

The Simultaneity of Beginning Teachers' Practical Intentions

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Teachers use their practical intentions – their in-the-moment goals and concerns – to craft their spontaneous classroom decisions. This research study explored the content of (and relationship between) beginning teachers' practical intentions by asking six student teachers in mathematics to participate in a stimulated recall interview of their teaching. These interviews were analyzed for the different practical intentions that teachers articulated as having experienced as they taught. Four prominent categories of practical intentions were found: the desire to maintain lesson momentum; the desire to cover content; the desire to support student needs; and the desire to foster independent student thinking. Furthermore, it was found that different practical intentions often occurred simultaneously, as teachers often expressed the desire to achieve multiple instructional goals within a given moment of instruction. Implications for teacher education are discussed.

All teachers are forced to make spontaneous decisions in the classroom (Wasserman, 1999). Of course, no algorithmic approach to teaching exists, thus, teachers must develop their own set of “practical intentions”—i.e., teachers' in-the-moment goals and concerns—to direct their attention as they teach (Kennedy, 2004). Rather than analytically search for optimal solutions in the face of challenging classroom situations (cf. Peterson & Clark, 1978), teachers marshal their in-the-moment goals and concerns to construct pragmatic, “good enough” solutions to the particular problem at hand (Gholami & Husu, 2010).

While this spontaneous process of decision-making is required of all teachers, beginning teachers, in particular, may find this work especially challenging, given that they are still developing their understandings of what it means to “be a teacher” (Poulou, 2007). Beginning teachers may enter the field with reductive notions of teaching (Feiman-Nemser & Buchmann, 1985), only to be overwhelmed by the multidimensional demands placed upon them as classroom teaching unfolds in real time (Doyle, 1977; Moos & Pitton, 2013).

The current research study was designed to investigate the nature of beginning teachers' practical intentions. Specifically, it addresses the question, *what are the in-the-moment goals and concerns that preoccupy beginning teachers as they teach, and what relationships emerge among these simultaneous practical intentions?* I begin by describing the multiplicity of practical intentions that these teachers may hold, which I map into the two broad categories of *teacher-centered* and *student-centered* instruction. I follow by describing the methodology for this study, in which the classroom decisions of six mathematics student teachers were explored. The results reveal the simultaneity with

which practical intentions occur—that is, student teachers seem to experience a multiplicity of practical intentions within individual moments of decision. This exploration is significant, for, if teacher educators wish to support student teachers towards developing particular classroom practices, teacher educators must first understand how student teachers experience their own practical intentions.

Multiplicity and Simultaneity in Classroom Decision-Making

Kennedy (2004) grouped teachers' practical intentions into six categories: covering content and learning outcomes; fostering student learning; maintaining lesson momentum; increasing student willingness to participate; cultivating a classroom community; and satisfying the personal needs of the teacher (p. 25). Significantly, Kennedy underscores the fact that, at any given time, a teacher may be trying to fulfill multiple intentions and that the accomplishment of any one instructional goal often gives rise to a new instructional dilemma (see also Lampert, 2001). In this way, teaching can be characterized as a perpetual balancing of competing practical intentions.

For example, teachers may have the intention of inviting students to engage in autonomous intellectual inquiry; yet, teachers may simultaneously have the intention of leading students towards the mastery of predetermined learning objectives (Hammer, 1997; Herbst, 2002). At the same time, time constraints may limit the depth and breadth with which intellectual ideas can be pursued (McCaslin & Good, 1992; Parker & Gehrke, 1986). Therefore, as they teach, teachers must continuously negotiate between fostering student independent thinking, guiding students towards the lesson's predetermined learning outcome, and maintaining lesson momentum so that all of this is achieved in a timely fashion.

As another example, teachers may want to serve as authority figures while simultaneously maintaining friendly relationships with their students (Aultman, Williams-Johnson, & Schutz, 2009; Friedman, 2006). Teachers must somehow craft their instantaneous decisions in such a way that they are able to maintain control of a lesson's direction while still satisfying their desire for positive teacher-student relationships. Teachers who fail to achieve this balance may become excessively autocratic or, alternately, excessively submissive (Riley, 2011), both being outcomes that have been found to negatively affect student academic engagement and achievement (Lee, 2012; Walker, 2009). In this way, teachers must perpetually balance a variety of practical intentions. One way to conceptualize this balancing act is to regard it in terms of maintaining the teacher's agenda while remaining sensitive to one's students.

