# Counting On: Narratives of Curriculum Policy Implementation 

by

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#### Abstract

This study is a narrative inquiry into teachers' and instructional coaches' experiences of new curriculum policy implementation at the classroom and district levels. This study took place during the initial year of implementation of the third grade Common Core State Standards in Mathematics (CCSSM). Interviews were conducted with individuals directly involved in policy implementation at the classroom level, including several teachers and the school's instructional coach. Observations of the teachers' instruction and professional practice were also conducted. As an embedded researcher, I used this data to create a series of fictionalized narratives of the initial policy implementation experience. My analysis of the narratives suggests that accountability structures shaped individual's sense-making of the original policy. This sense-making process consequently influenced individuals' actions during implementation by directing them towards certain policy actions and ultimately altered how the policy unfolded in this school and district. In particular, accountability structures directed participants' attention to the technical instructional 'forms' of the reform, such as the presence of written responses on assessments and how standards were distributed between grade levels, rather than the overall principled shifts in practice intended by the policy's creators.


For my mother, Jane Smiley Frankiewicz, who taught me the value of storytelling, and for my father, Gary Frankiewicz, who gave me so many stories to tell.

For my husband, Michael 'Supa’ Chairez: Los dos leónes todavía guardan mi camino.

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## CHAPTER 1 - INTRODUCTION

## Team Meeting

Ellen sipped her green tea and surveyed the eruption on her desk: teachers' guides for both reading and math; a dog-eared copy of the teacher evaluation rubric; a stack of homework, ungraded; a larger stack of writing assignments, also ungraded; and a file folder filled to the brim labeled "Grade Level Paperwork."

Her workload was normally crazy, but had become even more so in the last month. The Friday before fall break, the other new teacher on her team had pulled her aside and said that she didn't think teaching was for her, that she was finishing up the day and wouldn't be returning. Ellen hadn't really had time to think or even ask a question. She had just nodded and said, "Okay, thanks for letting me know." Ever since, Ellen had become responsible for all of the required paperwork for both classrooms.

She flipped the grade level folder open. On top was paperwork for Damien Reyes, a student from the other class who was finally up for an initial special education evaluation. For the evaluation process, the psychologist needed a certified teacher to fill out mountains of paperwork. Even if the long-term substitute teacher in that room had been qualified, there was no way that Ellen could have put that on her. Instead, she had taken it upon herself to conduct observations of Damien, leaving her classroom during her free period to observe him. She had even asked the sub to send him over during math and reading lessons. The current long-term sub hadn't minded. For her, having him out of the classroom clearly meant one less thing to worry about.

Ellen had just started working when she heard a knock at the door. She looked at the clock. 3:30. Must be Meredith. Tuesdays was her standard weekly check-in with the
school's instructional coach. "Come on in. It's unlocked," she called loudly. The door opened, and she could hear Meredith say something to a teacher in the hall, followed by a laugh. Meredith breezed in juggling a large tote bag, a water bottle, and her computer.
"Hey, Ellen. Is now still a good time?" Meredith asked, pausing in the doorway. "Of course. I'll be here until six anyway. Does it still work for you?"
"Definitely. Where should we sit?"
Ellen scanned around the room. Her reading table was covered with cups and containers that they would need for a capacity lesson later this week. "What about these desks right here?" she said, pointing. "The chairs are a little small, but Jacqueline and Martin are both pretty clean kids. No surprises, you know?"

Meredith laughed as she set her computer down. "Totally. When I taught, I used to have one kid who would stash open milk containers in his desk. Now I always check before I sit down." She made a face and flipped open her computer. Meredith quickly scanned the screen.
"Let's start by checking in about your grade level meeting on Thursday." Meredith moved her computer aside, and looked at Ellen directly. "Talk to me about how everything is going. How are you feeling?"

There was a pause. How was she feeling? Tired, Ellen decided. At the end of the day, she was tired. And it was only Tuesday. But that was just part of being a teacher. She tried to think of a response that would be helpful. "Well," she began slowly, "things have improved since we stopped having daily subs in that room and found a long-term sub. Having to deal with a new person every day was disruptive for me and for the kids. I felt like I never knew how to support them because I didn't know what they could
handle, you know? Having the long-term sub in there, I'm still giving her a lot of support, but at least I know what she's is comfortable with."

Meredith sighed. "To be honest, I haven't been in her room much lately because of all of the testing last week. From what I've seen, just peeking in, kids seem to be working, you know? Everything seems like a normal classroom. Just between the two of us, I'm okay with that. After the chaos when their teacher left, we really just need the sub to maintain some sort of order. Even if that's all she does, I'm okay with that."
"I get that." Ellen nodded. "But that's part of what's been challenging to plan for, you know? I'm trying to do all the lesson plans for both classrooms, and trying to get them at least a little bit of the content, but I also know that whatever I give the sub has to be something that she can control behavior-wise."

Ellen gestured at the piles of containers on her reading table. "I mean, like this. This is a perfect example. You know how we're getting into the measurement unit, right, and measuring length, weight, and capacity, then learning all of the conversions?" Meredith nodded. "Tomorrow we're going to be measuring water using cups, pints, and gallons. You know what the room is going to look like afterward - like a tsunami hit in here. That's way more involved than a sub would ever do. I mean, it's probably going to be a disaster in here and $m y$ kids are pretty well under control. I can't imagine what it would be like in the sub's room." Ellen sighed again. "I was thinking, 'What could she do instead?' So I've found other worksheets that she can use to at least get the kids get a little bit of the content, you know?"
"Are you able to use the worksheets with your own kids?"
"Well, you know, I might tuck them into the homework. But really, these kids need to play around with water. They need to actually measure things, and start to feel and see how a cup is different from a pint is different from a gallon. It's not like they're baking on a regular basis, you know? They're eight. It's just not part of their world. If they don't get a chance to build conceptual understanding here, they're not going to be able to handle these conversion problems."

Meredith nodded vigorously. "Absolutely. That's what the Common Core is all about, right? Really deep understanding. This unit is based on one of the old state standards, not the Common Core, but this is how we have to begin teaching so that our kids can handle the new Common Core material."

Ellen raised her eyebrows. "Oh, really? This isn't one of the Common Core units? I guess I didn't realize that." She leaned over to her desk and grabbed a large white binder, flipping it open to the first page. "I mean, I was just teaching the next unit in the curriculum map, which was measurement. The pacing for these units has been so quick that sometimes the next standard just hits us, you know? I guess I didn't stop to think about whether it was a Common Core unit or an old standard."

Moving next to Ellen, Meredith leaned over the binder and pointed. "See the standards right here? All the Common Core standards are a number, then a set of letters, then another number. Look at this one," she said, pointing to another section. "3.OA.1. That's a Common Core standard. This one, too. 3.NBT.1." She pointed at another section. "See how this one is all numbers? 1.2.1.? That's an old standard. All of the old standards were labeled with just numbers."

Ellen shook her head. "That explains why there was no writing on the assessment for conversion. I didn't think about it at the time."

Meredith nodded. "Right, the assessment would have looked different. See how the standards are 4.2.2 and 4.2.3.? Those are both old standards. Those assessments would have been just five multiple choice questions instead of the writing and short answer you saw on the other Common Core tests."
"Got it," Ellen said, nodding her head. "That explains it. Like I said, we had so much to cover this quarter and so much going on with the substitutes that I didn't think much about why the assessments for conversion were different."
"Totally fine." Meredith looked at her computer again. "So you said you're doing capacity with the containers tomorrow but the sub is going to be doing worksheets. Do you know what Debbie is going to be doing?"

That's a good question, thought Ellen. Debbie, the third teacher on the third grade team, taught all of the English Language Learners. "I'm not sure," she said carefully. "I emailed her about the activity I was doing with the containers, and I sent her the worksheets." Ellen paused. "Debbie does her own thing most of the time. I've been sending her all of the plans I'm writing. I mean, it sounds like from what she says that her kids are pretty low, right? So I would guess, even when she's doing some of these things that they're heavily modified. I mean, I would imagine. I just don't know." She looked at Meredith. "Do you know?"

Meredith fidgeted slightly. Obviously it was no secret that Debbie was not aligned to the third grade pacing calendar. That had been a struggle with all of the ELL teachers this year. With all of the focus at the start of the year on the state ELL audit,
strict adherence to the math pacing calendar had been the last thing on anyone's mind. She tried to choose her words carefully. "I'll check on it. For right now, it sounds like you're doing everything you can, you know, sending her the lesson plans but also the extra worksheets."
"Yeah," Ellen said quietly.
Meredith glanced at Ellen, trying to read her mood. "It sounds like you're still doing a great job, Ellen. Just keep doing what you've been doing during these meetings: going over what's coming up in the next week, giving them the lesson plans and the activities, and making sure that everyone has the right assessments. By the way, have you seen the benchmark testing data yet?"

Ellen sat up straight. "No. Is it available?"
"Yeah, it was actually available online Friday afternoon after we finished the testing. You just log into the district assessment system website, and all of your class info should come up."

Ellen smacked the table. "No way! I was wondering about that. I actually sent the tech department an email this weekend because I still haven't gotten my log-on information for the assessment website yet. I just assumed that someone would send me an email with my log-on information or a link to the benchmark data."

Meredith sucked in her breath. Ellen didn't have a password yet? The district used this system to house all of their assessment data, and to pull sample assessment items for quizzes and review. The online system was one of the primary ways that teachers were able to see how items might appear on the state assessment. How had Ellen not received a password? How had she not known that Ellen didn't have a
password? That probably explained why some of the third grade scores on the benchmark test had been low. If Ellen hadn't been able to $\log$ on to the website and pull any practice questions, the first time the third graders would have seen some of those question types would have been on the benchmark test itself. Damn it. Meredith mentally kicked herself.
"I'll take care of that first thing tomorrow, I swear," Meredith asserted. "For now, let's look at the reports so that you can at least see them. I think I have something you can use." She turned and rummaged through her tote bag. "I printed some paper copies of the reports. I think I still have third grade." She rustled for a few more seconds. "Yeah, here it is." She handed some papers to Ellen. "Take a second and look through them. I'm going to run to the restroom. I'll be right back."

Meredith left, and Ellen dove into the reports. The first report listed performance on standards by class, then by the grade level as a whole. She scanned down the grade level scores column. Ouch. Most were in the fifties and sixties. Not surprising, but still. They had hit eighty-two percent on one standard, counting and representing money. Old standard, thought Ellen. Only numbers. On two other standards, though, they hadn't even hit thirty percent.

For Ellen, the benchmark assessment had been a little like a time warp. After her first experience with one of the Common Core assessments, she had reformatted all of her lessons to include writing and short answer questions. Together, she and her students had drilled the sentence frames and the paragraph structures in preparation for the benchmark testing. When they had gotten the quarterly assessments in their mailboxes, she had been more than a little surprised to see that it was multiple-choice only. Of
course that made sense logistically. Who at the district office would be willing to grade hundreds of written responses?
"So what do you think?"
Looking up, Ellen saw Meredith sliding back into the small blue plastic chair. She had been so absorbed in the data that she hadn't even heard Meredith come back into the room. "Honestly? Ugh. You know, I don't like to see these fifty and sixty percents. I wish we had hit eighty and above on everything. But I'm not surprised. That's about what we saw on our assessments this quarter, at least for these two classes. And I expected Debbie's scores to be low, you know? ELL kids and all that. So that didn't really surprise me. So, disappointed but not surprised."

Scanning the paper for a moment, Meredith said, "It looks like everyone did really well with counting and representing money."
"Yeah, really well."
"What do you attribute that to?"
"Well, having three full-time teachers at the time." Ellen laughed a little. "That was the first standard we taught, so everyone was still here." She paused, thinking. "Counting money was so concrete for them. You needed to know the names of the coins and how to skip-count, basically. I remember that the test was five multiple-choice questions, same format as the district benchmark. And we all knew how to teach it, you know? It's money. The standard says to count money, so everyone counted coins for days and days. Then it says to represent money, and we spent a little bit of time on that, but not too much since we knew they weren't going to be asked to do that on the benchmark test."

Ellen paused again. "I suppose that was really a big part of it. We knew how it was going to be assessed and how to teach it." She took a sip of her green tea. "And most of our kids came with so much background knowledge. For most of them, it was more like a review than a new unit."

Meredith nodded. "Yeah, absolutely. I remember how confident you all were going into that unit. Also, since money was moved into the second grade in the Common Core, your kids had already seen it before. They should have spent a lot of time in second grade counting coins and stuff like that, which gave them a lot of background knowledge to access."
"Oh, really? I guess I didn't know that the standard had been officially moved to second grade. In my head, I just thought that they had picked it up somewhere along the way between kindergarten and second grade. You know, like learning about coins and counting coins during calendar time." Ellen crossed her arms incredulously. "Really? Counting money is all second now? Huh." She laughed out loud. "Good Lord, you must be sitting there thinking 'Why did we hire her? She doesn't even know where the standards go anymore.'"
"No, no, no. I'm in the same boat. It seems like every time I turn around I'm learning something new about the Common Core." Meredith leaned over the document again. "Wow. Word problems and flexible strategies for adding and subtracting multidigit numbers. What happened there?"
"Yeah." Ellen tapped her pencil thoughtfully, and pursed her lips. "Yeah. I mean, obviously if they can't read then they can't solve a word problem, so right there we had a problem. Especially for some of Debbie's ELL kids, I would imagine." She
tapped her pencil twice more. "Also, those standards were so broad. When you only have five days allocated for flexible strategy usage, what strategies do you teach? Are they going to be assessed on a specific strategy, or is it just whatever works for your students? There wasn't a lot of guidance in that regard from the textbook or any of the district documents. We talked about it as a team, but then we each chose some strategies to introduce based on what we saw in our classrooms."

And you couldn't log on to the tests data system to see sample questions, because you didn't have a password. Meredith mentally kicked herself again. "So what strategies specifically did you introduce?"
"I did some stuff with modeling and breaking apart larger numbers, to help with regrouping. I know I saw the other class use number lines. Debbie's kids were still struggling with one-digit addition, so she spent a lot of time working on modeling problems with counters and counting up. You know, start with the bigger number and count on the smaller number until you reach the sum. Just a lot of different strategies, trying to see what stuck with them. For me it was my first time teaching third grade, so I wasn't quite sure how they would handle the strategies that I'd used with older students."

Ellen continued. "I mean, we introduced it a lot of different ways, but with only five days we all thought it just went right over the kids' heads. Sometimes I felt like I was talking to a wall. Well, no, I suppose that's not totally true. Mikayla got it, Jacqueline got it, of course, and Martin got pretty close. But eventually, we hit a point where it was like, 'Okay, the assessment is on Friday, and it's Tuesday, and they still don't get it.' We included the standard algorithm at that point as another strategy since it seemed to work for a lot of them."
"The standard algorithm?" Meredith asked, her tone rising slightly. I think that's a fourth-grade thing, the standard algorithm, thought Meredith. The whole point is to develop their understanding before they get into the standard algorithm.
"Actually, a lot of them were familiar with it from parents and older siblings. . They picked it up pretty quick. They like things where there are rules they can follow. It was one of the strategies that they were most comfortable using."
"But how did they do on the unit assessment for that standard?"
Ellen raised her eyebrows and tilted her head. "Well, I mean, obviously they tanked the written part. The question asked them to make a model to explain regrouping or something, and there was just no way. I mean, just no way. The writing component was so new for them and most of them aren't strong writers to begin with. Same with the other written question, where I think they had to explain another student's work, but it wasn't the traditional algorithm, you know? They had decomposed the number a different way. Same thing. They just didn't get it. But, they almost all got the multiple choice questions right, the ones where they just had to solve an addition or subtraction problem. So I was okay with that. I felt like the time wasn't a complete waste."

It was times like this that Meredith wished that she could press pause and phone a friend like they did on that TV game show. How should she address this? Obviously the third grade team had misinterpreted the standard and had reverted to teaching the algorithm, which wasn't the standard. At the same time, she shared their same concern. There was no way that she could feel comfortable sending third-graders on to fourth grade without knowing at least the standard algorithm. I mean, my God, they should at least be able to solve a naked number sentence. And if it was the strategy that worked for
them, then how bad was it really? Not wanting to upset Ellen, she tried to steer the conversation in a more positive direction.
"Wow, Ellen, look at how well your kids did on the word problems! They outperformed both other classes by quite a bit. And look," she said, pointing to another column at the far right of the document that Ellen hadn't even noticed. "They even outperformed the district average!"

Ellen looked at the document again. "Oh, yeah! I didn't even look at the district average. I was so focused on the overall percentage. Yeah, I mean, sixty-four percent isn't ideal, but we did okay. We did okay." She looked up at the clock. "Wow, four already?"

Meredith looked up too. "That's my cue," she said, as she closed her computer. "Time to pick up the boys from day care." They both rose. As Meredith leaned over to gather up her things there was an audible click of the neighboring classroom door, the long-term substitute leaving for the day. Both women turned their eyes in that direction.

Ellen looked at Meredith. "I get why she left, you know?" she said slowly. "I was a second-career teacher, and I remember that initial shock of, 'Okay, so this is what it is really like to teach.' But, for me, I'd just come from over 15 years in state social services. Even though schools themselves had problems, I was used to seeing kids in mental health clinics, psychiatric wards, foster homes, juvenile detention centers. So even though there were problems, it was still so much more normalized than what I had been doing."

Smiling, Meredith said, "Well, that's a plus, right? Our school systems may not work perfectly, but at least we're not the least normal place you've ever worked."

Ellen burst out laughing. "Definitely not," she chuckled. "I'll be sure to mention that to the superintendent the next time I see him. It can be our new motto. 'Miraflores School District: More Normal than Some.'" She laughed again, and Meredith laughed with her.
"Alright, alright, have to go," said Meredith, pushing in her small blue plastic chair. "Don't stay too late, okay? Let me know how the grade level meeting goes."
"Sounds good. Have a good night, Meredith." She gave a small wave as Meredith walked out of the room and the door clicked behind her, then sat down at her desk. Ugh. Back to the mountain of paperwork. If she made it through a quarter of this stuff by six, that would be a victory. She took another sip of green tea, lukewarm by this time, and opened up Damien's packet again.

