Chapter 2
Learning to Theorize from Practice: The Power of Embedded Field Experiences

Thomas E. Hodges
University of South Carolina, USA

Brett Blackwell
Dutch Fork Elementary School, USA

Heidi Mills
University of South Carolina, USA

Julius Scott
Dutch Fork Elementary School, USA

Sally Somerall
Dutch Fork Elementary School, USA

ABSTRACT
Too often, university methods courses privilege theory and expect teacher candidates to imagine what it means for classroom practice. This chapter illustrates the power of innovative methods courses with embedded field experiences because they are designed to offer intentional and systematic opportunities for teacher candidates to theorize from practice each and every class period. Using as an example Brett, a former teacher candidate and now early career 2nd grade teacher, we illustrate Brett’s meaning-making of classroom based experiences both within the teacher education program and into her own classroom as we describe the design of English-language arts and mathematics methods courses for preservice teachers that leverage embedded field experiences.

INTRODUCTION
“Miss Brett, will you come sit with me?” - my small teacher, Kameron, asks as we circle up on the carpet for math workshop. Kameron is one of those students who will greet you every morning with a huge smile on his face and a rib crushing hug. He is a student who will teach you how to become a better listener, a student who will teach you that constant curiosity and a vivid imagination are two of the most prized possessions a learner can ever have, a student who will teach you about taking risks, as he raises his hand to give it a shot before the teacher has even finished asking the question. He is a student who will
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shape your heart and mind about teaching and learning, if you are lucky enough to be invited to sit with him on the carpet- and thankfully I was.

Brett, now an early career second grade teacher, experienced as a teacher candidate (TC) in the Master of Arts in Teaching (MAT) program in Elementary Education at a flagship institution in the Southeastern United States what all language arts and mathematics methods MAT teacher candidates experience – the ability to move in and out of mentor and apprentice roles as they learn how to teach readers, writers and mathematicians. While Kameron likely saw Brett as someone there to help guide his thinking, Brett saw Kameron, her assigned small teacher during her language arts methods course, as someone to teach her how to make careful observations of student thinking that can be leveraged to make sound, theory-driven instructional decisions.

Too often university methods courses privilege theory and expect TCs to imagine what it means for classroom practice. The MAT program, on the other hand, is well known and respected for its innovative methods courses because they are designed to offer intentional and systematic opportunities for TCs to theorize from practice each and every class period (Hodges & Mills, 2014). This unique university-public school collaboration requires all participants (university faculty, classroom teachers, TCs and elementary students) to position themselves as learners in ways that promote the professional development of teachers, teacher candidates and university faculty, and ultimately student growth. In short, the methods courses are designed to promote professional inquiry while simultaneously fostering inquiry into literacy and mathematics with elementary students.

THEORIZING FROM CLASSROOM TEACHING AND LEARNING EXPERIENCES

The design of the methods courses align with what Oonk, Verloop, and Gravemeijer (2015) refer to as theory-enriched practical knowledge. By engaging in carefully crafted teaching and learning experiences and subsequent reflection on those experiences, teacher candidates learn to make meaning of theories originating in classroom practice and develop theories of their own. In this way, teacher candidates construct practical knowledge alongside theoretical concepts. By teaching the mathematics and language arts methods courses onsite in elementary schools and collaboratively planning embedded field experiences with exemplary coaching teachers, TCs are offered the chance to witness, reflect upon and implement exemplary teaching demonstrations that are directly related to the beliefs and practices they are learning in their methods courses.

Theorizing from Teacher Moves and Student Thinking in Mathematics Classrooms

The site-based mathematics methods course is predicated on the notion that effective mathematics instruction recognizes students’ intuitive ways of solving mathematics tasks as legitimate forms of mathematical reasoning, while leveraging those intuitions to design subsequent learning opportunities (cf. Carpenter, Fennema, Franke, Levi, & Empson, 2015). During each university class session, TCs take part in classroom teaching demonstrations, learning to name teacher moves aligned with reform recommendations in mathematics education (National Council of Teachers of Mathematics, 2014). TCs observe the classroom teacher’s selection of cognitively demanding tasks, identification of students’ strategies
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