Teacher-Centered and Student-Centered Practical Intentions

I use the term *teacher-centered* to represent instructional practices that follow from a teacher's agenda, with little or no input from students; in contrast, I use the term *student-centered* to represent instructional practices that emphasize the continuous assessment of student thinking (Hiebert, Morris, Berk, & Jansen, 2007), the cultivation of student

autonomy (Reeve, 2009), and the development of caring teacher-student relationships (Noddings, 1992).

There are a number of forces that make it difficult for beginning teachers to adopt a student-centered approach to classroom practice. First, most preservice teachers have had extensive experience in teacher-centered classrooms (including their teacher education classrooms). On account of this previous socialization, preservice teachers filter what they learn about student-centered instructional practices through their teacher-centered schema for teaching (Borko & Putnam, 1996; Holt-Reynolds, 1992). Second, the predominant cultural image of teachers as behavior-controllers and knowledge-experts, coupled with a policy landscape of high-stakes testing and teacher accountability, discourages beginning teachers from relaxing their classroom control (Britzman, 2003; Cuban, 2007). Third, finding a workable balance between teacher control and student autonomy is, inescapably, one of the fundamental dilemmas of teaching (Cohen, 2011; Windschitl, 2002). Specifically, the more students govern the direction of classroom discourse and the structure of classroom activities, the more uncertainty enters into the classroom. Some teachers may not feel comfortable making themselves vulnerable to these uncertainties (Helsing, 2007). There are, therefore, a number of forces that push and pull beginning teachers between these two poles of practice (i.e., teacher-centered and student-centered instruction). As a result, beginning teachers, who are still in the process of working out what it means to be a teacher (Bullough, Knowles, & Crow, 1992; Poulou, 2007), may vacillate between these two approaches to instruction.

This vacillation has, in past research, been operationalized as a process of longitudinal development related to a beginning teacher's professional identity (Beijaard, Meijer, & Verloop, 2004; Flores & Day, 2006). Such research has examined identity development, and its related tensions, over the course of months and years (e.g., Pillen, den Brok, & Beijaard, 2013), rather than examine how particular tensions inherent to teaching manifest themselves within instantaneous classroom decisions. While longitudinal research helps to illustrate the tensions that develop within a teacher's practice over time, it is not yet known how beginning teachers' practical intentions (i.e., their in-the-moment classroom goals and concerns) might illuminate the way in which beginning teachers, while in the act of teaching, negotiate between their divergent ambitions.

The current study investigated the multiple practical intentions that student teachers perceive themselves having while in the act of teaching. This study adds to the literature by investigating how multiple, potentially conflicting goals (in particular, teacher-centered and student-centered intentions) are experienced in the context of student teachers' classroom thinking. The research questions for this study were as follows:

1. What are the practical intentions that preoccupy student teachers as they teach?
2. What relationships emerge among these simultaneous practical intentions?

Methods

Participants

The study involved six student teachers¹ concurrently enrolled in the fifth year of their teacher education program at a large Midwestern university, during which they were completing their yearlong internship of student teaching under the guidance of a mentor teacher. It was important to sample teachers who were teaching similar courses, given that tacit expectations for teaching a certain course may influence teachers' goals and decision-making (see Herbst & Chazan, 2011). Thus, the sampling frame included secondary mathematics student teachers teaching an introductory Algebra course (either at the high school or middle school level). These participants (each teaching at a different school) were recruited via a volunteer sample. All of the teachers were White (two female, four male) and were under 25 years old.

Observation and Interview Procedures

The aim of this research was for teachers to describe the goals and concerns they perceived themselves as having experienced during their classroom instruction. Capturing such experience presents a challenge, however; not only is it impractical to request a teacher to think aloud while simultaneously teaching, requirements to explain thinking while engaged in problem-solving may overload short-term memory and negatively affect performance (Ericsson & Simon, 1993). As an alternative, educational research has employed the technique of "stimulated recall," a retroactive procedure "in which teachers view videotaped recordings...of their teaching and respond to questions about their thinking, perceptions, decisions, and intentions" (Clark, 1988, p. 8). Stimulated recall, thus, allows researchers some measure of insight into the "covert mental activities that accompanied the overt behavior" (Shavelson, 1983, p. 407).

