	M	M	10+ years	M	10+ years
Jami Lynn	F	F	10+ years	M	10+ years

These seven interns were a convenience sample, as I knew them prior to the study, had access to them, and knew the program in which they trained. I was, in fact, their social studies methods instructor one semester previous to their student teaching. The choice to conduct interviews with my former students was made deliberately, and the potential limitations and benefits will be discussed in the conclusions section. Four of the seven interns had one cooperating teacher and

three had two cooperating teachers. In the instances where interns had two teachers, I will refer to them as cooperating teacher1 and cooperating teacher2. For this study, I consider each relationship a singular instance, for a total of ten relationships. As I will demonstrate, individual relationships between the cooperating teacher and intern were significantly unique enough that I chose to represent them as separable instances rather than consider them as two facets of the same intern's experience.

Data Collection

For this study, I focused my analysis on two core practices, described in more detail below, that interns learned in their methods classes. I observed and video-recorded each of the seven interns teaching two class periods, one for each practice, at their student teaching site. Through this observation, I sought to explore their enactment of the two practices. During each observation, I took field notes about their lesson, specifically noting the teacher moves they made that were central to core components of each practice. For instance, for the concept formation lesson, I focused on the texts they chose and the ways they displayed and represented each text. For the central question/hooking lesson, I explored how the interns launched the historical/social studies problem of the unit and the activities and/or texts they chose in doing so.

I interviewed interns after each observation, attempting to understand the challenges and supports they experienced in enacting each practice. The 14 interviews lasted from 57 to 93 minutes, averaging 73 minutes. I constructed interview questions (see Appendix for protocol) that focused on cooperating teachers as a primary source of challenge or support, as articulated in the literature (Borko & Mayfield, 1995; Clarke et al., 2014; Feiman-Nemser, 1987). I also took an open-ended interview approach, following seemingly relevant lines of reasoning. After the common interview questions and probing questions, we watched and discussed the video of their teaching. I paused the video to ask questions about significant moves they made or interactions they had with their cooperating teachers during the lessons.

Data Analysis

I transcribed and prepared all interview and field note data, uploading them to an online qualitative analysis software program. I then analyzed the whole data set using a constant comparative method (Corbin & Strauss, 2015). Throughout the study, my analysis of the data was ongoing and iterative. I read and reread the data, refining and revising the codes. For instance, most of the interns described cooperating teachers' resources as a main source of support for them in their student teaching, but my ongoing analysis revealed that interns described the resources in terms of frequency and amount, rather than describing ways that the resources were helpful. The final categories that emerged as relevant to the cooperating teacher/intern relationship were feedback given, resources provided, and openness to university requirements. The first category that emerged, feedback from cooperating teachers, was also clear throughout the literature as a main source of support to interns. The two additional categories, providing resources and openness to university requirements, emerged through the interviews.

I utilized multiple strategies to ensure trustworthiness for the qualitative data (Shenton, 2004). First, I triangulated the findings of the interviews across different participants and field sites to

determine the consistency of the findings across experiences, and across time between interviews with the same participants. Additionally, I used tactics to ensure participants' honesty, such as reminding them of their freedom to remove themselves from the study and that their participation or responses had no bearing on their progress through student teaching. Finally, participants in the study were given the opportunity to look through the findings and analyses to give feedback and ensure accuracy of the reporting of their experiences.

The Practices

To drive my analysis, I investigated two well-researched and widely supported practices in the disciplines of history and social studies: teaching historical and social studies concepts and inquiry-based instruction (Bain, 2005; Beal, Bolick, & Martorella, 2009; Donovan & Bransford, 2005; Levstik & Barton, 2001; Parker, 2009). Representative of these two core practices, I explored two strategies, or specific means to carry out the core practices, that the pre-service teachers learned in their program. To be clear: I am not making the claim that inquiry-based instruction and teaching historical concepts would be the two practices that every scholar would choose as two core elements of history and social studies teaching. I am, however, claiming that these practices, represented by the strategies the interns learned, provide informative cases of how interns' learning was influenced by their field experiences. For this study, I observed each intern enact one of each type of lesson—a lesson that focused on history and social studies concepts and a historical/social studies inquiry-based lesson built around a central question. As mentioned, after each of these observations, I interviewed the interns about their experiences planning and enacting their lessons.

Concept formation. The first practice of teaching historical concepts is represented by the first strategy, *concept formation*, which is a four-step strategy of teaching concepts as "big ideas" and making students active learners. The steps in brief are (a) teacher provides prototypical examples of the concept; (b) students use examples to determine critical attributes of the concept; (c) the class works together to determine a common definition; and (d) students examine additional texts to identify more examples and non-examples. Concept formation aligns with the conceptual nature of history and social studies. This practice enables teachers to emphasize core concepts, while students can explore the key characteristics and test their understanding of those characteristics with examples, non-examples, and ambiguous examples (Beal et al., 2009; Ehrenberg, 1981; Parker, 2009).

