“I WOULD BE A COMPLETELY DIFFERENT TEACHER IF I HAD BEEN WITH A DIFFERENT MENTOR”: A LONGITUDINAL STUDY OF THREE BEGINNING TEACHERS

By

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ABSTRACT

"I WOULD BE A COMPLETELY DIFFERENT TEACHER IF I HAD BEEN WITH A DIFFERENT MENTOR":
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This study investigates the role of educative mentors as three novices learn to teach, following them from their yearlong student teaching (2015-2016) through their first year teaching (2016-2017). During student teaching, each novice was paired with a mentor teacher who received preparation and support in the form of monthly professional development to engage in educative mentoring practices. The purpose of this dissertation is to examine what novices are able to take up from their student teaching mentors and take with into their first year teaching when they are able to work with educative mentors.

This qualitative study highlights the perspectives of the three novice educators, drawing on their lesson plans, written reflections, interviews, and audio recorded conversations with their mentor teachers. By focusing on the experiences, practices, and reflections of the novices, rather than telling the stories of mentor teachers, I aim to document the potential learning opportunities for novices when they are paired with educative mentors. Through this, I hope to provide a rationale for teacher preparation programs and school districts to invest time and resources in preparing mentors to enact educative practices. Ultimately, I argue that when mentors during teacher preparation are supported in enacting educative practices, the novices' instruction may be influenced beyond student teaching.

To James Wexler—for your listening ears, editing eyes, and constant love.
To my parents—for always believing in me and encouraging me to follow my dreams.

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CHAPTER ONE - INTRODUCTION

In this dissertation, I examine the role mentor teachers play in the learning to teach process of novices. Mentor teachers are important for the development of student teachers' practices (Grossman, 2010). Not all mentoring, however, is equally powerful. Being assigned a mentor, in itself, is not sufficient; the practices the mentors engage in and the way in which they enact the practices matter for novice teacher learning (Stanulis et al., 2018; Ward, Grudnoff, Brooker, & Simpson, 2013). Research on mentoring typically focuses on either the student teaching experience or the induction experience; there is not much evidence on if/how mentoring during student teaching makes a difference in novices' instructional practices during induction. To investigate this, I follow three novices from their yearlong student teaching (2015-2016) through their first year teaching (2016-2017) to examine what they take up from their student teaching mentors and take with them into their first year teaching.

Mentors are rarely provided with preparation and support to engage in educative mentoring (Blocker & Swetnam, 1995; Clarke, Triggs, & Nielsen, 2014). This study is unique in that the mentor teachers of the three participants in this study were part of monthly professional development focused on educative mentoring practices. It is important to understand what happens when novices work with mentors who *are* prepared to enact educative practices (such as co-planning, focused observing and debriefing, and analyzing student work) to understand the potential of mentoring. However, we cannot know what kind of difference it makes unless we examine what is taken up during student teaching and what is taken with into their first year teaching. I suggest the ways novices are able to intentionally attend to student thinking be used as a marker of impactful educative mentoring, further demonstrating the importance of mentor teachers as novices learn to teach. I argue that when mentors during teacher preparation are

supported in enacting educative practices, the novices' instruction may be influenced beyond student teaching. This matters, because when pre-service teachers become first-year teachers, structured support for universities dwindles and the quality of induction/mentoring programs varies greatly (Ingersoll & Strong, 2012; Liston, Whitcomb, & Borko, 2006).

Underlying this study is a belief that learning occurs through social interaction (Lave, 1996; Putnam & Borko, 2000; Werstch, 1991). More specifically, there is important learning that can happen in the interactions between experienced and novice educators. As such, I draw on a theory of educative mentoring, suggesting that a certain kind of mentoring is more powerful in helping novices learn to teach. An educative mentor seeks to create growth-producing experiences for novices and understands the process of teacher learning (in addition to student learning) (Dewey, 1938; Feiman-Nemser, 1998). They attend to immediate needs while also looking toward long-term goals (Feiman-Nemser, 2001). I use the term "novice" to refer to both pre-service teachers who are student teaching and to first year teachers and draw on Hobson, Ashby, Malderez, and Tomlinson's (2009) definition of mentoring as,

> The one- to-one support of a novice or less experienced practitioner (mentee) by a more experienced practitioner (mentor), designed primarily to assist the development of the mentee's expertise and to facilitate their induction into the culture of the profession (in this case, teaching) and into the specific local context. (p. 207)

Though mentoring of pre-service students and in-service teachers differs in some basic ways, such as mentor and student teacher share a classroom during pre-service and spend more time together, the practices or activities of mentoring are the same. Thus, I do not differentiate between pre-service and in-service mentoring. Additionally, I define learning as a change in understanding, practice, or belief.

In this dissertation, I focus on the experiences of the novices, rather than telling the stories of mentor teachers. While I believe preparing mentors to enact educative practices is important and worthy of the time and resource investment, in order to see if it actually matters, I look at participants who worked with mentors prepared in this way. Only through the experiences and reflections of novices can I see how and why it matters to support and prepare educative mentors. This perspective of mentoring is necessary, but it is not often told.

In addition to providing a different vantage point to study mentoring, I hope my research can inform literature on the importance of preparing mentor teachers to enact educative practices. To investigate what happens when student teachers work with mentor teachers who *are* provided specific preparation to enable them to engage in educative mentoring practices, I follow three beginning teachers from their student teaching year through their first year teaching, seeking to answer the following questions:

1. What do **student teachers** take up[1] from the mentoring they receive from the classroom teacher?
2. What do novices take with[2] them from their student teaching mentor into their **first year** teaching?

Summary of Study Design

In this qualitative study, I sought understanding of how mentor(ing) played a role in student teachers' learning to teach. I investigated how the novices drew on the mentor(ing) both during student teaching and as first year teachers. In addition to my role as researcher, during the student teaching year, I was the university field instructor for the student teachers and facilitated

[1] I define take up as ways the student teacher responded to the mentor teacher's mentoring practices, as evidenced through discourse or actions.
[2] I define take with as ways the first year teacher drew upon their mentor teacher's mentoring practices, as evidenced through discourse or actions.

monthly professional development focused on educative mentoring practices for the mentor teachers. During the participants' first year teaching, I held no evaluative role, but instead positioned myself as a participant observer (Erickson, 1986), learning through both observation and participation.

Findings from this study were drawn from different data sources, including audio recordings of mentor/student teacher conversations, lesson plans, written reflections, interviews, field notes, etc. — to understand how the novices "make sense of their lives and their experiences" (Merriam, 2009, p. 23). I collected data in 2015-2016 from the student teachers, as well as artifacts of student teacher/mentor relationships, to understand the mentoring practices the mentors enacted, the interactions between mentors and student teachers surrounding the practices, and how the student teachers responded to such interactions (i.e., take up). In order to understand how the novices perceived, responded to, and reflected on their mentoring and to fully see the teaching work of the student teachers, I observed the student teachers teaching, collected weekly written reflections and formal written lesson plans, and conducted a semi-structured interview. To understand what mentoring looked and sounded like, I looked at the interaction between mentor and student teacher by collecting audio-recorded conversations of mentoring in action.

In 2016-2017, I collected data from the novice teachers to gain an understanding of the instructional practices they used and what/if any of their decision-making process was related to work with their student teaching mentor. Data collection included three observations per teacher, pre-observation notes from each teacher before each observation about the planning of the lessons, my field notes and memos about interpretations of what I saw, and audio-recorded interviews following each observation. I collected multiple data sources over the course of the

two years in order to provide a "full and revealing picture of what is going on" (Maxwell, 2013, p. 126).

Synopsis

This dissertation is composed of three articles written as stand-alone chapters. Each chapter addresses the same broad research questions and draws from the same data. The three chapters have different purposes and audiences, and thus my focus and writing style change. Readers may notice repetition of ideas from chapter to chapter, where I may elaborate more deeply in one chapter and offer only a summary in another. I use some of the same language in the introduction and epilogue from the three chapters, though among the three chapters, language is unique. I advise the reader to consider each chapter on its own during a first read and then reread it to consider it in light of the other sections. The dissertation is structured as follows:

Chapter 2: "I Would Be a Completely Different Teacher If I Had Been With a Different Mentor": The Role of Mentoring as Novices Learn to Teach

In this chapter, I examined what two novices take up from their student teaching mentors and take with them into their first year teaching. I looked at how the novices think about pupils from student teaching to their first year as teachers. I explored the activities in which the mentors engaged the novices to help the novices focus their planning, instruction, and reflection around pupil thinking and understanding. Findings from this study illustrate that the activities of mentoring matter in the learning to teach process of novices. This study provides insight into the ways mentors may support novices to intentionally attend to pupil thinking as student teachers and continue doing so as first year teachers. Attending to pupil thinking is not something novices are typically able to do as they begin teaching, as it means an attention to learners that often comes with experience.

Chapter 3: Feedback "Infected My Instruction": The Role of Feedback in Learning to Teach

In this chapter, I examined the role of feedback in the learning to teach journeys of three novice educators, from their yearlong student teaching experience through their first year teaching. Each teacher received feedback on their instruction during student teaching from their mentor teacher, field instructor, and other student teachers. The student teachers became used to receiving frequent, focused feedback and often asked for more. They reported during student teaching that feedback was an important part of their learning to teach experience. However, during their first year teaching, while each novice continued to desire feedback, they had very different experiences receiving and using it. Findings from this study illustrate ways in which novice educators drew on feedback they received from their student teaching mentors during their first year teaching. This study provides insight into the intersection of feedback and mentoring by taking a longitudinal look at the possible influences of mentoring during student teaching and supporting the benefits of focused, frequent feedback to novice educators.

Chapter 4: "Empowering Her" Instead of "Crushing an Idea": How One Mentor Teacher Promoted Lifelong Learning By Letting a Beginning Teacher Change Classroom Seating

This chapter is a practitioner piece for mentor teachers about what beginning teachers have the potential to learn from their mentor teachers. Told using the voices of one mentor and student teacher pair, this goes beyond learning classroom management techniques or the emotional support for which student teachers are grateful, instead focusing on the importance of the mentor teacher taking on the stance of a lifelong learner. This article highlights the importance of mentor teachers providing beginning teachers the opportunity to experiment and mentors being open to learning in their own teaching practice. I argue both of these pieces are important in providing the beginning teacher with powerful learning opportunities to instill a

belief of lifelong learning.

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CHAPTER TWO—"I WOULD BE A COMPLETELY DIFFERENT TEACHER IF I HAD BEEN WITH A DIFFERENT MENTOR": WAYS IN WHICH EDUCATIVE MENTORING MATTERS AS NOVICES LEARN TO TEACH

Introduction

Mentor teachers can play an important role in a novice learning to teach (Grossman, 2010). Merely having a mentor is not sufficient; the practices mentors enact and the ways in which they enact the practices matter for novice teacher learning. How successful pre-service and induction programs are in preparing teachers "is highly dependent on the quality and nature of the mentoring" they receive (Ward, Grudnoff, Brooker, & Simpson, 2013, p. 74). Certain mentoring activities, when done in educative ways, are seen as particularly powerful for novices' growth (Stanulis et al., 2018). In order to engage in these activities, mentors need preparation and ongoing support, something that they rarely receive (Blocker & Swetnam, 1995; Clarke, Triggs, & Nielsen, 2014). Being a teacher to pupils is not the same as being a teacher to teachers (Gareis & Grant, 2014; Rajuan, Tuchin, & Zuckermann, 2011; Schwille, 2008; Timperley, 2001); thus, it is important to provide mentors with opportunities to learn how to be educative, rather than assume that being a good teacher equates to being an effective mentor.

Though much research has addressed the value of educative mentoring practices (i.e., Carver & Feiman-Nemser, 2008; Langdon & Ward, 2015; Norman & Feiman-Nemser, 2005) during pre-service teaching and induction, less is known about how educative mentoring during student teaching matters in novices' ability to attend to pupil thinking and understanding during induction. The assumption, alone, that educative practices matter for long term novice growth is not sufficient; it is important to look closely at the ways novices plan, teach, and reflect both when they are working directly with their mentor and when they begin their teaching career. In

this study I examine the ways in which novices focus on pupil thinking during student teaching and their first year of teaching. Though I do not know the ways novices could or would have attended to pupil thinking on their own, I explore this by drawing on the mentor teachers' actions and how the novices returned to the actions of their mentors.

"I feel I would be a completely different teacher if I had been with a different mentor. I'm really thankful I was given her," first year teacher Abby shared, thinking of the role of her mentor in her learning to teach journey. This novice attributes much of her development to the mentoring she received, grateful to have learned from and with her mentor, Tina, during her yearlong student teaching. Abby left her student teaching feeling confident and prepared, and began her first year teaching with an instructional toolkit that helped her thrive as she entered a new space and continue to refine her craft, even when she was alone. The mentoring she received as a student teacher supported her development as she learned to teach, a process that continued beyond student teaching. To explore the role of mentoring deeper than only attribution, in this study, I follow two novice educators from their yearlong student teaching through their first year teaching. The purpose of this study is to examine what these two novices take up from their student teaching mentors and take with them into their first year teaching. Specifically, I address the following two questions:

1. What ways of attending to pupil thinking did the novices take up from student teaching and take with them into their first year teaching?
2. Why did the novices attend to pupil thinking in these ways? How did the activities they engaged in with their mentors encourage this?

Literature Review

In this study, I use the term "novice" to refer to both pre-service teachers who are student teaching and to first year teachers and draw on Hobson, Ashby, Malderez, and Tomlinson's (2009) definition of mentoring as,

> The one- to-one support of a novice or less experienced practitioner (mentee) by a more experienced practitioner (mentor), designed primarily to assist the development of the mentee's expertise and to facilitate their induction into the culture of the profession (in this case, teaching) and into the specific local context. (p. 207)

Though mentoring of pre-service students and in-service teachers differs in some basic ways, such as sharing a classroom during pre-service and spending more time together, the practices or activities of mentoring are the same. Thus, I do not differentiate between pre-service and in-service mentoring literature. Additionally, I use "pupil" to refer to K-12 learners, to differentiate the term from "student" teacher.

Learning to Attend to Pupil Thinking as a Novice

Teacher preparation programs aim to prepare pre-service teachers to teach in ways that support pupil learning. Not everything a teacher does supports pupil learning, such as making copies, handing out snacks, or monitoring pupils at recess. "Learning about student understanding" is a practice central to teaching and important for novices to be able to enact (Grossman, Hammerness, & McDonald, p. 280). Focusing on pupil understanding includes: eliciting pupil thinking, using pupil understanding to plan for instruction, and engaging in ongoing assessment (informally and formally) to support pupil thinking and inform instructional decisions (Grossman, Hammerness, & McDonald, 2009; Thompson, Windschitl, & Braaten, 2013; Windschitl, Thompson, Braaten, & Stroupe, 2012). This can be challenging as it involves

attending to multiple aspects of teaching at the same time. For example, focusing on eliciting pupil thinking, means awareness of pupil background, an understanding of the content, an awareness of participation strategies, a clear eye on learning objectives, etc.

Preparing pre-service teachers to focus on pupil thinking is not an easy task (Grossman, Hammerness, & McDonald, 2009). University-based teacher preparation programs can help pre-service teachers learn to attend to pupil understand through particular activities, such as through representations (illustrating what aspects of this look like, such as what it looks like to use a formative assessment to plan for a lesson), decomposition (breaking this down into smaller pieces, such as reviewing pupil responses to formative assessments together before considering the next step), and approximations of practice (engaging in an aspect of attending to pupil thinking, such as teaching part of a lesson that uses formative assessment strategies) (Grossman et al., 2009). Rehearsals, an opportunity for the novice to try instructional strategies while teaching his/her peers as they take on the role of classroom pupils, is another way teacher preparation programs help pre-service teachers learn to attend to pupil thinking (Lampert et al., 2013). The experiences designed by educators are important, because "opportunities for learning are embedded in the activities in which novices engage" (Grossman et al., 2009, p. 2061). Additionally, clinical experiences, where pre-service teachers have the opportunity to both see instructional moves in action and may have the opportunity to develop their own skill set, are important for teacher development (Grossman, 2010). Learning to teach is not a linear endeavor. There is more than pre-service preparation and mentor teacher support in determining how a novice teaches; the novice's context, pupils, individual strengths, interests, beliefs, etc. play an important role in teacher learning and practice (Strom, 2015).

Teacher preparation programs work to provide pre-service teachers with the knowledge and experience to enact theory into practice and engage in instruction that leads to pupil learning. However, there is much literature on the disconnect between theory in university and the practice is schools (i.e., Allen, 2009; Cochran-Smith, 2005), questioning how well teacher preparation programs are preparing novices to enter the current education environment. Beyond such possible gaps in university preparation, novices teaching in their own classroom for the first time encounter many challenges that may constrain or prevent their ability to engage in instructional moves that focus on pupil thinking, such as: curriculum/state requirements, lack of time, classroom management challenges, unavailable support, and lack of confidence (Brashier & Norris, 2008). Research suggests that first year teachers often leave behind the instructional strategies emphasized in university-based teacher preparation programs, and instead engage in more traditional instruction (i.e., Allen, 2009; Brashier & Norris, 2008; Brickhouse & Bodner, 1992; Veenman, 1984; Zeichner & Tabachnick, 1981).

To date, there is more research that looks at promising practices for pre-service teachers learning instructional moves during university teacher preparation (i.e. Ghousseini, Beasley, & Lord, 2015; Gotwals & Birmingham, 2016; Lampert et al., 2013; Sun & van Es, 2015), with much less attention given to longitudinal work. An example of an exception to this is Thompson et al. (2013), who looked at the role of university course experiences in the instructional enactment of 26 beginning secondary science teachers as they began to teach in their own classrooms. In this study, I look at the role of mentor teachers in supporting elementary novice educators to engage in instruction focused on pupil thinking after they leave student teaching.

