Structuring Field-Based University Methods Courses in a PDS:
A Win-Win for Teacher Candidates and Elementary Students

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Abstract: University teacher preparation programs have grappled with how to creative educative field-based learning opportunities for teacher candidates. While most programs now include field experiences within methods courses, a disconnect can often exist between what candidates learn at the university and their experience in field settings (Zeichner, 2010). This is often true even in field placements that occur in professional development schools (Zeichner, 2007). At Trinity University we have designed field experiences for elementary undergraduate candidates completing methods-based education courses using an after-school tutoring model. In this manuscript, we first describe the general context in which these courses occur -- including both the university and local Professional Development School -- then identify core components of the field experience structure through the lens of an elementary math methods course. Finally, we explore the benefits of this structure not only for teacher candidates but also students and teachers at the Professional Development School.

KEYWORDS: Professional development schools, methods courses

NAPDS NINE ESSENTIALS ADDRESSED:
1. a comprehensive mission that is broader in its outreach and scope than the mission of any partner and that furthers the education profession and its responsibility to advance equity within schools and, by potential extension, the broader   community;

2. a school–university culture committed to the preparation of future educators that embraces their active engagement in the school community;

3. ongoing and reciprocal professional development for all participants guided by need;

4. a shared commitment to innovative and reflective practice by all participants;

Introduction

In its 2010 Blue Ribbon Panel report, the National Council for the Accreditation of Teacher Education called for placing clinical practice at the center of all teacher preparation endeavors (NCATE, 2010). Clinical practice is defined as "teacher candidates' work in authentic educational settings and engagement in the pedagogical work of the profession of teaching, closely integrated with educator preparation course work and supported by a formal school-university partnership. Clinical practice is a specific form of what is traditionally known as field work" (American Association of Colleges for Teacher Education, 2018, p. 11).

The question of how to create educative field-based experiences that support teacher candidates' learning to teach has remained a contentious issue in pre-service teacher education. As a recent AACTE report acknowledged, "programs and universities have struggled with how to immerse educator preparation in clinical practice" (2018, p. 6). While some university teacher educators argue that prospective teachers need more practical experience, others warn that extending the amount of time in classrooms only increases the chances that novices will adopt the conservative practices to which they are exposed. Seen as "both the salvation of teacher education and its greatest enemy," (Cohen, 1998, p. 167) teacher educators must not only design high quality field experiences but also ensure that teacher candidates learn desirable lessons from them (Feiman-Nemser, 2001). Simply sending candidates into classrooms does not ensure that they will have educative learning experiences (Huling, 1998).

University teacher preparation programs have grappled with the long-standing challenge of bridging the theory/practice divide. While most programs now include field experiences within methods courses, a disconnect can often exist between what candidates learn at the university and their experience in field settings (Zeichner, 2010). This is often true even in field placements that occur in professional development schools (Zeichner, 2007). Even if teacher educators find ways to connect university-based content to candidates' clinical experiences, ensuring that such fieldwork mutually benefits the learning needs of prospective teachers *and* the needs of schoolchildren is rarely straightforward.

Over the past five years we have developed a unique clinical practice structure for elementary undergraduate candidates completing methods-based courses at Trinity University. After describing the general context in which these courses occur -- including both the university and local Professional Development School (PDS) -- we outline core components of the field experience through the lens of an elementary math methods course. We then explore the benefits of this structure not only for teacher candidates but also students and teachers at the Professional Development School.

Context

Trinity University's Department of Education transitioned from a traditional four-year education major to an intensive, five-year, field-based model of teacher preparation leading to a Master of Arts in Teaching (M.A.T.) degree in 1990. In addition, Trinity has created long-term PDS partnerships with a small number of urban public schools for more than 25 years.

Prospective elementary teacher candidates complete any major offered at Trinity while taking 20 hours of undergraduate education courses that combine theoretical learning with fieldwork in our PDSs. Their undergraduate coursework equips them with foundational knowledge and skills to build on during an eight-month, unpaid graduate internship with a mentor teacher at a PDS during their graduate program.

Upon entry to the M.A.T. program, candidates complete a five-week intensive summer program within an elementary or secondary cohort before beginning an internship with a mentor teacher at one of our Professional Development Schools. We have sustained this M.A.T. model for more than 25 years, creating long-term partnerships with a small number of urban schools that serve as the primary sites for teacher candidates' clinical experiences. Interns follow the public school calendar, completing all campus and district-level professional development alongside their mentor teacher and assist their mentor in setting up the classroom before students arrive. In the fall semester, elementary candidates are in their mentor's classroom four days a week, focusing on the planning, teaching and assessment of reading and mathematics. They observe their mentors teach, co-plan and co-teach alongside their mentor, then complete two weeks of Guided Lead Teaching where they plan, teach and assess students' learning in math and reading with their mentor's support.