Central questions. The second practice of teaching inquiry-based history/social studies lessons is represented by using central questions to engage students in historical and social studies inquiry. These inquiries, focused by central questions, enable students and teachers to determine the significance of information, avoid fragmented and superficial knowledge (Bain, 2005; Caron, 2005; Wiggins & McTighe, 2005), and enable students "to better organize and interrelate existing knowledge, as well as acquire new information" (Beal et al., 2009, p. 173). To show how interns used these questions I observed their "hooking" lesson, or the first lesson in a unit designed to launch the intellectual inquiry on which the class would embark.

For both practices, interns continued to experience a trajectory of learning designed in the mode of a cognitive apprenticeship. For instance, their trajectory of learning about teaching historical

concepts began in their methods class as they used prior knowledge to attempt to define the terms "facts" and "concepts." After this brainstorming, they were presented with scholarly definitions of "facts" and "concepts." Finally, they practiced their understanding of these terms by categorizing each item on a list as a fact or a concept. The interns then participated in a concept formation lesson, going through the structure listed above, using the concept of *professionalism.* After the exercise, the instructor described the steps of a concept formation lesson, informing them that they had just finished participating in the target strategy they were about to study. Over the next week, all students planned their own concept formation lesson on the concept of their choice, which they then taught in small groups in the next class session. To finish, they then reflected on their lessons and delivery.

In much the same way, interns' trajectory of learning about historical inquiry, central questions as tools of inquiry, and hooking lessons began in their methods class as they read and discussed some core components and benefits of inquiry-based instruction and had practice writing or finding and modifying their own central questions. Interns participated as students in an inquiry-based lesson lead by the instructor and reframed the activity together afterward. Finally, interns had the opportunity both to individually plan units with hooking lessons as well as individual lesson plans driven by central questions and to present these to the class and receive feedback. All interns had performed adequately in previous semesters in each of the scaffolded experiences at the university. During their student teaching, then, programmatic expectations were that interns would utilize both practices in their field classrooms.

Results of the Study

Data from intern interviews reflected three primary areas of support from cooperating teachers: providing resources, giving feedback, and being open to university-learned practices. I present each of these three areas separately in order to draw larger points across each of the intern-cooperating teachers' interactions. By organizing my analysis around these three areas, I am able to better clarify implications for teacher educators who aim to have a more powerful influence on the teaching practices of their interns. I describe interns' perceptions of the support their cooperating teachers gave and then some perceived challenges to interns' use of the practices.

Providing Resources

One of the main supports that interns perceived was the resources cooperating teachers provided. Interns reported that, in most cases, their teachers were willing and able to provide what they needed. They generally viewed these resources as a support to their planning and teaching. However, some interns felt that these resources created challenges to their planning and teaching, particularly in regards to using new practices.

In eight of the ten cases, interns said their cooperating teachers provided as many resources as they needed, including books, activities, and work sheets. Anthony reported during both interviews that the main support his teacher offered was her "sheer volume of resources." When he needed a resource, his cooperating teacher walked over the closet and "pulled out a stack of 50 of them." Amanda said her cooperating teacher "has a whole bookshelf of content knowledge books" at her disposal. Likewise, Phillip explained that his cooperating teacher1 gave him a

binder that contained "everything she had ever taught." In only two instances did cooperating teachers not provide resources; in both the cooperating teacher was new to the content of the class that year.

For the most part interns appreciated the resources their teachers provided, yet some of them then felt obligated to *use* the resources. Amanda said she did not feel as much freedom as she would like in her planning and often felt "pressured" to use what her teacher gave her. Likewise, Hans said his teacher supplied him with all the activities and PowerPoint slides for each day. Hans initially tried to challenge his teacher to let him create his own materials, but finally felt he had to "teach how he wants me to teach." Rather than Hans feeling supported, he felt his teacher wanted him to adopt his style.

Further, some interns felt the provided resources directly challenged their use of the university-based practices. For instance, three interns felt inhibited by their cooperating teachers' reliance on the textbook. Ned felt he was not able to use enough additional resources to shape his lessons. He stated that students "read and take notes from the book every night. If we give a pop quiz . . . the material comes right out of the textbook. That is part of the frustration." Anthony also felt that "textbooks are at the heart of [his teacher's] curriculum," which was "contrary" to what he learned at the university where they "very much encouraged [him] to go find supplemental texts."

In order to accomplish skilled use of the concept driven instruction and historical inquiry, interns needed help finding and modifying texts and resources, particularly in the case of concept formation. Though cooperating teachers provided many valuable resources for the interns, only one of the interns could describe how these resources aligned with and helped her utilize the target practices they were required to enact. Some interns even felt limited in their use of target practices and felt pressured to teach in the same style as their cooperating teacher. This is not to imply that the cooperating teacher should have known what resources would be helpful for the intern to execute these practices skillfully, as this would be impossible without intimate knowledge of the interns' training. It is important to note that university had provided little guidance to the cooperating teachers about what kinds of resources would be most helpful and why.