The Responsibilities of Mentoring Novices

Student teaching is often regarded as the most important part of teacher preparation (Clarke et al., 2014). The value of this experience rests on the *quality* of support pre-service teachers receive (Grossman, 2010). The mentor teacher (often referred to as cooperating teacher in the literature) plays an essential role as the pre-service teacher learns to teach. Historically, the term "cooperating teacher" has been used to suggest their role is to merely *cooperate* and allow a pre-service teacher into their classroom (Awaya et al., 2003; Clarke et al., 2014). A mentor teacher suggests a different connotation, someone who takes a more active role in helping a novice learn to teach.

The mentor teacher is influential, as s/he determines the extent a student teacher is involved in teaching and interacting with individuals; s/he also is the primary provider of feedback, an important aspect of learning to teach (Grossman, 2010). Essentially, they determine "what student teachers learn by the way they mentor" (Weiss & Weiss, 2001, p. 134). This places a lot of responsibility in the hands of mentor teachers, a role for which they rarely receive preparation and ongoing support (Blocker & Swetnam, 1995; Clarke et al., 2014).

In Clarke et al.'s (2014) literature review of 185 articles, they document 11 ways mentor teachers engage in teacher education. These include: providers of feedback, gatekeepers of the profession, modelers of practices, supporters of reflection, purveyors of context, conveners of relation, agents of socialization, advocates of the practical, gleaners of knowledge, abiders of change, and teachers of children. These 11 categories provide some understanding of ways mentor teachers are part of teacher education, but there is wide variance of how mentors engage in the role within each category (Clarke et al., 2014). In fact, in the conclusion of their literature review, Clarke et al. (2014) stated, "cooperating teachers lack specific preparation to enable high

quality and developmentally appropriate support for student teachers—they tend to be underprepared for their work as mentors" (p. 191). This, again, suggests the need for university-based support for mentor teachers.

How & Why Particular Enactment of Mentoring Practices Matter

Having a mentor teacher does not ensure a novice receives support to improve instruction. The strength of the mentor lies in the quality of the mentoring practices. Norman and Feiman-Nemser (2005) wrote that in order to create better classroom teachers, "we need mentors who are teachers of teaching" (p. 695). It is not sufficient to just be a good teacher; instead, mentors need to know how to teach *teachers* (Gareis & Grant, 2014; Rajuan et al., 2011; Schwille, 2008; Timperley, 2001). Carver and Feiman-Nemser, (2008) explained, "If mentor teachers are to promote effective teaching and learning, then they will need opportunities to learn to mentor" (p. 316). Thus, it is important to support mentors as they work with novices, providing a vision of effective mentoring.

Traditional mentoring. A traditional mentor is one provides emotional support and helps novices address their immediate teaching needs (Bradbury, 2010; Stanulis & Bell, 2017). Mentors often share lesson materials, provide advice, and help the novice problem solve (Bradbury, 2010). Mentors enacting traditional practices may remain focused on the short-term needs of the novice instead of also helping the novice set developmentally appropriate long-term goals (Bradbury, 2010; Feiman-Nemser, 2001b; Norman & Feiman-Nemser, 2005).

Educative mentoring. Traditional mentoring practices can be contrasted with educative mentoring practices, which addresses the real complexity of teaching, supports inquiry of practice, draws on pupils and their work to develop plans and implement instruction, and connects theory to practice (Feiman-Nemser, 1998, 2001b; Norman & Feiman-Nemser, 2005).

An educative mentor takes a stance of a learner, seeing him/herself not only as a holder of knowledge, but also as a receiver. They see the mentor/mentee relationship as one that further develops the practices of each partner. Educative mentors mentor *toward* something, such as a particular high-leverage practice, and then focus their work on helping the novice learn the practice (Stanulis, Little, and Wibbens, 2012).

There are many practices mentor engage in to help the novice learn to teach, such as planning together, observing and providing feedback, and together analyzing pupil work (Stanulis et al., 2018). How the mentor engages in these practices looks different when done in traditional versus educative ways. For example, the practice of co-planning is important in helping the novice learn to plan (Feiman-Nemser, 2001a; Stanulis, 1994), a task essential to teaching. In educative co-planning, the mentor makes his/her thoughts and decisions explicit and visible (Feiman-Nemser & Beasley, 1997; Pylman, 2016; Schwille, 2008), spends time exploring content together with the novice (Feiman-Nemser & Beasley, 1997), and throughout, remains focused on pupil needs and learning goals (Feiman-Nemser & Beasley, 1997). To contrast this, when co-planning in a traditional way, the mentor may take the novice through her scheduling, showing how she enters lessons for the week into her planbook, or may provide feedback on a specific lesson plan of a lesson plan the novice developed (Pylman, 2016; Schwille, 2008). There is a need for this traditional type of co-planning, but it alone is not sufficient to developing novices who can be independent decision-makers (Pylman, 2016).

Influences of mentoring. Mentoring can be powerful. Castanheira's (2016) meta-synthesis of 37 papers on mentoring in education revealed that mentoring can lead to mentees' increased job satisfaction, better use of classroom time, and higher levels of confidence. Mentoring can also increase teacher commitment and retention (Ingersoll & Smith, 2004;

Ingersoll & Strong, 2011) and improve novice instructional practices (Ingersoll & Strong, 2011). Additionally, the quality of mentoring a novice receives matters for the learning of their pupils (Stanulis & Floden, 2009).

In a large-scale experimental study of 1,009 beginning teachers, Glazerman et al. (2010) found no influence on instructional practice or pupil achievement for teachers who received a year of comprehensive induction support, which included mentoring. The teachers who received more induction support, however, did report feeling more satisfied. In a quasi-experimental study of 83 beginning elementary teachers, Stanulis et al. (2012) provided a mentoring intervention around the high-leverage practice of facilitating text-based discussions to half of the teachers (treatment group) and compared them to the control group who did not receive mentoring support (mentoring in the Stanulis et al. (2012) study focused on this one particular practice, whereas the Glazerman et al. (2010) study provided more generic mentoring). They found that teachers who received this focused, intensive mentoring grew significantly more in the complex practice of discussion facilitation when compared to the control group. This supports Bradbury's (2010) argument that working with an educative mentor (who is focused) is one way to help novices "enact their reform-based visions, hopefully setting the stage for long-term inclusion in their teaching routines" (p. 1055).

Though there is literature that documents the value of educative mentoring (i.e., Carver & Feiman-Nemser, 2008; Langdon & Ward, 2015; Norman & Feiman-Nemser, 2005) and the importance of preparing mentor teachers (i.e., Achinstein, 2006; Langdon & Ward, 2015;), there is scant research on how working with a mentor (who is provided support in enacting educative practices) during student teaching may play a role in the instructional moves of novices during induction. Additionally, research typically focuses either on the experiences of the mentor

teacher (i.e., Feiman-Nemser, 2001b; Langdon & Ward, 2015; Searby, 2014) or experiences of the student teacher (i.e., Garza, Duchaine, & Reynosa, 2014; Sayeski & Paulsen, 2012), rather than drawing on evidence from both individuals for a full, revealing picture. Through this article, I hope to contribute to these gaps in literature.

Theoretical Framework

In trying to understand both *what* ways of attending to pupil thinking student teachers take up from student teaching and take with them into their first year teaching and *why* they do so, I draw on a sociocultural view of learning. This view highlights the social nature of learning and places value on the learning community in which the participants are members (Lave, 1996; Putnam & Borko, 2000; Werstch, 1991). It emphasizes that individuals do not exist alone and must be considered within a community and with consideration to cultural contexts (Rogoff, 1997). The novices in this study learn from and alongside members of their community, such as peers, colleagues, instructors, and of focus in this study, their mentor teachers.

The assumption underlying this work is that mentor teachers have expertise and that activities in which mentors and novices engage have the potential to be rich learning experiences. I define expertise as extensive experience and involvement in teaching (Ericcson, 2002). There is important learning that can occur from working with an experienced other, such as from "careful coaching by others who have already been initiated into the profession" (Grossman et al., 2009, p. 2061). Mentor teachers who engage in educative practice can participate in helping novices learn by engaging them in opportunities for deliberate practice (Ericcson, 2002; Grossman et al., 2009; Schön, 1987). Approximations are one way for mentors to create this chance for learning (Grossman et al., 2009).

Specifically, this article draws on theories of transformation of participation (Rogoff, 1990, 1994, 1995, 1997). This theory defines learning as transformation of participation, rather than acquisition or transmission of knowledge (Rogoff, 1994). It focuses attention on the activities in which individual's participate as well as their level of participation (Matusov, 1998). As Rogoff (1997) explains, "a person develops through participation in an activity, changing to be involved in the situation at hand in ways that contribute both to the ongoing event and to the person's preparation for involvement in other similar events" (p. 271). With this perspective, as participants shift in their participation, they develop new roles and identities (Kazemi & Franke, 2004).

An important aspect of this theory is that as participants in a community engage in activities together, it is not only the novice who learns; learning occurs for experts[3] too. In this study, I highlight the perspective of the novices in order to better understand factors that support them as they learn to teach, although it is also important to recognize that participants respond to each other as they learn. Experts change their guidance (through activities) as they learn about the knowledge, experience, and interests of the novice (Matusov, 1998); novices engage in the joint activities in differing ways as their understandings change and their role in the community shifts.

In the context of novice teacher learning and mentoring, this suggests novices' learning is visible through their changing participation in the classroom (Bocala, 2015; Rogoff, 1994), both as they shift from being *student* teacher to student *teacher,* as well as the way they attend to pupil thinking in their planning, teaching, and reflecting changes. This theory also suggests that the type of shared activities and co-participation matter for the learning of the participants (Connell,

[3] I use the term expert and novice to denote how the mentor teacher and novice are positioned within their community (Smith, 2007).

2010). The role of the mentor "becomes one of raising the ante by gradually helping the student teacher to recognise and respond to the complexity of the situation while the student teacher as learner is engaging in practice" (Edwards & Protheroe, 2003, p. 231). This means that how the mentor crafts opportunities for novice participation is important. Educative mentoring practices provide important opportunities for novice learning.

Rogoff (2003) includes participatory appropriation, guided participation (though she specifies that "guided" encompasses more than intentional learning opportunities), and apprenticeship as planes of transforming through participation. Participatory appropriation is a personal process about "how individuals change through their involvement in one or another activity, in the process becoming prepared for subsequent involvement in related activities" (Rogoff, 2003, p. 142). An example in this context is how, as a mentor models and brings the student teacher into conversations about how to use pupil work to inform instructional decisions, the novice begins to use pupil work as she plans her lessons both with and without mentor involvement. Guided participation is an interpersonal process. It is the way mentor and student teacher interact, such as how the mentor cues the student teacher as they co-teach or the mentor asking the student teacher to observe small group instruction. This includes opportunities for the novice to listen, observe, and engage hands-on in activities. It is both their "face-to-face interaction," as well as their "side-by-side joint participation" (Rogoff, 2003, p. 142). Apprenticeship takes place on the community plane. This focuses on developing novices through the use of experts. The activities in which participants co-engage are particularly important, and the purpose is for the novice to increase responsibility through participation in the community.

Learning to teach neither "starts" during student teaching nor "ends" when the year is completed. However, during this timeframe the student teacher has opportunities to learn from

the context, pupils, self, and mentor. It is through transformation of participation that the novice (and mentor) learns (Rogoff, 1990, 1994, 1995, 1997), and the activities in which the novice participates with the mentor teacher are important (Gallimore, John-Steiner, & Tharp, 1992).

Methods

I use an interpretive, qualitative research design (Merriam, 2009). I am interested in understanding how the novices "interpret their experiences" and "what meaning they attribute to their experiences" (p. 23). Specifically, I hope to understand how the novices report that the mentor(ing) played a role in their learning to teach. I am interested in learning how the novices draw on mentor(ing) both during student teaching and as first year teachers. To do this, I collect a range of evidence—audio recordings, lesson plans, journals, interviews, field notes, etc. — to understand how the novices "make sense of their lives and their experiences" (p. 23). It is not only what I, as the researcher, see the mentor/novice do/say that matters; how the novices process their experiences and how they see the relationship with their student teaching mentor in their teaching is important.

Context and Participant Selection

This is a two-year longitudinal study, following beginning teachers during student teaching and first year teaching. For this article, I chose to focus on two beginning teacher participants out of a larger body of data to allow for greater depth in exploring their experiences as student teachers and first year teachers. I was purposeful in my selection of participants. Each participant was paired with a mentor teacher who received ongoing support and training in educative mentoring practices from the university, something most mentors do not receive. In addition, the participants had positive mentoring experiences. This is important, as I hope this

work adds to the conversation of what works, instead of further contributing to dialogue about learning what *not* to do from a mentor.

Student teaching. During 2015-2016, the student teachers completed their fifth year, post-graduate studies at a large Midwestern university. They each worked at a local elementary school, Poplar[4], under the guidance and supervision of a mentor teacher. A yearlong student teaching was a requirement for the university to recommend State teaching licensure. During student teaching, students took two university courses each semester; these met one day a week for most of the academic year. Therefore, the student teachers spent four days a week in the local elementary school, except for three weeks in the fall semester and six weeks in the spring semester, when they spent all week in their student teaching placement.

During the 2015-2016 year, I was an elementary field instructor working with four student teachers and their four mentor teachers. I collected data on all four, but selected two to be the focus of the particular study due to geographic location following student teaching as well as the strength of the mentoring practices the mentors engaged in. These focal participants are: Katie and mentor Nancy in 1st grade and Abby and mentor Tina in 3rd grade (Table 1). All four participants are while females. Katie and Abby are traditional-age college students who grew up in the same state as the university. In addition to elementary education, Katie is also a child development major and enjoys working in early childhood classrooms. Abby has a science specialization and values creating engaging learning opportunities for pupils.

Poplar is a K-4 school serving 436 pupils in a rural town of 24,000 people in a Midwestern state. In the 2015-2016 school year, Nancy was in her sixth year teaching first grade at Poplar and a second year mentor teacher. In Nancy and Katie's first grade classroom, there

[4] All names are pseudonyms.

were 25 pupils, of whom 12% of pupils were English Language Learners, 44% were pupils of color, 20% received special education services, and approximately 56% had free or reduced meals. Tina was in her 14th year teaching and a second year mentor teacher. In Tina and Abby's third grade classroom, there were 24 pupils of whom 41% were pupils of color, 18% received special education services, and approximately 55% had free or reduced meals.

Mentor professional development. The mentor teachers in this study were part of a university pilot group, engaging in monthly, 75-minute professional development study groups, facilitated by me in my role as a university doctoral student. These study groups focused the educative mentoring practices of co-planning, observing and debriefing, and analyzing pupil work (Stanulis et al., 2018). Each study group focused on one particular practice and cycled through each twice during the year. The idea that educative mentoring practices were a way that mentors could help novices focus on pupil thinking and understanding was central to conversation in each study group. During study groups, they listened and watched sample educative mentoring conversations between student teachers. This provided mentors with a model of the educative mentoring practice in action (representation). The facilitator supported mentors in breaking down the audio/video clips to better illuminate the nuances of the practices (decomposition). Additionally, mentors watched videos of instruction and together planned how to take focused notes and engage in a debriefing conversation with student teachers. This study group time gave mentors the opportunity to try out tools (approximation) and conversation techniques (rehearsal) prior to sitting down with the novice.

After each meeting, mentors tried the practices out with their student teachers, recorded the conversation, and reflected on the experience. At the next meeting, the facilitator played samples of their recorded conversations and the rest of the mentors discussed educative attributes

the heard. The cycle continued, by introducing an educative mentoring practice and providing mentors with models of the practice, and then an opportunity for practice decomposition and rehearsals. The study groups provided support and guidance around the role of mentoring that aimed to make the job more cooperative and less isolating.

The role of the researcher during student teaching. My role as researcher also included being a field instructor and facilitator of the mentor professional development study groups; this allowed me to become fully immersed in the experiences of the participants. I obtained consent from the mentor teachers in August, prior to beginning mentor study group work, and utilized data collected authentically within mentor study groups and mentoring requirements. In May, when I no longer held a position of authority with the student teachers, I obtained their retroactive written consent, allowing me to use artifacts they had authentically completed throughout student teaching.

The first year teaching. Each student teacher accepted a job offer prior to the start of the 2016-2017 school year. Abby accepted a position as a third grade teacher at Carnation, a K-6 charter school with 210 pupils in an urban city of approximately 115,000 residents. Abby's third grade classroom had 31 pupils, of whom 45% were pupils of color, 10% received special education services, and 48% received free or reduced meals. Katie accepted a position at Sunflower, a preschool, young fives, 1st, and 2nd grade building of 420 pupils in a rural town of 5,000 residents. Katie's young fives classroom had 24 pupils, of whom approximately 4% were pupils of color, 4% received special education services, and 4% received free or reduced meals. Each first-year teacher was supported by a full-time paraprofessional.

The role of the researcher during the first year teaching. Because of my relationship with the novices during the prior year as their field instructor, my role as researcher was hands-

on. I made myself available to be of assistance during my classroom visits and to be accessible by phone and email. I had no evaluative role or position of authority, but I positioned myself as a participant observer (Erickson, 1986), learning through both observation and participation.

Table 1
Study Participants

Participant	Mentor Teacher	Student Teaching	First Year Teaching
Abby	Tina	Poplar 3rd Grade	Carnation 3rd Grade
Katie	Nancy	Poplar 1st Grade	Sunflower Young-Fives

Data Sources

In order to "uncover and interpret" what new teachers take up from the mentoring they receive (Merriam, 2009, p.24), I collected data in 2015-2016 from the student teachers as well as artifacts of student teacher/mentor relationships (Table 2). In 2016-2017, I collected data from the novice teachers (Table 3).

Student teaching. During the student teaching year, it was important to understand the mentoring practices the mentor enacted, the interactions between mentor and student teacher surrounding the practices, and how the student teacher responded to such interactions (i.e., take up). Because I foreground novices in the study, I focus on data sources that highlight the novices' perspective, rather than on the goals and perceptions of the mentors.