## Overview

This is not the story of a special school, but of a normal school like most other urban Title 1 schools: proud but slightly underfunded, full of excitable and smart and confused and mischievous children, much like students you know. This is not a story of special teachers or administrators, but normal school personnel special only in the way that most educators are-dedicated to their work and their students, stretched thin, trying simultaneously do what the system asks of them and what's best for kids.

This is not even the story of a very special reform, though its creators and the politicians may disagree. This reform, the transition to the Common Core State Standards, like many other reforms initiated in the wake of No Child Left Behind is viewed by many of these stakeholders as the way to make our curricula more rigorous,
our teachers better, our children smarter, our schools more accountable, and our economy stronger.

So what exactly is this story about?
This is a story about a 'normal' school, with 'normal' teachers and administrators, doing their best to navigate the altogether newly 'normal' process of implementing a complex conceptually-oriented policy which they were not adequately prepared for and which they did not completely understand. This is a story of how the landscape of accountability irrevocably shaped how these teachers and administrators interpreted the CCSS reform in its infancy, and in a way predestined the way implementation unfolded. This is a story of tensions, though these tensions do not necessarily appear in the ways and places that one might expect. In other words, this is the story of a 'normal' school.

The narrative vignette you just read, along with the other narrative vignettes included here, describes events that took place during the 2012-2013 school year at Mesquite Elementary School in the Miraflores Elementary School District. Miraflores is one of more than 20 elementary school districts located in an urban center in the southwestern United States. The state, like many others, instituted a school accountability system that involved assigning school performance labels and instituting state-mandated improvement plans for schools deemed failing based on standardized test scores. As a Title 1 school district with a handful of schools, Miraflores is more sensitive than most to accountability pressures. Schools within the district regularly ride the razor's edge between a pass and failure, and success when it appears is regarded with a mix of gratitude and bewilderment.

To improve the district's chances of success on state accountability measures, Miraflores partnered with the Smart Solutions Foundation (informally known as Smart Solutions), a large educational consulting firm. Miraflores originally hired the firm to provide a series of stand-alone professional development sessions. During the 2011-2012 school year, Miraflores received a multi-million dollar grant to partner with Smart Solutions for five years. At this point Smart Solutions took on a much larger advisory and review capacity within the district and provided a variety of supports to schools including but not limited to curriculum training, professional development, and ongoing site-based coaching. Smart Solutions monitored performance within the district through a series of internal audits. School performance on audited metrics, students' performance on standardized assessments and the resulting school labels were used to assess the success of the partnership.

Though the district dealt with many policy reforms during the period, the policy reform at the heart of this study is the implementation of the Common Core State Standards in Mathematics. The Common Core State Standards were the product of a push for common educational standards in the K-12 system from the National Governors Association Center for Best Practices and Council of Chief State School Officers ("Standards in Your State", 2014). Emphasizing skills deemed by these groups as necessary for college and career readiness, these two groups attempted to reconfigure individual state standards into a common set of standards reflective of the most rigorous state and international benchmarks. The Common Core State Standards were finalized in June 2010 and subsequently adopted by individual states. While the English Language Arts standards are worthy of study in their own right, for the purposes of this study I
focus exclusively on the Mathematics standards. These standards will be referred to in this chapter and chapter four as the CCSSM. I use 'Common Core' as the adjective to describe professional development and materials related to the CCSSM. ${ }^{1}$

In this age of accountability, a new assessment naturally followed this new set of standards. States adopting the CCSSM set the 2014-2015 school year as the academic year when a state-wide Common Core-based assessment would replace the previous state assessments based on previous sets of standards. To prepare for this deadline, Miraflores and other districts across the state began the process of transitioning by grade levels from curricula based on the previous standards to curricula based on the CCSSM. Miraflores complied with the state's minimum expectation that districts fully implement the CCSSM transition in the primary grades (kindergarten, first grade, and second grade) during the 2011-2012 school year. As part of their support program, Smart Solutions oversaw the development of math curriculum documents by grade level teams prior to the start of the school year. Additionally, Smart Solutions provided professional development related to the standards for primary grade teachers during initial implementation.

During the 2012-2013 school year, however, Miraflores found itself in a dilemma. While the state asked districts to begin transitioning the upper grades to CCSSM-based instruction, the state continued for accountability purposes to assess student achievement using a standardized assessment based on the previous set of standards. Miraflores opted to transition only third grade to curricula based jointly on the CCSSM and the previous

[^0]set of standards, while fourth grade and beyond retained their curricula based solely on the previous set of standards.

Miraflores' third grade transition to the CCSSM differed significantly from the K2 implementation. First, during the year of initial implementation the K-2 teachers attended a series of Smart Solutions-provided professional development sessions on the CCSSM, followed by classroom observations and coaching by a Smart Solutions Foundation consultant. In contrast, Miraflores' third-grade teachers did not receive any district-wide professional development on the CCSSM during their initial year of implementation. The teachers at Mesquite Elementary school, the subject of this study, reported that they did not receive specific formal professional development on the CCSSM at the school level. In lieu of in-person professional development, the district provided teachers with district-created curriculum documents, pacing calendars, and assessments.

Second, in contrast to the primary grades, in this particular state third grade is the first school year in which students take the state standardized assessment used to determine school accountability labels. Though instructional coaches created districtwide written assessments for $\mathrm{K}-2$, the district did not require $\mathrm{K}-2$ teachers to report this data. Accordingly, teachers often eschewed them and instead used one-on-one informal assessments. Again in contrast, the district and Smart Solutions required the upper grades to report the percentage of students that passed each unit's initial test and the subsequent "retest" administered after a review period. Not surprisingly, these assessments heavily influenced how third grade teachers interpreted the standards. Within the narratives, you will see how the format of the assessments influenced how
teachers interpreted the reform. Additionally, the workload of creating these assessments caused its own set of tensions for the instructional coaches tasked with the job.

Third, during the 2012-2013 school year, not only was third grade accountable to a state assessment, but they were accountable to an assessment based on the previous set of standards. Put plainly, Miraflores' third grade teachers were told to implement one set of standards but were then assessed on a different set of standards. Because of Miraflores' precarious position relative to state accountability measures, district administrators decided to change the year's pacing calendar to include 'gap skills,' concepts included in the previous set of standards (and possibly on the state assessment) not included in the CCSSM. The solution to the problem, then, was to teach both sets of standards.

I was employed as an instructional coach in the Miraflores School District during this time, and was heavily involved in the creation of Common Core documents for the district in addition to my regular instructional coaching duties. I struggled to make sense of the transition to the CCSSM and what it meant for teachers, the district, the students, and myself. A series of questions drove me: How do teachers navigate policy implementation related to curriculum change? How does the current climate of accountability influence this process, particularly in an instance where the accountability policies are not aligned with the reform in question? How do district actions shape the interpretation and execution of a given reform? How was I as an instructional coach able to shape a given reform?

I sought to answer these questions by embedding myself during this school year at Mesquite Elementary School, another school within the Miraflores district. During the
spring of 2013, I observed classroom instruction and grade level meetings and interviewed teachers, the instructional coach, and a Smart Solutions consultant connected to the school. Additionally, while conducting research at Mesquite, I was simultaneously living the same reform at my own school site and kept a record of my own experiences during this time frame. ${ }^{2}$

Following my data collection, I used the information gathered from Mesquite in conjunction with my own experiences to create two fictional narratives spanning the course of the school year ${ }^{3}$. Through these narratives, I attempted to tell the story (or, more accurately, stories) of what it was like to navigate implementation of the CCSSM at single grade level in an altogether 'normal' school.

The two narratives are arranged as two collections of vignettes. The first narrative positions the teachers as the main characters. The purpose of this narrative is to paint a realistic picture of how classroom teachers interpreted and executed the policy, how their backgrounds influenced their interpretations, and how their situational context further molded those interpretations.

This narrative contains three major characters, all third grade teachers at Mesquite Elementary. There is Ellen, whom you met in the first narrative. The de facto team leader due to her years of experience, Ellen was new to the district and had to navigate her way in a new environment while simultaneously making grade-level curricular decisions. As we saw in the first narrative, Ellen's responsibilities were compounded by another teacher's resignation early in the year.

[^1]Audrey, the teacher hired to replace the long-term substitute, is the second teacher introduced. After inheriting her class in December, Audrey focused heavily on regaining behavioral control of her classroom and on developing 'hands-on' learning experiences. These foci were inextricably linked to how she interpreted and executed Common Core instruction.

Debbie is the third and final teacher. As the sole teacher of English Language Learner (ELL) students for the grade level, Debbie was subject to an additional set of state restrictions on her classroom, her planning, her schedule, and her instruction. As briefly mentioned in the original vignette, the state audited the Miraflores district for compliance with state ELL requirements at the starts of the 2012-2013 school year. Because of the impending audit, instructional support for ELL teachers was overwhelmingly focused on compliance pieces related to the audit. Additionally, her students were much lower academically than the other third grade classes. This combination of factors influenced Debbie's interpretation and execution of the policy.

The collection of vignettes comprising the teacher narrative is set both within the classroom and outside of the classroom in professional group settings. The dual setting of these vignettes reflects how teachers not only 'live' within the classroom, but additionally participate in an interconnected professional community with resulting implications for practice (Coburn, 2001; Spillane, 2000). Though the vignettes are not dated, they roughly follow the teachers chronologically throughout the school year. The narrative arc here follows a relatively traditional arc. The first vignette sets the stage with the optimism of a new school year. The vignettes build to a climax as teachers encounter
a series of frustrations during the implementation process, and end with a resolution of sorts and an optimistic eye towards the next school year.

The second narrative focuses on a single instructional coach, Meredith. Like the teacher narrative, the purpose of this narrative is show how individuals interpret and execute a policy in light of their backgrounds or situations. As an instructional coach, Meredith had a different background and in many ways a different context than the teachers in question. The second set of vignettes is therefore designed as a 'counternarrative' to the first set of vignettes. In contrast to the familiar arc followed by the teacher narrative, Meredith's narrative is frantic and sometimes disjointed. It lacks the expectant beginning, the predictable climax, and the satisfying sense of resolution. Instead, it more closely mimics the emotional spikes and unpredictability of daily life.

With two sets of narratives, a reader may ask themselves "Which one is true?" This question, while understandable, sets the reader down a false path. Both narratives are true in their own way in that they reflect a snapshot of a particular time and place from different vantage points. As you read the following narratives, pay attention to the tensions at hand, to where the narratives cross and collide, and how the individuals' backgrounds and situations influence their interpretations and implementation of curriculum policy in this altogether 'normal' school.

These narratives do not produce a definitive answer to my questions. Indeed, in narrative inquiry a definitive answer is not necessarily the goal (Clandinin \& Connelly, 2000). Rather, in these narratives I present a series of perspectives through which the reader can reflect upon his or her own understandings and make meaning specific to their practice and situation. In stories as in our lives, some understandings explode as
revelations, while others drip slowly across our consciousness, developing incrementally over time. I do not wish to deprive my reader of either experience. Therefore I hold the bulk of my analysis until Chapter Four, allowing the reader to engage with their narratives from his or her own unique perspective before being potentially influenced by mine.

To me, one of the greatest realizations of this research was the immense influence that our backgrounds, our beliefs and understandings have on our interpretations of a given policy. Even when presented with the same policy, different individuals attended to different aspects, weighted information differently, and drew different conclusions about the intent and the mechanics of the policy. Furthermore, as some individuals acted in an effort to "translate" the policy, their actions substantially shifted the information available to others and in turn shifted how the policy unfolded. For everyone, the situational context of having state test scores tied to school labels influenced how they interpreted the policy and how they acted upon their interpretations. Following the narratives, I include my full analysis of the narratives in light of the research and how my own understanding developed through the course of the work.

## CHAPTER 2 - TEACHER NARRATIVES

## Welcome Back, Mustangs

The school library was full of people and, for a library, uncharacteristically loud: cellphones going off, groups chattering and laughing as they caught up after summer break, the rustling of napkins and doughnut boxes from the makeshift breakfast table, and above it all the steady whir of the air-conditioning unit kicking on after a long summer. Above the bookshelves next to the projector screen hung a hand-painted banner reading "Welcome Back, Mesquite Mustangs!"

Ellen tugged absent-mindedly at the bottom of her blouse and glanced around the room. It had been fifteen years since she had attended a start of the year meeting where she was brand new. Even when she changed positions in her old district, she had known most of the teachers in her new school. She spotted Debbie, the teacher on her third grade team assigned all of the English Language Learners. She thought about walking over, but Debbie appeared to be deep in conversation with someone. Don't want to seem rude for interrupting, thought Ellen.

The lights suddenly flicked on and off several times in succession. A tap, tap, tap came over the speakers. "Hey, ladies, and gentlemen. We're about to get started. Can everyone find a seat?"

Caroline Chavez, the principal, stood at the front of the room holding a wireless microphone. Tall and broad-shouldered, wearing what Ellen could only describe as a red Nancy Reagan-esque blazer, she had the look of an athlete about her and the commanding presence one would expect from a principal. Next to her stood a tall, thin man, wearing a navy blue suit and dark red tie, scrolling intently through his phone.

Ellen sat down in an empty chair, focusing her full attention on Caroline. Before coming to Mesquite, she had spent months looking for a low-income district that was actually going somewhere. Meeting Caroline had reassured Ellen that this job wouldn't be just one crisis after another like her old district had been. Her heart was racing. She didn't want to miss a word.

Caroline scanned the room several times as a few surprised stragglers scrambled through the door. Finally, the last bit of conversation finished. She looked briefly back at the man behind her and whispered something inaudible. He nodded, slipping his phone into his jacket pocket as she turned back to her audience.
"Hello, everyone. It is a real pleasure to see all of you here today. For our returning teachers, I was able to catch up with some of you over the summer as you set up your classrooms, and look forward to hearing from the rest of you over the next few days. For our new teachers, I've gotten the chance to get to know a little bit more about you as I...well, I suppose as I interviewed you." A small wave of laughter rolled through the room. "Whatever the case, I am proud as your principal to welcome you today to the start of the 2012-2013 school year here at Mesquite."

There was a round of applause, and a few whoops and cheers could be heard from the back of the library. Caroline paused as the noise died down, and smiled again. After scanning the room one more time, she continued. "There's obviously a lot to talk about today as we welcome everyone to this new school year. There are a lot of moving pieces this year, even more so than last year, and a lot of questions that I'm sure you all have about the exciting and ground-breaking things going on here in Miraflores.
"But, before we get to all that, we have a few things to celebrate." She turned, and gestured towards the man behind her. He took a step forward until he was parallel with Caroline. "I'm going to turn the microphone over now to Dr. Davies. Most of you know Dr. Davies, but for those of you who don't, he's my boss." More laughter. "Dr. Davies has been our superintendent now for, what, three years?" she asked, turning her head towards him. He nodded. "Three years. We've been fortunate to have his leadership during this time, and we are really fortunate to have him here today. So, everyone, Dr. Jim Davies."

Another round of applause erupted as the superintendent took the microphone. Moving with a politician's ease, he took a moment to survey the crowd. "Thank you so much, Caroline," he said, beaming. "You know, I'm sure you'll figure it out for yourself throughout the next few days, but you really are lucky to have one of the strongest principals I know. I won't embarrass her too much, but I want you to know that you are definitely in good hands."

He paused as another round of applause filled the room, then continued. "For those of you who are new to Miraflores, you may not know what a truly remarkable district you are a part of. Small as we are, we've continuously been at the forefront of innovation in education in this state during the last three years."

A voice called out from the back, "Amen to that, Dr. Davies!" Laughter echoed through the library. Ellen caught herself thinking, This is light years away from the staff meetings in my old district. I don't remember anyone ever having anything to laugh about in those meetings.
"It seems we have at least one believer in the crowd," chuckled Dr. Davies. "Actually, there are a lot of believers. We are privileged to be one of only a handful of school districts in the state partnered with the Smart Solutions Foundation. The Smart Solutions Foundation is one of the premier educational consulting agencies in the nation. For the past two years, Smart Solutions has provided support and training to our teachers, as well as advice and guidance for your principals and our district office staff." He slowly scanned the crowd as his left hand instinctively adjusted his tie, his face intent. "Having Smart Solutions in our district is a real coup for us, folks. As I said, Smart Solutions is a winning organization. They chose to partner with us because we are winners."

At this point, Ellen noticed out of the corner of her eye that Caroline had taken the computer. She clicked on something, and then the large screen went dark. Caroline rose, and stood directly behind the superintendent. He nodded at her, smiled, and whispered something. Caroline nodded back. The rest of the staff was silent, watching intently.

Dr. Davies turned again to face the crowd, and beamed. "It's been no secret that Mesquite has been the flagship school in our district. Over the last five years Mesquite has consistently outperformed the other district schools, as well as many other schools across the state with demographics similar to ours. Caroline has worked to implement all of the reforms coming out of our partnership with Smart Solutions, and her consistent leadership has led Mesquite to significant achievement gains.
"So, with all that being said, we have some very exciting news to share with you all." He turned to Caroline. "I feel like you should be the one to tell them."

She waved her hand dismissively. "No, no, Dr. Davies. You do the honors."

Dr. Davies laughed. He looked at Caroline, who gestured again. "Okay. Well, nothing is official yet, and this is all confidential for right now, of course, but we received an email last Friday that the state has released their preliminary school labels for the last school year. As you know, Mesquite has been a B school ever since the labeling system started a few years back. Nothing to be ashamed of, of course. That's the product of a lot of hard work. But today Caroline and I are excited to tell you that...well, Mesquite has been labeled an A school for the 2012-2013 school year! The first A school ever in our district!"

The room erupted. Cheers, whoops, hollers, teachers jumping out of their seats, hugging one another, some high-fiving, a few others wiping away tears. Ellen found herself clutching the table, overwhelmed by the sheer emotion in the room. Finally, she thought, I'm at a school that has done it. I'm at a school in a district like my old one, or any other Title 1 district, and they've done it. As she looked at the enormous " A " that had now filled the projector screen, she felt a wave of exhilaration come over her. Any lingering unease she had about switching districts was completely erased. She had finally found her place.