Feedback on Planning and Teaching

A second main area of support from cooperating teachers is feedback on planning and teaching. For this section, I give a brief explanation of interns' perceptions of the feedback from their cooperating teacher, considering it along two dimensions, frequency and content of feedback. I then explain how some of this feedback, either implicitly or explicitly, had the potential to be a challenge to the practices interns learned.

Frequency of feedback. In only two of ten relationships with their cooperating teachers did interns feel they did not receive adequate feedback. In every other relationship, interns felt they received consistent feedback on their teaching and planning throughout the semester. For instance, Phillip reported that his cooperating teacher1 planned with him almost every week. Likewise, Amanda reported that she received feedback after all of her lessons. Finally, Ned

explained that his cooperating teacher would ask him almost every day, "Can I see your lesson plan? Can you physically hand it to me?"

Content of feedback. It may be intuitive to gauge the value of a placement based on the amount of feedback from cooperating teachers: the more feedback an intern receives, the better the placement. However, when considering feedback through a lens of specific practices, the *content* of teachers' feedback was a much more important gauge of quality. In this study, much of the feedback interns described offered little in terms of their use of the new practices and, in some cases, potentially challenged their use of new practices. In the following paragraphs, I will describe three interns' explanations of feedback and some potential challenges to their use of the practices.

Anthony. Though Anthony received frequent feedback throughout the semester, most of it was procedural in nature. Anthony explained his teacher helped him with classroom management, such as being more consistent with disciplinary issues. Also, she helped him learn to teach seventh grade more effectively by having students "physically move about once every fifteen minutes." During the second interview, Anthony said he was beginning to do the things his cooperating teachers suggested on his own more often: "Instead of telling them to study, it was, 'Ok, turn to the people in your group and tell them your plans for Thanksgiving.' Kind of gives them a brain break."

When asked about his teacher's feedback targeting the two practices, Anthony explained that his cooperating teacher did not have a thorough understanding of them. He said, "She is seeing my lesson plan before she knows what it is trying to do. So she doesn't know the right lens to view it through until after it has already been performed." Anthony blamed himself, stating that he needed to be "more intentional about saying, 'Here is the method they taught me. Here is what it is supposed to do.'" Though Anthony's teacher gave frequent procedural feedback on his teaching, his responses suggest that she did not give much support in his use of the practices.

Not only did the feedback not seem to support Anthony's use of the practices, on one occasion it potentially challenged his use of them. The relevant situation occurred during the interview after his concept formation lesson on medieval "siege warfare." During the interview, Anthony critiqued himself on two dimensions: First, he did not choose a concept that was central to the content, and second, he did not introduce the texts and non-examples well. I also recognized these as areas of need and I elected to give him feedback to mediate both issues. Anthony explained that the comments I made bothered his cooperating teacher, and mentioned that she had expressed disbelief that I had found anything to critique about a lesson she characterized as "such a good lesson."

Amanda. A second case is that of Amanda, who also received consistent feedback. As with Anthony's situation, much of the feedback focused on procedural aspects of teaching and, at points, had the potential to hinder her use of new practices. Amanda explained her cooperating teacher often focused on improving transitions between activities and on calling on different types of students. While Amanda found this advice helpful, she received less feedback on what she saw as the "most challenging part" of teaching, generating inquiry-based content-driven student conversation. During the first interview, Amanda described a conversation with her

cooperating teacher about leading a classroom discussion. Amanda said her teacher's advice was "to wait longer, make 'em feel uncomfortable." She said this feedback was "a little helpful, but some of the classes just sit there and stare at their desks." Instead of helping Amanda utilize her teacher training, which focused on central questions and student inquiry, Amanda reported that the only solution her cooperating teacher offered was to give students more "wait time." Amanda felt the feedback her university supervisor gave her earlier in the term—to stop asking questions with "easy answers" and instead pose questions "that are debatable . . . hot topics and controversial issues"—was more helpful.

Additionally, Amanda received procedural support from her cooperating teacher in planning that seemed to undermine the central purpose—engaging students in the unit inquiry—of her hooking lesson. Amanda's teacher usually integrated a "content preview" at the beginning of each unit, something she wanted Amanda to continue. Amanda was "on the fence" as to whether this preview should come before or after her hooking lesson, a lesson she prepared in which the class would explore a single provocative case of the unit's inquiry in order to engage students and launch the unit. She ended up following her cooperating teacher's advice to begin with a brief overview of the content, as opposed to beginning with the single, more provocative, example.

During the seven-minute content preview, Amanda showed photos from the era, reviewed the chapter content, and called on students to answer questions. Reflecting afterwards, she thought she made the wrong decision by putting the preview at the beginning, as the students were not engaged in the preview. She said the lesson was "supposed to hook them right off the bat, and this wasn't the hook part." Amanda was torn between using the practice she learned and following the norms of her teacher's classroom. The decision, by her admission, may have undermined the purpose of a hooking lesson. During the interview, Amanda expressed doubt about her cooperating teacher's ability to help her with the practices she learned, stating, "She has great activities and ideas, but she doesn't know the methods that we talk about." This case, as with the last, suggests that some interns felt their cooperating teachers not only could not help them use the practices they learned, but also gave advice that ran counter to the use of the practices.