In order to understand how the novices perceived, responded to, and reflected on their mentoring and to fully see the teaching work of the student teacher, I observed the student teacher teaching; collected weekly written reflections (Appendix A) in which the weekly questions varied, but centered around reflecting on instruction, work with the mentor, and pupil learning; collected formal written lesson plans in which we dialogued back-and-forth about ways

to improve the lesson plan; and conducted a semi-structured interview (Appendix B) to learn how the student teacher viewed the role of the mentor in learning to teach. To understand what mentoring looked and sounded like, it was important to look at the interaction between mentor and student teacher. To do this, I collected audio-recorded conversations of mentoring in action. Specifically, this included three co-planning conversations, two focused observation/debrief discussions, and one analysis of pupil work conversation.

Table 2
Student Teacher Data Sources and Number of Each Collected

Participant	**Written Lesson Plans**	**Written Reflection/ Journal**	**Classroom Observation**	**Interviews (transcribed) ~45 min/each**	**Audio recorded mentoring conversation (between mentor and student teacher) ~25 min/each**
Abby	6	25	15	1	6
Katie	6	26	15	1	6

The first year teaching. The purpose of data collection during the first year teaching was to gain understanding of the instructional practices the novice uses and to try to understand what/if any of their decision-making process was related to work with their student teaching mentor teacher. My aim in this study is not to explore the role of the novices' induction experiences or induction mentors, so the only data collected were from the novices. Specifically, data collection included the novice's voice, my observations, and dialogue between us as we examined teaching practice. Prior to each observation, the novice emailed me pre-observation notes (Appendix C) about the planning of the lesson in her own voice. I conducted three live observations per teacher during the 2016-2017 year. The observations ranged in time from one

hour to two and a half hours, based on the classroom schedule. During the observations, I took notes of what I saw and photographed the classroom (not pupils) and relevant artifacts (such as lesson notes or pupil group arrangements). While I was in the room, I made myself available to be helpful in whatever way was best for the teacher. For example, Abby would hand me a clipboard when I walked in with a class list and certain names highlighted for me to conference with on particular questions. In Katie's room, I floated from table to table, interacting with pupils and helping where possible. Upon leaving the classroom, I wrote my observations into more complete field notes and wrote memos about interpretations of what I saw and connecting my observations to my work with the teachers as student teachers. In the afternoon of each observation (or day or two after), I met with the novice for an interview (Appendix D). The interviews lasted 30 to 60 minutes and were often followed by check-in conversations that were not audio-recorded.

I collected multiple data sources over the course of the two years in order to provide a "full and revealing picture of what is going on" (Maxwell, 2013, p. 126). This is important in order to provide evidence that "warrant[s] key assertions through triangulation" (Erickson, 1986, p.140).

Table 3
First Year Teaching Data Sources and Number of Each Collected

Participant	**Pre-Observation Notes**	**Observation + Field Notes**	**Memos**	**Post-Observation Interviews (transcribed)**	**Photos from Classroom**
Abby	3	3: November, February, May	3	3	3 times (at each visit)
Katie	3	3: September, December, May	4	3	3 times (at each visit)

Data Analysis

In my process of analyzing data, I moved from codes, to categories, to themes and theory (Saldaña, 2009). The first stage of data analysis consisted of open coding (Corbin & Strauss, 2007). I first explored data from student teaching, noting moves the novices made, particularly related to planning, teaching, and reflecting on instruction. Then, I looked to their first year teaching and coded for moves the novices made related to planning, teaching, and reflecting on instruction. Some examples of moves included: considering pupil groupings in advance, using pupil work to plan, recognizing and utilizing wait time, engaging in the practice of analyzing pupil work, and acknowledging areas for self-growth. To determine which codes best represented the novices' instruction, I highlighted codes that appeared at least 30 times across the documents, and appeared in both the student teaching data as well as first year teaching data. This separated occasional instructional moves from everyday practices and provided evidence of engagement as both a student teacher and as a first year teacher. For Abby, this included planning for pupil success, use of pupil work in planning, pupil engagement and participation, and formative assessment. For Katie, this included: pupil engagement and participation, teacher reflectiveness, and planning for pupil success. To code text as formative assessment, for example, I drew on my own understanding of the term, opportunities to collect informal evidence of pupil learning, rather than requiring the novice to name an action as formative assessment.

After this, I collapsed codes into categories. For example, this meant the category planning for pupil success/differentiation, included the codes planning with specific pupil in mind, grouping strategies, and wait time. Then, I looked across categories to determine themes (Table 4). For example, the themes that emerged for Abby were: planning for pupil engagement and participation, thinking about individual pupil success, and using formative assessment.

Across Abby and Katie's data, codes, categories, and themes pertained to attending to pupil thinking and understanding, addressing the research question, "*What ways of attending to pupil thinking did the novices take up from student teaching and take with them into their first year teaching?"*

Next, I considered the second research question, *"Why did the novices attend to pupil thinking in these ways? How did the activities they engaged in with their mentors encourage this?,* while also considering the theoretical framework, transformation of participation. First, I looked at the novices' data, examining how and why they spoke/wrote/talked/planned in ways that supported attending to pupil thinking and understanding. Next, I looked at the transcripts from conversations between each student teacher and her mentor. This provided a view of mentoring in action and helped me think about why the novices may have focused on pupil thinking as well as particular activities in which they engaged with their mentors. This data source gave me access to an additional angle, presenting further support to ideas the student teachers shared in their lesson plans, interviews, reflections, etc. At the stage, I also considered what literature on educative mentoring suggests to be important for novice learning, such as mentors making thoughts and decisions visible to novices (Feiman-Nemser & Beasley, 1997; Pylman, 2016; Schwille, 2008) and focusing on pupil learning needs and goals (Feiman-Nemser & Beasley, 1997).

I collapsed codes into categories and looked across categories to understand themes (Table 4). The themes for Abby's mentor, Tina, for example, include: focusing on pupil learning, using pupil work in planning and debriefing lessons, making instructional decisions visible, and reflecting on her own instruction. Taken together, in the findings, I present these mentor moves

as "activities of mentoring" that support the novice in their development of attending to pupil thinking and understanding.

Table 4
Dominant Themes and Examples

Theme	Description	Example	Source
Focus on pupil learning	Attending to pupil understanding, learning objectives, and evidence of learning	"What do you think that it is showing about his understanding of answering the questions or his understanding of the questions themselves?"	Tina, Analyzing Pupil Work PIIP Audio (12/3/15)
Formative Assessment	Opportunities to collect informal evidence of pupil learning	"Use your arms to show perpendicular lines"	Abby, Field Notes from Observation (5/22/17)
Plan for pupil success and differentiation	Planning and instructing using scaffolding to support learners and/or taking different academic/social/ emotional needs into account	"For learners who need an extra challenge, I will encourage them to try the problems without using the hundreds chart—solve by simply using place value [and]… may be asked to solve only 1 or 2 of the "on level" skill for the day, and then skip ahead to "thinking harder" and "going deeper" challenge."	Katie, Lesson Plan (2/10/16)
Pupil engagement and participation	A focus on the engagement of pupils in lessons and opportunities for pupil participation	"Wiggle your pinky if you got rain on you this morning"	Katie, Field Notes from Observation (9/26/16)
Teacher reflectiveness	Mentor or student teacher sharing thoughts about performance and/or desire to make changes in the future	"I need to be more patient and work more slowly with students… I want to improve in knowing how long is long enough/too long (wait time)."	Abby, Reflection (Week of 10/15/15)
Making instructional decisions visible	Mentor or student teacher think aloud as they explain their decisions, especially the *why* and *how*	"I like to have them segment on their arm, only because it gets them thinking about where each sound is in the word… when they hear that beginning sound, their hand is physically..."	Nancy, Co-Planning PIIP Audio (10/7/15)

Table 4 (cont'd)

Use of pupil work/performance in planning	Pupil performance is taken into account in the planning of lesson content, pupil grouping, and further assessment	"[The content of the stations will be] depending on what they are missing from that mid-chapter check-point."	Abby, Co-Planning PIIP Audio (2/17/16)

Understanding why and how Abby and Katie were able to engage in particular instructional moves (themes) is something challenging to untangle. Their teaching practices are surely influenced by many factors, including their university coursework, personal beliefs, own schooling experiences, etc. It was important that I looked for "key linkages" among all data sources (Erickson, 1986, p. 147) to locate both "disconfirming and confirming evidence" (p. 146). It is important that the findings are supported from multiple sources/perspectives (Erickson, 1986). Themes that were unable to be substantiated through triangulation did not become part of the findings. By looking at lesson plans, comparing lesson plans to the audio recordings of the conversations the novices had with their mentors in which mentors provided specific feedback and advice, by reading their reflections, and even listening to them specifically attribute instructional moves to their mentors, in the findings, I present themes supported by multiple data sources, to show that even amongst the messiness, that mentoring helped the novice shift in their practices.

Findings

There are several ways in which two novice educators focused on pupil thinking during student teaching and first year of teaching. Abby focused on individual pupil understanding in order to plan for and reflect upon instruction. Katie used formative assessment to plan for pupil engagement and success. I draw on longitudinal data to explore why the novices attended to pupil thinking and to understand how the activities in which they engaged with their mentors

encouraged this. For each participant, I first explain the activities of mentoring in which the mentors and student teachers engaged during the novice's learning to teach process. To do this, I document activities of mentoring, or mentor themes (Table 4), and provide examples of mentoring in action. Then, I explore the novices moves as student teachers and then first year teachers to show traces of how the activities of mentoring supported the novices in attending to pupil thinking. To do this, I break apart instructional moves into key aspects, or themes (Table 4), and provide evidence of enactment across the two years. I argue that one reason the first year teachers are able to focus on pupil thinking (i.e., Table 4's themes—being able to enact differentiation, engage in formative assessment, etc.) is because of the mentoring they received. First I present findings from Abby's learning to teach journey, then from Katie's.

Abby's Learning to Teach Story

The activities of mentoring: The why and how of focusing on understanding pupils in order to plan for and reflect upon instruction. There are activities of mentoring they engaged in during student teaching that seem to be powerful in developing learning opportunities for Abby to attend to pupil thinking and understanding. These mentoring activities include: making her own instructional decisions visible, focusing on pupil learning, using pupil work in planning and debriefing lessons, and orally reflecting on her own instruction. Through examining these four activities of mentoring, I explore why Abby may have focused on understanding pupils in order to plan for and reflect upon instruction

Making instructional decisions visible. Making instructional moves visible includes thinking aloud while explaining instructional decisions and being explicit. When co-planning with Abby for a math lesson in October 2015, Tina used language such as, "How I decided to use this was…" and "I chose the game on this website because…" She took Abby through the

process of planning a lesson in detail, explaining why she selected the order of tasks to how she chose which math games to have pupils play at the technology center. Tina did not take for granted that Abby would know her thought process, so instead walked her through it step by step. For example, as Tina was examining the pupils' independent task, she explained, "Look at it and think, does this seem valid? Is it really difficult? Are they independently going to be able to do this?" Tina and Abby engaged in many conversations similar to this, where Tina thought out-loud while planning. In this way, Tina engaged Abby in a decomposition of practice. She modeled how to plan while thinking about pupils' strengths and needs as evidenced in pupil work, learning goals, and reflecting on prior instruction.

Focusing on pupil learning. In her interactions with Abby, Tina focused on pupil learning. She did not teach by only following a scope and sequence from the curricular materials. Instead, she continuously drew Abby's attention to learning objectives. She emphasized the importance of planning for instruction with goals in mind. In a co-planning conversation in March 2016, Tina questioned Abby as she planned a writing lesson, pushing her to think closely about selecting/creating work samples based on pupil work and lesson goals.

> Based on what you're noticing on in their writing, what do you want to have on the student sample for them to see ….you want the student sample to be something similar to what you notice in their writing that they struggle with and so you want them to pick up on 'this is where you guys need work,' you know, in a subtle way…. What is it that maybe you want to purposefully do on the student sample that they're going to evaluate because you know that they need that practice or they need to see that?

Questions like this, where Tina is giving suggestions while also providing space for Abby to think about her own lesson and goals, are examples of how Tina used conversations with Abby

to focus how to plan for instruction with pupil needs in mind. Through her questioning, Tina both provided Abby with a representation of how to focus on pupil learning while also providing the space for decomposition of the practice.

Using pupil work in planning and debriefing. Tina analyzed pupil work with Abby as they planned and as they debriefed previously taught lessons. Pupil work was not something that was just entered in the gradebook. Instead, the mentor and student teacher went through the task of sorting pupil work together to figure out who met the learning objectives and who needed more support. Tina modeled this as a habitual, important step to go through before planning future instruction. She provided Abby with a representation of what it looks like to use pupil work as integral in planning and teaching. While Tina and Abby were analyzing pupil work in December 2015, Tina said,

> The kids that are in this pile [of analyzed pupil work] seem to understand how to find the evidence appropriately... What they need to be pushed to do is find evidence in more difficult texts. So when we pull them in small groups, doing similar tasks, but ...make an inference and then what evidence leads to your inference. So push it to not answer a basic question using evidence.

In this example, Tina talks with Abby about how they can take what they learned about pupil understanding to plan for the next lesson that will extend learning. By engaging in this practice together in a space that was meant for learning and growth, Abby could engage in this approximation of practice, preparing her to later enact it entirely on her own.

Reflecting on instruction. Tina also modeled the practice of reflecting on instruction. She made opened herself up to be vulnerable, admitting when lessons did not go as she hoped and pointing out what both how she knew this and what she would do about it. Through this, she led

Abby through a decomposition of her own practice, modeling how to look closely at instruction and break it down into actionable pieces. During a discussion in which Tina and Abby analyzed pupil work in December 2015, Tina explained,

> I feel like some kids answered this question incorrectly…. they would say something true that happened on this page [of the story], … but not how [the characters] handled the crops. But the interesting thing is, when I did listen [to how the students explained and understood crops], that was the problem that a lot of kids got stumped on, so I reworded it.

When Tina saw that pupils were not answering a question correctly, she tried to understand what was challenging pupils, and then made a slight adjustment in her instruction. In this particular example, the problem was that pupils did not understand the term "crops", and because this word was both in the text and in the writing prompt, pupils were unable to respond to the question successfully. Tina explained to Abby how what she noticed and what she did in response. This mentoring move, thinking aloud as she reflected on her own instruction, provided a model for Abby on how to use pupil work to reflect on instruction.

The activities of mentoring Tina and Abby engaged in supported Abby's ability to attend to pupil thinking and understanding. Next, I share Abby's instructional moves as a student teacher and first year teacher that suggest the importance of activities of mentoring in novice development.

Instructional move: Understanding pupils in order to plan for and reflect upon instruction. Abby focused on understanding the strengths and needs of her learners, and using this to guide her instruction during both her student teaching and first year teaching. Abby believed it was important to have multiple ways of knowing if pupils were learning; she

considered their in class engagement, prior learning experiences, interests, and work, as she planned for instruction and later determined if learning objectives were met. She prioritized this through her planning for and using formative assessments within instruction, engaging in the practice of analyzing pupil work, and reflecting on her own instruction.

Formative assessments. During student teaching, as Abby planned, she not only wrote clearly stated goals in lesson plans, but she also included ways to formatively assess pupils to ensure pupils met the learning targets. For example, she used "white boards all for all students to participate and for informal assessments of students understanding of learning objectives" (9/23/15 Lesson Plan) and "exit ticket—two problems from Go Math page 405" (2/1/16 Lesson Plan). Pupil responses on white boards immediately gave Abby an idea of who was on target for the learning objective and gave her the opportunity to adjust instruction for pupils who needed additional support. Similarly, from exit tickets, Abby determined which pupils she would meet with later that day to retouch on the content.

As a first year teacher, Abby continued using formative assessments in her instructional practice. In her pre-teaching notes, Abby shared "Yesterday was the official kick off to measurement; today we were counting the inside of the shapes for the first time, so we'll see how that goes based on… a quick check tomorrow morning" (2/28/17 Pre-Observation Notes). In addition to planning and using quick checks (similar to exit tickets), Abby also asked questions during instruction to get a quick visual idea of pupil understanding. For example, in a lesson I observed in May 2017, she asked pupils, "Show me [with your hands] how many sides a quadrilateral has." By briefly glancing around the room, she was able to determine pupil understanding and plan her next instructional move in response.

Analyzing pupil work. Another aspect of understanding pupils in order to plan for and

reflect upon instruction that Abby engaged in was analyzing pupil work. This process entailed more than just grading an assignment and adding the numeric value into the gradebook. In Abby's classroom as a student teacher, this meant looking closely at what pupils were doing and trying to understand why. In a March 2016 reflection, Abby wrote,

> As we have been preparing for our math test… I have been recording and analyzing what students need the most support in so that I can meet their needs. [This included]
>
> 1. I wrote down their scores.
> 2. I wrote down what questions/strategies they didn't show they understood.
> 3. I talked with [Tina] to see if she was seeing the same struggle in small group stations.
> 4. I made a plan to help support them - small group/whole group/partners/morning work/homework.
> 5. I watched over the rest of the week how their understanding progressed so that I could adjust my plan to help them.

Instead of just stopping at number one on her list, she continued through a process that placed emphasis on understanding the learning of each pupil individually. In this way, Abby used pupil work was a tool to support learners.

During her first year teaching, Abby continued to analyze pupil work to support pupils. For example, during an interview after I observed her teach in November 2016, Abby shared, "We do a quick check… they do it themselves and then they turn it in and I sort them into piles… and then I pull that group of friends who need extra help, to the carpet." This all happened within the course of the lesson; Abby used this quick check formative assessment to quickly check in with pupils, but then grouped pupils in-the-moment to support learners on the spot.

Reflecting on instruction. Reflecting on instruction is the third aspect of how Abby incorporated attention to pupil understanding within her practice. Instead of pupil work only indicating what *pupils* knew and/or were able to do, Abby used pupil work to better understand how *she* could improve her instructional practices as a student teacher learning to teach. In March of student teaching, Abby reflected:

> I had no clue how much students would struggle with fractions! After the first day of instruction I was pretty awe struck and had a good conversation with my mentor about how I can better set my students up for success. Tina helped me sort through student work, redirected some of my conversations to help us see student thinking more clearly, assisted in pulling students, and gave me a feel for who she was seeing struggle so that we can best meet their needs early on in this chapter.