## Writing Resistance

"Remember, we said yesterday that instead of a math lesson today, we would be taking our assessment," Ellen said briskly as she moved around the room, sliding a paper onto each desk. Out of the corner of her eye, she saw Jamari's hand shoot up. She waved it away. "Jamari, assessment is another word for test. It's a test." She finished distributing the papers and perched on an empty desk.
"Remember yesterday when we talked about this test? We said that this test was going to be different. For some of the questions, you won't have the answers there to pick from. For some questions, you are going to write the correct answer yourself. And for some questions, you are going to write or draw a picture to show how you got the answer, just like a high school student. Isn't that exciting?"

A few students smiled, but most looked at her blankly. Ellen furtively took a deep breath. Here we go, she thought.

Initially, Ellen had felt confident about her students' performance on their district math assessments. Really, the first one had been a joke. Five multiple-choice questions on counting money, and all but two of her students had passed with $80 \%$ or higher. She hadn't worried about looking at the assessment too far ahead of time after that.

A few days ago when Ellen had gone to print today's assessment on adding and subtracting multi-digit numbers, she had been surprised when a small box popped up on her computer screen. "Now printing 1 of 10 ," it read.

One of 10 ? Ellen had thought. There must be some blank pages attached at the end. That money test was only two pages long. When she had gone next door to pick it up from the printer, she was shocked to find that the assessment was indeed ten pages long. There were multiple choice questions, short answer questions, essay questions, questions asking the students to make a model. The ten pages were full.

Ellen's stomach lurched and her hands had begun to shake - not violently, but enough so that the paper became difficult to read. We never showed them problems with this same format. They haven't had to write like this at all in math. They're not even going to know where to start. When she had asked a fourth grade teacher about it, he had
breezily responded, "Oh, right. I heard there was going to be writing on the Common Core assessments. So glad we don't have to worry about it this year. Multiple-choice is enough for us right now!"

The shaking had subsided after a few minutes, but the queasiness had remained. She would just have to go through with it and see what happened.
"Pencil check," she said, and all but one of her students held up a sharpened pencil. She looked at Jamari, who was still fumbling in his desk. "Luis, just give him a pencil, okay? Thank you. Pencil check?" This time every student raised a pencil in the air. "Good. Now remember, no cheating eyes. I want to see your work only."

She and the class breezed through the first eight questions: a series of two and three-digit addition and subtraction equations, no story problems, all multiple choice.
"Okay, everyone should be on number nine. If you're not there, get there," she said, pausing for a moment to allow for the flurry of turning pages. "Everybody there? Okay. Listen carefully while I read.
"Jane had 174 oranges. She bought 82 more oranges. How many oranges does Jane have now? Write a number sentence to match the problem and solve."

Most students began tentatively writing, absent-mindedly chewing on pencil ends or looking around the room for resources to help them. A handful remained still sitting there, looking at her blankly.

Ellen sighed. "Come on now. I told you there would be some without bubbles. You don't have answers to pick from, you have to write a number sentence that matches the problem. Here, listen again." She reread the problem then motioned at some students to get going before beginning to pace the room.

Well, most of them are on track, Ellen thought. Kind of. The majority of students had recognized it as an addition problem, and most had set the initial part of the equation up correctly as $174+82$. The correct solution, however, had been an entirely different matter. Of the kids who had set it up correctly, only about two-thirds had arrived at the correct sum of 256 . The remainder of those students had either forgotten to regroup the tens as hundreds, resulting in a sum of 156 , or had somehow managed to regroup the ones, resulting in a haphazard sum of 266 .

These were, of course, the average students. Then there were those kids who were totally out in left field. Jamari, for instance, decided that he didn't much care for the numbers in this problem, and decided instead to write a subtraction equation using completely different values, which to Ellen's surprise he had somehow managed to solve correctly. She had tried to prompt him by saying, "Hmmm, Jamari. I see that you have written a number sentence for your own problem. Can you write one for mine?" He had just looked up at her and shook his head.

Then of course, there was Alan. Alan had misunderstood what she had meant by "number sentence" and interpreted it literally, writing on his paper, "The numders is one hunnert seventy fur and eightee too." When she saw it, Ellen flinched.

She waited until the last few students had finished, or had at least attempted as much as they were going to attempt. "Okay, pencils down. Put your finger on number ten." She scanned the room, gesturing to two students on the wrong problem, and then began. "Okay. Number ten. 'Explain how regrouping can be used to solve 456 minus 183. You can draw a model to help you explain.'"

Ellen looked out at her class, and the queasiness she had been feeling since yesterday erupted into a full-blown roil. Not a single student had moved to pick up their pencil.

Maybe they just need to hear it again, she thought. "Okay. I'm going to reread that one more time. Follow along on your paper." She read the problem again. Only Mikayla demonstrated any sort of recognition, nodding thoughtfully and then proceeding to sketch furiously on her paper. Four more students, spying Mikayla's flurry of activity, tentatively picked up their pencils and began to write. The rest of the students uncertainly scanned the room for help or stared blankly down at the paper, as if willing it to independently produce a response.
"Aw, man," she heard Jamari grumble from the back of the room. She glanced up and took note of his arms crossed, his back rigid, head slumped. He's starting to lose it, thought Ellen. She silently signaled for him to get up and use the bathroom. Knowing Jamari, this would give her at least ten minutes to get the class started before she had to deal with him one-on-one.

Scanning the room, she tried to differentiate the dawdlers from the strugglers by exaggeratedly tapping her watch and raising her eyebrows. When her scan made it around the room the front right corner of the class, she saw that Jacqueline's hand was raised. Ellen knelt beside her desk. "Yes, Jackie? What's your question?"

Jacqueline smiled politely. "Miss, there's a mistake. You made a mistake." Ellen looked at her quizzically, then glanced at the test. "What mistake, sweetheart? Can you show me?"

The small girl made a circle with her pointer finger above question ten. "The writing, Miss. This is a math test."

Still confused, Ellen probed, "The writing? I don't get it, Jackie."
"The writing. This is a math test, Miss. Not a writing test. We don't write in math class, only in writing class. In math we pick the right answer or write numbers, just like we did with Ms. Herberger last year. You made a mistake." The girl slid the paper across the desk to her with a forgiving smile.

Inside, Ellen wanted to scream. She paused for what seemed like eons, formulating her words carefully and clearly. "Well, Jackie," she began slowly. "You did a lot of things in second grade that are different than what we do in third grade, right? You are so much more grown up now." Jackie nodded enthusiastically.
"So, one of the things we do in third grade that's different than second grade is write on our math tests. Sometimes we choose the right answer, and sometimes we write a number sentence, and sometimes we write or draw a picture, okay? Do you think you can try that for me?" Jackie nodded again, and Ellen reread her the question, making sure that Jackie's pencil touched the paper before moving on.

As she stood up, Ellen mentally calculated: who seemed to be moving along, who had struggled earlier in the test, who had struggled earlier in the unit. She decided to check in next with Martin. Making her way to his desk, Ellen took note of the furrowed brow and pencil eraser being chomped to bits between two small rows of baby teeth. Martin often got sidetracked when writing, not wanting to put anything down on paper that wasn't absolutely flawless.

She bent over his desk. "How's it going, Martin?" she whispered. "You doing okay?"
"I dunno how to write it," Martin whispered glumly. Glancing down at this paper, she noted half a dozen attempts that had been either vigorously erased or furiously crossed out.

Ellen slid her hands over to surreptitiously cover the problem, and knelt down so that she was eye level with Martin. "Martin, honey," she said gently, "don't worry about how you write it. Can you just tell me? Can you just tell me how - " she lifted her hand slightly and glanced down at the paper, "how regrouping can be used to solve 456 minus 183? Just tell me."

Martin bit his lip and stammered. "The ones...six minus three is okay, the answer is three. But..." He paused, unsure of himself.

She nodded encouragingly. "Go ahead, Martin."
"But five take away eight is not okay. Eight is bigger than five, so you can't take away. You need to take some from the hundreds."
"Regroup, Martin. You need to regroup," Ellen said, forgetting in her enthusiasm to prod Martin that this was an assessment.

He nodded. "Yeah, from the hundreds. So you take the four and make it a three, then you take the five and make it fifteen, then you subtract. That way you have enough. To...to take away the eight." He bit his lip again.

Ellen smiled at Martin, and put her hand on his shoulder. "Good, Martin. Good. Just write what you told me." She pursed her lips. "Actually, Martin, wait a second."

Ellen walked purposefully up to the board, and began writing. As she capped the marker, she turned around and clapped twice to get her students' attention. With all eyes on her, Ellen began. "Okay, guys, some of you are really struggling with how to get started here. I'm going to give you some sentence frames to get you going. You can copy these and then fill the rest in with your answer. The first one says, 'You can use regrouping to solve this problem by blank.' The second one says, 'I know this because blank." She had the students chorally read the sentence frames, then addressed them again. "Now, if you have something different, that's totally fine. You don't have to use these sentence frames. But if you are stuck, you can use them to get started."

She didn't know why she hadn't thought of it before. The third grade team had done a lot of work with sentence starters when talking about group discussion and reading responses, how some kids needed sentence starters to begin to formulate or present their thinking. In fact, she and Debbie had just been talking about using sentence frames on the reading assessments. Maybe this would help for the math assessments too. She made a note to herself to bring it up to the team at the grade level meeting this week.

Suddenly, the classroom door opened with a whoosh, then slammed shut, startling Ellen out of her internal monologue. She had forgotten she had sent Jamari to the bathroom. As she made her way towards him, she saw him glance back down at his paper and turn instantly sour.
"Aw, man," she heard him grumble under his breath, just loud enough for him to know that Ellen heard him. "This is stupid."
"Jamari," Ellen said sternly. "You need to get to work. I'm going to read you the question again, and then you need to get started." He stared sullenly ahead. Ellen read the problem again, then paused.
"Get going, Jamari," she repeated, her tone sharpening just slightly. Thinking he might need some space, she stepped away and turned to briefly survey the room again. It looked as though everyone was almost -

There was a clatter, followed by a series of pencils rolling every which way across the room. Several students jumped up to retrieve them, causing a series of collisions. Jamari's pencil box lay on the ground, and his small sinewy arm lay extended on the right side of his desk where it had landed after he'd intentionally knocked the box off. "This is hard," he said, his voice rising. "I can't do it."
"Jamari!" Ellen said, her tone a mixture of shock and anger. "This is unacceptable. That's a check mark." She gritted her teeth and leaned in close. "You need to start writing, or I'm going to have to send you to the office. It's your choice."
"Aw, MAN!" Jamari burst, grabbing his test with both hands and ripping it jaggedly down the middle. "I ain't goin' to the OFFICE!" He slammed his fists on the desk, and began moaning, his feet striking out at the legs of his desk and connecting with a methodical thwunk! Thwunk! Thwunk!

The rest of the children froze where they were, and looked up at here expectantly. Deep breaths, Ellen, deep breaths, she thought. You're the adult here. "Kids, why don't you take a look at number eleven? I'll read it to you in a second, but you can get started." The room hushed except for Jamari's groaning and occasional fist-slamming. Watching to make sure he didn't run or try to hurt himself, she discreetly pulled her cell phone out
of her pocket. Better to text someone than make a show of going to the classroom phone. She knew that seeing her move toward the phone would only escalate Jamari. Caroline the principal or Meredith the instructional coach? Meredith, she decided. Her office was right around the corner.

Jamari having outburst in class. Can u come get him? We are testing, she texted. Almost immediately she received a reply. Of course on way.

She had expected this test would be rough, but not enough to send Jamari to the office. Deep breaths, Ellen, she thought. Deep breaths.

## Fraction Lines in the Classroom

"Alright, I'm reading number four now." Audrey looked out over the class to make sure that all of their papers were on the ground in front of them and that no one was creating bedlam with a misplaced pencil poke. She raised an eyebrow, then turned from her small chair at the front of the room towards the projector screen behind her. "Ms. Kemp made a big batch of brownies. She is going to share them equally with Mrs. Brenenstall, Ms. Powers, Gerardo and Damien. What fraction of the brownies will the third grade teachers get? Write the fraction."

It was the end of her fourth week here at Mesquite, not counting the week she had been here before winter break. She'd been hired to take the place of a teacher who had quit in September. As frustrated as she sometimes was with her students, she had to admit there had been a definite improvement in behavior. Academics was another matter. Ellen had told her what they should have been doing, but of course when she tried to remind them of that she got a string of blank faces. But what could you expect when they'd had substitutes since fall break? Audrey thought.

Audrey glanced down at the first row. Immediately she noticed that some of them had put $\frac{3}{4}$ instead of $\frac{3}{5}$. She frowned. "Remember what we said about these problems? If I baked them, I'm?" She snapped her fingers.
"Eating them!" the class responded enthusiastically.
"Right. And who else?" Snap.
"Mrs. Brenenstall, Ms. Powers, Gerardo, and Damien!"
"Right. So that's five, not four." She turned around and wrote a large five with a line about it. "Gerardo and Damien, you lucky boys." The class tittered. "Five people altogether. How many third grade teachers are there?" Snap again.
"THREE!"
She looked back at the class. "No yelling. You're indoors. Yes, three." She wrote a large three above her five. "Who can read this fraction? Hands up."

Fourteen hands shot up, and Damien's for once was among them. "Damien?" This was an easy one. He should be able to get it, and he liked showboating.
"Three fives." Nope, Audrey thought. Not quite.
"Close, Damien. But instead of three fives we would say what? Charles."
"Three-fifths."
"Yup. Three-fifths." She crossed her arms. "Give yourself a smiley face if you got it correct, and a check mark if you got it wrong." She glanced down again and noticed a student trying to cover her answer with her hand. "Lupita, let me see that. No. You got it wrong. Check mark." Honestly, these kids. She checked the rest of the students to make sure that they hadn't tried to sneak anything else past her.
"Alright, then. That's the end of our spiral review. When I say "go," you have fifteen seconds to return to your seat, ready for math." She paused. "Go."

The room became a hub of commotion. While they transitioned, she grabbed the wireless remote control for her laptop and clicked to the next slide. She pointed to the first word on the screen, her face and arms taking on a blue tinge as the projector sprayed light onto them. "Okay. This is our objective for today. 'I can partition a number line into segments and label the segments.' This should hopefully be a review for you." She clicked through to the next slide. The objective remained across the top of the slide. Underneath it appeared another chunk of text. "This is the sentence frame we're using today. I should hear you using this when you are speaking about your number lines. I will see you use it when you are writing about number lines. 'This number line is broken into $\qquad$ fractional parts. I know this because $\qquad$ $\therefore$
"Now, when we're counting on a number line, do we count zero?" Snap.
"No!"
"Why not?" She paused to look for hands raised and saw none. She continued. "Because if we're at zero, we haven't moved anywhere. Correct?" Her students nodded enthusiastically.

Out of the corner of her eye, she noticed Damien take a pencil out of his desk and begin drawing on his nametag. She stepped up to him and abruptly snatched it. Leaning down so her face was next to his, she whispered sternly, "No pencils. I do not want to see a pencil in your hand until I tell you to put one there. Got it?" He looked up at her and nodded.

She straightened her back, smoothed the front of her shirt, and clicked to the next slide. "Let's do a little review. Yesterday, you labeled points on a number line that someone else had already divided for you. Let's a take a look at this number line." She gestured at the slide with her remote.

"I want to know, what fraction is at A? One more time, what fraction is at A?
Take 30 seconds." She painfully watched the second hand creep along the left side of the clock until it reached the twelve.

She clapped twice, and all but Damien clapped in response. She eyed him, and he responded with a startled and abrupt single clap, wide-eyed and back instantly rigid. "Jimmy, help us out. What fraction belongs at A on the number line?"

A round-faced boy with sandy hair swallowed hard. "Ummm...I know that the fraction...two over six belongs...here on the number line because...there are six lines on the number line."

Audrey fixed her eyes on him. "Six what, Jimmy?"

He fidgeted and swallowed hard again. His eyes darted around the room frantically, then landed on the corner of the board where she had been posting her math vocabulary. "Six...segments."
"And what kind of segments are they?" She paused. "What else can we call these?" Jimmy swallowed hard again, his face flushed. "Anyone?" No response. She scanned across the room. "Sixths. They are all the same size, so they must be equal. We call them sixths." She turned back to Jimmy. "That's what I was trying to get out of you. Sixths." Jimmy nodded, breathing out an audible sigh of relief.

Audrey shut the projector down using the remote. While she was really grateful that the district provided access to technology, she typically only used it for the initial part of her lessons to introduce the objective, present a few examples and the sentence frames, and occasionally show a picture or a short video. She liked to get her students out of what she called "theater mode" as soon as possible, and out into the hands-on material where she felt like they were really learning something. With the switch to the Common Core this year, she had heard a lot about how their math instruction was supposed to change to being more real world, more applicable. Audrey didn't worry about this switch because for her, that was just how she taught.

Though she tried to remain consistently reserved around her students, she was privately excited about today's lesson. For Audrey, developing a hands-on lesson for some things came without a second thought. For others, she would puzzle for hours trying to figure out how to connect the material in a way that wasn't boring or remote. Fractions on a number line had been one of those. She had thought about it off and on for two days and the idea had finally come to her last weekend. The dryer in her apartment
had broken for what seemed like the fiftieth time, with the landlord out of town. She had woken up early to drape her daughters' sopping laundry outside on the balcony. With every inch of available outside surface covered, she wished in vain for piece of rope to use as a clothesline to hang up the last of her infant daughter's onesies.

A clothesline! That was how she could make fractions on the number line handson. After hanging the remaining onesies up in the shower, she had packed up the girls and headed to the dollar store. Audrey had scoured the aisles looking for yarn, clothesline, anything like that, and managed to find a roll of bright yellow nylon rope. She also picked up two large bags of clothespins and colored post-it notes.

Last night, Audrey had asked her mother to stay with the girls a bit later so that she could prepare her classroom. She had cut the rope into two-foot segments, eight in all, and taped them all over the room at kid height. Then she methodically placed ten clothespins in fifteen separate sandwich bags, which she collected in a bin at the back of the room. On a series of index cards, she had written out different fractional parts less than or equal to one: $\frac{2}{6}, \frac{1}{3}$, and so on. Right before she packed up her things, she had made sure to put a stretch of nylon rope up at the front of the room for herself, along with a stack of post-it notes and a small bag of clothespins. Surveying the room before she left, she had allowed herself a small smile of anticipation.