Phillip. Phillip received consistent feedback from cooperating teacher2 throughout his experience. The feedback he received was primarily procedural support that, in one situation, missed an opportunity to help him better understand the practices he learned and in another, impeded his ability to use the new practices. The first situation concerned his cooperating teacher2's class norm of students writing journals as an opening activity a few times per week. In the previous semester's methods class, Phillip learned the importance of using all parts of a lesson to work together toward more focused instructional purpose, creating a more conceptually cohesive class, including using journal questions that can prime students' thinking about the day's inquiry into the content. The day of Phillip's concept formation lesson on "opportunity cost," cooperating teacher2 told him to add the journal question, "What goes into your decision-making when deciding whether to study or sleep at night?" When I asked Phillip why they added that question, Phillip said his cooperating teacher2 "likes to have at least one [journal question] a week, and he knew he wasn't going to be doing one the next day. So we quickly made one up to keep up with consistency in the classroom."

The practice of preparing a journal question offered an opportunity for Phillip and his teacher to think together about the unit structure and cohesion of the content, crafting the question with these core components in mind. Yet Phillip's response seems to indicate that, from his perspective, his cooperating teacher2 was only focused on the procedural culture of the class. Whether correct in his assumption or not, Phillip was unable to see the thought process of his cooperating teacher2 in deciding on a journal question, missing an opportunity to discuss and practice one of the more complex skills he learned in his teacher education.

Phillip explained a similar experience with cooperating teacher1 that involved planning in a way that seemed to undermine his use of historical problems to create cohesive units. First, his teacher planned week-by-week instead of planning whole units at a time. Phillip said this made creating units difficult because he could not plan with an "overall picture of the unit in mind" if a unit spanned more than five days. Second, Phillip said he and his teacher "would divide [the unit] up, do our work, and then come back together." He explained that after their individual planning, they would come back together and look at the lessons they had prepared separately. They would then make minor alterations to make sure that the end of one person's last lesson aligned with the beginning of the other person's first lesson. This "divide and conquer" method made it difficult for him to plan cohesive units because he was only doing half the planning. Finally, when Phillip and his teacher planned together they "would grab stuff from her past units and look at the standards" and also use "stuff [he] had gotten from other teachers in the hallway" and put them all together in his lessons and units. Again, this patchwork type of planning did not provide him with the support he needed to think through and implement an overall direction and cohesion of the units.

Phillip's hooking lesson showed some effects of this patchwork planning. His lesson consisted of two different, and loosely related, activities on that day's topic of *imperialism*. Phillip thought the hooking lesson was planned and executed effectively until he watched the video of his teaching. He then realized the impact of his planning without an overall vision. He admitted that he had hastily chosen two activities that were loosely related to the day's topic and ended up "smooshing them together." He understood that while he had a purpose in mind, the students did not necessarily understand it, saying, "I was able to create the purpose in my head as to why [students] are doing it, but they never knew." He said the only feedback he remembered from his cooperating teacher was that, "She liked it." One result of this kind of planning and feedback was Phillip's assumption of the lesson's effectiveness, not recognizing a problem until he watched the lesson in the interview days later. If not for the observation and interview, Phillip would not have recognized the disjointedness of his lesson.

The overall takeaway on cooperating teachers' feedback, as it pertains to specific practices learned in teacher education, is that the *amount* of feedback interns received did not matter. Though most of the cooperating teachers were often available and wanted to help, the interns did not perceive much feedback about their planning and teaching that helped them use the complex problem-based social studies practices they learned in teacher education. Additionally, some of the feedback they did receive had the potential to undermine their use of these practices.

To be clear, this is not to imply that cooperating teachers should be able to give feedback on planning or teaching the target practices, as that would be an unfair expectation for mentors who

have not had the same educational training. Rather, this is only an observation that interns felt they often did not receive the kinds of feedback they needed to implement their learning, further demonstrating the lack of connection between the cooperating teachers and the university expectations.

Openness to University-Learned Practices

A final area of support that almost every intern addressed was their cooperating teacher's openness to the practices they learned in teacher education. Based on intern responses, cooperating teachers' level of openness ranged from purposeful accommodation to apathy toward the practices. In some cases, the cooperating teacher even expressed some interest in using methods that interns brought into their classrooms. Though many of the cooperating teachers said they were open to the practices, some interns felt an underlying tension between the expectations from the university and their cooperating teacher.

In almost every case, interns felt supported by their cooperating teachers to use the practices. Anthony's teacher asked him many times, "Are we giving you the opportunities you need for your program requirements?" and even used one of the strategies that Anthony learned. Likewise, Jeff explained that both of his cooperating teachers were open to him using the practices. On one occasion, Jeff's cooperating teacher walked into the classroom with another staff member, pointed out Jeff's central question, and asked the teacher, "How would you answer that?" Both of Phillip's cooperating teachers were open to him using the practices he learned. He said one "could care less. As long as I am teaching the content, he is happy."