This excerpt from her weekly written reflection shows Abby's thinking process: she noticed that pupils struggled, conversed with her mentor about her instruction, looked closely at pupil work, and worked with pupils based on their needs. This selection is representative of how Abby reflected on a weekly basis as a student teacher.

During her first year teaching, Abby continued to reflect on her instruction through pupil work, as well as pupil attitudes towards the work. In an interview in March 2017, Abby explained the lesson planning, pupil work, to reflection cycle that she goes through. She stated,

> I think I realized today… why math has been such a mess lately. It's not only because I don't feel good about this unit because I never taught it before, but also it's not structured. I'm not planning enough. I need to spend more time really looking at what I want. Like what is my teaching point? How am I hitting it home?

Abby realized that her lessons were not going as she hoped because she wasn't spending enough time planning. The lack of structure in her lessons was taking a toll on pupil performance, and through reflecting, she was able to make changes to her practices to benefit the learning of her pupils.

Evidence of take up of the activities of mentoring in which Tina and Abby engaged can be seen in Abby's teaching as a student teacher and first year teacher. This suggests an important role the mentor teacher plays as the novice learns to attend to pupil thinking and understanding.

Katie's Learning to Teach Story

The activities of mentoring: The why and how of using formative assessment to plan for pupil engagement and success. Nancy is likely not the only reason Katie was able to attend to pupil thinking as a student teacher and first year teacher, but particular activities of mentoring Nancy and Katie engaged in during student teaching seem connected to Katie's learning to teach process. Nancy used pupil engagement practices in instruction, focused conversations and questions around pupils, and made instructional decisions visible. In examining these three mentoring activities, I explore why Katie may link formative assessment with planning for pupil engagement and success during student teaching and first year teaching.

Focusing on pupil engagement and formative assessment practices within instruction. Pupil engagement was important to Nancy. In her instruction, she included frequent opportunities for pupils to participate, providing Katie with a representation of instruction with strong pupil engagement. She not only had pupils participate frequently, but also used their engagement as a way to formatively assess their understanding. In a co-planning conversation in October 2015, Nancy shared with Katie,

> My goal is to have them participating once every two minutes. I don't want two minutes to go by when they're just sitting there... So, a couple of ways that I will assess, like a turn and talk… and tell your partner three or four different things that you find. Even if they're not coming up with that idea, they're hearing it from somebody else… A choral response or a show me is really nice as a quick formative assessment, but for some of those kids that you are really curious about, that's when you can strategically call on them.

Nancy was specific in her personal goal; it was clear that frequent participation is important. Instead of leaving it with this implicit expectation for Katie's instruction, Nancy explained what this could look like. For example, choral responses are good options for quick formative assessments of the whole class, but calling on individual pupils may make more sense when you ask a question on a topic that relates to an individual goal of theirs. Nancy did more than just talk about pupil engagement and formative assessment; she enacted it seamlessly across her instructional practice and she encouraged Katie to try out pupil engagement strategies (approximation of practice).

Using focused conversations and questions. Nancy took the time to have deliberate conversations with Katie. She took an inch deep, rather than a foot wide approach, in these conversations. For example, in a co-planning conversation in October 2015, Nancy and Katie spent 18 minutes planning for a short phonics and phonemic awareness lesson. Within this decomposition of practice, Nancy explained,

> Just to clarify, the difference between phonemic awareness and phonics. Phonemic awareness is the ability to hear the sounds. So as soon as you include print, you're now switching over to phonics. So, phonemic awareness is actually one of the strongest

> indicators of how well students will be able to read and how they'll be able to spell. So it is very important to remember not to include print when we're working on the phonemic awareness.

In order for Katie to lead lessons like this in the future, Nancy wanted to be sure she had a strong understanding of the content and pedagogy. For instance, it was important that as Katie taught and formatively assessed pupils on phonemic awareness that she not bring written letters into the lesson. This level of detail and time spent digging deeply into content provided Katie with a richer understanding of material and pedagogy to be prepared to instruct.

In addition to taking time to have conversations like this to enrich the learning opportunities for pupils, Nancy asked focused questions that brought Katie's attention to pupil learning. For example, in a co-planning conversation in February 2016, after Katie explained a science lesson on life cycles, Nancy asked Katie, "So then how might your students respond to *how do they grow*?" Nancy returned Katie's attention to pupil learning multiple times in this conversation through the questions she asked. The result of these focused questions was a targeted assessment that matched both the learning objectives and instructional sequence.

Making instructional decisions visible. Like Tina, Nancy was careful to be explicit with her student teacher about her own thinking. She verbalized what she did (or might do) and why in order to help Katie better understand what often looks seamless in an experienced teacher's classroom. In a debriefing conversation following an observation of Katie teaching, Nancy explained,

> [If] I just look for hands in the air and then I call and the child hears the right answer, you are only really truly formatively assessing that one student that gave the answer… If I'm giving a thumbs up/thumbs down, let's say a struggling student is looking around to see...

> They're thinking about the problem. They're kind of assessing what everybody else is doing, which is a skill in itself. 'Okay, do people think is true. Do they agree with this? Don't they?' And it still gives you a chance to see, if you're spotting those kids, that means that you're being aware. (March 2016)

In this conversation, Nancy walked Katie through her thinking as she engages pupils in her instruction. She explained how calling on only one pupil does not provide a chance to see what many pupils know; instead, provide opportunities for all pupils to participate and use it as a chance to glimpse the understanding of all learners. This is just one example of many in which Nancy helped Katie understand the reasoning behind her instructional moves through a decomposition of her own practice.

The activities of mentoring Nancy and Katie engaged in supported Katie's ability to focus to pupil thinking and understanding. Next, I examine Katie's instructional moves as a student teacher and first year teacher that suggest the importance of activities of mentoring in novice development.

Instructional move: Using formative assessment to plan for pupil engagement and success. It was evident that Katie focused on pupil thinking by linking formative assessment to pupil engagement and participation during student teaching and continued to do so in her first year teaching. Katie did this by planning for pupil engagement and participation, thinking about individual pupil success, and using formative assessment.

Planning for pupil engagement. As a student teacher, Katie included specific pupil participation structures within her lesson plans. This included "How can we use the addition fact we just wrote to solve the subtraction problem? Turn and talk with a partner." (11/11/15 Lesson Plan), "If you see a word with the short "I" sound in the middle, raise your hand" (11/2/15

Lesson Plan), “So, 98 - 30 must be… everybody blow it in (pupils blow into their hands and hold them up) now let it go (pupils open hands and simultaneously say the answer aloud)” (2/10/16 Lesson Plan), and “Last week we learned about two more continents. If you can remember one of those continents, hold up one finger. If you know both of the continents, hold up 2 fingers” (3/16/16 Lesson Plan). These are only a few examples of ways in which Katie demonstrated that she planned ahead for opportunities for pupils to be engaged in lessons, rather than assuming she would be able to make these decisions in the moment of teaching.

As a first year teacher, Katie no longer wrote formal lesson plans for each lesson, but still thought about opportunities for pupil engagement as she planned. In the pre-observation notes Katie wrote before I observed her teaching in May 2017, she shared an important part of her planning for the lesson that day included “movement: how can I keep the kids actively involved and still working on their skills.” While observing that lesson, Katie had pupils engaged by giving thumbs up/down to agree/disagree with a response, repeat parts of words, help her segment words, sing along with her as they moved from one task to another, cut and glue paper, and “shake out your brains” to warm up for the next activity. Katie kept pupils engaged through participation opportunities, hands-on learning, and movement. Even though she no longer wrote each of these out in advance, she planned with opportunities for engagement in mind. These engagement opportunities provided opportunities to formatively assess pupils and continuously gauge pupil understanding.

Thinking about the individual and planning pupil success. As Katie planned, she thought about the needs of individual learners in the classroom. While writing lesson plans, she took time to think about which questions she would ask, how she would ask the question, and

who she would call on to respond to which questions. In a lesson plan in October of her student teaching, Katie wrote,

> This lesson can differentiated through strategic calling. For example, I might ask one of my higher-level students to provide an answer first, and then call on another higher level student to produce the same answer before calling on one of my lower level students to provide the answer. In this way, I can be sure that that student has at least heard the correct answer a few times, which demonstrates that they are listening and following along with the lesson.

This example demonstrates how Katie considered not only the questions she asked, but also the order she called on pupils. In this way, she was able to check in with particular learners as well as provide support prior to assessment.

As a first year teacher working with four and five year olds, Katie continued to think about individuals during instruction. She had a *why* to the questions she asked pupils as well as who she targeted when asking the questions. In an interview after I observed Katie teaching in May of her first year, she shared,

> Today, when I was asking all the who, what, where questions, I always think about how it probably looks random, who I'm calling on, but I think back to how Nancy and I would talk about 'you call on this type of student first,' and then reflect back, and I really am so conscious about that. I'm sure it doesn't make sense to anybody who's watching that, but, I know that these are the type of students I want to call on… A couple of my speech kiddos are really focusing on the W questions, so they were students that I made sure to target today…

In this interview excerpt, Katie explained that in her lesson she made sure to ask pupils who received speech services "W" (who, what, where, when) questions because that was their current learning objective with the speech teacher. She used what they focused on with their speech teacher to help her support them as individuals and differentiate instruction through formative assessment.

Using formative assessment. As a student teacher in a first grade classroom, Katie learned how to formatively assess pupils through teacher questioning as well as through written forms. To formatively assess pupils, Katie took anecdotal pupil notes (9/28/15), had pupils use white boards during math instruction so she could quickly gauge pupil understanding of doubles plus one facts (11/11/15 Lesson Plan), gave running records (1/11/16), and collected pupil journals (2/10/16 Lesson Plan). These are each in addition to within-lesson verbal questioning, which she also implemented frequently as means of formative assessment.

As a first year teacher, Katie used teacher questions with physical or verbal responses as well as written work to formatively assess pupils. Though written formative assessments were more challenging due to the varying developmental levels of the four and five year olds, Katie still used them to check on understanding. During a classroom visit in September 2016, I observed Katie read *Chicka Chicka 1,2,3* and then had pupils go on a number hunt around the room. Pupils each had a clipboard with a blank piece of paper and walked around the classroom to find numbers she had hidden. They recorded all the numbers they found on their piece of paper. This activity not only connected reading with math, but also provided Katie an opportunity to check both on number recognition as well as number formation skills.

Summary

With the support of mentors, Abby and Katie attended to pupil thinking and understanding as student teachers, and continued doing so as first year teachers. Table 5 presents a summary of the ways the novices focused on pupil thinking, as well as the mentoring activities that supported the student teachers to do so.

The activities of mentoring that supported the student teachers' enactment include:

- making their own instructional decisions visible,
- focusing on pupil learning,
- using pupil work in planning and debriefing lessons,
- orally reflecting on their own instruction,
- using pupil engagement practices in instruction, and
- focusing conversations and questions around pupils.

These practices the mentors engaged in mattered to the learning to teach process of the novices.

Table 5
Instruction Enacted and Activities of Mentoring That Supported Enactment

	What activities of mentoring supported the novice in attending to pupil thinking during student teaching and taking them with them into the first year teaching?	**In what ways did the novice attend to pupil thinking during student teaching and as a first year teacher?**
	Abby	
	Activities of mentoring: • Making her own instructional decisions visible (Decomposition) • Focus on pupil learning (Representation & Decomposition) • Use of pupil work in planning and debriefing lessons (Representation & Approximation)	**Instructional move:** Understanding pupils in order to plan for and reflect upon instruction • Using formative assessments within instruction • Engaging in the practice of analyzing pupil work • Reflecting on her own instruction

Table 5 (cont'd)

	• Oral reflection on own instruction (Decomposition)	
Student Teaching	**Mentoring activities in action:** "Based on what you're noticing on in their writing, what do you want to have on the student sample for them to see ….you want the student sample to be something similar to what you notice in their writing that they struggle with... in a subtle way…. What is it that you want to purposefully do on the student sample that they're going to evaluate, because you know that they need that practice or they need to see that?" -Tina to Abby in a Co-Planning Conversation, March 2016	**Novice enactment of instructional moves:** "I was pretty awe struck and had a good conversation with Tina about how I can better set my students up for success… Tina helped me sort through student work, redirected some of my conversations to help us see student thinking more clearly, assisted in pulling students, and gave me a feel for who she was seeing struggle so that we can best meet their needs early on in this chapter." -Written Reflection, March 2016
First Year	**Novice reflection of mentoring activities:** "I was taught [by Tina] really clear [how to analyze pupil work]. That is exactly how I'm thinking all the time because you have to be able to almost categorize [pupil] understanding because then you have to make these groups. I would say I'm looking at student work very similarly; a lot of work often. It's driving my instruction." -Interview, November 2016	**Novice explanation of instructional moves:** "We do a quick check… they do it themselves and then they turn it in and I sort them into piles… and then I pull that group of friends who need extra help, to the carpet." -Post-Lesson Interview, November 2016
	Katie	
	Activities of mentoring: • Using pupil engagement practices in instruction (Representation & Approximation) • Focusing conversations and questions around pupils (Decomposition) • Making instructional decisions visible (Decomposition)	**Instructional moves:** Using assessment to plan for pupil engagement and success • Planning for pupil engagement and participation • Thinking about individual pupil success • Using formative assessment
Student Teaching	**Mentoring activities in action:** "My goal is to have them participating once every 2 minutes. I don't want 2	**Novice enactment of instructional move:** "This lesson can differentiated through

Table 5 (cont'd)

	minutes to go by when they're just sitting there... So, a couple of ways that I will assess, like a turn and talk… and tell your partner three or four different things that you find. Even if they're not coming up with that idea, they're hearing it from somebody else… A choral response or a show me is really nice as a quick formative assessment, but for some of those kids that you are really curious about, that's when you can strategically call on them." -Nancy to Katie in a Co-Planning Conversation, October 2015	strategic calling. For example, I might ask one of my higher-level students to provide an answer first, and then call on another higher-level student to produce the same answer before calling on one of my lower level students to provide the answer. In this way, I can be sure that that student has at least heard the correct answer a few times, which demonstrates that they are listening and following along with the lesson." -Lesson Plan, October 2015
First Year	**Novice reflection of mentoring activities:** "I think a lot of the engagement [strategies] that I try to pull are still coming from Nancy because that was what we worked on so heavily." -Interview, December 2016	**Novice explanation of instructional moves:** "Today, when I was asking all the who, what, where questions, I always think about how it probably looks random, who I'm calling on, but I think back to how Nancy and I would talk about you call on this type of student first, and then reflect back, and I really am so conscious about that. I'm sure it doesn't make sense to anybody who's watching that, but, I know that these are the type of students I want to call on… A couple of my speech kiddos are really focusing on the W questions, so they were students that I made sure to target today…" -Interview, May 2017

Discussion

Abby and Katie attended to pupil thinking and understanding during their student teaching that they continued enacting as first year teachers. For Abby, this included focusing on understanding pupils (their learning, their background, their work) in planning for and reflecting upon instruction. Katie planned for pupil engagement and the success of individual learners through incorporating opportunities for formative assessment. Focusing on pupil understanding

and learning in these ways as novices is difficult, because the challenges that new teachers encounter when in their own classrooms for the first times often constrains or prevents them from teaching in ways that focus on pupil learning needs (Brashier & Norris, 2008).

Findings from this study illustrate that the activities of mentoring matter in the learning to teach process of novices (Matusov, 1998; Stanulis et al., 2012), both while the novice is a student teacher learning alongside the mentor, as well as when they begin teaching in their own classroom alone. Mentors create learning opportunities that provide novices access to complex facets of teaching (Edwards & Protheroe, 2003; Tharp & Gallimore, 1988; Vygotsky, 1978). Through participating in such opportunities, novices gradually shifted in their role from student to teacher (Rogoff, 1990, 1994, 1995, 1997). To further explore each of these ideas, next, I synthesize what mentoring activities the novices/mentors engaged in, I explore why these particular activities were powerful, and then I look at the role mentor preparation can play in novice learning opportunities. Finally, I suggest the ways novices attended to pupil thinking be used as a marker of impactful educative mentoring.

Activities of Mentoring Matter in Learning to Teach

To support Abby and Katie's learning as novice educators, their mentors engaged in particular activities. The mentors modeled the instructional practices they hoped the novice would be able to enact (Feiman-Nemser & Beasley, 1997; Pylman, 2016; Schwille, 2008). Just as university-based teacher preparation programs introduce pre-service teachers to instructional practices through representations, Nancy and Tina provided the novices with illustrations of particular practices in action in the classroom (Grossman et al., 2009). Nancy and Tina made their thinking accessible, rather than assuming the novice understood what they were doing and why they were doing it, they explained the reasoning behind their instructional moves verbally to

the novice. Through practice decomposition, the mentors were able to break down complex practices in ways the novices could see and understand (Grossman et al., 2009). Mentors and novices jointly engaged in practices of teaching, such as analyzing pupil work and planning for lessons (Stanulis et al., 2018). Trying these practices both alongside their mentors and later on their own, Nancy and Tina often provided opportunities for Katie and Abby to engage in practice approximation (Grossman et al., 2009).

The mentors remained focused on pupil learning in their modeling, teaching, and discussions with the novices (Feiman-Nemser, 2001b). Nancy and Tina created space for honest conversations and reflections, being vulnerable as they openly shared what did not go well as they taught and what they would do differently in the future to normalize reflection and emphasize the importance of a growth-mindset (Feiman-Nemser, 2001b; Norman & Feiman-Nemser, 2005). Additionally, they recognized that there are multiple ways to enact practices, giving the novices the opportunity to try things on their own (while still supported) and encouraging them to figure out who they are as educators (Goodwin, Roegman, & Reagan, 2016; Turner & Blackburn, 2016). These are the practices of educative mentors (Feiman-Nemser, 1998, 2001b; Norman & Feiman-Nemser, 2005). Their mentor moves help explain why Abby and Katie were able to attend to pupil thinking as student teachers and take them with them into their first year teaching.