In this study, I observed and video-recorded a lesson taught by each teacher participant. Care was taken to make sure that the recording always captured the actions of the teacher. During the observation, I also took double-entry field notes, recording both observations and personal reactions, in order to highlight salient moments in which I inferred that the teacher was being compelled to make a decision (e.g., students were off-task, students expressed confusion, there was an unexpected classroom interruption). This account was used to highlight additional moments upon which to focus during the stimulated recall interview.

Immediately following each lesson, the teacher and I jointly watched the video recording of the lesson. The teacher was instructed to stop the tape whenever he or she encountered a moment of interest. The following directions were read at the beginning of each interview (adapted from Kennedy, 2005):

¹ All teacher names referred to in this study are pseudonyms.

Please stop the tape when you remember an instance of your teaching that was particularly interesting or important to you. These might be times when something unexpected happened, when you suddenly had an insight into what was happening, when you were uncertain about to what to do next, or when you felt feelings of worry or frustration. I will also stop the tape to ask you about moments that I found to be interesting while observing the lesson.

During each moment the recording was stopped, the teacher was asked to describe the thoughts, feelings, and intentions that they experienced as the given moment was unfolding. A semi-structured protocol helped to orient the interview towards capturing data that would serve to address the two proposed research questions (see Table 1). The questions that emerged during the course of the interview did not necessarily follow this protocol systematically; instead, the protocol was consulted in order to provide the interview with an overall direction (Weiss, 1994).

Table 1

Interview guide for semi-structured interview during stimulated recall procedure

Research questions addressed	Topic within interview	Possible interview questions
What are the practical intentions of student teachers that preoccupy them as they teach?	Teachers' concurrent thoughts about the given instructional moment and their goals and concerns	What did you see at this moment? What were you thinking at this moment? What were you feeling at this moment? What were you trying to accomplish at this moment? Was there anything unexpected about this moment?
What relationships emerge among the simultaneous practical intentions?	Teachers' perception of conflict between their multiple goals and concerns	Why do you think that this concern was significant for you? Why do you think this moment made you anxious? Uncertain? Frustrated? Were you considering any other alternatives in the moment?

Method of Data Analysis

In order to prepare the data for analysis, the stimulated recall interviews were transcribed, and passages in which teachers discussed in-the-moment thinking were identified. These passages stand in contrast to those in which teachers discussed what they have tried in the past ("Something that I have tried before is...") or insights that occurred to them while watching and discussing the video of the classroom lesson ("Watching it now, I realize

that I should have...”). Teachers’ reflections that referred to the same classroom moment (i.e., the same teacher decision upon which the video-recording was paused) were grouped together into one aggregate passage, which I refer to as a “reflective episode.” Table 2 displays the number of reflective episodes identified for each teacher.

Table 2
Number of reflective episodes from each teacher interview

Teacher	Reflective Episodes
Mackenzie	18
Brandon	28
Ethan	26
Hayden	20
Olivia	10
Zoe	25

Data analysis consisted of constructing theories from the teacher interviews using a grounded approach (Strauss & Corbin, 1998). Tentative theories were proposed throughout the process of data collection, and continual attempts were made to connect the various features of classroom experience that the participants described. Each reflective episode was analyzed for phrases and sentences that expressed teachers’ in-the-moment goals and concerns, usually signaled by phrases such as “I want to...”, “I hope to...”, “I am trying to...”, “I worry about...”, “I am concerned that...”, or “It causes me anxiety when...”. The goals and concerns that teachers articulated within each reflective episode were coded using an iterative analysis. As the result of this analysis, four unique codes for the articulated practical intentions were identified (see Results section). Each reflective episode was subsequently coded for the practical intentions articulated within it (allowing for the possibility that any one reflective episode might contain multiple practical intentions).