Regardless of the openness interns perceived, at least four of them felt uncomfortable having professional dialogues with their cooperating teachers about using the practices. These four interns expressed at least one, with two of them expressing both, of the following reasons why they did not want to have these conversations: because of the power differential between their cooperating teacher and themselves, and because the intern felt like the cooperating teacher would take it as a critique of his or her practice. For example, while planning her concept formation lesson, Amanda's cooperating teacher told her to use the concept of *industrialization*. Amanda thought the students "might get frustrated" because they had just covered that concept the day before. Even so, Amanda did not mention this to her cooperating teacher. She said, "I know how important she is with my whole certification process. . . . I don't want her to think I'm acting like I know more." Amanda was hesitant to talk about her concerns with her because she felt it would imply something negative about her cooperating teacher's skill. Teacher choices, such as deciding how much time to spend on specific content and when to move on, create a space for rich professional dialogue between a mentor and intern. Yet Amanda, whether warranted or not, was reticent to discuss these critical aspects of the work with her teacher. Jeff also shared that he was reluctant to speak with his teachers about the practices. Jeff explained that cooperating teacher1's style was more traditional, more lecture based, and "his tests are the multiple choice that are very, 'Here's the definition out of the book.'" Jeff said if he spoke about the practices he learned to teacher1, it would be like saying, "Here, I have this awesome strategy that really focuses the lesson and gives purpose to the lesson. You've never used it before, so you're obviously doing something wrong." These interns did not feel the freedom to speak about the practices they learned for fear of offending their cooperating teacher.

In both of these scenarios, due to the power differential and a fear of appearing to critique their cooperating teacher, interns felt they lacked the freedom to have an open dialogue. Though the cooperating teachers expressed openness to the methods interns learned, the interns still did not feel they were in a position to have these dialogues. While this lack of dialogue might be a common problem in intern/cooperating teacher relationships, it further shows the disconnect between the university and the field school.

Another potential problem hidden beneath the cooperating teachers' openness is that four of the seven interns made statements that implied their CTs were actively uncomfortable with the university-learned practices. For example, for the first few weeks of the semester, Anthony's teacher told him that she wanted him to maintain the current learning structure until after the "students had established some solid routines" and after they finished the state standardized tests. Anthony stated that his cooperating teacher had "a very set curriculum" and that she wanted him to utilize "what she is used to teaching for the last 10 years," methodology he described as just "sitting there reading and lecturing out of the textbook." He said it was "contrary to what we have been presented with [at the university]." After the state test, Anthony said she was open to him using "experimental stuff," or the practices he learned in his courses. Anthony doubted the "usefulness she sees in [the new practices]" saying that his cooperating teacher saw his university responsibilities as "jumping through hoops," and "a bunch of lesson types you have to do." Anthony thought this was particularly evident with using central questions for instruction, stating, "We focused a lot on crafting the question just right, and she doesn't see the need for the amount of detail put into it."

Three other interns also perceived that their teacher reacted negatively to the practices they were learning. Amanda said her cooperating teacher "flat-out told [her] she doesn't like concept formation lessons. . . . she thought that they wasted time." Amanda thought this was because her teacher "had not taken the time to learn the practices." Amanda interpreted the response as her cooperating teacher making it clear to her she did not think the practice was effective, and thought this was because her teacher did not understand it. She thought it was her teacher's role to figure out the practice for herself. Amanda's lack of clarity about whose role it was to help her teacher understand was much like the earlier case of Anthony, who thought it was his responsibility to explain the practices to his cooperating teacher. In a similar way, Phillip's cooperating teacher2 expressed doubts about the teacher education program's philosophy of integrating interns into the classroom gradually. He told Phillip how valuable his own teacher learning experience was when his cooperating teacher just "threw him" into student teaching. Finally, Hans' teacher doubted the use of central questions, saying, "Is that even practical?" Though Hans maintained his own perspective on the value of central questions, stating, "They make the material coherent. It goes back to the power of the questions. I feel like humans naturally want to answer questions," this still created a tension between his cooperating teacher and his program that Hans had to navigate.

In each of these cases, the cooperating teacher stated he or she was open to the intern using the practices they learned, yet also made it seem to the intern that these practices were not an effective way of teaching. Together, these instances display a pattern of cooperating teacher discomfort perceived by the interns. This discomfort was based on lack of agreement, communication, and collaboration between the university and the field. In reality, few

opportunities for communication or formal structures of collaboration existed between these two critical partners in the education of these novice teachers. While interns had a sense of this problem and spoke openly about it, they had no understanding of how to rectify it.

One Example of an Aligned Cooperating Teacher

In only one case did an intern (Jamie Lynn) consider her cooperating teacher a direct support regarding the practices. This cooperating teacher attended the same teacher education institution as the intern, understood the practices, and adhered personally to similar expectations. Additionally, their school's history and social studies department worked together to write common central questions, share resources, and give each other feedback. Because of this, Jamie Lynn was provided a central question for every unit and resources that targeted this question as critical to the unit.