That smile returned as she stood in front of her class. Without saying a word, she drew a thick black line across the whiteboard at the front of the room. She had found that this kind of mysterious silent act was often more entrancing to her students than anything she could say to them. She paused. Every student was in rapt attention, even Damien. "I
need," she said in a voice barely above a whisper, "someone to come up and partition this line into..." She paused again, this time for three or four seconds. "Halves."

Immediately, every hand in the room shot up, straight up, not waving or bumping or hitting or flopping but straight up, the way it did when her students really wanted something and needed to demonstrate that they were on their best behavior. "Savannah," she called, waving for hands down. A tall, lanky girl hopped up to the front of the room and quickly drew a short vertical line at each end and then another right down the center. She zoomed back to her seat.
"Thank you," Audrey said, then addressed the class. "Yesterday we labeled points on a line that had already been partitioned. We talked about how to partition a number line, but you didn't have to actually do it. Today, you are going to be partitioning the number line into segments and labeling those segments." She heard a few students whisper excitedly under their breaths, sitting up ramrod straight. She smiled to herself again, and then tried to fix her face so that she appeared sterner.
"You all know how to label number lines. If you see a blank number line with a point marked on it, you will always have the zero and the one marked like this." She wrote " 0 " under the first vertical line that Savannah had drawn and " 1 " under the vertical line farthest to the right.
"Over the zero I can write? Katrina."
"Zero twos!"
"Zero twos?" Honestly, Audrey thought. I'm beginning to feel like a broken
record. "Zero twos? Zero twos? Halves! Halves! These are halves!" She wrote " $\frac{0, "}{2}$
over the first vertical line, then pointed to the vertical line at the right end of her number line. Pointing, she asked, "What about over the one? This is a tricky one. Janet."
"Two halves."
"Yes! Two halves." She exhaled exaggeratedly as she scrawled " $\frac{2}{2}$ ", and some children giggled. "Thank you, Janet. And in the middle? Trayvon."
"That's one half."
"Yes!" she said. "One half. It is one half." A few children giggled again. She labeled $\frac{1}{2}$ with a flourish. Audrey looked at the class. "Can I go to $\frac{3}{2}$ ? Kevin."

Kevin, a scrawny boy with large black-rimmed glasses, bounced out of his seat. "No! It can't go there! The next time!" he squealed excitedly.
"Kevin is right. We can't go to $\frac{3}{2}$ on this piece of number line. That's for fourth grade. In fourth grade they let you go on and on and on in the number line until you become exhausted." Again, more giggles - exactly how she liked it.
"Today, we're going to be practicing this in a different way. Up here," Audrey said, gesturing to the board, "I have some rope. We are going to be using this rope as a number line. There should be a strip of tape on either end, like so. This piece of tape," she said, gesturing to the vertical piece of black electrical tape on the left, "is your zero. And this," she said, pointing to the tape on the right, "is your one. You won't be labeling them on your rope, but I'm going to write them on my board so that we can all remember." She quickly labeled the zero and the one, then held up the cards with the fractions written on them and the small sandwich bag containing the clothespins. "At each station, you are going to have a small bag like this. There should be ten clothespins
in the bag when you get it, and there should be EXACTLY ten clothespins in the bag when you return the bags to me." She raised an eyebrow.
"Some of you may have never seen clothespins before, since you may not help with the laundry or you may have dryers at home, but these are what people used in the olden days to hang their clothes up to dry. Today we're going to use them to segment our number lines by clipping them onto our rope." Audrey demonstrated by quickly clipping and unclipping a single clothespin.
"Each group is going to be assigned one piece of rope. You will also receive some fraction cards. First, your group is going to choose one fraction card from your pile. I'm not going to get fancy, I'm just going to choose the top one. I choose..." Audrey paused dramatically, then flashed her card at the class. "Two-thirds."
"Whooooa!" a few kids whispered, visibly itching with excitement.
She allowed herself a small smile. It had taken her almost a month to get to this point, but the kids were hanging on her every word. "Now, I need to partition my rope into segments," she explained. "I'm going to use the clothespins to do this. I know that I am going to be dividing my line into thirds, so I need to take my clothespins and separate the rope into three segments that are about the same size. It doesn't have to be perfect, but it should be close." She clipped two clothespins roughly equidistant apart in the middle of the rope. "See? One, two, three equal segments." Her students nodded in agreement. Damien intently karate-chopped three times in succession, then quickly returned his hands to his lap.
"Now, I need to label two-thirds, because that's what is on my card," explained Audrey. "Should I put it here?" she asked, pointing at the zero.
"Noo! Nooooo!" the class erupted.
"What about...here?" she asked, pointing at the line indicating $\frac{1}{3}$. The class erupted again, shaking their heads, waving their arms. She allowed herself another small smile. "What about...here?" she said innocently, pointing at the next line.
"YES! YES! THAT'S IT! YOU GOT IT, YOU GOT IT!"
"Fantastic," Audrey said calmly, motioning at the group to settle down. "I'm going to write two-thirds on a post-it note, and place it directly above that line. Once I've checked your group, then you remove the clothespins, remove the post-it note, and begin again with the next fraction. Got it?"

Twenty-eight heads nodded vigorously in agreement. "You will be working with your table groups again today, the same as yesterday. You will partition the number line and decide how to label the fraction in groups, then record your work in your math notebook on your own," she said sternly. "This means that I should be able to ask anyone in your group how you partitioned the number line, and where a fraction should go. That means everyone needs to know."

After scanning to make sure that all of the materials were still in place, Audrey quickly assigned them to their stations. Her groups were mixed ability, with each group containing a high student, a low student, and two medium students. Some groups were stronger than the others. She tried to differentiate by steering the stronger groups towards more complicated fractions such as $\frac{5}{6}$ and $\frac{3}{8}$, while simultaneously assigning the lower groups more basic unit fractions such as $\frac{1}{4}$ and $\frac{1}{2}$. After assigning the students, she looped quickly around the room to make sure that all of the groups had begun working.

She grabbed her coffee cup from her desk and took a long sip as she surveyed the room. Everyone looked more or less on task, or at least appeared to be following her directions. Rodrigo's group, she thought decisively. Let's see what they're up to.

Setting the coffee cup down on the corner of her desk, she took a few steps and stopped just behind the group containing Rodrigo, Molly, Kevin, and Regina. Audrey peered over and saw the fraction $\frac{4}{6}$.
"We need to start with thirds, remember?" Rodrigo gestured emphatically at the string with a sharpened pencil, slashing at the air to indicate thirds.
"Oh, yeah," Molly nodded, grabbing the bag with the clothespins and counting out six. "Here you go."
"Thanks." Rodrigo grabbed three clothespins and, tongue pinched between his lips in concentration, he spaced the three clothespins equally between the one and the zero. Fighting the urge to correct, Audrey bit her tongue and waited.

The four students studied the line for half a second, then Kevin's hand reached out and pointed. "Aww, man, no. Man, you did fourths. Mira," he said, lapsing momentarily back to Spanish as he gestured at the segments. "One, two, three, four."
"Oh." Rodrigo paused. "Yeah." Frowning, he continued to stare intently at the rope but made no move towards the clothespins.
"Just take one out. Here." Molly reached out and removed one, as Kevin nodded and slid the other clothespins over to create thirds. "Now just cut the thirds in half, and we got sixths." She took three more clothespins, and neatly divided the remaining
segments in half. "Then, $\frac{4}{6}$ is..." She counted quickly, with an almost imperceptible flick of her finger. "Here." She planted the post-it note confidently in the correct spot.

Audrey reached over the students to quickly pull the clothespins off, startling Rodrigo and the others. "Excellent." Audrey gave Molly a high five, then looked sternly at the others. "Is everyone in this group ready to explain? I mean, could you all answer if I asked you in front of the class how you partitioned the line and decided where to put your fraction? Because I could ask anyone."

Picking up on Audrey's hint, Molly reached for Regina's hand. "Okay, Regina, come on. It's your turn," Molly insisted, pulling her towards the rope.

As Audrey stepped away, she spotted Damien at the edge of his group. He had taken two pencils and had fashioned them into pincers. Sneaking behind another child in his group, he was just about to pounce with a primal scream when Audrey reached over and grabbed his hand. "Damien, give me those," she huffed exasperatedly. "Go sit at your desk. If I see anything else like that again, I'm sending you immediately to Ms. Chavez, do you hear me?"

Honestly, thought Audrey. Three hours to plan for this lesson, and I'm stopping to dismantle a crab claw. She crossed her arms, and watched Damien shuffle to his desk. Most groups were on to their second or third fraction. Time to check in. "Voices off in two. One, two," she called. Most students continued talking animatedly in groups. "EXCUSE me," she said, louder this time, her frustration with Damien seeping into her voice. This time the class froze. "How rude. Sit down in front of your number lines. Now." The children dropped to the floor.

Audrey clapped twice, and this time all of her students responded. "If I call your name, meet me at the green table for small group. Everyone else, you may put your things away and come up to get an independent practice sheet." She moved towards the left corner at the front of the room where a stack of papers lay neatly on the edge of a small student desk, and held one up to show the class. "Everyone, and I mean everyone, is responsible for the front side. The back side, of course, is our challenge side. Attempt it if you dare." The class giggled again. "Got it?"

She watched most students in the class nod enthusiastically, then silently signaled them to begin. She called the seven students' names. Six of the seven stood up immediately, walked briskly over to the horseshoe table, and sat expectantly. Of course, Audrey had to go and physically walk Damien to the table. As she marched him there, she silently motioned for the some of the other students to move over so that Damien could occupy the seat directly next to her right elbow.

Another small stack of the same worksheets sat on the table in front of her chair. She passed them out and cued the students to get to work. Looking around, this group wasn't too bad, just a few careless errors when they were recording on their papers. To her left, Regina had attempted to partition a number line into fourths. She had divided her line in halves but then had only partitioned the first segment again, leaving the line lopsided.

Audrey pointed at her number line. "That's right, but what about the other half?" Regina looked down at the paper, then slowly raised her pencil. Silently, she partitioned the second half so that her number line now contained four roughly equal segments. "Yes, darling, but you're not done. Now you have to label it. Luis, Trent, I think you've
got it," she said, glancing quickly at the papers in front of her. "You can go back to your seats and keep working."

Suddenly, the table began to rock slightly. Damien was furiously erasing something on his paper, causing the table to shake. Audrey sucked in a quick breath through her nose. He's trying, he's sitting here working and he's trying, she thought wearily. "Damien, stop that. You're interrupting other students' learning. Put your pencil down and let me see your paper."

Damien dropped his pencil on the table. Audrey glanced down again and pointed to the second problem on his paper. "Damien, walk me through this. What fraction are you trying to put on your number line?"

He looked down and stuck his tongue between his lips, eyeing it thoughtfully. "One...twos?"

Honestly.

## ELLs and the Common Core

The room was quiet, disrupted only by the occasional rustle of plastic packaging tearing open. The class was calmly eating breakfast. Even though she didn't mean to, Debbie found herself glancing constantly towards the door, expecting Meredith and the Smart Solutions consultant to come in at any moment. The email had sounded casual, they were just "popping in to see how Common Core math was going," but the fact that it was an announced visit made it different somehow.

Still, Debbie didn't know how informative the visit would be for them. She had all of the third grade English Language Learners in her class and academically they didn't
look much like the other classes. This year, her highest student was performing at maybe the middle of second grade and her lowest student couldn't write his own name.

Whatever the reason, Debbie had gotten butterflies in her stomach when she had opened the email. Her mind had immediately begun racing. Of course they wanted to see a real Common Core lesson. Whatever the observation was for, Debbie was sure that seeing her teach something really Common Core would be the most helpful. She had planned this week to finish up the customary measurement unit. After Meredith's email, Debbie had decided to scrap those lessons and start the fraction unit that Ellen and Audrey had begun the week before. She wanted to make sure that Meredith and the consultant saw what they needed to see, so she had planned some basic fraction lessons for the beginning of the week and then made sure that they would be starting equivalent fractions the day before the visit.

As she was helping a student open his milk, she heard the slow squeak of her door opening. Debbie looked up and put on a bright smile. Meredith walked in, a notebook in her right hand as a small boy tentatively gripped her left hand. Behind Meredith stood a brunette woman that Debbie assumed was the consultant, dressed smartly in a tan pants suit and holding an iPad. Debbie hurried to the door, and Meredith smiled as she motioned for the boy to stand against the wall. She leaned in towards Debbie and said in a low voice, "I was on my way over here when the parents came in to enroll him. Michael Fuentes, just moved here from Mexico."

She turned and flashed the little boy a smile. Dark-haired with long fluttery eyelashes, he smiled bashfully as he fidgeted against the wall. Meredith turned back to Debbie, her voice lowering again. "I didn’t get a chance to talk to the parents, you know
how my Spanish is, but the secretary spoke with both mom and little Michael, and apparently he's not much of a talker." Meredith paused.

The other woman smiled and said, "Getting a new kid without warning is always a little bit of shock, isn't it? Especially in the second half of the year."

Debbie rolled her eyes. "I'm used to it by now. It's been a revolving door this year. Two go, three come. I'm Debbie, by the way," she said, extending a hand.
"Kelly Preston, from Smart Solutions," the consultant replied. "So nice to meet you."

Debbie glanced at the boy again, then back at Meredith. "We'll have a place for him." She knelt down next to the boy. "My name is Mrs. Powers," she said, looking him in the eye and pointing to herself, being sure to speak slowly and clearly. "I'm your teacher. Maestra. Okay?" she said, pointing to herself again. He nodded and she pointed at her mouth. "Can you say that? Mrs. Powers?"
"Mrs. Powers," he repeated carefully.
Kelly looked quickly to Meredith, who said, "Why don't I find him a desk so that you can get started? Then you can finish getting him situated later."
"Good job, buddy!" Debbie held her hand up and he slammed his tiny palm into hers, grinning. "Go with her, okay, and I'll talk to you later." She made sure to flash him a big thumbs up as Meredith led him into the classroom. Debbie followed them in and moved towards the front of the room as Meredith began rearranging desks. The consultant stood in the back, looking at Debbie's walls and vocabulary displays.

Debbie turned to face the room, and began speaking to the group as she switched her computer to the correct PowerPoint. "All right, guys, it looks like we have a new
student with us today. His name is Michael. Wave at Michael." The class turned to wave as Debbie smiled encouragingly. "I'm sure that you'll all be very helpful with Michael today, especially if he doesn't understand what I'm asking him to do."

Debbie stood up straight and made a motion with her hand. "Alright then. Everything cleared off your desk and hands folded." Every student complied immediately with her direction, the room a whoosh of activity. She raised her eyebrows at Meredith, who nodded.
"I'm going to give you a little bit of background on our lesson here," said Debbie, moving slowly across the front of the room, passing in front of each row to make sure that she had their attention. All of her students were laser-focused, even Michael. "What did you do yesterday that you enjoyed so much, but we said you needed more practice with?"

Grins broke out, but no one responded. "Use your words," Debbie said, smiling herself. "What was it?"
"Fractions!" called out several students. The grins became even wider.
"Right! High five to you!" Debbie held up her hand in the air and the students who had responded quickly raised their hands up to give her an air high-five.
"Yesterday, you got so excited about equivalent fractions. You saw that $\frac{1}{2}$ was equal to $\frac{2}{4}$, and you were like, what? You saw that $\frac{3}{3}$ was equal to 1 , and you were like, WHAT?" She heard some giggles and smiled again, glad her students were engaged. "So we're going to do a drill with fractions right now. In a second, you are going to get out your whiteboards. I'm going to ask you to divide your whiteboard in half with your
marker. In half," she repeated, slashing her hand vertically in front of her and then holding up her two pointer fingers. "That means that if you were to cut it apart, you would get half and your partner would get half. It doesn't matter how you do it, as long as you each get half. Okay? Thumbs up if you understand."

She waited until every student had their thumb up, then cued them to take out their whiteboards. Everyone except Michael began pulling out their materials. He sat in his desk, alternately looking at her and nervously glancing at his neighbors.

She signaled to a boy sitting nearby with his whiteboard on his desk. "Ricardo, can you, you know, help Michael out?" He nodded, and turned around in his seat, speaking rapidly in Spanish and gesturing towards Michael's desk.
"Alright, let's go! I want your whiteboards up, divided in half! Boards up in ten!" As she scanned the room, she saw that most of her students had divided the board with either a vertical or horizontal slash. That was what she expected, since most of her students had only the most basic fractional knowledge. As more boards went up, she was pleasantly surprised to see that her more advanced students had attempted to divide their boards into quarters and eighths, with one student even attempting twelfths. Some of them are actually getting this equivalent fraction thing, she thought excitedly. I hope Meredith and the consultant are seeing this.
"Okay, I see that about 20 of you are done. Before you get ready to show me, ask yourself 'Is this a half?' My halves, if you are ready, hold it up high!" she said, circling towards the back of the room to urge on a few stragglers. She saw Michael with his board in the air, a vertical slash far to the right side of his board dividing the board into a skinny rectangle and another much larger rectangle. She looked at the two women sitting
in the back and discreetly pointed towards Michael. "Our little friend, he's sure he has a half!" she whispered. Meredith nodded and gave a little smile. Kelly looked up, but kept writing.
"Okay, boards down!" she called. "Erase!" She walked back to the front of the room, then paused until all students had materials down and eyes on her. "Alright, now you're going to draw a circle. Everyone, take out your whiteboard marker and draw a circle. Ricardo, can you tell Michael?" As the children hurriedly drew a circle on their boards, Debbie was thinking about what fraction to have them show next. Most of them get lost beyond halves and fourths, she thought. I want to see if they can do sixths, but I know it's going to be a mess so I'm just going to stick with halves. The circle will be enough of a challenge.