The reliability of these codes was established with a colleague. After discussing the initial definitions for each code, the colleague and I jointly coded 30 reflective episodes (comprising approximately 30% of the transcript text), and arrived at 63% agreement in terms of which practical intentions were articulated within each reflective episode. Based upon deliberation over coding disagreements within these reflective episodes, the coding definitions were revised. We then coded an additional ten reflective passages (comprising approximately 10% of the transcript text) and reached 92% agreement. All data was subsequently recoded based upon these new code definitions.

Results

Content of Student Teachers’ Practical Intentions

Four categories of practical intentions emerged from the interview transcript data. Kennedy’s (2004) concepts of “maintaining momentum” and “content coverage” (p. 25) were particularly helpful during the analysis of the data. Kennedy’s (2004) categories of

practical intentions, however, did not capture the practical intentions expressed by the six teachers in the current study, and, thus, the following four codes were derived.

Practical Intention 1: Maintaining lesson momentum. This code reflects teachers' desire to have students engaged in appropriate classroom activities in an efficient manner. This includes the desire to keep students on task, to manage the classroom space, and to manage time purposefully. For example:

- “I wanted to avoid, you know, them [the students] having a lot of time to just sit there.” (Zoe)
- “I was still trying to quiet everyone down.” (Brandon)
- “I’m trying not to spend too much time at any one particular group, because I’m trying to have some sort of like omnipresence in the room.” (Ethan)
- “I looked at the clock and, like, hey, we need to get through this.” (Mackenzie)

Practical Intention 2: Achieving lesson objectives and academic goals. This code reflects teachers' desire to pursue and achieve specific learning outcomes. This includes the desire to cover specific content, to assess students' progress, and to decide which problems to discuss or assign in the interest of advancing students towards a specific learning objective. For example:

- “I kind of like have an agenda in my head of things I want to highlight.” (Zoe)
- “[I want to] have a good class discussion that covers...[the] key points.” (Zoe)
- “[I want the students to] see it [the mathematical procedure]...see it over again and get used to it.” (Brandon)
- “I was starting to feel like, oh, okay, we need some way to check this to see if people are understanding [this concept].” (Hayden)

Practical Intention 3: Supporting student needs and achieving affective goals. This code reflects teachers' desire to address students' personal and individualized needs (both academic and emotional). This includes the desire to cultivate rapport and a personal relationship with students, to minimize the student anxiety or frustration associated with student confusion, to maximize student confidence, and to foster particular student attitudes (such as curiosity, perseverance, responsibility, and identification with the content). For example:

- “I also want them to see me as a person rather than just someone providing math instruction.” (Mackenzie)
- “I wish we could just sit here and talk all hour [about non-academic things] instead of doing [math-related] stuff.” (Olivia)
- “I think more stressful for me is to know that the students are feeling confident going into the test.” (Mackenzie)
- “I don’t want students who have questions at the end to feel like, “I still don’t get this,” after all we’ve done in class.” (Zoe)

Practical Intention 4: Fostering independent student thinking. This code reflects teachers' desire to encourage students to think independently. This includes the desire to have students construct their own understanding of the material, to have students communicate their own thinking, and to give students the opportunity to struggle productively with problems on their own. For example:

- “I didn’t want to make that connection for them, and I wanted them to make that connection.” (Mackenzie)
- “I want them to be okay with struggling and kind of having to figure things out on their own.” (Zoe)
- “I was trying to talk to them about, ‘How did you think your way through the problem?’ so maybe that would be a way to explain it to everybody else.” (Hayden)

These four codes can be broadly categorized as sets of intentions that are primarily *teacher-centered* (Practical Intention 1 and Practical Intention 2) and those that are primarily *student-centered* (Practical Intention 3 and Practical Intention 4). That is, maintaining momentum and deciding what lesson objectives to focus on are within the prerogative of the teacher, while attending to student needs, feelings, and ideas requires that the teacher be responsive to students. The frequencies and proportions of the four categories of practical intentions are presented in Table 3.