A Certain Kind of Conversation Is Necessary for Learning

Rogoff's (1990, 1994, 1995, 1997) theory of transformation of participation is helpful to understand why these mentoring activities supported the novices in learning to teach. This theory supports the idea that the activities of mentoring matter (Matusov, 1998). All mentoring is not equal; particular activities, such as engaging in shared activities and co-participation in

instruction, are important for novice learning (Connell, 2010). Mentors are able to make more complex practices accessible to the novice; through observing, jointly engaging in activities, and trying practices on their own, mentors can help the novice reach more complex levels of learning (Tharp & Gallimore, 1988; Vygotsky, 1978). Their conversations focused on pupil learning, making thinking visible, jointly looking at pupil work, and reflecting on instructional decisions. These mentoring activities and conversations were intentional; to influence novices' focus on pupil thinking and support novice growth, the mentors engaged them in purposeful conversations.

Why a Certain Kind of Mentor Preparation Matters

The mentors reported that the learning opportunities they created for their student teachers came out of the experiences they had in professional development (Stanulis et al., 2018). The facilitator of the mentor professional development provided the mentors with representations of educative mentoring practices in action (Grossman et al., 2009), engaged the mentors in decomposition of the practices to highlight nuances and breakdown complex ideas (Grossman et al., 2009), and provided opportunities for mentors to rehearse—trying out the educative practices among colleagues before engaging the novice in particular activities (Lampert et al., 2013). Just as it is important to novices' development to see practices in action and to have the chance to develop their own skills (Grossman, 2010), mentor teachers need similar opportunities to learn to enact educative practices. Mentors need support and preparation to engage skillfully and thoughtfully in the activities of mentoring; a thoughtful, intentional design to mentor professional development matters.

Novice Practices as Markers of Educative Mentoring

Central to the idea of transformation of participation is that through participating in an activity, similar events in the future are changed (Rogoff, 1995, 1997). This means that learning that occurs during student teaching with the mentor leads to changes in how the novices view and engage similar practices in the future. So as a first year teacher, I argue the participants are inherently teaching in ways that reflect their participation during student teaching. With this lens of understanding, the activities mentors engage in are very important for the instructional moves novices enact. In order for novices to attend to pupil thinking early in their teaching career, working with an educative mentor matters.

In order to actually see *how* mentoring matters, in this study I look at how novices focus on pupil thinking while they are student teachers and first-year teachers. I suggest using what novices take up and take with them as a marker of the success of mentoring activities and the learning opportunities they created. Just as a teacher's lesson is only powerful if pupils learn, a mentor's mentoring is only powerful if the novice takes on new or refined instructional practices. This does not suggest a successful mentor is one who creates a novice duplicate. Instead, findings from this study reveal there is power in mentors working to create independent novices; those who are thoughtful and responsive to their own contexts and can take the unique needs and strengths of their learners, communities, and professional expectations into account. One reason a novice may attend to pupil thinking as a new teacher may be because they had the opportunity to work with and learn from an educative mentor.

Conclusions and Implications

Findings suggest that preparing mentors in a certain way matters. The mentors in this study engaged in professional development that supported them as they learned to be educative

mentors (Stanulis et al., 2018). By looking at the experiences of the novice through their own eyes, seeing what they took up as student teachers and took with them into their first year teaching, this study suggests that mentors who have been prepared to be educative can engage in practices that support novice teacher development.

To the field, this suggests the importance of teacher preparation programs to support mentor teachers to engage in educative practices. Through study groups, coaching, or one-on-one meetings, it seems like a valuable use of university resources to help the teacher educators in the field, the mentors, enact their role in educative ways. For example, Stanulis et al. (2018) present three specific educative practices for educative mentoring and provide sample study group agendas to help conceive what supporting mentor teachers can look like.

Research is needed to understand what structure of mentor professional development best supports the novice learning to teach. What, specifically, was it about the professional development these mentors participated (Stanulis et al., 2018) that was powerful? With a clearer understanding of this, it would be possible to develop and implement mentoring curricula more widely.

Additionally, a better understanding of what particular mentoring practices best support a transformation of participation would be helpful. This study looked at the practices mentors engaged in, but did not compare practices to each other to determine which has higher long-term value. This would help mentor teachers to prioritize particular mentoring activities to support their novice learning to teach.

Finally, the ways novices and mentors interact calls into consideration the idea of power, particularly as the novice is a guest in the mentor's classroom. Might professional development around educative mentoring help mentors recognize the power they hold in their relationship

with the novice? Do educative mentoring practices have the possibility of equalizing power or of working to dismantle power in the novice/mentor relationship? It would be interesting to explore how activities of mentoring can support novices beyond instructional moves.

Learning to teach does not "end" when student teaching is completed, yet during this year, novices transform through their participation with their mentor and pupils. The opportunities to learn that the mentors created influence the way novices attend to pupil thinking beyond student teaching. To novices learning to teach, mentors' practices matter.

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CHAPTER THREE—FEEDBACK "INFECTED MY INSTRUCTION": THE ROLE OF FEEDBACK IN LEARNING TO TEACH

Introduction

Teachers continue learning to teach throughout their careers. Though teacher preparation is likely considered the beginning of this path, learning to teach is a career-long endeavor that requires support across the continuum (Feiman-Nemser, 2001a). Universities invest time and resources in providing pre-service teachers with strong content knowledge, a robust theoretical background, and experience in the field to observe and place theory into practice (Grossman, Hammerness, & McDonald, 2009). When pre-service teachers become first-year teachers, this support dwindles (Ingersoll & Strong, 2012). New teachers continue to need support to develop strong teaching practices (Bloomfield & Nguyen, 2015; Norman & Feiman-Nemser, 2005); there is some learning that can only occur in the field and with experience (Feiman-Nemser, 2001a). Feedback is one way teachers can learn from and improve their practice (Crichton & Gil, 2015; Sayeski & Paulsen, 2012). Unfortunately, teachers rarely receive frequent feedback (Weisberg et al., 2009).

It can be an isolating experience to be a new teacher (Sabar, 2004; Scherff, 2008; Stanulis, Fallona, & Pearson, 2002). Pre-service teachers become accustomed to sharing a classroom with a mentor teacher, engaging in professional learning through university coursework, and receiving feedback from peers, their mentor, and university faculty (Scherff, 2008). As first year teachers, they may experience closed-doors and a lack of collaboration (Bloomfield & Nguyen, 2015; Scherff, 2008). Though first year teachers are often part of induction programs, the type of mentoring and feedback varies (Ingersoll & Strong, 2011; Löfström & Eisenschmidt, 2009). This can be problematic, as novices continue to desire

community (Andrews, Gilbert, & Martin, 2007; Fox & Wilson, 2015) and feedback (Hagger, Mutton, & Burn, 2011; Wang, Odell, & Schwille, 2008) as they progress through their first years of teaching.

I conceptualize feedback as information provided to the novice (by a colleague, administrator, mentor, herself, etc.) to improve or reinforce an aspect of their instructional performance or understanding (Hattie & Timperley, 2007). Feedback can be solicited or unsolicited, written or verbal, formal or informal. It can involve individualized goals or common standards. What is important, however, as Hattie and Timperley (2007) explain, is that in order for feedback to be effective, it must answer the following questions: "Where am I going? (What are the goals?), How am I going? (What progress is being made toward the goal?), and Where to next? (What activities need to be undertaken to make better progress?)" (p. 86). To enhance learning, feedback should be specific (Hattie & Timperley, 2007; Shute, 2008; Voerman, Meijer, Korthagen, & Simons, 2012), given with frequency (Sayeski & Paulsen, 2012; Wilkins-Canter, 1997), and connected to goal setting (Voerman et al., 2012).

In this article, I examine the role of feedback in the learning to teach journeys of three novice educators, from their yearlong student teaching experience through their first year teaching. Each teacher received feedback on their instruction during their student teaching, from their mentor teacher, field instructor, and other student teachers. In this context, their mentor teachers received preparation and support to enact educative practices, including how to provide targeted, specific feedback. Their mentors engaged them in critical conversations about practice and modeled reflecting on their own teaching. These student teachers became used to receiving frequent, focused feedback and often asked for more. They reported during student teaching that feedback was an important part of their learning to teach experience. However, during their first

year teaching, while each novice continued to desire feedback, they had very different experiences receiving and using it. Because the support novices receive as new teachers varies, I look at the role of mentoring experiences during student teaching in supporting educators as they continue learning to teach. I address the following research questions as I explore the role of feedback in the development of three novice teachers:

1. In what ways does the feedback novices received as student teachers influence how they view the role of feedback in the learning to teach process?
2. What experiences do first year teachers have with receiving feedback?

Literature Review

The Role of Feedback in Learning to Teach

Feedback in education has roots from Thorndike and the Behaviorist movement (Bransford, Derry, & Hammerness, 2005). Research shows it is important to learning (Hattie & Timperley, 2007; Voerman et al., 2012). Feedback has the largest impact when the goals are specific and it builds on previous goals (Hattie & Timperley, 2007). Complex tasks are more easily learned with frequent feedback (Bransford et al., 2005); and learning to teach is certainly complex (Grossman et al., 2009; National Board for Professional Teaching Standards, 2002; Shulman, 1986).

Feedback on teaching allows teachers to reflect on their instructional moves (Schön, 1987), assess their growth (Anast-May, Penick, Schroyer, & Howell, 2011; Feeney, 2007), and set goals for the future (Anast-May et al., 2011; Feeney, 2007). Through feedback, teachers can improve their performance, find motivation to change (or continue) their practices, and feel satisfied professionally (Feeney, 2007). Conversations around feedback provide an opportunity

for both the mentor and mentee to process and understand instructional moves, as well as to collectively make meaning (Hudson, 2014).

Specific feedback is particularly important to teachers improving their practice (Anast-May et al., 2011; Feeney, 2007; Hudson, 2016). Hudson (2016) explained, "feedback can be more purposeful when mentors are provided with a direct focus for observation" (p. 231). The depth of conversations can greatly increase when mentors provide focused feedback, such as on questioning, wait time, teacher movement, time management, or checking for understanding. A focus allows the mentor to concentrate on specific skills, both noting the mentee's positive uses and helping the mentee grow. In the absence of focused feedback, mentor and mentee still converse frequently about instruction, but the conversations are about general classroom issues, such as behavior management, and miss "opportunities to broaden and deepen student teachers' understanding" (Valencia, Martin, Place, & Grossman, 2009,2009, p. 314). This is a lost opportunity.

Self-regulation can mediate the effectiveness of feedback (Hattie & Timperley, 2007). Self-regulation includes self-appraisal and self-management (Paris & Winograd, 1990). Learners monitor their own progress, evaluate their own abilities, and know when to seek feedback from others. Novices learn to ask reflective questions of themselves, rather than placing the responsibility solely on others to provide feedback (Hattie & Timperley, 2007). Hattie and Timperley (2007) explain, "Feedback that attends to self- regulation is powerful to the degree that it leads to further engagement with or investing further effort into the task" (p. 102). Simply receiving feedback, without attending to the matter through future investigation, does not supports changes in practice. It is not sufficient to rely only on oneself for feedback, as receiving particular kinds of feedback from others leads to self-regulated feedback (Hattie & Timperley,

2007). In this way, the interplay between feedback from oneself and seeking it out from others for particular purposes is powerful for learning.

Unfortunately, neither pre-service teachers (Valencia et al., 2009) nor classroom teachers receive frequent feedback on their instruction (Weisberg et al., 2009). Often, the feedback teachers receive is by means of a formal teacher evaluation system, which have the possibility to provide powerful, actionable feedback, but often rarely provide specific enough information for teachers to know what types of changes to make in their instruction (Cohen & Goldhaber, 2016; Goldring et al., 2015). In addition to knowing the types of changes to make, in order for feedback to be most effective, it should address progress (Hattie & Timperley, 2007), which suggests that without frequent feedback connected to a goal, the novice will be less able to utilize it in practice. Because of this, it seems especially important that both teacher preparation mentors and induction mentors provide valuable feedback to help the novice improve instruction.

The Role of Educative Mentoring in Learning to Teach

The kind of mentoring a novice receives matters as they learn to teach (Stanulis, Little, & Wibbens, 2012). An educative mentor is someone who "helps novices learn to teach and develop the skills and dispositions to continue learning in and from their practice" (Feiman-Nemser, 1998, p. 66). Educative mentors help novices use inquiry as a means to learn from their own practice, collect evidence of novice enactment while observing instruction, look at student work alongside the novice to consider student learning needs, and provide focused feedback for novice growth (Feiman-Nemser, 2001b; Kemmis, Heikkinen, Fransson, Aspfors, & Edwards-Groves, 2014; Stanulis & Floden, 2009). They engage the novice in conversations around educative practices, such as around co-planning, observing and debriefing, and analyzing student work (Stanulis et al., 2018). The educative mentor sees their role as an educator of teachers and

understands teacher learning (Feiman-Nemser, 2001b). They take on the stance of a learner, jointly inquiring into teaching and learning alongside the novice (Feiman-Nemser, 1998). Throughout their work with the novice, the educative mentor works to create growth-producing experiences for the novice teacher (Dewey, 1938).

An educative mentor can be contrasted with a traditional mentor, a person who typically helps the novice in addressing their immediate needs and provides them with emotional support (Stanulis & Bell, 2017). The traditional mentor helps the novice solve problems as they arise in the day, shares instructional resources, and provides the novice with advice (Bradbury, 2010). This type of mentor focuses on needs of the day, instead of looking to long-term goals and helping the novice consider his/her thinking in a critical way (Feiman-Nemser, 1998). Educative mentors incorporate certain practices into their work with novices, such as co-planning and observing and debriefing (Stanulis et al., 2018).

The practice of co-planning. The educative practice of co-planning provides the novice with experiences to be an independent decision-maker when they leave the classroom of their mentor (Pylman, Stanulis, & Wexler, 2017). Mentors create the space for lesson planning conversations that consider the student teachers' specific learning goals, explore instructional content together (Feiman-Nemser & Beasley, 1997), and make their own thinking visible to the novice as a way to model instructional decision-making (Pylman et al., 2017). In addition to using these conversations to model effective planning, mentors also provide feedback to the novice in these conversations through both asking targeted questions and responding to novice questions thoroughly.

The practice of observing and debriefing. An important mentoring practice is observing and debriefing. It is an educative experience when the mentor begins by selecting a

specific, focused purpose and then collects data that aligns with this targeted focus (Pylman et al., 2017; Stanulis & Bell, 2017). Next, the mentor must carefully plan the debrief, entering the conversation with the focus clear, present data consistent with the focus, include the novice in the discussion through question asking, note positive aspects of the instruction, and end with a discussion of goal setting (Pylman et al., 2017). This mentoring practice is important because it can provide the novice with feedback on their instruction that they are able to use to improve their teaching practice.

There is limited research that specifically addresses the role mentor feedback plays in a student teacher or novice learning to teach. I hope to contribute to this literature gap by addressing the long-term value of mentor feedback in teacher preparation from the perspective of the novice.

Theoretical Framework

In this article, I draw on theories of teacher development (Hammerness et al., 2005). Through a process of learning a new skill, trying the new skill out in practice, and reflecting on the experience, teachers develop into more skilled practitioners. This process of development can be improved when supported by others (Joyce & Showers, 2002), allowing "teachers to explore, develop, strengthen, and refine teaching skills together" (Hammerness et al., 2005, p. 280). By working with others, teachers have the benefit of receiving feedback and support, strengthening their own instruction, and, through this, the potential for improving student learning (Joyce & Showers, 2002).

Specifically, I use a situated theory of learning (Lave & Wenger, 1991; Wenger, 1998), which falls under the umbrella of sociocultural theories of learning. In this view, "teachers' knowledge is socially, culturally, and historically constructed" (Horn, 2010, p. 228). Learning

occurs *within* social interaction (Werstch, 1991). Knowledge cannot merely be *transferred* from one to another and learning cannot be de-contextualized (Lave, 1996). Instead, "how a person learns a particular set of knowledge and skills, and the situation in which a person learns, become a fundamental part of what is learned" (Putnam & Borko, 2000, p. 4). This makes a student teacher or novice's mentor, university field instructor, and colleagues important parts of teacher learning.

Learning with and from others is an important aspect of lifelong learning (Hammerness et al., 2005). It is necessary that teachers understand being a professional means "not simply 'knowing the answers' but also having the skills and willing to work with others in evaluating their own performances and searching for new answers when needed" (Hammerness et al., 2005, p. 365). This necessitates openness to vulnerability and a willingness to change. It might involve recording oneself teaching and watching it with other teachers, comparing student scores across classrooms, or inviting teachers into one's own room for observation and feedback. When working in a school that values collaboration and frequently provides opportunities for teachers to learn from each other, teachers are likely to view feedback not as a threat, but instead just as part of the profession (Hammerness et al., 2005).

The social dimension of learning is particularly important to and for new teachers. Pre-service educators are often exposed to literature and practices that support collaboration and learning communities; they may expect and hope for this as they begin teaching (Andrews et al., 2007). Even with collaborative environments in their first years of teaching, the professional networks and learning communities novices' were part of as pre-service educators can continue to provide support (Fox & Wilson, 2015). Within induction, novices find opportunities for collaboration, professional discussions with colleagues, and professional networking to be

important (Kearney, 2014). They value "opportunities to collaborate with and learn from other teachers" (Andrews et al., 2007, p. 8). Collaborative learning opportunities in their collegial communities supports novices to continue learning to teach from different perspectives (Hagger et al., 2011; Wang et al., 2008). Novices desire the chance to talk with others about ways to better support their students, and do "not expect their continued learning to be private" (Hagger et al., 2011, p. 402). In other words, the beginning teachers recognize they are still learning to teach and often see the benefits of learning with and from others as they reflect on and improve their practices.

Methods

In this study, I use an interpretive, qualitative research design (Merriam, 2009), seeking to understand how three novices "interpret their experiences" and "what meaning they attribute to their experiences" (p. 23). My interest is in understanding the feedback the novices received as student teachers as well as how they responded to it, the experiences they had around receiving feedback as first year teachers, and their reflections on how they saw the feedback they received as student teachers to influence their view of feedback in the process of learning to teach. To highlight the novice perspective in this investigation, I focus on their reports and reflections rather than my observations. I draw on their written and verbal reflections related to feedback, recordings of conversations in which they received feedback, and lesson plans in which they put feedback into action in the form of instructional changes.