In the spring semester, interns remain in their clinical placement five days a week, entering into a period of Lead Teaching where they take primary responsibility for children's learning in all content areas for five consecutive weeks. In addition to their internship experience, candidates take graduate courses designed to help them prepare for and make sense of their clinical experiences. Moreover, they complete key assessments such as the Praxis Performance Assessment for Teachers and projects including an action research investigation.

Five years ago, Trinity entered into a formal PDS partnership with Lamar Elementary, a school serving 370 mostly low-income, Hispanic students in pre-k through 6th grade. One third of Lamar students are Spanish-dominant while the other two-thirds are English-dominant. Seventy percent qualify for free and reduced lunch. Lamar serves as the site for three undergraduate field-based methods courses in literacy, science and mathematics. In addition, 3-5 elementary M.A.T. candidates are placed at the school with mentor teachers for their eight-month internship.

Trinity's Field Experience Structure

Many universities pair teacher candidates with individual PDS classroom teachers who serve as mentors for field-based experiences. In contrast, we structure undergraduates' clinical experiences around after-school tutoring programs. For example, in the undergraduate clinically-intensive course called *Math in Elementary School*, the university methods instructor, Melissa, initially meets with Lamar's 3rd and 4th grade teachers to determine which elementary students will benefit from after-school tutoring based on current assessment data. Her teacher candidates then meet directly with the teachers before they begin tutoring students in order to interview their teachers. Melissa offers the candidates the following set of questions in advance to guide the conversation:

- Are there any benchmark exams that I could look at for areas to focus on?

- What concerns/observations have you made with the students I will be working with?
- Are there any behavioral areas I should be aware of?
- Which TEKS [state standards] would you recommend I focus on during our nine sessions?
- Can I have your contact information to touch base with your after tutoring?
- Are there any other concerns I should be aware of to make our tutoring experience more positive and productive?

After securing permission from the parents of the 20-25 elementary students who participate in the nine hour-long after-school sessions, Melissa explains the structure of the tutoring sessions to her teacher candidates. Pairs of teacher candidates first facilitate a whole-group mini-lesson to all of the elementary students participating in the tutoring program. Each candidate then facilitates a small group activity that grows out of the whole-group lesson. Finally, each candidate designs an individualized take-home activity that they have specifically designed for the elementary third or fourth grader Melissa assigns to them.

The structure of the tutoring sessions follows the Optimal Learning Model (Routman, 2008) to support children's learning. The Optimal Learning Model includes four phases:

- demonstration: in this *I do it* phase, the teacher initiates, models, explains, thinks aloud and shows how to do it while students mostly listen and observe;
- shared demonstration: in this *we do it* phase, the teacher demonstrates, negotiates, suggests and support as students respond, raise questions, and approximate;
- guided practice: in this continued *we do it* phase, students now apply learning, take charge and practice while the teacher scaffolds, validates, clarifies and encourages;
- independent practice: in this *you do it* phase, students self-monitor as they apply learning and problem solve while the teacher assists as needed, coaches and evaluates.

During whole-group mini-lessons, the paired candidates explain key math concepts (demonstration) and engage students in helping them solve problems and answering questions (shared demonstration). In the second phase of the tutoring session, each candidate supports a specific small group of learners with the extension activity (guided practice). The candidates often wrap up their session by asking their student to complete a brief informal assessment (independent practice). They then use that assessment data along with earlier assessment data collected from the child's classroom teacher to determine next steps for subsequent tutoring sessions.

Melissa also uses the Optimal Learning Model as she prepares her teacher candidates to successfully support children's math learning. Melissa takes responsibility for planning and teaching the first tutoring session herself (demonstration). She first "thinks aloud" in front of her teacher candidates at the university, including explaining her learning goal, identifying a formative assessment measure that aligns with that goal, and working through the nitty gritty details of her upcoming whole-group mini-lesson. She explicitly points out which instructional strategies she will draw on during the lesson, thus helping candidates connect their earlier theoretical learning in the university-based portion of the course to practical aspects of teaching (Capraro, Capraro & Helfeldt, 2010).

She shows the teacher candidates how she develops an assessment rubric given the formative assessment she selects. Doing so allows the teacher educator to make the intellectual

work of planning visible to pre-service teachers by talking aloud about initial planning decisions. She encourages candidates to observe specific aspects of her instruction during the tutoring session. Melissa then walks her students through the small group activity that follows so that they are positioned to facilitate the same activity with Lamar students (shared demonstration). As candidates then facilitate the activity in the actual tutoring session two days later, Melissa provides on-the-spot support and guidance (guided practice). After the first tutoring session, Melissa reflects with the teacher candidates about challenges and surprises she encountered while teaching the whole-group mini-lesson. She also invites them to share their observations. Finally, she reflects on whether student learning goals were met and the evidence she draws on to make claims (demonstration).