Table 3

Frequency of practical intentions articulated within each teacher interview

Teacher/ Practical Intention	1	2	3	4
Mackenzie	12 (67%)	10 (56%)	7 (39%)	6 (33%)
Brandon	19 (68%)	13 (46%)	7 (25%)	0 (0%)
Ethan	18 (69%)	11 (42%)	8 (31%)	5 (19%)
Hayden	13 (65%)	10 (50%)	5 (25%)	1 (5%)
Olivia	7 (70%)	6 (60%)	6 (60%)	0 (0%)
Zoe	19 (76%)	14 (56%)	13(52%)	9 (36%)
Total	88 (69%)	64 (50%)	46(36%)	21 (16%)

Note. Numbers within parenthesis represent the proportion of reflective episodes for each teacher that contain each practical intention. Each reflective episode can contain more than one practical intention.

Table 3 gives an impression of the prominence of each practical intention in teachers' in-the-moment thinking: Notably, the practical intention of maintaining lesson momentum (Practical Intention 1) was articulated in almost 70% of the aggregate reflective episodes, and achieving lesson objectives and academic outcomes (Practical Intention 2) was articulated in approximately 50% of the aggregate reflective episodes. These proportions are consistent with Kennedy's (2004) findings, which suggest that the majority of the practical intentions expressed by teachers tend to involve monitoring student behavior, keeping students focused, covering required content, and assessing learning outcomes. Hence, the current data serves to validate Kennedy's (2004) premise that much of teachers' mental energy tends to gravitate towards the basic elements of classroom life; in

short, keeping students engaged while covering a set amount of academic content within a limited amount of time.

Unlike the teachers in Kennedy's (2004) study, however, the six teachers in the current study also seemed to focus their mental energies very specifically on students' affective states (e.g., comfort, confidence, frustration, anxiety) and students' ability to derive and articulate ideas on their own. While the teachers in Kennedy's study also articulated these concerns, they did not articulate these categories of practical intentions as precisely and as prominently as the teachers in the current study.

Relationships between Student Teachers' Practical Intentions

In order to address the second research question concerning the relationships between practical intentions, I explored the simultaneity with which the four practical intentions occurred. Table 4 presents what proportion of the aggregate 127 reflective episodes contained the articulation of more than one unique practical intention.

Table 4

Cumulative frequency of reflective episodes that articulated multiple practical intentions

	Number of reflective episodes
At least two unique practical intentions articulated	64 (50%)
At least three unique practical intentions articulated	23 (18%)
Four unique practical intentions articulated	5 (4%)

Note. Numbers within parenthesis represent proportions (out of 127 total reflective episodes)

In their discussion of approximately half (64 out of 127) of the reflective episodes, teachers in the current study articulated multiple practical intentions in relation to the same moment of classroom practice. In a few examples, all four of the coded practical intentions were articulated. For example, Zoe explained her thinking while selecting which student solutions to present to the class:

[I'm interested in] showing anything that shows student thinking...I really like how anyone who's really still not sure [how to calculate a monthly payment] that they can see, oh, every month I'm paying it goes down it goes down it goes down, I get to zero eventually...if there's something like that, it kind of helps visual learners or conceptual learners who still kind of aren't sure what the problem is talking about so that's why I wanted to show his [solution]...[and] it seemed like the one student, she volunteered, which she doesn't normally do, so I wanted to make sure she was able to share...If I feel like we've covered various strategies, we've had multiple students explain their thinking, then we should move on, even if there are some people that are still a little "iffy." I want to make sure we have a good class discussion that covers multiple ways to represent it [the problem], multiple ways to think about it, key points, and then kind of moving on.

In this example, the teacher articulates a desire to highlight "student thinking" (Practical Intention 4) while still helping students comprehend the "key points" of the lesson (Practical Intention 2). The teacher is also mindful of her goal to cultivate students'

confidence and willingness to participate (“she volunteered, which she doesn’t normally do”; Practical Intention 3) while also concerning herself with the need to “move on, even if there are some people that are a little ‘iffy’” (Practical Intention 1). A passage such as this exemplifies the complexity of teacher thinking, even within relatively routine moments of practice.