Again, she waited for everyone to be ready. "What could that circle be?" she asked, her hands upturned as she asked the question.
"A pie!" called out some students.
"I know, it's a cake!" shouted a boy.
"Nuh-uh, it’s pizza!" yelled another.
"Settle down, settle down," Debbie said sternly, then put the smile back on her face. "It's my favorite, so we know that it's a pie." A buzz of chatter and I told you so and No, you didn't filled the room. She fixed a teacher stare on them, then continued. "I get one pie that I have to share with my -"
"I know, your friend!" called out Marisol.
"Yeah, but you don't already know. That's five minutes of recess, Marisol.
Enough," Debbie said sternly, tucking away a mental reminder until she could get to her
clipboard to record Marisol's consequence. "I'm going to share it with my mom. Go ahead and split the circle between the two of us."

Right away Debbie saw that many of her students were not up to the challenge of translating what they knew about halves from dividing the whiteboard to dividing the circle. She noticed that more than a few students were attempting to draw a small wedge in the circle, as if a pie slice were being removed. She sighed again. "Stop for a second, guys, let me show you something." She went to the whiteboard, drew a circle, then drew one small wedge coming out of it.
"You guys are picturing that only one of us is hungry, like only one of us wants a big piece of pie. But we are hungry. We are both hungry, and we both want to eat a big slice, and we want to share the whole pie." She looked at Marisol, who had drawn a similar model. "Marisol, do you understand what might have been different? Do...?"

Marisol's face was blank. From the back of the room she heard someone mumble, "This is hard."
"Yeah, this is too hard for Michael," Ricardo whispered.
I'm losing them, thought Debbie. She motioned for them to erase the boards and return them to their desks. Time to switch gears, she thought. I hope this is what Meredith expected to see. I'd hate for this to be a waste of their time.
"Yara, can you bring me our papers for today? They're on the back counter."
A plump pig-tailed girl bounded out of her desk towards the counter and then back to the front. Debbie began passing out the first set of pictures and the recording sheets for this lesson. That was just drill, just a warm-up, she reasoned. This is the part of the lesson that really gets at the Common Core, the writing. This should look better.

She had had to focus a lot more on writing during her math lessons this year, since she only had 45 minutes for writing in her schedule and the state ELL regulations required a full hour. Since no one had given her a clear direction as to where that fifteen minutes should be made up, Debbie had reasoned that teaching the fifteen minutes of writing through the end of math was best. That way, her students got practice writing about something.

Dropping the last paper off, she returned to the front of the room and turned to face the class. "Here's my expectation. When I give you the pictures, you are going to write the fraction and I will help you with the words. Got it?" Nods came from around the room, and behind the last row of students she saw both women leaning over her guided reading table, writing furiously. This must be what they came to see, thought Debbie, feeling the butterflies in her stomach dissipate. Good thing I took the time to really prep this part.

She had stayed up late again last night well after her daughters had gone to sleep, creating these mixed sets of pictures for her students to use to label fractions of a set, maybe even to generate some equivalent fractions. She had printed them on her color printer at home, 103 pages, each one eeking laboriously out of the machine. She had wanted everything to be perfect.
"So let's start with the picture you have on your desk. You should be on the side with the animals," said Debbie, holding up a laminated version of the sheet displaying four dogs and two cats. "How many dogs do we have on this page? Show me on your fingers."

One by one, a series of hands raised displaying four fingers and a few displaying two. Poor little Michael displayed five having noticed only that the other students were raising their hands. "Be sure that you've counted the dogs, and not the cats. Ricardo, could you...?" She gestured back towards Michael.
"Los perros," Ricardo hissed, twisting his body backwards. "Contalos, Michael." Michael quickly readjusted.
"Now I'm going to give you a sentence frame. Remember I told you I'd help you with the words?" She clicked forward to the next slide, then read aloud, "'There are
$\qquad$ out of $\qquad$ . Then you just write the fraction below. So for this one, we were counting dogs, right? What would our sentence be?" She looked around the room. "Who wants to try, if we're talking about dogs? Who loves dogs and wants to make a sentence about them? Ricardo, you try it."

Ricardo scrunched up his face, his tongue hanging slightly out of the side of his mouth. "There are..." He looked down again. "Four dogs."
"Good, good. Now keep going. There are four dogs..." Debbie encouraged, pointing directly to the word 'out' on her slide. "How do you need to finish that?"
"Out of..." Ricardo continued, face almost unrecognizable with concentration. A passerby would think his appendix had burst, the way his face looks right now, thought Debbie.

Ricardo looked and counted again. "Out of six...cats and dogs?"
"Out of six cats and dogs? Does it look like I can fit 'cats and dogs' on this little line?" Debbie asked.
"Maybe you gotta write little," observed another student.
"Small. Maybe you have to write small." Debbie made eye contact with Meredith and Kelly, rolling her eyes and chuckling. "Yeah, that's not it. I'm thinking of one word that could describe both dogs and cats. Can anyone think of a word that could describe both dogs and cats? Yara, what do you think?"
"Pets? Like, they are both pets in the house?" said Yara tentatively.
"Yeah, okay. I was thinking 'animals,' but 'pets' works. So Ricardo, give us your sentence, with the word pets."
"There are four pets...I mean, there are four dogs out of...out of six pets."
"Whew!" yelled Debbie, wiping the back of her hand across her forehead as if wiping away imaginary droplets of sweat. "That was a workout, wasn't it?" The class giggled, including Michael. "Nice job, Ricardo, that was a toughie. Underneath, don't forget to write your fraction two-sixths, a two on top, then a line, then a six on the bottom. Now flip your pictures over. You should see some red and black cubes. I want you to do what we just did, but this time we're talking about the red cubes. You can use my words on the screen to help you write your words, but you have to use the picture. Go to work."

The room was so silent that she could hear the cacophony next door in one of the second grade rooms. All of her students began counting. As they began to record, though she noticed many of her most struggling students were not so subtly gazing at the paper of the person next to them. Debbie frowned. "Maybe we should put up our test shields. We seem to have a lot of Lookee-Lous. Remember, this is your independent practice. You should be doing this by yourself."

Ricardo raised his hand, and Debbie nodded in his direction. "Yes, Ricardo?
"Miss, can Michael look at mine? He doesn't know the words to write."
Debbie frowned again. Normally she would have said yes, just to get Michael in the habit of actually practicing writing in English, but she was being observed and she had just issued this broad proclamation that no one could copy. "Well..." She paused again. She didn't want Meredith to think that she was inconsistent. "Well...no. We'll work on that with him later. Just tell him to do his best."

Debbie grabbed the next set of papers and began to pass them out again. "Yara, you did such a great job before. Would you mind collecting that set of papers from everyone, the one we just did? You can set it on the corner of my desk." She made sure as she maneuvered around the room that everyone had their pencil at the top of their desk and was ready to begin.
"Okay," she continued. "We've got two more, another animal one and then a challenge. Make sure you're on the side with the animals. You should see some guinea pigs and some rabbits." She paused for a moment as a few student rustled papers. "The question is: How many of the animals are guinea pigs? One more time. How many of the animals are guinea pigs?" She looked across the room. Most students began counting right away, but a few looked apprehensively up at her.

She frowned again. These other teachers just don't know what its like, she thought. Vocabulary holds some of my kids back from solving even basic problems like this. Debbie took a paper from the pile and held it up. "Some of you may not know what guinea pigs are. See this little brown animal? These are guinea pigs. The ones that are all white are bunnies. So, just count the ones that aren't bunnies."

She heard a few students exclaim softly, under their breath. "Just do the best you can. All I need you to do is try. Since this your independent practice, we'll check it and share the answers at the end."

As she continued to walk around the room and give feedback, she heard the screech of chairs moving across the tile. Both women were standing. Debbie walked over quickly and held the door for them.
"Thanks for having us in your class today," whispered Kelly. "It was a pleasure to meet you."
"Oh, of course," Debbie said, glancing back at the students to make sure they were still on task. "Was it helpful? I mean, did you get to see what you needed?"
"Absolutely," nodded Meredith. "Thank you."
"Good, good." Debbie shrugged her shoulders. "I have a few challenges in here, you know? But it is what is. That's all part of teaching, you know?"
"Right, right." Meredith nodded again, glancing at Kelly. "I don't want to keep you, so I'll email you later about a good time to meet. Is that okay?"
"Of course," Debbie smiled. "I'll see you later."
She turned back into the classroom. That felt good, like Meredith and the consultant had gotten a snapshot of her class that felt like what she saw every day. The good and the bad, thought Debbie. It is what it is.

## Planning for Math Review

"Ellen, what happened to all of those little Snickers bars? I swear there were at least a dozen of them in here last week," said Audrey. She had been pawing through a
leftover bag of small candy bars at the center of the table and was becoming increasingly more agitated. "I've been craving one since I got here this morning."
"Maybe its muscle memory," laughed Ellen. "Wednesday, sit in my room, plan math review, eat candy bars. I think I might have eaten the last one right before you got in here, but as for the other eleven, I can't tell you what happened. Just eat a Milky Way or something."
"Well, you know it wasn't me," Debbie said, right hand up in the air in a fake testimonial. "Sherry from the fourth grade team and I have been on that crazy juice cleanse for the past week, so can't touch the stuff."

Audrey sniggered. "Yeah, right. You're telling us that and then sneaking into Ellen's room at night and eating my damn Snickers bars. Don't lie to me."
"Scout's honor, I promise!" Debbie laughed. "Besides, I haven't been to a grade level meeting with you guys in ages. I've had those ELL trainings with Smart Solutions for the past few weeks on Wednesdays, the ones where we do classroom visits and then they train us on all of this vocabulary and grammar stuff? After spending the whole day in a training, these meetings are just too much." She sighed, and clicked on something on her computer. "I'm telling you guys, I know how hard all of our teachers are working, but the extra stuff they expect for ELL teachers is just ridiculous. It's almost as bad as it was at the beginning of the year when they made us do all of that stuff for the state audit. Sometimes I think the only reason they give us a Wednesday afternoon off is because they're as exhausted as we are!"

Ellen rolled her eyes. "Well, I don't know that planning for math review is actually an afternoon off. That's like saying I had the day off, but I spent it running
errands." She eyed the stack of papers on her desk, then returned to her computer. "Although, I will say this is a much better use of time than our last professional development session with what's his name, the Jump Up guy. Ugh. I can't believe the district contracted with them for that stupid program."

Audrey thought for a second. "Yeah," she said finally. "I mean, I'll say this. For me, the Jump Up training was helpful because I had no clue what we were supposed to be doing with those stupid booklets. I just knew that at the beginning of the month I was supposed to send home these booklets that said "Jump Up to the Common Core!" on the front, the kids were supposed to do them at home with their parents, and then I was supposed to collect them at the end of the month. I didn't know I was supposed to be checking their work."
"And technically they're supposed to be checking the work in class, which takes forever. And that's when they do the work," grimaced Ellen. "I feel like I'm standing over them with a whip. I've started asking for it a week earlier than it's due, so that I can corral those kids who have done nothing. I mean, I know it's supposed to be the parents' job to help them and make sure it gets done, but come on. Some of this Common Core stuff is rigorous enough that it confuses the parents. What's the point in bringing it home when they need to have it here so I can explain it to them?"
"My kids are totally lost with at least half of the pages," said Audrey. "I mean, it's the entire third grade math curriculum. I know at the training last week, that guy said that the questions are spiraled through so that kids get practice throughout the booklets with each standard, but there's so much in there that our district curriculum map hasn't even gotten to yet."
"I know!" Debbie chimed in. "With my ELL schedule I only have forty-five minutes for math anyway, and some days reviewing Jump Up is almost half that. Twenty minutes a day!"
"Ugh. Yeah." Ellen tapped her pencil thoughtfully. "I mean, just between us, to me there was so much pressure to get the damn booklets turned in that I stopped assigning homework. I just felt like, 'Oh, gosh, I'd better not assign another math page in addition to the Jump Up book, because then they won't finish the Jump Up booklet, and that would be bad.'"

Audrey and Debbie both laughed. "The Jump Up guy will get you! He'll take you to math jail!" Audrey exclaimed. All three women dissolved into laughter again.

Wiping a tear away, Ellen checked her watch. "Look at this. We've been at this twenty minutes and we haven't done a darn thing with math review."
"Oh, so now you're serious," giggled Audrey. "Fine, fine. I'll get my tests. Don't want to end up in math jail." She grabbed a file folder from an adjoining desk. "This is the fraction one that we gave like a week and a half ago, right? The one on equivalent fractions and comparing fractions? It had better be, because it took me about 20 minutes to dig it out of my filing cabinet."
"You gave it that long ago?" asked Debbie. "Gosh. I gave it this morning, and even that was a rush for my kiddos."
"You only gave it this morning?" Audrey asked, startled. She knew that oftentimes Debbie took a day here or there, but a week and a half seemed like a lot to be off. She was about to ask why Debbie didn't give it last week with the rest of the team, but she caught herself. No need to seem accusatory. Instead, she merely said, "I had just
thought you were caught up at the beginning of the fraction unit. You know, that we were all on the same schedule now."
"God, I wish." Debbie sighed. "There was just so much vocabulary to memorize in this unit, you know? They really, really needed that extra time with the sentence frames. I was talking to one of the other ELL teachers at Palo Verde and she was saying the same thing. Her kids just weren't getting it either."

Oh no, thought Ellen. Not another marathon discussion about the pacing calendar. Glancing at Audrey, Ellen said, "Yeah. At last week’s leadership meeting, Caroline talked a lot about how Smart Solutions and the district expect us to be meeting regularly and collaborating about our math review period. I'm not sure exactly what that entails, since I wasn't here last year, but she really challenged us all to get back on track, since apparently we haven't been switching as regularly as last year. I know that Audrey and I just finished our last math review unit, so I thought this was a good topic to start with." She glanced at Audrey. "Even if it was a little far back."

Sensing a slight change in Ellen's mood, Audrey said brightly. "Oh, fine by me. I've got my tests right here. Let me just..." she trailed off, flipping through a set of papers. "Oh, okay. I remember now. This is the one where I started grading, scored the first five multiple-choice questions and number six, the short answer, and then couldn't figure out how to score the last two. Can we take a look at those?"
"Yeah, of course," Ellen said, as both she and Debbie found the page in one of their own test booklets. They all studied the first writing problem.

Kia and Alejandro both have a pizza. They each plan to cut their pizzas into sixths.

"I guess I just thought it was a two point question," said Debbie. "You know, one point for did they pick the right kid, and then one point for could they explain it."
"Yeah, but what is a good enough explanation to get the point?" asked Audrey. "I mean, I suppose ideally you'd want the kid to say something like, 'Because Kia’s whole is bigger, when the shapes are divided equally all her shares will be bigger than Alejandro's,' but I don't think all of my kids got there. Like this little guy." She thumbed through her set of papers and pulled one out, flipping to the last set of questions. "Arnaldo wrote, 'Kia's because I see it bigger.' I mean, it's not wrong, but he just looked at the paper. No fraction sense at all."

Audrey pointed to the paper. "So, like, one point for the answer, one point for any sort of attempt at an explanation, like little Arnaldo here, and then one point for an answer that demonstrates some sort of mathematical understanding?"

Ellen studied the paper for another moment. "Yeah, I think so. Debbie?"

Debbie threw her hands up in the air. "I'm good with whatever. We can make it a two-point question or a three-point question. For half of my kids it doesn't matter anyway since they got it wrong to begin with." She pulled out one of her papers. "What I've been doing for the last few assessments is putting a plus sign next to the question if they really got it, you know, a perfect answer, then a check mark if they kind of got it right but still need help with just explaining, and then a minus sign if the kid was out in the middle of nowhere and it was totally wrong." Debbie shrugged her shoulders. "It probably isn't how we're supposed to do it, but the whole points thing was just confusing to me. Since my kids struggle so much with the writing, it was way easier to just flip through and see who got the math right. I mean, they won't even have to write on the state assessment this year anyway."

All three women were quiet for a moment, then Audrey said, "You know, I get that. Plus, check, minus. Simple. No hashing out every single question." She turned to the last problem. "So how would the plus-check-minus thing work here?"

Look at the fraction below.

## $\frac{1}{2}$

In the space below, write a fraction that is equivalent to this fraction.
Justify your answer using a model or a number line.

Debbie gave a small laugh. "Well, I suppose I didn't think much about the plus, since none of my kids got there. But I gave a check mark to any kid who could come up with an equivalent fraction and attempted some sort of explanation, and then a minus for any kid who couldn't do that. Lot of minuses." She chuckled again.

Nodding, Audrey said, "Okay, I get that. So then a plus could be if you generated the equivalent fraction, made the model, and wrote a pretty much complete sentence explaining what you did. Like..." She shuffled through her papers again, and produced a wrinkled paper with handwriting so miniscule as to be almost indecipherable. "Tyrees. You practically need a magnifying glass to read it, but I swear that boy is a genius. He needs to be up for gifted testing. He $\operatorname{did} \frac{4}{8}$ and wrote 'I made two boxes the same size, then cut both in half. Then I divided the other one in more pieces. They are equivalent because 4 of the little pieces fit in one half.'
"And look at his model. Here. That's exactly what he did." She pointed to the paper. "Yeah, I get that. That totally makes sense to me. Can we just agree to score the writing pieces like that?"

Looking at the paper, Ellen hesitated for a moment. It had seemed at the last leadership meeting that these quiz scores were important data for the district. She wasn't sure, but it seemed like this system would make it hard to report back percentages to the district office. I suppose this is where being the team leader comes in, she thought. Compromise, compromise. She decided that she would just pass this along to Meredith, and let her decide what to do with it.

She spoke carefully. "Well, it seems like most of our kids are still struggling with the writing piece. I can't say without looking at my tests again, but my guess would be
that most of my kids would have gotten checks, maybe a handful of pluses, and the kids who would have gotten minuses pretty much bombed the entire test."

Audrey gestured towards the rest of her tests. "I mean, Tyrees would have been my only plus for sure. I had a lot of kids who had the right idea but just can't put a sentence together. Even some of my minuses might be checks, I just can't figure out what the heck they were trying to say. If we made a math review group based on being able to explain in writing, it would literally be all of my kiddos."
"What if we just don't even look at the writing part when we're splitting them up for math review?" Debbie asked. "I mean, last year, we just used the multiple choice tests and that was so simple, you know? All of the kids with $80 \%$ and $100 \%$ went to the library with Mrs. Kapowski, someone took the 60s, someone took the 40 s and 20s, and I kept most of my kids and any zeros."
"What does Kapowski do with the high kids?" Audrey asked. "Do we need to write some lesson plans for her, or how does that work?"
"Well, I usually didn't send any kids to her, because of my class." Debbie laughed again. "We always just sent her an email with the list of kids she was taking and what the skill was, fractions or whatever. She would find some worksheets or computer games for them to practice. Not really teaching them anything new, just taking what they already knew and making it stronger. Lots of practice."