Before subsequent whole-group mini-lessons are taught by pairs of teacher candidates (independent practice), they first present their lesson plan ideas at the university two days prior to the tutoring session (guided practice). The instructor provides on-the-spot feedback, identifying strengths and areas for improvement along with specific suggestions to each pair while their peers listen in. They also work through the role that all candidates will play to support children's learning during the small group activity. Doing so helps everyone learn about key aspects of planning, including clarity of learning goals, alignment of goals to assessment and activities, real-world connections to the content, key explanations and directions, and differentiation. These feedback sessions also ensure that all candidates know their role and expectations before entering the tutoring session.

During the tutoring sessions where candidate pairs teach the mini-lesson (independent practice), the university instructor is there to "step in and out" of the lesson to provide real-time support (Feiman-Nemser, 2012). She also provides written feedback on the pair's instruction *after* the tutoring session. Having observed the lesson herself, she is also well positioned to engage candidates in reflecting on their own instruction. The culminating reflective paper for *Math in Elementary School* invites teacher candidates to do the following:

- identify overarching goals for students' math learning;
- describe the math instructional strategies used during tutoring sessions;
- reflect on their lesson planning; and
- analyze the student work generated during the lesson(s) they taught, including identifying who approached, met and exceeded learning goals, and how assessment results inform next instructional steps.

Inquiry-based practice in which teacher candidates actively reflect about their teaching and learning fosters transferable practices for future teaching (Capraro, Capraro & Helfeldt, 2010).

Benefits

Structuring field experiences so that the university instructor serves largely as both mentor and supervisor to teacher candidates provides significant benefits to teacher candidates, the children they support, and the teachers at the Professional Development School. Each is discussed in turn.

For pre-service teachers to move from content knowledge to practice, teacher education programs need to allow spaces for them to do the work of teaching while supporting their

learning of it (Loewenberg & Forzani, 2009). Trinity's teacher candidates completing the math methods course experience continuity between theory and practice by implementing the best practices they learn about at the university in the after-school tutoring program. Their planning experiences introduce them to data-based decision making, the alignment of goals, activities and assessment, and strategies for differentiation. Their teaching experiences enable them to begin to establish their teacher presence, to think on their feet and make real-time adjustments to their written plans, and to determine the success of their lessons. Candidates experience the opportunity to assist individual students and small groups as well as to co-teach whole group mini-lessons. Moreover, they receive substantive, ongoing feedback on their planning and teaching from their university instructor.

Quantitative feedback from Trinity's student course and instructor evaluations (n=10) from *Math for Elementary School* indicates that the students themselves feel strong connections between university- and field-based course components. The university end-of-course evaluation includes eight prompts. Students are asked to consider the degree to which they disagree or agree with each prompt using a six-point scale: 1= strongly disagree, 6 = strongly agree. For example, the median and mean scores for the prompt "In this course, I am asked to *apply* knowledge and skills" were 6 and 5.6 respectively. When asked if "the instructor models teaching strategies and dispositions put forth in the course," the median score was 6 with the mean being 5.6. Narrative feedback on the course and instructor evaluations further explained students' quantitative ratings:

- Professor Siller gave the first lesson at Lamar, which was helpful because she demonstrated what she expected from us in our own lessons.
- [The instructor] modeled for us how to tutor for the class as a whole, it was a really great example to have.
- Because this class requires us to teach a lesson based on the concepts we've been learning, we're able to better understand the practical application or classroom material.
- All work submitted was given constructive and helpful feedback, even with feedback within tutoring sessions was appreciated greatly.
- I appreciated being able to observe my peers and Professor Siller give lessons during the portion of class at Lamar. Through this observation, I learned some creative approaches to teaching and classroom management that I would not have thought of on my own!

Moreover, when asked in the university course evaluation to "please comment on the assignment from which they learned the most and why," seven of the ten respondents named planning and teaching lessons at the Professional Development School. Their reasoning included learning "how to make my lesson plans more detailed for different kinds of skills levels," having "first-hand experience teaching" which "gave me insight into what teachers have to do daily," "better understand[ing] how to assess students' learning," "show[ing] me some of the unexpected difficulties involved with teaching such as classroom management," and "help[ing] me evaluate my teaching skills." Their narrative feedback highlighted many self-identified skills that they gained through their clinical practice, including skills in planning, instruction, differentiation, assessment, and self-reflection. As one respondent noted:

The end of the year reflection paper created a really good chance to look back on each session with your students and think about what went well and what didn't. It's also

amazing to see how what we learned in class could actually be applied in a very real way and how we could use our knowledge to make an impact.