As the passage above illustrates, practical intentions may occur simultaneously and interact by means of “on the one hand, on the other hand” reasoning (Kennedy, 2004, p. 26). In order to explore with more specificity how these four practical intentions are interdependent, Table 5 displays the conditional probability, $P(B|A)$, for each practical intention across the 127 reflective episodes. That is, given that a particular practical intention (A) is articulated within a given reflective episode, what is the probability that a second particular practical intention (B) is also articulated within the same reflective episode? The formula for this conditional probability is given by

$$P(B|A) = P(A\&B)/P(A)$$

where

$$P(A) = (\text{number of reflective episodes in which Practical Intention A is articulated}) / (\text{total number of reflective episodes}),$$

and where

$$P(A\&B) = (\text{number of reflective episodes in which Practical Intention A and Practical Intention B co-occur}) / (\text{total number of reflective episodes}).$$

Table 5

Conditional probability for each pair of the four practical intentions

P(B A)	P(A&B)	P(A)	P(B A) = P(A&B)/P(A)
P(1 3)	0.273	0.359	76%
P(1 4)	0.117	0.164	71%
P(2 4)	0.094	0.164	57%
P(2 3)	0.195	0.359	54%
P(1 2)	0.266	0.5	53%
P(3 1)	0.273	0.6875	40%
P(2 1)	0.266	0.6875	39%
P(3 2)	0.195	0.5	39%
P(3 4)	0.0625	0.164	38%
P(4 2)	0.094	0.5	19%
P(4 1)	0.117	0.6875	17%
P(4 3)	0.0625	0.359	17%

The first notable pattern in Table 5 is that Practical Intention 1 (maintaining lesson momentum) shows up prominently among these conditional probabilities: In particular, $P(1|3) = 76\%$, $P(1|4) = 71\%$, and $P(1|2) = 53\%$. This implies that if a teacher is thinking about Practical Intention 2, Practical Intention 3, or Practical Intention 4, there is a very high probability that the teacher is simultaneously thinking about Practical Intention 1. This is consistent with research that argues that beginning teachers consider bringing activities to completion (Parker & Gehrke, 1986) and remaining “in control” of the flow

of classroom events (Weinstein, 1998) as being among their primary responsibilities. What Table 5 adds to the knowledge base on teacher thinking, however, is that this practical intention tends to co-occur with other practical intentions.

For example, when teachers think about how to support a student's personal needs, teachers are, most likely, also thinking about how to maintain lesson momentum (i.e., $P(1|3) = 76\%$). Similarly, when teachers think about how to foster a student's independent thinking, teachers are, most likely, also thinking about how to remain in control of classroom events (i.e., $P(1|4) = 71\%$). Teachers may find themselves vacillating between probing students' thinking in more depth and "just getting on to the next thing" (Hayden). Teachers may want to make sure that students understand but may lament, "We just don't have time to reteach it" (Ethan). While it is well known that classroom management and classroom momentum are prominent concerns for beginning teachers, the current study illuminates that this concern with classroom management is not something that occurs independently of other instructional goals. Instead, it would appear that for a student teacher, a practical intention that focuses on content, student affect, or student thinking tends, more often than not, to occur simultaneously with the desire to maintain classroom momentum.

The second notable pattern that emerges from the data in Table 5 is that Practical Intention 3 and Practical Intention 4 tend to co-occur with Practical Intention 1 and Practical Intention 2. Student-centered intentions (i.e., Practical Intention 3 and Practical Intention 4) tended to occur simultaneously with teacher-centered intentions (i.e., Practical Intention 1 and Practical Intention 2) over 70% of the time. The six teacher participants often articulated having experienced a tension between wanting to exercise teacher control and wanting to be responsive to students' feeling and thinking (Cohen, 2011; Reeve, 2009). The results of the current study demonstrate that this tension is manifest not only as beginning teachers try to develop their professional identity (cf. Bullough, et al., 1992; Pillen, et al., 2013) but is experienced instantaneously within concrete moments of practice, as well. Within these concrete moments, teachers find themselves trying to integrate different pedagogical approaches. These results suggest that teacher-centered and student-centered practical intentions are not necessarily oppositional; rather, it would seem that, for the student teachers in the current study, these motivations tend to occur simultaneously.