Jamie Lynn described her cooperating teacher1's instruction as supportive for her planning and for using the practices she learned. She said that cooperating teacher1 used central questions in "every lecture, everyday." Jamie Lynn explained the benefits she received from working with cooperating teacher1:

> How she organized lectures . . . her arguments. The amount of research she does still just to make things work is impressive. The questions she creates for her lessons and her arguments. . . . [her cooperating teacher told her] 'Every time I think of a lecture I think of them as arguments and the argument I want the students to see. Like, *How did the reformation change European thinking?* I will tell you how during my lecture. Here are my three points on how it did.'

Because of cooperating teacher1's knowledge of the practices, she was able to give clear and constructive feedback to Jamie Lynn and help her clarify her plans: "She would say, 'Why don't you pull out your enduring understanding? Really what do you want your students to get by the end of this?'" Jamie Lynn clearly felt she received direct feedback on seeing the larger structure and purpose of a lesson and teaching toward it.

Additionally, even though her cooperating teacher1 did not personally use concept formation lessons, Jamie Lynn said she helped her clarify and use the texts that she chose more effectively:

> 'Hey, why don't you give a map to this one?' and 'Why don't you break down a couple more words for the students?' So she helped me with scaffolding the actual reading. . . . She said, 'Hey, I had to read this one through three times, so the students are going to, too.' So she was good at giving me some advice there.

Choosing and editing texts are central to planning a concept formation lesson, and from Jamie Lynn's perspective, cooperating teacher1 helped her do this.

The feedback that she received, however, did not come at the expense of advice about the procedural and management aspects of teaching. Jamie Lynn said, "She's like, 'walk around more. Rephrase more. . . . use more descriptive verbs.' Those kinds of things or, 'Don't always call on the same people.'" In other words, Jamie Lynn did not feel she received advice that was

helpful for planning and teaching the practices from teacher education at the expense of the practical knowledge that most other interns received.

Conclusions

Education reformers have long lamented their inability to influence instruction in schools with the most current and adventurous models of teaching (Cohen, 1988; Kennedy, 2005). This is particularly true in the case of reformers engaged in initial certification teacher education. We send interns into their capstone field experience, or student teaching, with the newest methods of instruction and approaches to the discipline. But instead of taking up these complex methodologies with skill and precision, they often teach in ways they were taught or the ways their mentors teach. Teacher educators have theorized multiple causes that stymie efforts to change interns' instruction, including interns' biography, existing school structures, and, most important to this study, cooperating teachers (Darling-Hammond et al., 2005; Feiman-Nemser, 1987; Lortie, 1975; Zeichner & Tabachnick, 1981).

This study presents data that reflects seven student teachers' perceptions of their work with cooperating teachers regarding specific practices they learned at the university. The analysis unearthed three categories in which cooperating teachers supported them as student teachers: the resources they provided, the feedback they gave, and their openness to university practices. Each of the areas of support provided by cooperating teachers had high face validity, or seemed useful to interns for their instructional growth. Yet, the evidence of interns' responses suggests that the support cooperating teachers gave did not necessarily sustain the learning trajectories of specific complex practices that began at the university. Though interns received a wealth of resources and activities from cooperating teachers, with the exception on Jamie Lynn, they rarely felt coached on purposing the resources for more inquiry-based learning. Also, they sometimes felt pressured to use some of the provided activities and resources and some felt forced to rely more heavily on the textbook than they had been trained to do. Additionally, though most interns frequently received feedback on their planning and teaching, they often felt much of this feedback emphasized procedural aspects of teaching and rarely helped them utilize either of the practices. Some interns did not feel their cooperating teachers understood the practices well enough to give useful feedback on the lesson. Finally, though most interns felt their cooperating teachers were open to them using the practices they learned, some of their responses suggest this did not always play out. Interns were reluctant to discuss the practices they learned with their cooperating teachers, feeling it might jeopardize their future as a teacher or that they would be perceived as arrogant.

Interns seemed to want to use what they learned at the university, but often felt that the practices did not meld into their cooperating teachers' classroom. Only one out of the ten intern/cooperating teacher relationships seemed to provide an experience for the intern that reinforced and extended her learning from the university. This was the one cooperating teacher who had received similar training at the same university, understood the practices the intern had learned, and knew how to give targeted feedback. As a whole, interns' perceptions of the connection between their experiences with their cooperating teachers and their university learning seems to support claims about a chasm between the university and the field (Bain & Moje, 2012). This chasm has the potential to limit interns' use of core and ambitious teaching

practices and strategies that are well regarded in the teacher education community, such as inquiry-based learning

At first glance, this study simply adds to the literature blaming cooperating teachers for interns' struggles (Clarke, et al., 2014). However, that is not the purpose of this paper. Improving teacher education cannot be yet another job for classroom teachers, who are already under vast amounts of pressure with standardized tests, constantly changing expectations, and increasing demands on teaching evaluations. My core argument is that although interns were trained with carefully scaffolded experiences to use ambitious models of teaching and learning at the university, and had all performed adequately enough to move on to the next phase of their teacher training, once they moved to the field classroom, they were by and large on their own to use this training. Instead of carefully planning the final phase of students' training, in arguably the most difficult transition from the controlled setting of the university into the variable-filled classroom setting, the university placed students with little to no learning plan arranged with the cooperating teacher—the next mentor in a program of training.