Ellen frowned. "Yeah, I can see how that's easier, but I know that I have some kids in class who got $60 \%$ but missed completely different things. Like, Martin missed the two modeling problems, and Mikayla got those problems right but missed the two
where they had to fill in the missing denominator in a fraction comparison. They shouldn't be in the same group together. How did that work last year?"

Shrugging, Debbie admitted, "To be honest, I couldn't really tell you. I've always mostly kept my own kids, and then they would just send me any zeros, you know, anybody who was totally out in space. I mean, my kids are so far behind that I don't even know if we're going to get to comparing fractions during math review. We'll probably just start with comparing numbers one to ten and some addition and subtraction review. My kids have struggled a lot with that over the past few weeks."
"Well, do you have any kids who got $40 \%$ or $60 \%$ that you'd like to send over to me or Ellen?" asked Audrey.

Biting her lip, Debbie hesitated. She just felt like the other teachers didn't understand how her students needed material presented in order to understand. Even her strongest students needed material clearly broken down step-by-step. The last time she had switched with the team for math review, the three students she had sent out to the other class had completely forgotten all of the steps that she had taught them and ended up scoring lower on their second assessment than they had on the first. No, she decided. Best that they should all stay with me.
"I really think I'm going to keep all of my kids this time," Debbie said slowly. "You know, I had a few kids who did pretty well on this test, for my class at least, but there's just so many other things we need to work on. Like I said, we're going to touch on this but I'm still going to spend most of the time in math review on addition and subtraction, the facts through 20."
"Could you take Damien, too?" Audrey asked. "He was my only zero."
"Yeah, of course. You know, I haven't spent a lot of time with him, but I think it will really be good for him to go back to the basics, like the addition and subtraction facts. I mean, if he's getting zeros, that kind of review can't hurt." She looked at Ellen. "Did you have any zeros you wanted to send me?"

As Ellen began to shake her head, they heard two sharp knocks. Caroline stuck her head in the doorway. "Hey, guys. How's it going in here?"
"Oh, it's going," Audrey said. "We ran out of Snickers bars, and I think Deb over here has been sneaking them. You should investigate."

Caroline laughed. 'I'll put it on my to-do list, right after I look into who's been tagging in the boys bathroom. How's the math review planning coming?"
"Oh, good, good," Ellen said, trying to mask some of her stress. "I think we've got math review for the next few weeks hammered out, at least."
"Good, good. Well, run it past Meredith when you get a chance, just so she knows what the plan is." Caroline put her hands in her pockets. "Listen, ladies, I just wanted to catch you when you were all together. Dave Masterson, you know, the Jump Up guy, left me a message this morning. He said that as a school we're doing well, but that the booklet completion in third grade is still a lot lower than what he'd like to see. You know, a lot of missing booklets, things not completed in the booklets, stuff like that." She scanned the table. "I know you all talked about it at the meeting last week, but those booklets are a really important set of practice for our kids, especially leading up to the state test. We've got to be a little more on top of that next month, okay? He CCs the superintendent on those emails, and the last thing I want is for Dr. Davies to think that we're not doing our job here at Mesquite."

Ellen caught Audrey's eye. "I'm sorry, Caroline. We talked about it already. We'll try harder this month to make sure that all of the booklets are in on time and ready to go."

Waving her hand, Caroline said, "I'm sure you will. Let Meredith know if there's anything you need in order to make that happen. Like I said, those completion scores reflect on the school, and we want to put our best face forward. Plus, you know, with the state testing coming up, it's just another really critical opportunity for them to practice the testing format." She paused. "Well, I'll let you get back to work." She headed towards the door, then turned back towards them. "You know, if you're looking for some ideas on how to up your completion rates, you should talk to the fifth grade team. They've had $100 \%$ of their booklets turned in for the last four months. They might be able to give you some tips."
"Sounds good," said Ellen. "I'll send them an email or something."
"Good, good. Alright, ladies. Have a good rest of your afternoon." Caroline opened the door and strode out as it clicked shut behind her.

As soon as the door closed, Audrey's eyes went wide. " $100 \%$ completion? I have to threaten my kids to get half of them to turn it in. How is that even possible?"
"Don't you know?" Debbie said, leaning in conspiratorially. "The fifth grade team just never lets the kids take the booklets home. They do it together. In class."
"I know!" Ellen added indignantly. "And not only that, but you know how there's that little signature part at the top of the page where the parents are supposed to sign that it's been completed? On that team the teachers all sign the booklets! I bet those parents have never even seen a Jump Up booklet."

Audrey looked at Ellen quizzically. "So why did you tell Caroline that you would email them? I mean, if you already know what they're doing."

Ellen sighed, visibly irritated. 'I mean, we're not going to say, 'Well, did you know that the ones with the $100 \%$ turn-in rate don't bring it home? And the teachers are signing the booklets, and they're all lying to you and the Jump Up program about it to make the team look good?' I can't say that." She looked at Debbie, then shrugged her shoulders and looked back at Audrey. "So, I don't know. We just kind of keep saying 'Ok, we'll try harder.' You know, maybe next month we'll get it." She crossed her arms. "That's why this whole thing is so stupid, you know? I went to the last board meeting and I heard someone from the district talking about how great it is that we have access to all of these new Common Core problems through Jump Up. I didn't say anything, but I just wanted to be like, 'Yeah, that's not really math. It's just Jump Up. And to be honest, it's kind of a pain in my rear end.'"
"Totally," said Debbie. "So, are we done here? I have a ton of worksheets I need to get copied this afternoon. You know how backed up the copy room gets."
"Well, it sounds like you're keeping your own kids, right?" asked Ellen. "I mean, Audrey and I still have to figure out who is taking which kids between us, but I guess you're done unless you'd like to stay for a little bit to plan."
"I think I'll head out now to make those copies," Debbie said. "With my group, the math review pretty much stays the same, you know?"

## Let's Review

"I think we need to make a list," Ellen said.
Audrey sighed deeply. Really, it wasn't standardized testing that she disliked as much as it was the frantic pace leading up to the assessment.
"You're probably right," Audrey said. "I just think the list is going to have everything on it. Do you want me to try and find my standards document? Not the Common Core one. The one for the old state standards."

Ellen waved her hand, dismissing the idea. "No, no. Meredith told us that the district had integrated all the old standards into the pacing calendar, remember? We just need to review the curriculum map and look for the old standards, the ones that are coded with just numbers." She paused. "And the operations stuff, I guess. You know, all the addition, subtraction, multiplication, and division stuff. But only the multiple-choice problems. No writing on this year's state test."
"So we can just use the curriculum documents?"
"And the test results from district benchmark testing. The district already organized all the gap skills from the old standards for us, the ones on the test not covered by Common Core. We've already taught everything from the old standards, we just need to go back and review." Ellen reached for the paper printout of the district benchmark results that Meredith had provided for each team. "I mean, the big benefit for us is that our kids did way better on the old standards than they did when it came to the Common Core standards."
"Your kids might have, but mine sure didn't," Audrey pointed out. "Besides, whatever happened first quarter here is a total mystery to me. I still haven't figured out what the subs did and didn't do."
"Right, right." Ellen leaned over to look at the document and scanned down the list of standards. "That's actually a lot. How are we going to fit that all in the next three weeks?"
"Well, we'll just have to figure something out," Audrey said, a twinge of anxiety in her voice. That really is a lot, she thought nervously to herself. Like, twice as many standards to review as we have days before the test.

They both paused for a moment to consider. "I think what I have to keep in mind is that, really, the district has done all this work for us, you know? I mean, like I said, we've already taught everything we need to teach. So it's not like we'll need to teach anything new."
"What if..." Audrey paused and looked at the documents again. "I mean, not all of these lessons need to be a full period, right?"
"I guess. What are you thinking?"
"Can we do something like two mini-lessons in one math period? You know, a quick review, then a little game for them to practice, and then a quiz, then repeat it with a different math standard?"

Ellen considered this, her head cocked slightly to the side. "That could work," she said finally. "I mean, we know which ones would need a full period to practice, but we can arrange it that way. I can definitely write the little review lessons and the quizzes. I feel comfortable doing that from all of the math planning that I've done this year. I'll
just take the sample questions that the state puts out for each standard, then change the names and numbers." Ellen scribbled something in her notebook, then looked up at Audrey. "Would you be able to do the games? You think like that, and I just don't."

Audrey nodded. "Sure. I'd love to. That actually sounds like fun."
They began to busy themselves at their computers, occasionally looking up to ask a question or share an idea. They were so engrossed in their work that both women were startled when the door opened almost an hour later and Debbie walked through carrying a box of math manipulatives. Though Ellen was privately a little embarrassed that she hadn't thought to ask Debbie to join them, she tried to quickly cover it up by explaining their idea for the test prep.
"I mean, the games are great, the kids will love to play them," Debbie said after Ellen had finished explain their idea and Audrey had showed her a sample game. "But my kids have fun playing the game, and then they ignore the quiz or worksheet or whatever because it isn't as fun as the game. What we really need is something to pump them up for the test itself, you know?"
"Like an incentive?" Ellen asked. "I mean, we already have all of those raffle tickets that Caroline gave us for the big standardized testing pep assembly. I've been bribing kids with those like crazy."
"No. I mean those are great, but I was thinking something more like - I don't know, like a theme, I guess. You know, every time we pass a test you get something on the bulletin board outside. We could compete against each other. One of the other ELL teachers was talking about doing it with the younger kids as a sight word competition.

All of her teammates' boards were decorated like fish bowls, and every time a kid moved up a level on their sight words, they got to add a goldfish to their board."

Audrey's competitive nature flared. "I love it," she said enthusiastically. "They would get really into that. We can use the little quiz for the end of each lesson, and if the class averages $80 \%$ or higher then we put something on our boards outside."
"Can we make it 60\%?" Debbie wrinkled her nose. "Otherwise my board will be blank."
"Okay, then." Audrey nodded. "Sixty percent and higher gets something on the board."
"So what's this big theme that you want to use?" Ellen asked. "My own children are all grown, so remember that I don't know what's cool anymore."
"You know, it would be really cool to do something American, patriotic, you know, since we have so many kids from Mexico," said Debbie. "What about football? You know, players, cheerleaders, all that stuff. We could dress in jerseys for the big assembly."
"Football?" Ellen wrinkled her nose. "I'm not really a huge sports fan. Besides, do our kids even know what football is? American football, I mean."
"Oh, Ellen, come on," Audrey said, rolling her eyes. "Of course they do. It will be fun, really energetic. We can put a big field goal up on the bulletin board." She raised her eyebrows. "It's just to get them pumped up, Ellen."

Ellen couldn't imagine herself teaching in a football jersey. Still, we did what we came to do, she thought. She sighed. We figured out what to review - that's enough for today. Let Audrey and Debbie have their fun.
"Fine," Ellen sighed again. "Football it is."

## Standardized Testing

Shit, thought Ellen. Shit, shit, shit.
Today was the second day of standardized testing, her students' fourth session out of six. Each morning was a different section of the reading assessment, and the afternoons were math. These long sessions were so difficult for them. Some of her little ones struggled mustering enough focus to get through a normal math lesson where they were moving around, let alone the complete silence required for the test. Heck, Jamari couldn't even make it through breakfast. Ellen had been beyond grateful when one of the aides had been assigned to take him out for testing. Let him throw tantrums in someone else's room for a few hours, she had thought grimly.

It didn't help that the mood was tense. Ellen supposed that it couldn't be avoided.
They had been building towards today for so long that it had the feel of a championship game. Good Lord, they had even had a standardized testing pep assembly. To her complete surprise, there had been an actual live band playing. The kids had danced, different teachers and administrators had shared tips for testing, and they had sung some goofy testing song that had been written to the beat of a Top 40 hit. When they had left the gym, all of the younger students who weren't testing this week lined up to give her and her students high fives to pump them up.

All of that had been a lot of fun, but along with all the festivities came a mounting sense of pressure. She had spoken with Audrey yesterday while they were returning their tests to the office. Audrey had whispered, "Oh my god, I felt so nervous! I didn't even eat breakfast yesterday morning, because I was afraid I was going to throw up!" Ellen had remembered exhaling for what seemed like the first time all day. Okay, I'm not going crazy, she thought. I'm not the only one who's feeling anxious. Ellen had whispered, "Me, too. So nervous."

Yesterday's math session hadn't gone as well as Ellen had hoped. They were told to closely monitor students' bubbling on the multiple choice test, but were warned not to look at the testing questions under any circumstances. Personally, she thought it was ridiculous. For heaven's sake, the bubbles were right under the questions! How was she supposed to monitor bubbling without looking at the questions?

Towards the end of yesterday's session, she had been walking around monitoring. She had been shushing those early finishers who were working noisily on their word searches or fumbling inside their desks for library books to read. When she passed by Martin's desk, she noticed on his workspace that he was drawing a large rectangle labeled "galun". Brow furrowed, he added a smiling head to the top of his rectangle, and meticulously began to draw four smaller rectangles at the corners. Thinking for a moment with his pencil in his mouth, he then wrote "qort" inside each of the smaller rectangles.

Ah! thought Ellen. He's drawing Gallon Man! It must be a conversion problem! YES! I knew they would remember Gallon Man! After struggling for an eternity to get her students to memorize the customary conversion tables, she and Audrey had stumbled
upon "Gallon Man" on a teaching resource website. Gallon Man was drawing of a man with a "gallon" for a body, four "quarts" for arms and legs, two "pints" for each hand and foot, with two "cups" on each hand and foot to represent fingers and toes. It had been a cute drawing, with a fun little song to go with it, and boom! After she taught her students how to draw Gallon Man, they could do conversions all by themselves just by making the drawing and counting.

I wonder what kind of conversion problem it is? She and Audrey had tried to cover as wide a range as possible during the measurement unit, but they had wasted time trying to get the kids to memorize the stupid conversion tables before they had finally introduced Gallon Man. Ellen leaned over Martin's shoulder as he finished his drawing, counted something, and definitively bubbled choice B, " 4 ", with heavy pencil strokes. As Ellen checked to make sure his strokes didn't stray onto the next bubble, she glanced at the problem above the answer choices.
"Mike's mom sent him to the store to buy orange juice. The orange juice cost $\$ 2$. How many quarters will Mike need to pay for the orange juice?"

Eyes wide, Ellen slapped a hand over her mouth to keep from shrieking. No!!! Martin had probably read "orange juice" and thought it was a capacity problem, or maybe he had seen the word "quarters" and mistaken it for quarts. Or, who knows, maybe Martin didn't read the problem at all, and just thought that this particular moment was a perfect time to begin drawing that damn Gallon Man.

Frantic, Ellen began pacing the aisles and peering over students' shoulders. One, two, three...four with Martin! Four students had drawn a Gallon Man on that page. And that was just four that she knew about! She hadn't mentioned that to Audrey yesterday,
because Caroline had been standing right there and she couldn't imagine what would happen if she admitted reading one of the test questions. It can't have just been my kids, Ellen reasoned. We taught the same math lessons. So she had just kept her mouth shut, and hoped that she hadn't screwed something up.

And now this.
After the Gallon Man incident, she became much more vigilant about monitoring her students. She wasn't able to ask her students what they possibly could have been thinking, and after she tossed and turned all last night she realized that all she could do was look at their work and try to figure out what was going on in their brains. She would never talk about it, of course, and she would never write down these questions or try to use them. She just wanted to stop feeling so helpless when it came to this stupid test.

Everything had been going pretty well, or about as well as could be expected. Jacqueline, Jonathan, and Theresa had raced through the test, and everything Ellen could see looked right. Poor little Marco, on the other hand, hadn't gotten a single problem right that Ellen had looked at, despite the intense look of concentration on his face and his frequent and fervent bouts of erasing. To be expected, thought Ellen, or at least what I've seen all year.

She had been standing between Faith and Eboni to keep them from whispering or exchanging hair bands, or whatever their latest thing was. When she looked down on Faith's test, she saw the graphic first: eight total marbles, with four black marbles, three white marbles and one gray marble. Underneath, the problem read,

These are the marbles that Lin had in his pocket. Lin reached into his pocket and picked out one marble. What is the probability that he picked out a gray marble?
A. $\frac{1}{8}$
B. $\frac{1}{2}$
C. $\frac{3}{8}$
D. $\frac{7}{8}$

Shit, thought Ellen.
They had never taught probability, as far as she could remember, not even touched on it. She racked her brain. Fractions, yes. Measurement, yes. Money, yes. And, what was that other gap skill? That one with the coloring maps, with the least amount of crayons. They'd even taught that. She didn't remember probability anywhere on the list of gap skills provided by the district. Probability was something she would have remembered. In the weeks before testing, she and Audrey and Debbie had gone all the way back to the beginning of the school year to review things that students might have forgotten over time. She had made practice sheets for every single one of those standards they had taught this year, and there hadn't been anything on probability. Audrey or Debbie would have said something if I had forgotten to make one of the lessons, she thought. There was only one conclusion.

They had entirely missed probability. They forgot to teach probability.
Her head began to spin, and she covered her mouth again for fear she would blurt out one of the million things that was racing through her mind. How could they have missed probability? And what else had they missed? The district curriculum maps had
been so thorough, telling them all of the Common Core standards to teach and what gap skills from the old standards they had missed, when to teach them and when to assess them, everything. It must have been tucked away somewhere. They hadn't seen it, and now all of these kids were going to get these probability problems wrong. Suddenly Ellen had a horrible vision of the whole school dropping from an A school to a C school, all because of terrible third grade math scores.