Discussion: Implications for Teacher Education

The current study suggests that, while teaching, student teachers often consider divergent practical intentions simultaneously. Teacher participants who articulated motivations to foster independent student thinking and to nurture teacher-student relationships were, more often than not, simultaneously driven by concerns of time management, student behavior management, and covering the curriculum. Recognizing and accepting this double-mindedness as being characteristic of student teaching has implications for teacher education, for it would be both tragic and unproductive if student teachers were to equate the multidimensionality of their intentions with a lack of resolve or ability. For this reason, rather than glossing over the predicaments of the classroom, teacher

education should take care to describe “the nature of the conflicts and tensions [that beginning teachers experience] in ways that acknowledge the inevitability of perplexities and contradictions in teaching and learning” (Beach & Pearson, 1998, p. 349). One of teacher education’s primary roles, thus, may be helping preservice teachers to appreciate the multidimensionality and simultaneity of teaching, including the in-the-moment balancing acts that they will be expected to perform as they attempt to satisfy all of their practical intentions in the classroom.

This conclusion does not imply that teacher-centered and student-centered instructional approaches are incompatible, but, instead, underscores the need to provide student teachers with instructional moves that can satisfy multiple practical intentions simultaneously. For example, student teachers often discriminate between being directive and being caring in the classroom (e.g., being an “authority” vs. being a “friend”; see Aultman, et al., 2009; Friedman, 2006). In reality, these teacher characteristics (e.g., leadership and warmth) need not be mutually exclusive (Mainhard, Pennings, Wubbels, & Brekelmans, 2012; Walker, 2009). Teacher education can help student teachers to envision how these different intentions might work together through specific teacher actions (e.g., Fay & Funk, 1995).

A more comprehensive recommendation for teacher education is to reconsider the curricular sequence of its programs. Certain components of practice tend to be artificially localized: a course on classroom management, a course on teaching diverse learners, a course on teaching one’s content area, etc. Developing preservice teachers’ practice through this piecemeal process may not adequately address the demands that teachers face in the classroom. Specifically, given that the current study demonstrates that multiple practical intentions may simultaneously arise within a single moment of practice, it may be unproductive (even potentially misleading) for teacher educators to talk about how to teach content without simultaneously talking about how to manage student behavior or for teacher educators to talk about how to elicit student ideas without simultaneously talking about how to manage time. It is dubious to believe that a student teachers is served well by isolated courses that do not speak to all of the teacher’s practical intentions simultaneously. Therefore, a more holistic approach to learning to teach may be in the best interest of student teachers.

Limitations and Future Questions

A significant limitation to the current study is the small sample size of six teachers and the observation of only one lesson per teacher. The small sample size, and the fact that each teacher was placed at a different school, makes it impossible to draw conclusions about the factors that may have influenced a given teacher’s practical intentions during a given lesson. Future studies might sample multiple teachers at the same school and across multiple lessons, thus enabling these future studies to have some measure of explanatory power as to why particular teachers tend to possess particular practical intentions. Furthermore, a larger sample that includes multiple schools and multiple teachers within each school would be able to address the question as to whether inter-teacher variation with respect to practical intentions is a function of the educational

contexts and communities of practice within which teachers work (Cochran-Smith, 2012) and/or a function of each teacher's own personal beliefs about teaching (Frost, 2010).

Conclusion

Teaching is inherently complex, and beginning teachers are placed in the vexing position of having to sort through this complexity *as they teach*. A beginning teacher may possess student-centered instructional goals ("I want students to have to figure this out on their own"), and yet these instructional goals may co-occur with teacher-centered instructional concerns ("We have to move on"). Knowing what to do within the context of a given classroom moment is, therefore, inescapably challenging for any teacher, and to depict this classroom reality any other way – for example, by simplifying the work of teaching to a static image of best practice – is to present only a simulacrum of the experience of classroom teaching.

Teacher education can support student teachers not only by helping them to develop more sophisticated and ambitious conceptions of learning and pedagogy but also by helping them to navigate their multiple intentions. This requires that teacher educators appreciate both the complexity of teaching and the complexity of teacher thinking. The confusions, complications, and contradictions of classroom life should be considered the rule, and not the exception. I argue that any effort to simplify the nature of teacher thinking will prove itself to be unrealistic and unproductive. Meanwhile, representations of simultaneous, and sometimes conflicting, intentions may serve as the most powerful approximations of what it means to be a teacher in real time.

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