Context and Participant Selection

This is a two-year longitudinal study, following three beginning teachers during student teaching and their first year teaching.

Student teaching. In the 2015-2016 school year, the student teachers completed their fifth year, post-bachelor studies at a large Midwestern university. They were placed at Poplar[5], a local K-4 elementary school serving 436 students in a rural town of 24,000 people, with a mentor teacher. Yearlong student teaching was a university requirement for State teaching licensure recommendation. As part of their post-bachelor studies, they enrolled in two university courses per term, each meeting one-day a week during the majority of the academic year. The student teachers spent the other four days per week in the classroom at Poplar, with the exception of three weeks in the fall and six weeks in the spring semester, when they were in the school full time.

During the 2015-2016 year, my role was the elementary field instructor to four student teachers and their four mentor teachers. Though I collected data on all participants, I selected three to be the focus of the particular study due to both their receipt of frequent, focused feedback from their mentor teachers during student teaching as well as their geographic location following student teaching. These focal participants are: Katie and mentor Nancy in 1st grade, Heather and mentor Renee in 3rd grade, and Abby and mentor Tina in 3rd grade (Table 6). All six participants are white females. Katie, Heather, and Abby are traditional-age college students who grew up in the same state as the university. Katie, who was also a child development major, loves working with early elementary students. Heather coached volleyball while student teaching, enjoying a different side of education. Abby, a lover of science, particularly works to make lessons hands-on and engaging.

During the 2015-2016 school year, Nancy was a mentor teacher for the second time and in her sixth year teaching first grade at Poplar. There were 25 students in Nancy and Katie's first

[5] All names are pseudonyms.

grade classroom, of which 12% of students were English Language Learners, 44% were students of color, 20% received special education services, and approximately 56% had free or reduced meals. Renee was a mentor teacher for the 15th time and in her 25th year teaching. In Renee and Heather's third grade classroom, there were 26 students of which 8% of students were English Language Learners, 27% were students of color, 4% received special education services, and approximately 38% had free or reduced meals. It was Tina's second year being a mentor teacher and her 14th year teaching. In Tina and Abby's third grade classroom, there were 24 students of which 41% were students of color, 18% received special education services, and approximately 55% had free or reduced meals.

Mentor professional development. The mentor teachers engaged in monthly, 75-minute professional development study groups as part of a mentoring pilot group at the university. The study groups were focused around practices of educative mentoring, specifically co-planning, observing and debriefing, and analyzing student work (Stanulis et al., 2018). At the study groups, mentors listened to and watched samples of educative mentoring conversations between mentors and student teachers. They also watched videos of novice instruction and planned together how they might take focused notes and engage in focused debriefing conversations. Mentors were tasked with trying out each practice following the study group. They recorded the conversations and completed a written reflection of the experience. They brought these to the next meeting, where they played clips of their recorded conversations and engaged in discussion about the educative attributes they heard.

The role of the researcher during student teaching. In addition to being a researcher, I was also the field instructor to the student teachers and facilitator of the professional development study groups for the mentors. This role allowed me to be immersed in the

experiences of all the participants. Prior to beginning the study group work in August, I obtained consent from the mentor teachers to gather data they generated authentically within mentor study groups and mentoring requirements. I waited until the end of the school year, in May, when I was no longer in a position of authority with the student teachers, to obtain their retroactive written consent. I used artifacts they had authentically completed throughout student teaching as this study's data.

The first year teaching. Upon completing student teaching, each participant received and accepted a job offer for the 2016-2017 school year. Abby taught third grade at a K-6 charter school, Carnation, with 210 students in an urban city of approximately 115,000 residents. In her third grade classroom, there were 31 students, of whom 45% were students of color, 10% received special education services, and 48% received free or reduced meals. Heather accepted a position as a young fives teacher housed at Orchid, a K-4 public Montessori school with 300 students in a town of 21,000 residents. Heather taught the only young fives class in the district, and her classroom was placed in whatever school had the space. Thus, her classroom was housed in a Montessori building, but she did not teach Montessori. Heather's young fives classroom had 20 students, of whom 10% were English language learners, 25% were students of color, 5% received special education services, and 5% received free or reduced meals. Katie taught young fives at Sunflower, a 1st, and 2nd grade building of 420 students in a rural town of 5,000 residents. In her room, she had 24 students, of whom approximately 4% were students of color, 4% received special education services, and 4% received free or reduced meals. Each first-year teacher was supported by a full-time paraprofessional.

The role of the researcher during the first year teaching. I took a hands-on approach as a research during their first year teaching because of my already developed relationship with

them as their field instructor during student teaching. I offered to be of assistance when I was in their classrooms for observations, in addition to being accessible by phone and email. As a researcher during their first year teaching, I had held no evaluative role or position of authority. I positioned myself as a participant observer (Erickson, 1986), where I learned through both observation and participation.

Table 6
Study Participants

Participant	**Mentor Teacher**	**Student Teaching**	**First Year Teaching**
Abby	Tina	Poplar 3rd Grade	Carnation 3rd Grade
Heather	Renee	Poplar 3rd Grade	Orchid Young-Fives
Katie	Nancy	Poplar 1st Grade	Sunflower Young-Fives

Data Sources

My purpose is to "uncover and interpret" the role of feedback as novices learn to teach (Merriam, 2009, p. 24). To do this, in 2015-2016, I collected data from the student teachers, as well as artifacts of student teacher/mentor relationships (Table 7). In 2016-2017, I collected data from the novice teachers.

Student teaching. I foreground the experiences of novices in this study, so I focus on data sources that highlight their perspective, rather than focusing on the goals and perceptions of their mentors. In order to understand the feedback novices received, how they responded to it, and their reflections on its role as they learned to teach, I: collected weekly written reflections (Appendix A), observed the student teachers teaching; collected formal written lesson plans; and conducted a semi-structured interview (Appendix B) to learn how the student teacher viewed the role of the mentor in learning to teach. To see what feedback looked/sounded like in action, it

was important to collect evidence of mentor/student teacher interaction. To do this, I collected audio-recorded conversations between student teacher and mentor pairs, which included three co-planning conversations, two focused observation/debrief discussions, and one analysis of student work conversation.

Table 7
Student Teaching Data Sources and Number of Each Collected

Participant	**Written Lesson Plans**	**Written Reflection/ Journal**	**Classroom Observation**	**Interviews (transcribed) ~45 min/each**	**Audio recorded mentoring conversation (between mentor and student teacher) ~25 min/each**
Abby	6	25	15	1	6
Heather	6	26	15	1	6
Katie	6	26	15	1	6

The first year teaching. The purpose of data collection during the first year teaching was to gain an understanding of (a) what feedback the novices received as first year teachers and (b) the role that feedback they received during student teaching played in their general viewpoints regarding feedback as part of the learning to teach process. Because of this, I focused data collection on novices' reporting of their experiences, rather than seeking out their induction mentor for evidence. Specifically, data collection included the novices' voice and dialogue between us as we examined the role of feedback in learning to teach. During the 2016-2017 school year, I observed each participant three times. Based on the classroom schedule, this ranged in time from one hour to two and a half hours. During the observations, I took notes of what I saw and made myself available to be helpful in whatever way was best for the teacher. Following each observation, I met with the novice for an interview (Appendix D). The interviews were 30 to 60 minutes, audio recorded, and transcribed.

Data Analysis

Data analysis involved moving codes, to categories, to themes and theory (Saldaña, 2009). I began with open coding (Corbin & Strauss, 2007) around the research questions. I first looked at data from student teaching from each novice to understand what feedback they received from their mentors, how they responded to it, and how they later reflected on it. I then looked at data from the first year teaching to see how they reflected on feedback that had received from their mentor, their thoughts regarding the role of feedback in learning to teach, the feedback they received as first year teachers, and their general desire for feedback. To generate the coding structure, I condensed the open codes into categories, and used these across the documents.

Then, I collapsed the categories into themes (Table 8). For example, the categories of growth related to feedback, goals related to feedback, feedback focused on student teacher goals, feedback that highlights strengths, mentor questions around student teacher goals, and providing specific feedback all supported the theme of mentor-supported growth through feedback. As I determined how to collapse categories into themes, I noted the frequency of each category. While this is not a study that attends to frequency of count, a comparison of magnitude is helpful to understand dominant themes across participants, rather than participant-specific experiences. For example, during their first year of teaching, more of the codes were about *seeking* feedback (from colleagues, mentors, etc.) than *receiving* feedback. In the first year of teaching data, there were only three instance of receiving specific, focused feedback, whereas I coded this 24 times during student teaching. Additionally, first year teachers mentioned drawing on feedback from their student teaching mentors (31 times), which is more often than any particular feedback they received as first year teachers. Across their student teaching and first year teaching, appreciation

for feedback (45 times) and desire for feedback (34 times) were heavily present. Similarly high numbers led me to notice patterns in novice experience, where disparate numbers pointed out different experiences among participants and/or different experiences from student teaching to first year teaching.

Table 8
Dominant Themes and Examples

Theme	Description	Example	Source
Appreciation for feedback	This is novices reflecting on what they learned from feedback and expressing gratefulness for receiving it.	"All feedback was my gold this year -- other than watching my own recordings of myself, these were the only ways I was able to reflect unbiasedly."	Katie, 4/18/16 Written Reflection
Desire for feedback	Novices share their hope for additional feedback and the specific information they would like to know.	"I can't wait to hear the feedback from my mentor, and I'm honestly excited for the constructive feedback… I just really want to know how I am doing and what other things I can work on in order to be a better teacher."	Heather, 10/23/15 Written Reflection
Evaluation-based feedback	This is feedback novices receive from administrators that is part of their evaluation.	"There's no debrief afterwards… I can see what they're typing and then they go back and do what they call coding it… but it's not good versus bad. It's just, did they meet the standard in some way"	Katie, 12/1/16 Interview
First year teacher reflect on feedback from student teaching mentor	First year teachers talk about feedback they received as student teachers from their mentors—what stuck with them and how they use it.	"I think about how that [positive reinforcement language] was a focus for me last year, and it was something that I really make sure that I focus on this year."	Katie, 5/23/17 Interview

Table 8 (cont'd)

Mentor supported growth	This is ways mentors supported the growth of the novice through feedback. It includes focused questions, specific feedback, goal setting, and growth related to feedback.	"If I'm going to be successful and meet the objective you're setting, what do I need to be able to do?"	Nancy to Katie, 2/19/16 Co-Planning Conversation
Reflection in absence of feedback	This is how novices reported to reflect when no feedback from others was given	"But checking back my exit slips, and seeing like, okay I only have three kids for intervention. Either that lesson wasn't hard enough, or it was taught really well."	Abby, 3/2/17 Interview
Seek feedback from others	Novices report asking for feedback from colleagues, mentors, coaches, etc.	"I opted to do the weekly 15 [observation from instructional coach each week]. Had I not done that, I think I would have felt much more floundering."	Abby, 5/25/17 Interview

Next, I present overarching themes as commonalities across participants and also share participant-specific results to document the different experiences of each novice.

Findings

Abby, Heather, and Katie received frequent, focused feedback from their mentor teachers during student teaching. According to participants, it is through feedback the novices were able to reflect on and improve their instructional practices. The novices reported that the feedback they received as student teachers instilled an appreciation and desire for feedback as first year teachers. However, each novice had different experiences receiving feedback as a first year teacher. To investigate the role of feedback in their learning to teach processes, I first look at commonalities in the feedback the three participants received during student teaching, which include: receiving feedback through targeted questions, evidence, and goal setting, and feedback resulting in growth/instructional changes. Then, I look at the unique experiences of each first

year teaching with receiving feedback: Abby received frequent feedback from an instructional coach; Heather sought out feedback from various educators in a more piecemeal fashion; and Katie drew on resources outside of her school for feedback.

Feedback Received as Student Teachers

As student teachers, each novice reported their mentors provided them focused feedback on lessons they taught, as well as asked targeted questions as they planned as means to elicit feedback. The student teachers used the feedback they received (both from planning conversations and post-teaching debriefings) to create and monitor personal growth goals. They reflected on their own growth in the form of instructional changes related to the feedback they received from their mentors. These findings were consistent across participants. The novices received feedback, reflected on the feedback, and made changes to their practice in response. The novices reported that feedback changed their instruction and made them better educators.

Feedback through targeted questions. The mentor teachers used targeted questions as a form of providing their student teachers with feedback. They considered their student teachers' growth goals as they honed in on what questions to ask throughout the planning process. Heather, through suggestion of her mentor and her own desire, hoped to increase the amount of positive reinforcement she gave (such as "I like how you tried to solve the problem using visuals" rather than "No, that's not quite right"). This did not come naturally to Heather. As Renee and Heather co-planned, Renee asked, "How are you going to bring positives into this?" (Co-Planning conversation, February 2016). Renee wanted Heather to think about opportunities to highlight student strengths and efforts in advance, rather than hoping she could think of them on the spot. Abby was focused on using formative assessment in her lessons. Tina helped Abby think about this, by asking "How are you envisioning formatively assessing the whole class

during the venn diagram activity?" (Co-planning conversation, February 2016). Tina had noticed the learning objective Abby planned for had not included planning for evidence of the objective being met, so she encourage Abby to consider this through her focused question. In both of these examples, the mentors provided feedback to the student teachers by asking focused questions.

Feedback through evidence. As the mentors watched the student teachers teach, they took notes that focused on particular aspects of teaching. In a debriefing conversation in October, Tina shared, "I jotted down evidence of what I observed of student engagement… think pair share… thumbs up if you understood what I said… you used engagement strategies with getting their attention… You said things like "who haven't I heard from?" Tina focused on only the engagement strategies Abby utilized during instruction both in her notes and in her conversation with Abby afterwards. This allowed for their conversation to hone in narrowly on a growth goal of Abby's, rather than getting caught up in a myriad of strengths and weakness of the lesson. Similarly, in a debriefing conversation between Katie and Nancy in October, Nancy said, "One of your focuses was pacing… [during the] metacognitive talk, you anticipated it taking 5 minutes and it took 2 minutes. Does that surprise you?" She looked specifically at pacing, which was a concern of Katie's. Nancy had a timer out, and next to each section of Katie's lesson plan, she wrote the actual time each segment took. In their conversation following the lesson, together they compared the actual time to Katie's anticipated time to delve deeper into pacing. Through this focused conversation, Katie was able to recognize the role of planning for pacing within instruction, and better understand the effects (particularly with regards to student behavior) of inadvertently extending parts of a lesson.

Feedback through goal setting. Just as Renee used her questions to help Heather think about the language she used, she also collected evidence of Heather's language. In a written

reflection in February of 2016, Heather shared, "I gave [my mentor] a form to fill out while I was teaching which focused on positive/corrective feedback. I was really happy with the feedback I got, because it helped me focus on my goals." Heather initiated receiving this type of feedback from Renee, who was happy to comply. This example shows how student teachers are able to use feedback to follow-through on their personal growth goals, providing them with evidence of progress they have made and indicating room for further growth.

Feedback resulting in growth/instructional changes. After receiving feedback, the student teachers made changes to their instructional practice. Because they received focused feedback and had honed in on goals, they were able to pinpoint areas of growth. For example, through a series of focused questions while co-planning, Nancy provided Katie with feedback that she needed to be specific and intentional with her learning targets and be sure her instruction matched this objective. Katie walked away from this series of conversations focused on attending to the cohesion of learning objectives and instructional activities. In a May of 2016 interview, Katie shared:

> [Having a] visual target I think is huge. Once [my mentor] said that and we talked about, I mean we do it in math and we do it in reading street, so it just makes sense to carry it over into science and social studies. So from [receiving that feedback] on, I kind of made it a point, especially in science, to make sure that visual target was up there, so the kids knew what they were doing. I also, for the rest of the unit, was very intentional then about making sure that my worksheets were getting at the objective that I wanted it to be. (Interview, May 2016)

This is evidence of a student teacher reflecting on her own growth as an educator in response to feedback she received.

Feedback resulting in an overwhelming desire for more feedback. Throughout student teaching, each novice expressed a desire for additional feedback. In a reflection at the end of October, Heather said, "I haven't heard a lot of feedback yet, and I just really want to know how I am doing and what other things I can work on in order to be a better teacher." In a February reflection, Katie shared, "I would really appreciate more formal feedback, maybe once a week or so." And after engaging in a debriefing conversation with her mentor using video evidence of her own instruction in March, Abby wrote in a reflection, "I would like to receive this type of focused, clear, constructive feedback AS MUCH AS POSSIBLE." Even though each novice recognized they did receive feedback frequently and from multiple sources, their desire for *more* was very clear. It is through feedback that they saw the opportunity to reflect and improve on their instruction. As novices, their goal was to be better teachers, and they saw feedback as an important aspect of this.

Across participants, during student teaching, novices: received focused feedback, were asked targeted questions, used the feedback they received to change practices or monitor goals, and reflected on their own growth. As student teachers, participants reported that feedback helped them become better educators.

Feedback as First Year Teachers

During their first year teaching, Abby, Heather, and Katie each desired feedback to improve their practice. Their experiences receiving such support varied. As first year teachers, Abby received frequent, focused feedback from an instructional coach; Heather sought out feedback from educators in many roles in her building; and Katie looked to outside resources. Regardless of the amount of feedback they received as first year teachers, they each expressed

appreciation for what they did get and a desire for more. They also referred to feedback from their student teaching mentors, continuing to draw on this support in their first year teaching.