To stop herself from panicking, she looked down and tried to focus her eyes on Eboni's paper. Eboni had just started the probability problem. Here we go, though Ellen grimly. Eboni's finger pointed to each word, her mouth moving slightly as she read. She picked up her pencil and held it poised above the paper. Delicately, she placed an " X " over the letter C, careful not to touch the bubbles. She placed another "X" over the letter D. Pausing, she touched each marble, looked at the ceiling for a moment, then placed an " X " over the letter B and filled in the bubble next to the letter A. Next to the problem, she wrote, "I know it is A because there is 1 gray marble and he gots 8 marbles. $\frac{1}{8}$ of the marbles are gray. $\frac{1}{8}$ is NOT $\frac{1}{2}$."

Suddenly, the room didn't seem to be spinning anymore. Ellen took a quick walk around the room. Theresa and Juan had gotten it correct, of course. That was to be expected. But Kamylah, Jocelin, and Adrian had all gotten it right, as well, and put the same Xs over B, C, and D. They had done that process a hundred times, reasoning about the problem and crossing out the incorrect answer choices. The fact that her kids could look at a problem like that, when their delinquent but well-meaning teacher hadn't even
taught them the material, and they could still reason out the answer...well, wow. We must have done something right, I guess, thought Ellen.

She remembered a conversation that she had had with Meredith earlier in the year, right before the December district benchmark testing. "We have to focus on conceptual knowledge," Meredith had said. "If we teach them all the big ideas, and not just how to answer one kind of multiple choice question, they'll be able to look at some of these big problems and find the things that they know." Ellen had of course agreed with her, in theory. It had just been such a struggle to teach them even the most basic pieces of material that sometimes she felt she just had to expose them to the quick fix, if only to just get them at least a few points on the assessment. But here they were, on the state test, and she had kids who had done exactly what Meredith had said. They had reasoned out an unknown problem by applying their conceptual knowledge.

Just then, she heard the door between her classroom and Audrey's open. Ellen opened the door just wide enough to poke her head in. Wide-eyed, she raised her eyebrows in a quick look of utter disbelief. Audrey shook her head and threw up her hands in the air. At least it wasn't just me feeling like that, thought Ellen.

## Post-Test Planning

"I just feel like there's no time left, even though we technically have a month of school, you know?" Audrey reached across the table to grab another handful of M\&Ms. "I mean, we're off for Memorial Day, and we can't even count the last week, since there's so much stuff going then. I mean, it's going to take my kids two days alone to dig through the crap they have in their desks." She adjusted herself so that she was sitting cross-legged on the over-sized blue armchair. "We'd better stay on track, ladies. They
only give us one planning day a quarter, and I want to make sure that we have enough done so that for once I can leave campus for lunch."

In reality, they had already accomplished a lot with this uninterrupted two hours of work time. Debbie had hashed out the logistics for the field trips to both the library and the science museum, while Ellen and Audrey had settled on a research project where the students would research facts about different countries and create posters. Ellen looked down at her notes. "I think just math, right?"

Audrey sighed dramatically. "Well, we're still working on area and perimeter. My kids just got the part about decomposing an irregular shape."

Debbie looked up from her computer. "I know. That was tricky for my guys too. You think you want to just stay on area and perimeter all the way through?"

Audrey made a face. "No way, Debs. Not having it. I'm sick of area and perimeter. We've been doing this in math review since April. Besides, Ellen and I checked the pacing calendar last week while you were at that ELL training and we were supposed to be done with area and perimeter the week after standardized testing."
"I remember talking about it last week," said Ellen. "We still have one unit left. Metric, remember?" Ellen flinched ever so slightly. She had a momentary flashback to their initial forays into measurement, customary at the time. When they had done capacity, the room had been containers, containers, containers, as far as they eye could see, water sloshed all over the floor and tables.
"You seem thrilled," Audrey observed drily.
Ellen shrugged her shoulders. "You know how it is. I just think a lot of them aren't so secure in their measurement. They don't understand the big ideas of what
measurement means and putting metric on top just makes me nervous." She tapped her pencil on the table several times. "Like, what do we do with that in such a short amount of time? I feel like I can only get so far at this point, you know. And I don't want to take another week or two and go back to the customary because we're going to be at the end of the year."

Debbie crossed her arms and shook her head. "My kids never really got customary measurement. Like, the last week before testing, when it asked on the review quiz what unit you would use to measure the length of the room, half my class put pounds. Half! Not even inches instead of feet!" Debbie sighed. "I mean, the only kid who got it right was Israel, and you know he totally just guessed."

Ellen rubbed her neck. "I know. My class was the same way." She studied the calendar thoughtfully. Not much time at all. "Honestly, at this point, I think we just need to expose them to the metric piece so they go to fourth grade and they've been exposed to both customary and metric. They're not going to walk away understanding it, but at least then they've heard about it, you know what I mean?"
"That makes sense," said Audrey, nodding. "I mean, the fourth grade team will just have to understand. At least our kids like math. I can say that is true for every single kid in my class right now. I don't think that there's a single one that won't sit down and attempt problems, even when they get it wrong. They're still attempting it, you know? I think the fourth grade team will appreciate that."
"I would agree with that," said Debbie. Her kids did enjoy math, even if they weren't so good at actually doing it. She hesitated for a second, and asked, "Are any of your kids still having trouble with their multiplication facts? I mean, not like the sevens
or eights or anything, everyone has trouble with those, but like the easy ones? The twos, threes, fours?"

Groans came from both women. "Yes!" said Ellen emphatically, pounding her fist on the table. "I mean, my god, we've been doing those since September. Get it together, kids," she said, in a mock yell. One of the secretaries walking by the outside hallway paused at the commotion and peeked in the window.
"Maybe we should go back and reteach it during these last few weeks," Debbie suggested, nervously doodling on the inside of her day planner. "I would have done it more, you know, but my kids just needed so much help with addition and subtraction."

Another groan emitted from Audrey. "No, no, no," she said. "Debbie, no." Audrey didn't know what they would actually reteach, anyway. These little guys just needed repetition, pure and simple. That was how she had learned her multiplication facts, flashcard practices and timed tests, over and over again. She'd seen a few students progress pretty dramatically this year. If the rest would just show a little self-discipline, they could progress too. "Do we really need to waste a lot of time reteaching it? I feel like if we just up those Mad Minute timed tests for multiplication and do them every day instead of just on Fridays, that would be enough."
"Wait a second," Ellen said, grabbing a weathered plastic binder out of her bag and rummaging through it. "I think I have...no, that's not it. Hmmmm...I think....yup. Here it is." She pulled a stapled booklet out of one of the pockets. The booklet, about 20 or so pages thick, had a pink cover and was titled "Common Core Multiplication Magic: What to Do When Your Students Don't Know What to Do."
"I got this from a training about different ways to explain multiplication so that students can see the patterns, which I guess makes it easier for them to solve problems. It has some research, just a little bit at the beginning, but then the rest is lesson plans and materials. I used a lot of it to help me explain when we first introduced multiplication back in October." Ellen began thumbing through the booklet intently. "I remember there being a great part that talked about teaching kids who know their basic facts but not the more advanced ones, like the eights and nines. The lesson was about explaining the distributive property, you know, like breaking nine into four and five and then multiplying the parts."
"Oh my God, I remember trying to do that in the middle of a review once," Debbie groaned. "With my little guys, it was just, like, whew. Forget it. I mean it was seriously like, 'Why would you do that, you crazy lady?' They didn't like it at all. It didn't make sense to them at all, so I never touched it again."
"Yeah, I have one who gets it. Savannah. Her older brother or someone had explained it to her, and she came to me and said 'Look, this is easier.' I remember thinking, "Ok, I've got one."" Audrey chuckled.
"Do you guys want a copy of the booklet? I can make you each one when I go to make copies after lunch." Both women nodded, and Ellen slid the book to the middle of the table. "You can look at it if you want."

Audrey reached for it, and Debbie inched her chair closer to Audrey's to get a better look. "Was this from a training at the beginning of the year or something?" Audrey asked Ellen. "One of the million things I missed coming in December?"
"If it is, I wasn't invited. I've never seen this before," Debbie said.
"No, no." Ellen shook her head. "It was from my old district. I think their timetable is a little bit ahead of Miraflores', maybe, because they started with Common Core stuff back in 2011. They ran this big math institute for 5 days in the summer. Optional for teachers, but they paid you something like $\$ 150$ a day to go." Ellen raised her eyebrows at them. "You know, some serious bucks. The whole thing focused on the Common Core Standards, how to understand them, and how to implement them within their math curriculum. I sat through the fifth grade trainings because that's what I was teaching at the time, but when I found out I was going to be teaching third grade I asked around and got all of those materials, too."
"I just figured it had come from a training here in the first half of the year or something," Audrey said, shrugging her shoulders. "You know, since third grade made this big switch and all."
"Common Core trainings here in Miraflores?" Ellen paused thoughtfully. What had there been? The beginning of the year had been such a blur, transitioning to a new grade level at a new school and then taking on double responsibilities after the other teacher had left. "I'm trying to think." Ellen paused again. "I don't think we did anything here, at least not that I can remember. I mean, we had some stuff on how to read the pacing calendar, but nothing on the standards themselves. I have a feeling that maybe they did that last spring?" She looked over to Debbie questioningly.
"I think it was all K-2 last year," Debbie replied, moving her chair back to its original spot. "But you know how it is with me being ELL. I spend so much time with them that sometimes I miss some grade level stuff."

Ellen pursed her lips. Yes, she knew exactly what Debbie meant. This meeting had been the first grade level meeting in three weeks that Debbie had attended.

Audrey broke in. "So, we'll take a look at that, but I think we should also move to doing the timed multiplication tests every day. Can we all agree to that?" Both Ellen and Debbie nodded. "If we're going to do metric, I don't really want to go that in-depth with it. I cringe a little bit about when I think about having to put the metric in their heads on top of them trying to sort out the customary stuff. I don't know."

She paused, then continued, shrugging her shoulders slightly. "I had been thinking that, I don't know, if we're going to expose them to metric, we could do something fun. You guys might think this is silly but I wanted to tell you about it anyway. I studied abroad in Ireland my junior year, and of course they use the metric system. I thought we could have a tea party and weigh the cookies in grams and measure the tea in, well, in milliliters I guess." She shrugged her shoulders again. "I don't know. I just thought it could be fun."
"I love it, Audrey," replied Debbie enthusiastically. "We could make tablecloths and measure them in meters. And we could take them out to the track, you know, to walk or run a kilometer, so they know what that's like."
"Well, I'm in. State testing is done, my evaluation is done, and I'm in. So liters and milliliters, grams and kilograms. What else?" Ellen began to jot down notes.
"Meters and kilometers. Oh, and I guess centimeters and millimeters too." Debbie paused.
"I've got my binder with the district curriculum map in it." Ellen said. "Let me double check it." She rose and slid between the large red conference room chairs and the
wall to her second tote bag where she kept all of her district papers. Pulling out a large black binder, she returned to her seat and opened it. "Let's see, May, May, May... here it is." Ellen turned the page to the documents for their final unit on metric. Sliding her fingers down the list, she found the standard for the unit.
"3.MD.2: Measure and estimate liquid volumes and masses of objects using standard units of grams, kilograms, and liters. Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, for example, by using drawings such as a beaker with a measurement scale to represent the problem," she read out loud.
"So just kilograms, grams, and liters then. No centimeters, no milliliters," Audrey confirmed. "That should work then, to have a tea party."
"Really?" Ellen asked incredulously. "That seems a little basic, even for third. Especially when they had to do all of that stuff with conversion and customary measurement. I want to take a look at this assessment. Do either of you have it?" Audrey and Debbie both shook their heads.
"Alright, let me pull it up. Sorry, I'm just really curious now." Ellen opened her laptop, pulled up the district website, then clicked on the assessment link. She found the last assessment, and opened it. Ellen scanned through. "This is so basic! Listen to problem three. 'Kim and Jan both have liters of juice. Kim has 25 liters and Jan has 15 liters. How many liters of juice do they have altogether?'" Ellen looked up from the computer, mouth slightly agape. "I mean, they could solve that problem today. Like, right now, today. They don't even need to know anything about the metric system."
"Tea party it is then!" Audrey replied cheerfully. She looked at her watch. "We have about twenty minutes until lunch. Let me just print off the field trip forms and I'll start finding some stuff."
"Sounds good to me," Debbie answered.
"Sure, sure," said Ellen. "That works."
"Hallelujah," Audrey exhaled. "You know, all of this planning right now is making me so excited to be here at the start of the year next year. I just think it's going to be so much easier working to set the expectation starting fresh as a group, you know? And I just think that the second year in the Common Core math is just going to be so much easier and better than the first year."

Ellen nodded. "I'm feeling better about it, that's for sure. Now we just have to start thinking about switching all of our language arts stuff to the Common Core for next year. I'm sure it'll be okay. I've followed this district for a really long time before I decided to come here and saw that they're doing well and apparently making good decisions. It'll be okay. I mean, we got better at math, didn't we?"
"Yeah, but I think that's true every year," Debbie countered. "Every year, as I've grown, my class has grown in math. You'd like to think that it has to do with the Common Core link, but that Common Core material also frustrated my kids in a lot of ways. They do struggle with the writing. That's their biggest fear, not being able to read, not being able to write, you know?" She sighed. "I don't know if you guys knew this, but I actually begged Caroline not to put me in ELL again this year. She insisted on doing it. Now, I feel a little more optimistic about it."
"It's just that transition period," Audrey said, shutting her computer. "You just have to know there are going to be bumps. Someone from another team asked me for advice about the Common Core transition, since they're switching over next year, and I told them, 'Just breathe.' You know?"
"I wish someone had told us that at the beginning of the year," said Debbie.
Audrey laughed. "Well, I'm telling you now, Deb. I'm also telling you to get your stuff put away. I'm starving."
"I'll drive, since I've got the van," Debbie said.
"Sounds great. Thanks, Debbie," said Ellen.
"Let me go pick up those forms off of the printer and I'll meet you in the front." Audrey grabbed her stack and walked out the door. As Audrey left the room, both women began to grab their things.

## CHAPTER 3 - COACH'S NARRATIVE

## Leadership Meeting

Meredith checked her watch again. Her stomach had been rumbling for the last twenty minutes and if she didn't get something to eat soon the entire room was going to hear it. This is why I hate district office meetings, she thought. I can't eat when I want. I have to sneak out to go to the bathroom. And I'm pretty sure that half of this could have been sent in an email.

At least she wasn't suffering alone. This year, as part of their improvement plan under Smart Solutions, the district had mandated quarterly meetings with the "full" district leadership team, including all principals, assistant principals, and instructional coaches. These meetings were jointly run by Charmaine Winstead, the director of curriculum, and Chris Pisetti, the regional director of the Smart Solutions Foundation. This was one of the few times the coaches were involved at the district level.

This is what you get for complaining about being kept out of the loop, she scolded herself. She turned her attention back up to the front.

Charmaine was standing at the front of the room next to a large projector screen. She appeared slightly flustered, and was holding a sheaf of papers in her right hand while gesturing with her left. "So again, the ELL audit will take place in about two weeks. The state will be reviewing everything, from our records to our schedules. They will be evaluating student placement, time allotment, and standards usage," she said.
"Remember, they are not evaluating the quality of instruction."
"Not checking for quality instruction? That's great news!" one of the other principals chimed in sarcastically, bringing a round of laughter.

Charmaine herself joined in, after first looking to the superintendent. "That's right, that's right. Until the audit is over, all ELL classroom visits should be focused on the checklist we gave you earlier around standards being posted correctly, teachers following the correct schedule when you walk in, and teachers being able to provide lesson plans for each period in their core block which directly outlines what statemandated language strategies they were using."

Lacey, the instructional coach from Palo Verde Elementary, caught Meredith's eye from across the room. Leaning her head on her left hand, she extended her pointer finger as if it were a loaded gun and pressed it into her temple, rolling her eyes. Unable to stifle a grin, Meredith turned back towards Charmaine, hoping that her smile conveyed enthusiasm.

Charmaine continued. "Great. We're in really great shape, you guys. Any other questions?" The room was quiet, and Caroline reached over to Meredith's notebook and jotted, "Almost lunch!"

She paused again, and scanned the room. "Great. So, just a few more things on the schedule this morning. I'm going to give a brief update on where we're at with the Common Core transition, and then Chris is going to go over the Smart Solutions professional development schedule for the rest of the year. So, Common Core. As most of you already know, we actually began our Common Core transition last year, which puts us way ahead of many other schools in the area. We had our kindergarten through second grade classrooms begin teaching strictly the Common Core math standards last year. I think we can all agree that it was a big success, owing in large part to a lot of
support from Smart Solutions. Some of you might remember Kelly Preston coming out to your sites last year and working with your K-2 classrooms?" A few heads nodded.

Charmaine continued, "So this year, third grade is switching over to teaching Common Core math. Again, we're really at the forefront here. We aren't actually required to switch anyone over to the Common Core until the 2014-2015 school year, which is when the state assessments switch over. We are transitioning third grade a full two years early. Fourth through eighth grades will transition next year. Ideally, of course, we would have loved to have everyone switch over this year," she said, smiling. "You know, really dive right in and get familiar with the new material at their grade levels. But, you know, one thing we need to keep in mind is that this is still a little bit of an experiment. While we're transitioning into the Common Core, we still need to make sure that state test scores are where they need to be."
"How worried are we about that?" Caroline asked, tapping her pencil.
"About?"
"Test scores dropping. In third grade, if they're teaching the Common Core Standards but still have to take the old state test."

Chris jumped in, smoothing his tie. "Well, of course, one thing we know about the Common Core Standards is that they are of course more rigorous than our current sets of standards. So, if you have teachers who are teaching, and I mean really teaching the Common Core, then your students should be able to attack anything on that old state test. Now," he smiled knowingly at the group, "of course, that just means that we need to make sure that all of your teachers are teaching the Common Core Standards to the level of rigor demanded."
"Worried isn't the word I would use, Caroline," Charmaine said, shooting Caroline a look. "Cautious. We're being cautious. We don't want to risk all of our test scores at once, but we also need to begin transitioning so that we're ready for the new format when the tests switch over. One thing we have done to protect ourselves, though, is incorporate what we call 'gap skills.' Maybe one of the coaches could speak more about that. Lacey?"