Like the teacher candidates, Lamar's participating third and fourth grade students also benefit from the after-school tutoring programs. Lamar students receive targeted instruction based on their specific learning needs. They engage in novel activities to learn content that they have struggled to master in their own classroom. They also improve academically.

Specifically, spring 2017 teacher candidates tutored Lamar students for nine weeks before the national MAP end-of-year math assessment was administered. Developed by the Northwest Evaluation Association (NWEA), the MAP assessment reveals how much growth has occurred between testing events. At Lamar, the MAP is administered at the beginning and end of the school year. Of the 11 targeted third graders who participated in after-school math tutoring, 9 of the 11 (82%) met or exceeded their expected growth from fall to spring on the MAP math assessment. Of the 9 targeted fourth graders, 5 of the 9 (56%) met or exceeded their expected growth from fall to spring on the MAP math assessment. As NWEA notes on its website, "if a school only has 50% of students meeting or exceeding their growth projections, this shouldn't be viewed as poor performance – instead, this should be viewed as the students in a school showing growth consistent with what we would likely expect to observe." In other words, nationally, on average about 50 percent of students taking the assessment meet or exceed expected growth while 50 percent do not. The MAP results for the students who participated in the after-school tutoring program exceeded that average in both grade levels.

Finally, Lamar's teachers benefit from the structure of undergraduates' clinical experience at their school. Teachers whose students participated in the math after-school tutoring program completed an open-ended written survey. Their responses reveal their appreciation for the assistance that the Trinity teacher candidates provide to their students who are struggling. As one teacher explained, "The benefit to me is enormous because math tutoring provides an additional opportunity [for students] to learn a concept in a new environment and in a different way than I had provided. Student were often excited to share with me what they had learned." Another appreciate that because others were providing the after school support, this freed up some of her time to ensure that she had well planned lessons for the next day. Another wrote, "The students really enjoy having the Trinity student teach them math concepts we work on in class. When working with students in class on a concept, they often say, 'Oooooooh, we did this in Trinity tutoring!' The students gained confidence from having extra practice and another teacher besides me explaining content with a fresh perspective." The teachers also receive additional data from the tutoring sessions to inform their next steps in the classroom.

Conclusion

Teacher education programs that value practice-focused curriculum provide the context for pre-service teachers to unpack the tasks of teaching in powerful ways (Ball & Forzani, 2009). As we outlined above, Trinity's teacher candidates experience important opportunities to explore the core tasks of planning, teaching and assessing students' learning through after-school tutoring programs. This process of *being* in field experiences supports candidates' evolution in their self-perceptions from college student to professional educator (Allsopp, DeMarie, Alvarez-

McHatton & Doone, 2006). Conducting their clinical practice in a PDS also supports their learning. Professional development schools offer a collaborative environment for teacher candidates to engage in inquiry, reflection and problem solving while making more tangible linkages between course content and field experiences (Allsopp et al, 2010).

Structuring elementary candidates' field experience around after-school tutoring places the university teacher educator in an important position. She both collaborates with classroom teachers to identify students who will benefit from additional support and structures/supervises the candidates themselves as they enact the tutoring program. This structure reflects what researchers have already observed, namely that theory and practice connections are enhanced and supported by *more* teacher educator involvement in field placements (Capraro, Capraro & Helfeldt, 2010). Because the university instructor oversees the tutoring program, she is in a strong position to adjust tutoring sessions based on children's as well as candidates' learning needs.

Sadly, more and more teacher preparation programs are decoupling university methods instructors from the field-experiences attached to their courses. Field placement supervisors are now being hired to secure field placements and supervise teacher candidates. This means that the person teaching university methods content never observes their candidates in clinical practice nor is positioned to adjust their instruction based on candidates' emerging learning needs. Similarly, the field supervisor rarely knows what content is being taught at the university or whether/how well candidates are applying that knowledge.

We recognize that one potential drawback of this model lies in teacher candidates lacking access to classroom-based field experiences in the three elementary methods courses. However, they complete additional education coursework that does give them classroom-based clinical experiences. In addition, our five-year preparation model ensures that once candidates enter the Master of Arts in Teaching program during their fifth year, they have ample opportunity to learn in and from their classroom-based field work as they complete an eight-month internship with a single mentor teacher at our PDS school. In this way Trinity University embodies the call for strong clinically-based preparation (National Council for the Accreditation of Teacher Education, 2010; American Association of Colleges for Teacher Education, 2018).

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