Abby's story of frequent feedback. Abby was fortunate to receive frequent, specific feedback during her first year teaching. However, feedback did not come from her mentor or the administrator, but rather from her curriculum coach. At the start of her first year teaching, Abby opted in to the school's new curriculum coach's Weekly 15 program, where each week the coach came to Abby's room to observe for 15 minutes on something focused and then had a 15-minute debrief conversation later that day. The focus of the observation was chosen jointly or by Abby if she had something specific she was worried about, but was also limited to one topic. The coach took specific notes and always provided Abby a copy. For example, during her 15-minute observation one week, the coach monitored how Abby interacted with the five students who were close to, but not meeting, the mathematics benchmark. At the end of the debriefing, they would determine the focus of the next week's observation. Though they changed foci during the year, they returned to previous conversations during their debriefings. Abby explained the Weekly 15 "*infected* my instruction immediately because I knew she was looking for it the next time; I knew that it would help my students" (Interview, May 2017).

Abby also received feedback from her administrator six times during the year, and this feedback emphasized something different each time. Though walk-throughs and formal observations by administration were centered on a topic, for example, on the organization of classroom library, classroom atmosphere, small group partner talk, they did not return to these topics in subsequent observations. For Abby, knowing that her coach would be back in the room to follow-up on a particular idea, one she valued and found to be important for her students, drove her to change her instructional practices. Abby appreciated the feedback from her

administration, but she did not feel that it was as closely related to student learning needs and she was less concerned about making changes, knowing, for example, that they would not "check" on her classroom library again during the next visit. Additionally, the focal areas (i.e., classroom library organization) were standardized across teachers and not individualized to the strengths and growth areas of individual educators, which seemed less meaningful to Abby.

As Abby reflected on feedback she received as a first year teacher, she both appreciated what she received and still desired more. She explained, "The nice thing is having so many different people give me feedback this year. That's very ... That's priceless" (5/25/17 Interview). Yet, at the same time, she explained how she missed the type of feedback she received from Tina. Abby explained,

> Knowing that I could count on feedback and have something to look back on other than student work, I think that was almost something I took for granted… I want to be able to talk through what happened in my classroom. What was good? Where does [my instruction] need help? (Interview, May 2017)

Abby continued to draw on feedback she had received from Tina, particularly around making small group instruction meaningful and planning so assessment drives instruction. Though Abby recognized her fortune in the quantity and quality of feedback she did receive as a first year teacher, she held the feedback from her student teaching mentor as the highest standard, and desired more as a new teacher.

Heather's story of piecemeal feedback. Heather sought and received feedback during the year in a piecemeal fashion. She was eager to receive it and elicited feedback whenever possible, which included from her paraprofessional, herself, her mentor, and other teachers. Heather felt fortunate to have a full-time paraprofessional. As someone who had been working

with this classroom for years, she had experience from which Heather was eager to learn. Heather explained, "I would ask her questions, so how did, what do you think work best or whatever, and she was like, 'it's up to you, you're the teacher'" (Interview, October 2016). Excited about the prospect of two adults in the room, and reflecting on the communication she could count on from her mentor, Heather was initially disappointed that the paraprofessional was not prepared to provide the kind of feedback she sought. Heather was not deterred, however, and simply looked elsewhere for this kind of support.

Early in the school year, Heather did not feel confident in her instruction. When she would reflect at the end of the day, she just felt tired, but could not determine specific ways to improve. So, she videotaped herself teaching. Video analysis of teaching was something she had done during student teaching and had found it powerful, so she decided to try it again. She explained,

> [Video recording] helped so much last year and I could see what I was doing. Especially at the beginning of the year, I was like, 'am I doing this right? Am I really doing this… what am I doing?' It was really helpful to watch and just hear back what I was doing and it made me realize I was having them sit for too long. That was already, I was losing them right away. It's kind of blurry, but you could see them all getting squirmy, and I was going through these 10 minutes or 15 minutes where I was just having them sit. I could keep teaching, but I could have them stand up and do 10 jumping jacks and then sit down and then they could refocus." (Interview, October 2016)

By watching her tape, and focusing in on the students, Heather was able to realize that she had her five year olds sitting on the carpet for too long at a time. As they became disengaged,

behavior problems escalated. With this observation, Heather was able to make changes to her instructional practices.

Heather's assigned mentor formerly taught young fives and thus had experience, ideas, and materials to assist Heather. Heather and her mentor got along very well and spoke for 10 to 15 minutes each morning to catch up on life, both in and out of school. During this year, her mentor was the Autism Spectrum Disorder (ASD) teacher and for the first half of the year Heather had a student in her class being observed for ASD. This, fortunately, meant that that her mentor teacher was frequently visiting her classroom to observe this particular student. Heather would ask for feedback after her mentor's classroom visits and utilized these opportunities to improve her instruction.

Additionally, when other teachers or administrators popped into her classroom to observe (either her or particular students), Heather would follow-up with them to seek feedback. She also engaged other teachers, outside of her classroom, in conversations, for advice. She explained, "I've been asking my principal a lot more things and ... I just question a ton of things too… Sometimes I'll be talking to other teachers and briefly say, 'What would you do?'" (Interview, December 2016). Heather was able to receive feedback as a first year teacher because of her inquisitive nature, always eager to learn and improve.

Though she did seek out and receive feedback as a first year teacher, Heather desired more. She explained,

> Last year, I was used to the constructive feedback and just what could I do better? What could I do to change that? …[My first year teaching mentor] hasn't really given me *that* type of feedback on my teaching. But I can't really expect that from her because she's teaching all day anyways… And even with [the principal], when she came in for my

> formal observation, it was good feedback, but it was like, I kind of want to push myself more. What can I do different? (Interview, April 2017)

As a first year teacher, Heather compared the feedback she received to her experiences with feedback as a student teacher. For example, she often thought about Renee's focused feedback around positive, reinforcing language rather than behavior correcting language. Though she recognized who her resources for feedback were as a new teacher as well as their limitations, she continued to desire something more focused and constructive that would allow her to grow as an educator.

Katie's story of looking to outside resources for feedback. As a first year teacher, Katie had two mentors and two principals. She shared the two mentors with the other young fives teacher and met with them jointly, though occasionally they would split-up and meet one-on-one. Young fives was in the first and second grade building, so the principal in her building was not *her* principal, who was located in a building down the road that housed kindergarten (along with both of her assigned mentors). Given this geographic separation, it is not entirely surprising that Katie did not receive much helpful feedback from these individuals. The administration offered to provide a substitute for Katie to observe her mentors or her mentors to observe her, but Katie felt badly asking to do this, because they had their own rooms and the added inconvenience of leaving the building, and therefore was not observed by her mentors. On occasion when she did have a formal observation from administration, it consisted of them typing verbatim what she said and providing a copy of this to her. Katie explained,

> The things that they're typing are literally like word for word, here's what happened, here's what she said, here's what the students responded; but there's no feedback. There's

> no meeting afterward, there's no, 'Here are some things that you could work on. Here are some things you did great.' Like nothing. (Interview, May 2017)

When asked about feedback she received to help her instruction, Katie responded, "*Nobody* (has given me feedback on my teaching)*, which is super frustrating*" (Interview, May 2017). In the absence of feedback from her induction mentors or actionable feedback from administrators, Katie looked beyond the school walls for support.

Katie drew on outside resources to support her as a first year teacher. This included her aunt, who was a teacher in her same building, her roommate, who was a young fives teacher in another district, me, her field instructor, who maintained a relationship with her through this research, and feedback she received during student teaching. Katie would call her aunt at night to ask questions and send notes to her aunt during the school day. Through classroom buddies, they took turns being in each other's classrooms. With her roommate, Katie spoke about student behaviors and curriculum. With me, as her former field instructor, I was a sounding board. I was a safe person to come to with questions or frustrations because I knew her as a teacher and as a student, had seen her growth, but held no evaluative role. Katie welcomed me into her classroom in September, sharing,

> I'm not comfortable with how things are running yet to invite somebody in to the classroom. So feel privileged that you got to be in there for the chaos today (Interview, September 2016).

Katie felt comfortable with me in her space and being vulnerable in my presence. Having the opportunity to reflect with someone on her instruction was welcomed. Another instance of this was in January 2017 when Katie took a personal day from school and asked to come to my home to talk. She was tired and frustrated by parent interactions, but mostly she just needed time to

talk through life as a first year teacher. Before she left, we discussed best steps for moving forward with a particular parent and about her own self-care. I felt fortunate to be able to be a resource for Katie, particularly in the absence of such support in her own school.

Additionally, Katie reflected on feedback she received from Nancy and me during student teaching. She said, "I use a lot of my feedback from last year, in my teaching this year" (Interview, May 2017). She considered how we directed her to think about student engagement, formative assessment, and positive versus corrective language. For example, after I spent the afternoon in her class, she explained,

> I think back to how Nancy and I would talk about 'you call on this type of student first', and then reflect back, and I really am so conscious about that. I'm sure it doesn't make sense to anybody who's watching [me call on students], but I know [based on individual learning objectives] that these are the types of students I want to call on. (Interview, May 2017)

Katie remembered the types of notes Nancy would take when watching her teach and the conversations following and kept these focal areas in the back of her mind as she taught during her first year. In the absence of new instruction-related feedback, she drew on prior feedback.

Summary

Each novice had similar experiences receiving feedback as a student teacher and grew to count on feedback as a means to reflect and improve their instruction. As first year teachers, this desire for feedback continued. Each novice, however, had different experiences in the type and quantity of feedback they received. Abby received feedback from her instructional coach that was focused and frequent, and she credits this to improving her instruction. Heather sought out feedback from others, turned to video of herself for reflection, and created a more piecemeal

feedback experience. Katie struggled to receive productive feedback from others and looked outside her class to reflect on and plan for instruction. Each novice craved more than they received, suggesting they viewed feedback as critical in the learning to teach process.

Discussion

Abby, Heather, and Katie each saw feedback as means of reflecting on and improving their instructional strategies. As student teachers, they appreciated the quantity and quality of feedback they received, though always desired more. As first year teachers, the three participants continued to want feedback, yet they had different experiences around receiving it. Feedback is important for educators to reflect on their instruction moves (Schön, 1987), assess their own growth (Anast-May et al., 2001; Feeney, 2007), and set instructional goals for the future (Anast-May et al., 2011; Feeney, 2007); yet feedback is not guaranteed to novices. Findings from this study suggest (1) student teaching mentors play an important role as novices learn to teach, helping novices both be open to critical feedback and utilize it to improve their instruction. Additionally, (2) though induction experiences varied, each participant valued the social aspect of learning (Joyce & Showers, 2002); they wanted to talk about and through their teaching with another educator.

The Role of Student Teaching Mentors in Learning to Teach

Nancy, Renee, and Tina were each part of professional development study groups that aimed to support them in educative mentoring practices (Stanulis et al., 2018). The mentors worked to provide the novices with focused feedback that supported the novice in their growth as educators. They worked with the novices to set learning goals and to provide evidence from observations (in the form of focused feedback) to support the student teachers in monitoring their progress and indicate what additional supports would be beneficial.

Not all feedback is powerful. The novices recognized what type of feedback was helpful and what was not. For example, Katie did not find a verbatim script of her own lesson as a helpful tool to reflect and improve. Specific feedback helps to improve practice (Anast-May et al., 2011; Feeney, 2007; Hudson, 2016). When the mentor focused in on something specific, such as pacing or student engagement, and returned to this focus, the novices were able to identify ways to improve their instruction and act on it. Goal setting and progress monitoring that come from feedback are powerful for learning and growth (Anast-May et al., 2011; Feeney, 2007). It was particularly helpful when the mentors provided concrete evidence as data to support their feedback. Abby recognized this, as evident from her comment that she wanted "this type [video evidence] of focused, clear, constructive feedback AS MUCH AS POSSIBLE" (Written Reflection, March 2016). The "*as much as possible"* language highlights the value novices placed on feedback they received and on the role they saw it to play in becoming a better teacher.

Feedback became a natural part of student teaching; it was not something they received only when there were problems. Instead, feedback was normalized as part of the process of learning to teach. The feedback they received supported a growth-mindset and placed value on reflection as means of growth (Schön, 1987). It also supported their self-regulation (Hattie & Timperley, 2007; Paris & Winograd, 1990). For example, Heather decided to video tape herself as a first year teacher to more closely examine and reflect on her instructional moves. She drew on this strategy from experience with video taping during teacher preparation as a means of reflection. She was able to monitor her own progress and evaluate her abilities, rather than need outside feedback (Hattie & Timperley, 2007).

As first year teachers, the novices drew on the feedback they received from their mentor teachers. In Katie's case, she did this because of absence of feedback in her new environment. In Heather and Abby's cases, they drew on it in addition to current feedback they received. This reflects the value of educative mentoring (i.e., Feiman-Nemser 1998, 2001b; Kemmis et al., 2014) and suggests targeted, goal-oriented feedback during student teaching supports novices as they continue to learn to teach, a complex endeavor (Grossman et al., 2009; National Board for Professional Teaching Standards, 2002; Shulman, 1986).

The Value of Learning With and From Others

The beginning teachers recognized they were still learning to teach (Feiman-Nemser, 1998). They saw the value of feedback (Hagger et al., 2011; Wang et al., 2008), community (Andrews et al., 2007; Fox & Wilson, 2015), and collaboration (Andrews et al., 2007; Wang et al., 2008) in this process. In this way, they understood learning to teach to be a social endeavor (Werstch, 1991). They valued learning with and from others (Hammerness et al., 2005).

Each participant reached out to others during their first year teaching to talk about teaching. Abby utilized her instructional coach. Heather talked to her mentor, paraprofessional, and administrators. Katie drew on her aunt, roommate, and university field instructor. As new teachers, they wanted more than just resources (such as hand-me-down centers and curricula guides the participants received from their mentors and other colleagues); they wanted community. Though they found these tools helpful, they did not find them to be sufficient induction support.

Abby, Heather, and Katie viewed talking with someone else about their practice as helpful in reflecting on practice. They saw reflection as social (Brandt, 2008). Others could provide a listening ear, probing questions, or observational evidence to spur their reflection.

Across the data, it is clear the novices craved feedback; regardless of how much they received (which varied based on their induction experiences), they wanted more. By reaching out to others for feedback, they made their commitment to learning evident (Hagger et al., 2011). These novices opened themselves and their practice to others. They kept their doors open. They recognized their own status as a beginner learning a craft. They looked to their community to help them learn and grow.

Concluding Insights

Findings from this study illustrate ways in which novice educators drew on feedback they received from their student teaching mentors during their first year teaching. Feedback that was powerful for their learning and growth, or educative feedback, included the following features: it was focused, specific, frequent, growth/goal oriented, and individualized. This study adds to current literature on feedback and mentoring by taking a longitudinal look at the possible influences of mentoring during student teaching and supporting the benefits of focused, frequent feedback to novice educators.

Being a new teacher can be an isolating experience (Sabar, 2004; Scherff, 2008; Stanulis et al., 2002), and it seems novices are placed in less than ideal conditions when structures carefully set in place during their student teaching to help them grow as educators, such as collaborative learning opportunities and feedback, are removed (Andrews et al., 2007). When novices are taught that in order to grow, they have a lot to learn from others, it may become problematic when they have their own classroom and no longer have a community in which to learn (Andrews et al., 2007). While each novice did have a formal mentor assigned during their first year of teaching, providing instructional feedback was not officially part of their duties. Though logistically complicated, it seems this is a lost opportunity (Valencia et al., 2009).

Feedback does not need to come from a mentor, but this seems like a logical structure, as they are formally assigned and already part of the induction experience.

It is important for teacher preparation programs and school district induction programs to consider how to better support novices as they move from teacher preparation to induction, such as by offering formal training for assigned mentor teachers on how to provide focused feedback or it could involve continuing university involvement as the novice begins her career. Additionally, this research suggests the value pre-service mentoring can play in novices' instruction early in their careers, even after they are no longer student teachers in their mentors' room. An implication of this is that student teaching mentors can benefit from training and support, like the mentor teacher professional development study groups of which these mentors were a part, in order to enact their role in educative ways (Stanulis et al., 2018).

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CHAPTER FOUR—"EMPOWERING HER" INSTEAD OF "CRUSHING AN IDEA": HOW ONE MENTOR TEACHER PROMOTED LIFELONG LEARNING BY LETTING A BEGINNING TEACHER CHANGE CLASSROOM SEATING

She came to me and said she wanted to try [a new seating arrangement with cooperative] groupings. I said no. I said I've really studied it in depth...I don't feel good about it. I feel good with them [facing] the front. It was Renee's[6] 25th year teaching and 15th time hosting a student teacher. Heather, her student teacher, asked if she could change the seating arrangement from rows to collaborative groups of five. Renee said no. She had tried group seating in the past and it had not been successful. Pupils became too chatty, they could not see the board, and it was challenging to accommodate the behavior needs in the classroom. Then, Renee went home and slept on it. She came back the next day and told Heather she could try it, though even as she said it, she could not quite believe she was doing it. Yet, she reminded herself, *I'm empowering her instead of putting my thumb on her and crushing an idea*. Renee decided that this was the prime opportunity to let Heather experiment with something different; Renee, with her 25 years of teaching experience, was still in the classroom and available for support. Could there be a safer environment for trying something new?

As Renee explained, being a mentor teacher to a student teacher is *more than just having them shadow me and be a mini-me,* it is about creating a space that allows the beginning teacher the chance to experiment and also model that even expert teachers always have more to learn. The beliefs and practices of the mentor teacher matter; it is important for beginning teachers to see first hand that even experienced teachers believe teaching involves a continuous process of learning and improving. This article is about what beginning teachers have the potential to learn

[6] All names are pseudonyms.

from their mentor teachers when mentors are committed to "empowering" instead of "crushing an idea." I center this piece around Renee and Heather's experiences with moving desks to provide a concrete example of the power in mentor teachers being open minded and taking the stance of a life-long learner.

This Story

This is the story of Renee (mentor teacher) and Heather (student teacher). Heather spent August 2015 through April 2106 learning with and from Renee at a K-4 school in a rural Midwest town. There were 26 pupils in their third grade class, of whom 38% received free or reduced meals and 27% were pupils of color. In addition to my role as a researcher, during the year I was Heather's university field supervisor and facilitated monthly professional development focused on mentoring practices with Renee. This role allowed me to be in their classroom about once a week and become immersed in the experiences of both participants. Through interviews, written reflections, and recorded conversations, I retell Heather and Renee's story. In some places I retell the story from my perspective, in others I utilize italics to denote the precise language they used. This article is divided into two parts, one about the mentor teacher providing beginning teachers the opportunity to experiment and the other about mentors being open to learning in their own teaching practice. I suggest both of these pieces are important in providing the beginning teacher with powerful learning opportunities to instill a belief of lifelong learning (Figure 1).