Interns needed targeted feedback and useful resources for their early attempts to practice what they learned in their teacher education coursework. Interns also needed help engaging in open dialogues with their cooperating teachers about their practice. Yet, in most cases the university had provided little to no structures or support to help cooperating teachers choose helpful resources, give feedback to extend their teacher training, or to encourage critical discussions between the intern and the cooperating teacher. Further, the university did not collaborate with the cooperating teachers to reach a common understanding of strong practice. Without this training and common understanding, the necessary feedback, resources, and dialogues to continue and reinforce the trajectory of learning rarely occurred. The fledgling ideas that began at the university were not supported, and sometimes even challenged, when the interns went to the field. Novices were forced to navigate conflicting messages sent from their cooperating teacher and from the university while learning to manage the classroom, maintain instructional momentum, and effectively use complex teaching practices.

In short, an analysis of the data from this study suggests that it takes more than just carefully planned experiences in university coursework for novices to be able to skillfully *enact* adventurous and complex instructional methods. It also takes a carefully scaffolded final field experience so that student teaching can truly be a capstone of teacher training.

Implications

This study illustrates why interns' experiences must be carefully nurtured and scaffolded—beginning in the university classroom and continuing into the field classroom—in order for the novices to (a) enact this ambitious teaching with the proper skill of a well-started beginner; and (b) set them on a proper trajectory toward continued use of these models of ambitious teaching. The efforts of this careful scaffolding can surely not be put on the field schools, as their primary responsibility is and should be to their own K-12 students. As such, university faculty are perfectly positioned to be the primary lever of change to unite the schools and the university. In most cases, university faculty members have been involved with the construction of the teacher education program and have a central understanding of interns' learning trajectories. As a result,

they have the most leverage to both help cooperating teachers understand the program trajectory and to receive feedback from these field partners to further redesign and strengthen the program, thereby increasing the likelihood of novice teachers' continued use of ambitious teaching practices.

University faculty, for example, can create and carry out summer institutes and professional development days during the school year, as they often have the expertise, finances, and access to facilities and people to help carry out these meetings. During these events, faculty can welcome and work with cooperating teachers to articulate and develop common definitions, decompositions, models, and exemplars of the core teaching practices that are focal points of learning at both the university and the field placements. University faculty can also receive input from cooperating teachers as they build the practical experiences and program requirements of the teacher education program. Finally, university faculty can include them, as well, in the development of observational protocols, practice-based rubrics, and formative assessment tools that can be used across the university and the field. These efforts by university faculty will not only meaningfully fulfill CAEP requirements, they will help reinforce much needed coherence between the field schools and the university, enabling both to work together to more effectively help interns develop skillful and purposeful instruction.

Since completing this study, much of my work has focused on building collaborations between the university and the field. I have recently completed a pilot study and am moving to the next phase of forming teams of teachers in the schools that host our student teachers. These relationships begin by helping the teams understand the vision our program has for training well-launched beginning teachers. This includes understanding the articulation of the high-leverage practices that are programmatic learning targets and utilizing the tools we created—rubrics and observation protocols—around these practices. I have also created lines of communication between these teams of teachers and university faculty to field their questions and mediate any concerns. The most crucial aspect of this partnership work, however, has been the collaborative nature of the relationship that has developed around these teaching practices and the accompanying tools we built. Once the cooperating teachers understood the vision of our program and realized our openness to their feedback, a channel of collaboration emerged between us that allowed their critical feedback on rubrics, assignments, and articulations of the practices in order to align more effectively and efficiently with the work in their classrooms.

Limitations

As with all studies, there are a number of limitations to the overall methodology and design of this research. First of all, the participants were part of a convenience sample of only seven interns from a single university, who represented only one disciplinary focus. While the findings and conclusions about these seven may be valuable across these lines, it is impossible to ascertain the applicability of these findings to other universities, interns, and disciplines without similar studies with other participants.

Another limitation of this study was the relationship I had with the participants, as they were methods students in my class the previous semester. While this relationship had the potential to undermine the honesty and forthrightness of their responses, I believe that my previous

relationship and intimate knowledge of their program allowed me to probe their responses and discuss their experiences with them in ways an outside interviewer would be unable to do. At the time of the interview, I was not their instructor, nor did I have input on their progress through student teaching. I included in the interview protocol a statement about their participation having no effect on their progress or their grades and wrote questions to illuminate for participants that my purpose for the study was only to explore their experiences to understand the value of the focal practices of the program. Also, I purposefully constructed questions to help interns understand the nature of my study in questioning the training they received and encouraging them to be transparent in their responses. For instance, one question I asked read, "I have a lot of questions about the value of what we do in your methods course . . . What is your opinion about the ways that your methods class, and all of your teacher education courses, prepared you for student teaching?" By stating that I personally had questions about the value of the work we did at the university, I hoped to give the intern freedom to speak more freely about their experiences.

Finally, my exploration only included the voice of the interns. While my findings may have been strengthened in some ways had I triangulated the data with the cooperating teachers' voice and experiences, this really was outside the core of what I wanted to learn. Because of the short duration of student teaching, my concern was focused on how the interns processed their teaching, their experiences, and their future practice. Regardless of whether the interns were "correct" in their sense of the divide between the school and the university, their perception of their training as being disjointed is crucial in terms of their experience as a learner. Additionally, these interns would be searching for full time teaching jobs within a few months. Once employed, they would be without a full time mentor and planning their own lessons. As such, their personal experiences were at the center of my learning, and I believe my design model accomplished what I sought to explore.

Having said this, it is clear from the data that interns would benefit by more collaborative efforts on the part of their two main sources of professional support—the university and the student teaching site. Cooperating teachers' opinions and perspectives are consequential to furthering the results of this study. As discussed above, I am currently working closely with cooperating teachers to learn more about their thoughts and experiences with helping interns and working to make deeper connections between the field and the university structure. The research represented in this study helped me understand the importance of building coherent connections between the university and the field and was the impetus to try to address these issues at my current university.

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Appendix

Interview Protocol

Say: Thank you very much for agreeing to meet with me today and for being part of this study. During this interview, I am going to ask you a number of questions about your experiences in student teaching thus far and then we are going to talk about the lesson I observed in your classroom the other day and the meeting with your cooperating teacher. Remember what you say in this interview will not affect your grade in any way and it is best if you can just be honest. Please know that I am not here to judge you, rather to look at how pre-service teachers are able to use the lessons we taught them. Any questions?

Do: Wait for questions. Respond to any clarification questions or concerns.

Say: Let's begin. So how is student teaching going? (Probe: is it easier or more difficult than you thought?). **Do:** Wait for their response.

Say: So I have been wondering a lot about the ways that you learned to do these practices in your methods course, such as micro-lessons. And I have a lot of questions about the value of what we do in your methods course – such as the mini-lessons, unit plans, assignments. What is your opinion about the ways that your methods class, and all of your courses, prepared you for student teaching? **Do:** Wait for their response.

Say: I know it is early in the semester, but what are you finding most challenging these days? (Probe: How is that affecting your planning and/or teaching? Is it affecting your use of the practices you learned in teacher education?) **Do:** Wait for their response.

Say: What are you finding to be the most supportive aspects of student teaching, or aspects that make student teaching manageable? (Probe: How is that supporting your planning and/or teaching? Is it making using your use of the practices you learned in teacher education more manageable? For instance, in the lesson you planned – what helped you the most?) **Do:** Wait for their response.

Say: When did you start lead teaching? How is your role going to expand, do you know? **Do:** Wait for their response.

Say: At this point, are you able to use the methods that you were taught in teacher education? (probe: which ones in particular) **Do:** Wait for their response.

Say: Can you talk about some things that are enabling you to use them? **Do:** Wait for their response.

Say: What about some things making using the practices more challenging? **Do:** Wait for their response.

Say this series of prompts for last question one at a time:
1) What about your cooperating teacher—making student teaching more or less challenging?

2) What about the students in your classes—making student teaching more or less challenging?

Anything about the school structure (class period length, for instance)—enabling or hindering you from using the methods? Why?

What about the amount of knowledge you have, enabling or hindering you from using methods? Why? (Probe—Do you have enough content knowledge? How about your knowledge of teaching and students (i.e. the way they learn)? How about your knowledge of history as a discipline?)

What about planning time—do you have enough?
How about classroom management—enabling or hindering the use of the methods?

Does your cooperating teacher think central questions are a good way to teach? Does he/she use them in his/her lesson?

If no say: What challenges do you think might keep you from using central questions? **Do:** Wait for their response.

Say: What is your opinion about the usefulness and value of central questions as a basis for units and lessons? Have your thoughts changed from before student teaching to now? Why or why not? **Do:** Wait for their response.

Say: How closely do you think you stuck to the prescribed method of concept formation? Why did you do that? (Probe—Do you think any of the steps you changed or any should be added?) **Do:** Wait for their response.

Say: After planning and teaching a concept formation lesson yourself, have you changed your view about the value of these lessons in teaching? Explain. **Do:** Wait for their response.

Say: Do you think your opinion has changed about concept formation since you left the teacher education classroom and came to student teaching? Why or why not? **Do:** Wait for their response.

Say: How about your cooperating teacher and concept formation? Have you seen her utilize this type of lesson?

Say: Did she give you any feedback on planning this lesson? What do you think about that? How well do you think she understood the lesson?