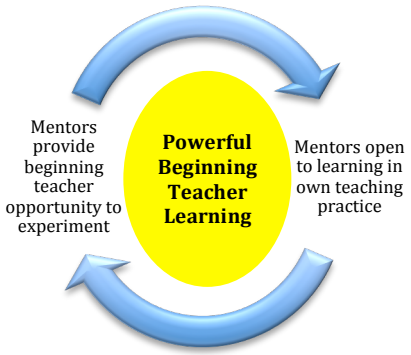

Figure 1 Mentors Create Powerful Learning Opportunities for Beginning Teachers.

Being an Educative Mentor

Mentor teachers are significant in the learning to teach process of beginning teachers; this goes beyond learning classroom management strategies and providing emotional support for which beginning teachers are grateful. Educative mentors are those who understand the process of teacher learning and create growth-producing experiences for beginning teachers (Dewey, 1938; Feiman-Nemser, 1998; Stanulis & Bell, 2017; Stanulis et al., 2018). They look toward long-term goals while also attending to more immediate needs (Feiman-Nemser, 2001). This kind of mentor sees him/herself as a teacher educator and encourages beginning teachers to use inquiry to learn from practice. Educative mentors recognize that there are multiple ways to enact practices; they give beginning teachers the opportunity to try new ideas on their own and encourage them to figure out who they are as educators (Goodwin, Roegman, & Reagan, 2016; Turner & Blackburn, 2016).

An educative mentor "helps novices learn to teach and develop the skills and dispositions to continue learning in and from their practice" (Feiman-Nemser, 1998, p. 66). This, particularly, is important, because I use Renee and Heather's example of changing seats to highlight that one way mentors can help beginning teachers develop skills and dispositions to learn "in and from" practice is by modeling their own openness to continual learning "in and from" their own

practice (Rowley, 1999). Mentors who are open to learning in their own teaching practice and provide the beginning teacher with space to develop their own practices are educative mentors. They create powerful learning opportunities for beginning teachers.

Providing Beginning Teachers the Opportunity to Experiment: *I Can Be Controlling… But I Have to Let Go*

In Their Practice: Student Teachers

This week I asked my mentor if during my lead teaching I could rearrange the desks into small groups of 5 or 6 instead of three long rows. She immediately said no… I was explaining that I wanted to try different ways to set up my classroom before I actually have my classroom so I can see what works better for me. I was a little bit discouraged that she said no. In Heather's weekly written reflection, she processed her conversation with Renee; she worked through her emotions attached to Renee's decision as well as her own rationale for wanting a seating change. It had taken courage for Heather to bring this to Renee; after all, *it's been her classroom, her environment and the way she's done it for so long and of course I come in and I'm like, 'hey, let's do this, let's change this*.' Heather understood that as the student teacher, she was a guest in Renee's classroom. She had a fine line to walk, not wanting to alter classroom norms Renee established, while at the same time hoping to use student teaching as a space to figure out what type of teacher she wanted to be.

Though Renee immediately dismissed Heather's request, she changed her mind. *I couldn't sleep that night after she said it. I just thought, 'nobody has ever asked me that before.' I don't think anybody has ever felt comfortable enough to say, 'can I do this?' I thought, 'you know what, this is what you need to learn here. If you're going to let her experiment with this and you're going let her try this, and if you have confidence in her, hey, if after a week this thing*

does not work, I'm going to say, we need to re-look at… let her experiment with it. You're still here to watch. You're still here.' Renee was at first resistant to change, but then realized that she needed to *relinquish some control*. Between being asked to change seats and actually changing the seats, Renee attended two mentor professional development meeting; conversation in these touched on the idea of creating a space conducive to beginning teacher learning and letting beginning teachers experiment. This suggests Renee internalized something from these meetings which may have changed her stance. She started to see her role as that of an educative mentor, one who could not only provide a safe space for a beginning teacher to try something different, but who could also support the beginning teacher in trying out her ideas. Renee was still in the classroom and had the ability to reflect alongside Heather about the success of the new arrangements. She could guide Heather through the process of trying something new and determining its success.

A few weeks later, Heather wrote the following in her reflection: *Today after school, we changed desks into groups!!!!!!! I am so happy!!!! I can tell my mentor felt a little uneasy after school, but I am really excited for this… I am really nervous about the set up, since our students have never had groups, but I think this will be a really good trial for me to see how I like group-set ups. I think this will go a lot better with my teaching style, because I like to do a lot of "turn and talks" and group work.* She wanted to change desks to allow for more collaborative learning and peer conversation; it aligned with her philosophy of teaching. She felt safe under Renee's guidance, and saw her classroom as the prime opportunity to try out her vision.

Desks remained in groups throughout the remainder of Heather's student teaching experience. Heather found herself teaching in ways that utilized collaborative learning and felt she found a teaching style that worked for. At the end of the year, Heather reflected on how

Renee provided space for her learning as a teacher. *There were times when she didn't always agree with what I was doing, but always let me try things out and try new things. If she wasn't as open minded, I feel that I would have struggled more to find who I am as a teacher. Through my trials and errors with trying new things, I was able to see what works and what doesn't work with my teaching style.* Changing seats symbolized a lot more than physically moving desks; this was about being open to change and giving the beginning teacher the place to figure out who they are.

In Your Practice: Mentor Teachers

As mentor teachers, your primary goal is to provide beginning teachers growth-producing learning experiences (Dewey, 1938; Feiman-Nemser, 1998). This includes providing an environment where the beginning teacher feels safe to experiment. Being under the guidance of an experienced teacher is the ideal time to try instructional strategies, behavior management techniques, organizational structures, etc. that the beginning teacher may have read about in their teacher preparation courses, seen during field observations, or remembered from their time as pupils. Try not to let your prior experience dampen their desire to try. Instead, use your experience to help craft questions so the beginning teacher can dig deeper into what new practices they hope to do, why they want to try the practices, and how enacting the practices may be challenging. Use your experience to reflect with the beginning teacher as they are trying something new; give them the space to process and debrief.

Providing beginning teachers the opportunity to experiment is not a free-for-all. It does not mean they should continue with a practice that is unsuccessful; pupil learning is the priority. It is also not about walking to the teachers' lounge and giving the beginning teacher free reign of the classroom; it is about supporting the beginning teacher as they experiment with new

practices, helping them problem solve, process, and reflect. In Table 9, I break down features of providing beginning teachers with the opportunity to experiment and I provide examples of ways you might show openness to learning as an educative mentor.

Table 9
Providing Beginning Teachers the Opportunity to Experiment

What it *does* look like	What it *does not* look like
• Questioning yourself regarding why you are hesitant to let the beginning teacher try something new • Asking questions that encourage the beginning teacher to consider *why* they are trying a practice, *what* challenges they think they will confront, and *how* they imagine the practice to look • Debriefing and reflecting with the beginning teacher to examine the success of the new practices • Providing advice from your own experience as an experienced teacher	• Giving your opinion *before* the beginning teacher explains their vision and rationale • Sitting at your desk, watching the beginning teacher try something new • Spending the day in the lounge to give the beginning teacher space to experiment • Letting the beginning teacher continue experimenting with practices that are interfering with pupil learning
Example Ways to Show Openness Allow the beginning teacher to: • Change pupil seating arrangements, classroom lighting, decor • Try centers for instruction you have not use them for or arrange centers in a different manner • Write the first draft of email responses to parents • Add an instructional sequence to the day • Select the read alouds • Change the instructional activities to reach the same learning objective • Experiment with classroom management techniques or try new attention-getters • Use technology in new and different ways	

Being Open to Learning in One's Own Teaching Practice: *If I Don't Learn From These New Teachers Coming in at This Point, Then I'm Missing Out on Something Valuable… I'm Learning That You Can Learn New Things*

In Their Practice: Student Teachers

In February, Heather moved the desks into cooperative groups. In April she finished student teaching. In May, three weeks after student teaching ended, Heather was back to visit

Renee. The desks were still in groups, though Renee had rearranged the students. When Heather walked in, Renee exclaimed, *Look, they're still in groups!* It was not that it was easier to just leave the desks as is; instead, Renee had rearranged the seats, but kept them in groups. *Practices have changed for me, knowing what's been important for Heather has made me grow in certain areas… It has changed me and made me a better educator… I changed the seating chart this year and I said I would never do that.* Though Renee was uncomfortable with change and wanted to stay with what she knew to be successful, she went out of her comfort zone to learn with Heather, and ended up changing her own beliefs as well as empowering Heather.

Renee's decision was meaningful to Heather. *It's really cool to see how me wanting to try new things also helps her and her teaching… I'm kind of making a difference!* Being a new teacher is filled with a lot of uncertainty—of self, of practices, of abilities, etc. Seeing a move she made stick in her mentor's practice was powerful; it gave Heather confidence. *It showed me that being a teacher, you really need to be able to step outside of your comfort zone. Renee allowed me to take the classroom in a different direction than she had anticipated, and she said she learned a lot from it. I need to know that I need to be sure to stay open minded and be open for change, because it might benefit my students in the long run, not just myself.* Renee's openness to learning means more than pupils sitting in groups of five; to Heather, it demonstrated that, even after 25 years of teaching, a teacher still grows, changes, and improves. Though the status quo may work, there is always the opportunity to learn. What a powerful message with which to begin a teaching career!

In Your Practice: Mentor Teachers

Educative mentors continue to learn in and from their own practice (Rowley, 1999). They are lifelong learners who continually strive to be better. Renee stated, *I'm learning that you can*

learn new things. This may include revising lesson plans from day to day, introducing new technology, implementing ideas from professional learning, joining or leading a lunchtime book club, or re-teaching lessons that were unsuccessful (see Table 10). Additionally, there is much to learn from working with beginning teachers. Beginning teachers bring research on current best practices into your classroom as they try to put theory from their teacher preparation coursework into action. Beginning teachers are eager to experiment and recognize failure is part of the learning process. They know it is hard work and are willing to put in the time. As a mentor teacher, this provides many opportunities to learn both from and alongside them (Weasmer & Woods, 2003).

Beyond specific instructional practices mentor teachers may learn from new teachers, hosting a student teacher can increase the amount of reflection-on-practice in which the experienced teacher engages (Weasmer & Woods, 2003). Explaining the what, why, and how of instructional decisions you make to a beginning teacher makes you reconsider your reasoning. In the process of sharing your pedagogy, planning process, reasons for assessing, and classroom management strategies to a beginning teacher, you likely will find yourself reflecting on the rationale and effectiveness of these practices. When mentors are open to their own growth, they help model for beginning teachers the importance of continual learning in and from practice (Feiman-Nemser, 1998).

Table 10
Ways to Demonstrate Teachers Are Lifelong Learners

Actions to Take	Language to Use
• Implement a new practice after attending professional development • Orally reflect on changes you make—explaining what you did and why you did it	• I am doing this differently than I did it last year because… • I have been wanting to try ____ because…

Table 10 (cont'd)

• Try technology you are not familiar with; explain your process and reasoning. • Re-teach a lesson that was not successful; make your thinking visible to your student teacher in this process • Ask your student teacher to observe you teach, collect data on your practice (who you do/do not call on, engagement strategies you use, etc.), and acknowledge areas in which you would like to improve	• I know that lesson I taught did not go as planned because … • I wonder how pupils would do if I tried ____ instead of …. • I like how you (student teacher) did ____; I think I will try that, too. • Something I am working on in my practice this year is ____ because …

Instilling an Openness to Continual Learning

I wanted to try different things. I wanted to explore. Renee made me think about it a little deeper to make sure I was sure about my decisions. She pushed me to think about why I was doing what I was doing. I learned so much from her and she also learned from me. Heather remembered the lessons she learned from Renee and carried it with her into her own practice as a first year teacher. Working with an educative mentor can make a difference in the instructional practices of beginning teachers.

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CHAPTER FIVE--EPILOGUE

I feel privileged three novice teachers allowed me to become part of their learning to teach journeys. Watching as their practices changed, they gained confidence, and became their own was an empowering learning experience for me. Across the chapters of this dissertation, I have argued that the mentor teachers with whom these novice teachers worked were important to their development as educators. I have maintained relationships with the research participants beyond this dissertation, and continue to see influences of mentoring in their planning processes, instruction, and reflection. In our conversations even today, as they finish their second year teaching, they refer back to moments of learning their mentors facilitated; Heather still talks about Renee allowing her to change the seating arrangement; Katie uses intentional student engagement strategies that Nancy worked hard to instill; and Abby continues to be a staunch supporter and user of small groups (designed using evidence of student understanding, as modeled by Tina) to best meet the needs of her learners.

The mentor teachers engaged in a different kind of mentoring after participating in monthly professional development (Stanulis et al., 2018). The learning opportunities the mentors created for their student teachers came out of the experiences they had in professional development. As they learned to become more educative in their work with their student teachers, the mentoring activities they engaged in with their student teachers changed and their conversations shifted. Across the chapters, but particularly in chapters two and four, I have argued that the instructional practices the novices were able to enact as student teachers and first year teachers are evidence of impactful educating mentoring. As I explored in chapter three, the support novices received as first year teachers varied, and the novices were able to draw on powerful mentoring they had received during student teaching to support even when they are on their own. These overall findings demonstrate the importance of supporting and preparing mentor teachers in order for novices to experience optimal opportunities to grow.

I continue to wonder what, specifically, it was about the professional development these mentors participated in that was powerful. With a clearer understanding of this, it would be

possible to develop and implement mentoring curricula more widely. This also calls to attention scalability and ways to draw on teacher leaders for sustaining mentor support. Additionally, though I tried my best to hear and honor their voices, I am interested in how these findings would be different had I engaged the mentors and novices as co-researchers. As I continue working with student teachers and their mentors, I envision participatory action research to look at ways to support mentors and novices in teaching for social justice. In all of my work, I will work to address the question, what can *I* do to support the development of beginning teachers?

APPENDICES

APPENDIX A

Sample Student Teacher Reflection Questions

Please respond to at least *five* out of the eight questions/prompts below.

1) What was effective about your instruction this week? (List or explain a few strengths)
2) What could be improved? (List or explain a few specific areas you will focus on for next week)
3) What did you learn about the process of teaching this week?
4) What did you learn about managing student learning?
5) Discuss/share feedback (from students, assessments, your mentor teacher, or field instructor) that was insightful or helpful to your reflection on teaching experiences this week.
6) List three interactions you had with students this week that intrigued, surprised, or impressed you. (Share the quote/interaction and what it made you think about)
7) What additional support (from the university, your mentor teacher, field instructor, or peers) would be helpful in your learning/teaching process right now?
8) Anything else you wish to share/ask!

APPENDIX B

Student Teacher Semi-Structured Interview

1. In your opinion, what makes a good mentor?
   - Describe the important traits/characteristics.
   - What practices does a mentor do to support you as a novice educator?
   - What did your mentor do/say/etc. that most supported you in your learning?

2. From your perspective, what was the mentor study group project?
   - What did the mentor teachers learn/discuss?
   - What was the purpose of these study group sessions?

3. How often did you and your mentor co-plan?
   - Describe what this typically looked like.
   - What was helpful about this practice?

4. How often did your mentor complete focused observations on your instruction and sit with you to have a focused debriefing?
   - Describe what this typically looked like.
   - What was helpful about this practice?
   - How did your mentor select the focus of the observation?

5. How often did you and your mentor together analyze student work?
   - Describe what this typically looked like.
   - What was helpful about this practice?

6. This year, what has influenced the way you learn from your teaching experiences?

7. This year, what has influenced the way you plan for instruction?

8. This year, what has influenced the development of your instructional practices?

9. How do you see the relationship of mentor teacher, student teacher, field instructor, and study group community to benefit each other?

10. What advice would you give to future mentor teachers about how to best support their student teacher as they become novice educators?

APPENDIX C

Pre-Observation Questions for Novice Teacher (E-mail)

Could you tell me a little bit about what I will be observing?

- What decisions did you make during the planning of this lesson?
- Where did the ideas come from? What changes did you make from the original source? Why?
- What is the learning objective for the students? Why does this seem reasonable/appropriate?

APPENDIX D

Novice Teacher Semi-Structured Interview Protocol

I. **General**:
1. Who do you go to when you have questions, need reassurance, want to trouble shoot, etc.? Why?
2. How are you different as an educator now than you were a month ago, a year ago…? What do you attribute this to?
3. What is most challenging about being a new teacher?
4. What is most exciting/rewarding?

II. **Planning**:
1. Describe what the lesson planning process looks/sounds like.
2. What resources (things and/or people) do you utilize to help you plan? Why?
3. What has influenced the way you plan for instruction?

III. **Observations/Receiving Feedback**:
1. With what frequency are you observed and receive feedback? From whom? With what frequency with you like this to occur? From whom would you like to be observed?
2. What type of feedback do you receive? How do you use this?
3. What type of feedback would you like to receive? How would you like to use it?
4. How does this practice compare to observations/debriefings you had with your mentor teacher last year? Explain.
5. When no one is observing you, what is your typical post-lesson (internal) reflection like? What questions do you ask yourself? What do you use as evidence? Where did those questions come from?

IV. **Analyzing Student Work**:
1. How often do you analyze student work?
2. What does this is typically look like? Talk me through the process.
3. What is helpful about this practice? What do you learn? How do you use this new knowledge? Give me an example.
4. How does this practice compare to when you analyzed student work with your mentor teacher last year? Explain.

V. **Thinking back to last year….**
1. What did your mentor do/say/etc. that most supported you in your learning?
2. In your teaching now, what parts of your mentor teacher do you see?
3. What specific ideas show up/are evident in your teaching practice now because of your work with your mentor?
    1. Plan
    2. Assess
    3. Talk to kids
    4. Reflect

REFERENCES

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