Startled, Lacey cleared her throat. "Gap skills. Yes. Well, last year during the curriculum build, we built the standards documents and the pacing calendar, the documents that tell teachers what they're teaching on what day, and when the assessments are. So we cross-checked the Common Core standards with our current state standards, and made a list of all the current standards that weren't included at that grade level or covered by the Common Core. We called those 'gap skills' and inserted them into the pacing calendar. Frankly, there were a lot. A lot that weren't covered." She glanced at Charmaine and continued. "We incorporated as many of these as we could."
"But not all of the current standards?" asked Caroline.

Lacey shook her head. "No, not all. Under the old state standards, I think there's something like 56 math standards in third grade alone. We had to cut some. We tried to take out the ones that were the lowest percentage of the state test."
"So, can you summarize in layman's terms, Lacey? Small words, maybe some pictures?" asked Joe, Lacey's principal. "We principals aren't as math-savvy as all you instructional coaches." Several people laughed.
"The pacing calendar for this year includes the Common Core standards, as well as most of the standards from the current set of standards. So essentially we're asking
teachers to teach both sets of standards," she said, her tone rising slightly. "It's a lot. Really a lot."
"Our coaches have done a superb job of making sure that teachers are covering all of the material on the state test so that we don't have much to worry about," Charmaine jumped in, her own tone rising slightly. "As you can see, we've got it all under control. Additionally, as I mentioned at our last principal's meeting, our coaches are going to be building the remainder of our internal Common Core assessments during their weekly coaches' meetings. I'm sure that they'll keep our district performance in mind as they take that on this year."

Meredith and the other instructional coaches exchanged a look. Meredith recalled being in the initial meeting where the idea of "weekly coaches' meetings" had been introduced. Charmaine had been extremely complimentary, almost to the point of making Meredith uncomfortable. Charmaine had told them that they were the true experts in the district, the most instructionally qualified, and therefore the best possible people to take on the overwhelming task of creating all of the new Common Core-based assessments for third through sixth grade. In order to support them, Charmaine had said, the district was generously giving them two full hours a week of "protected time," free from other duties and responsibilities at the school site. Meredith remembered the tense silence that followed Charmaine's announcement. When she had tried to break the tension by saying something about coaching being an isolating profession and how great it was to have this time together to share best practices, Charmaine had nodded and told the coaches that they could have the first fifteen minutes to discuss whatever they wanted
and then just devote the rest of the two hours to finishing up the assessments, ideally as soon as possible. The silence had not surprisingly remained tense.

Meredith snapped back to the present as Caroline spoke. "Charmaine, John, I have a question. I remember at the build last year, we had a series of teacher teams working on this material. Are there any plans to bring teachers into this assessment creation? You know, since they spent all of that time in training?"

Meredith found herself nodding. From where she was sitting she saw Lacey's back stiffen, her arms crossed in front of her, leaning in. The other principals, who had been tapping on their phones underneath the table, stopped and looked up.

Charmaine, who had returned to her seat at the table, shared a look with Chris and Dr. Davies. Raising his eyebrows, Chris chuckled and whispered something to them that was inaudible to Meredith. Both Charmaine and Dr. Davies leaned in.
"Right, right," Charmaine replied, leaning back in her seat and turning back to face the group. "Ideally, yes. In an ideal world, we would love to bring teachers into just this sort of work. But, unfortunately, and I'm going to be frank here, we just don't have a teaching staff right now that has the capability of handling a project like this, with this level of content knowledge. We've got a lot of new teachers on our hands who are still learning basic management, and our veteran teachers - "
"Let $m e$ be frank for a minute, Charmaine," Chris interrupted, holding up a hand. "Some of your more veteran teachers aren't very strong. Or, I should say, aren't very strong yet. We presented to you the data that the Smart Solutions Foundation collected from our audit at the beginning of the year. Just twenty percent of teachers were posting objectives, and only eighteen percent had consistent engagement of eighty percent of the
class or more. Now," he gestured, "that was all teachers in your district, veteran teachers included. We have had a lot of discussions with your district admin team, but as I'm going to talk to you about in a minute, there is a significant amount of professional development that needs to take place in this district before the majority of these teachers are ready to take on a project of this level of rigor." He turned to Dr. Davies, who was jotting something on a piece of paper. "I apologize, Dr. Davies. I took that one over. Is there anything that you'd like to add?"

Meredith looked over at Charmaine, whose lips were pursed. Her gaze was focused down on a sheet of paper in front of her. Dr. Davies smoothed his tie. "You know, I think we have a great group of individuals teaching for us here in Miraflores," he began slowly. "But this new set of standards and the new assessment forms are going to be a challenge for them. It's going to be a challenge for all of us. I know when I first looked at the sample assessments, my head was spinning. And I completed a doctoral program." A few people chuckled. "So I think we can all agree that teachers need that time in their classrooms to make sure that they are focusing as much as possible before the state assessments in the spring. Besides," he said, smiling broadly, scanning across the room, "I think we can also agree that we are fortunate to have a group of instructional coaches in our district who have the skills and the knowledge to create these assessments and support our teachers with this higher level of rigor in the new Common Core standards."
"Well put, Jim," nodded Chris. "You are definitely fortunate to have such a talented group of individuals working on this. You know," he said, shifting slightly, "you're not alone here. This problem of having teachers who can't quite adapt to these
new ways of thinking on their own is something that we as an organization are seeing across our sites. Remember, these are teachers who came up under No Child Left Behind and Reading First. Many of them are used to having the reform put directly in front of them."
"That's what it's been here, Chris," Charmaine nodded. "Our teachers in the past have used a lot of scripted programs, and even those sometimes were a struggle. Again, that's why we decided it was best to have the coaches work on creating the assessments and documents."
"Charmaine, about that." Joe rested his right elbow on the table with his pointer finger in the air. "I'm in agreement with you all that our coaches are the most highly qualified people to be doing this curriculum work. I've got some great teachers, but I've got some green ones that are still trying to figure out which end of the pencil to sharpen, you know what I mean?" The other principals chuckled and nodded. Joe smiled and continued. "But, fact of the matter is, that's a lot of time. A lot of time away from campus. I mean, it's all well and good for Caroline to send Meredith, what with them being an A school and all..." Joe raised his eyebrows at Caroline, causing her to roll her eyes. "But over at Palo Verde, we're under improvement and we've got our backs up against the wall. I need my instructional coach on campus supporting those teachers, not off campus doing paperwork."

The other principals nodded. "Me too," one of them added.
Charmaine looked over at Chris and Dr. Davies, then back at Joe. "Absolutely, Joe. We want to make sure that our instructional coaches are on campus as much as possible supporting your teachers. We believe that by having this protected time off
campus, we will actually be able to free them up more. This way, that work is restricted to that weekly time at the District Office and doesn't impact the rest of their workday."
"And the timeline for completion?" Caroline asked, leaning back in her chair. Meredith stole a sideways glance at her. She knew that Caroline was asking for her benefit. Meredith had been trying to get a ballpark estimate, but hadn't been able to get a straight answer out of Charmaine.

Charmaine glanced up at the clock, then back again at Chris. He leaned in, whispered something, and then returned to his position. Charmaine looked back at Caroline. "Let's table that until our Monday principal's meeting. I mean, I'd love to get into the nitty-gritty right now, but we still need to review the professional development calendar, and it's almost time for lunch. We want to be respectful of your limited amount of time here today. I'll put it on Monday's agenda. Okay?" She shot Caroline another look, the meaning of which was clear. Charmaine cleared her throat. "I think that wraps up the Common Core update. Chris, are you ready to wrap us up with the update on professional development?"
"It would be my pleasure," Chris said, smiling again. "Before I do that, though, I want to give the principals a little aside here about the Common Core." Leaning forward, he planted both of his elbows on the table and clasped his hands. "You know, I was an elementary school principal for many years. If there's one thing I learned during that time, it's that when there is to be a curricular change in your building, it is up to you as principals to be the leader of that change. As the leader, you need to know those standards, so that you can lead your teachers to the level of change you want to see. You know," he said, shifting his weight to his right elbow as he shook his right index finger,
"I have a group of principals in another district who use a Common Core app on their iPhones. They walk into a classroom where Common Core instruction is happening and then they use the app to try and figure out what standard is being taught."
"I think I've heard about that at a superintendents' conference," nodded Dr.
Davies."Whitman, right?"
Chris nodded. "Yes, Whitman. A real up-and-coming district. They turn it into a little friendly competition. You know, they'll go into a classroom and race to see who can figure out the standard first." He mimed tapping on a phone.

Dr. Davies nodded again. "Oh, they have a lot of fun with it."
"Don't they, though?" Chris smiled again. "It's really an enjoyable way to continue refining their lenses."

A hand shot up from the back. "Can you give us the name of that app?" someone asked. A number of people murmured.
"I just found it," someone else said. "I'll email out the link."
"Wonderful, wonderful," Chris nodded. Rising from his chair, he grabbed a file folder with a blue sticky note from the corner of the table. "Let's move on to the calendar piece then, shall we?" He held up the file folder in his right hand, and scanned the room. "Can I get a volunteer to pass these out?"

Without thinking, Meredith raised her hand. Chris handed her the folder and she took the papers without looking at them. It felt so good to be up and moving around again. She kept forgetting how much she moved around during the day, walking from classroom to classroom, covering recess duty, walking to and from her office. That's it, I'm making time to go for a run today, she decided, tuning out the audible hum of the
background conversation. As she finished passing out the rest of the papers, she pictured the loop around her neighborhood, the fragrant flowerbeds and the sprinkler systems that gently misted her if she managed to time the run just right. She smiled to herself as she grabbed one last sheet of paper and sat down.

Pushing thoughts of her run aside, Meredith finally looked at the calendar.
Instantly, she became dizzy. Each different subdivision of Smart Solutions had its own color, with the days of visits colored to match. Orange for ELL-only professional developments. Blue for days when Smart Solutions officials did building walkthroughs with the school administrators, but green for days when Smart Solutions Foundation officials walked the building with district administrators and then met with school administrators afterward. Yellow for professional development on the new teacher evaluation rubric, purple for district technology-training professional development days, and red for mandatory district things like safety protocol, report card grading, and parentteacher conferences. Teal was for professional development time allocated to outside agencies partnering with the district, like the Jump Up math program. Parent conferences were in gray, while special education and response to intervention professional developments were in a color Meredith could only describe as fuchsia. Interesting, though, that in all of this PD there is nothing labeled Common Core. Am I missing it? Or did they just run out of colors?

She realized that she had tuned out for a moment while puzzling over the cryptic color-coding system. Chris was standing next to the projector screen, where an enlarged version of the calendar was displayed. "And, like I was saying," he continued, "you can see that we really tried to make an effort so that you are only having one type of visit on
any given week. Now," he smiled again, "sometimes that wasn't possible because, you know, we're human and we have scheduling conflicts too." Some of the district administrators nodded, including Charmaine and Dr. Davies. Meredith noticed that none of the principals or instructional coaches did. Some, like Joe and Lacey, were frantically whispering in pairs, while others sat like Caroline: mute, unresponsive, staring unflinchingly either ahead or at the screen.

Chris continued, undeterred. "And, of course, we know that you principals have business to take care of on your campus, too. We heard from many of you that it was important that you have input into your professional development sessions. It was critically important to us that we respect that. As you can see, we have left one Wednesday per quarter completely open for you. That Wednesday is yours to do whatever you wish with. Completely up to you." Chris smiled again, then glanced down at Charmaine. "I think that's my bit, Charmaine. Did you want to close us out?"
"Yes, yes." She hurriedly stood up, then glanced down as she shifted a few pieces of paper. "Thanks, Chris, for walking us through that. Don't worry if it's still taking you some time to see how all of the pieces fit together. When we get back, you'll have time to review and plan out your school-specific schedules."

She glanced at the clock again. "All right, so it's 11:18 now. We've allocated an hour for lunch. Can we all plan to be back here by 12:20?"
"An hour for lunch - in the business world that would be normal, but for us that's pretty luxurious, right?" Dr. Davies said, smiling.

Chris laughed and slapped him on the back. "That's right, that's right." He turned toward the group, and shook a mock finger at them. "Now, don't you go running
back to your campuses. Go sit down and have a nice lunch! Treat yourselves! You deserve it!" Several people laughed uncomfortably, and most began to get up and make their way towards the door.
"Why the glum faces, A school? Been checking out the calendar again?" Joe clattered into the seat next to Caroline, while Lacey slid next to Meredith.
"Can you believe that calendar?" Caroline whispered. "It looked like a crayon box threw up."
"Forget being an A school. With everything going on, I think we'll be lucky if we're a D school," grumbled Meredith, the words out of her mouth before she could think about them.
"Meredith!" Caroline exclaimed. "Don't say things like that!"
"I am serious," Meredith said, forcefully. "I mean, come on. Do you see us being an A school next year? Do you, Joe?" she said, turning towards him. "With no professional development time for ourselves, no professional development on the Common Core, and our data looking like it does? Come on. Why aren't we talking about this? Why aren't we telling teachers that it's likely that our scores will drop? That it's normal, even?"
"I'll tell you why, Meredith," Joe said. "Because it doesn't matter." He looked at Caroline, raising his eyebrows as if to solicit her agreement. "Am I right? We have growth metrics from the state to meet, or we lose our labels. We have directives from the district office to comply with. I tell my teachers that we have to make ten percent growth in all grades, all subjects because if they don't, they're going to be labeled an ineffective
teacher and possibly fired. That's the reality we live in. What you said might be true, but it doesn't matter."

Caroline nodded. "I mean, I agree. As a principal right now, we're pretty much locked into this crayon box schedule here from Smart Solutions. Besides, I believe that people unfortunately let themselves relax to the lowest common denominator. As soon as I tell my teachers that it's normal to fail, then what incentive do they have to try and succeed? What good does that do?"
"They'll know they aren't bad teachers," Meredith said quietly, then added, almost under her breath, "They'll know they aren't going crazy."
"But some of them are bad teachers, Meredith," Joe retorted. "Bad teachers, who would use that as an excuse to go on being bad teachers. It's terrible but it's true." He looked over at Caroline again, who raised an eyebrow.

Lacey looked at them both, then looked over at Meredith. "I'll tell you what was terrible - that episode of Dancing With the Stars last night. Did you see that first performance?" Glad for a change in topic, everyone but Meredith jumped in with an enthusiastic critique of the costumes and performance. Meredith bit her lip, trying to focus in on the conversation at hand, and all the while trying to settle the dry feeling of unease that she felt building in the pit of her stomach.

## Meredith Creates

Meredith pushed through the large double doors of the district office building. As the cool draft of the air-conditioning hit her face, she breathed in deeply and exhaled a sigh of relief. The chill of the front lobby, which usually irritated Meredith, felt refreshing after her sweaty car ride from the school. Her husband had taken her little

Ford Taurus into the mechanic last week, and they had told him it would be eight hundred dollars to get the cooling system overhauled. That'll have to wait until the check comes in for my extra hours creating assessments, she thought ruefully.

The district office secretary looked up from her computer screen and smiled at Meredith. "Hey, Meredith," she said warmly. "Conference room B again?"

Meredith rolled her eyes exaggeratedly. "You know it," she replied with a dramatic flourish. This exchange took place like clockwork every Monday at 12:45, when Meredith came to the district office for the weekly coaches meeting. Arriving first, Meredith always ended up being in charge of opening up the room for the group or hunting down an alternative location if the conference room was booked.

The secretary rummaged around in a desk drawer and pulled out a small silver key with a white tag on it. "Here you go, Meredith. You're first, as usual."

Meredith smiled just a little as she took the key. "Let's hope not the only one again, right?" She rolled her eyes a second time as the other woman laughed. That was their other running joke, aside from Meredith's punctuality: the fact that the other coaches were regularly late or absent from the weekly coaches' meetings.

Meredith didn't blame them in the slightest. She knew as well as anyone that each coach had their own respective campus to support with its own issues and concerns. Frankly, had it not been for their work this year building the Common Core assessments, there wouldn't have been much incentive to have these weekly meetings at all. Even in a district as small as Miraflores it felt as though each school was its own little fiefdom. While the coaches were able to share ideas and brainstorm general solutions, any
attempts to hash out specific details were usually unproductive because their principals were so different.

Meredith slipped the key into the lock and opened the door. Inside the room, the oversized conference table took up almost all of the available space. Usually the table was clear, but this time there was a basket of granola bars and water bottles left out on the table. Must have been left over from a district training, Meredith thought.

She set her computer bag down and grabbed a granola bar anyway. It took her a moment to organize herself as she took out her computer, arranged the textbooks and documents that she had brought, and plugged in her power cord. Before she started on assessments, she checked her email and text messages to see if there was anything from the other coaches. There was an email from Lacey, saying that the curriculum consultant from Smart Solutions was visiting their campus and that she would come if they finished early enough. No word from the other two coaches.

Scanning through the rest of her emails, she saw an email from Charmaine with the subject line "Assessments?" The message was brief and to the point:

Meredith, Just checking to see where the team is with the assessments. Told the principals that they would be done by now, so seems like we are behind schedule. Let me know when you will be finished so I can tell principals ASAP? Can pay for extra hours. Need to move on this.

Meredith didn't know what Charmaine had told the principals, but finishing all of these assessments by December was not what she and the coaches had communicated to Charmaine and definitely not what she had said to Caroline. In fact, she distinctly
remembered telling Caroline that she projected they would finish somewhere between the year 2200 and the second coming of Christ.

Caroline had nodded knowingly. "It's like that old joke about eating an elephant, you know?" Caroline had said. "How do you eat an elephant? One bite at a time, and always on the district time clock."

Time for bite three thousand fifty-six, thought Meredith. She opened the Google Doc that they had been using to keep track of the assessments they had built. She had been plugging away at the fourth grade assessments for the last week so she scrolled down to that section. She had finally finished all of the assessments for the fraction unit, thank God. Creating each individual graphic had just about driven her out of her mind. So next was...perimeter. Perimeter and area. Both were things that her teachers were already teaching, so that seemed straightforward. She pulled out the standards document she had printed from the state website and read the standard for the assessment:
4.MD.A.3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

Oh, thought Meredith, biting her lip. Well, maybe not so much. This didn't sound like what her teachers were doing with perimeter and area now. They were separated in the current state standards. In fact, they were in completely separate units, with area coming in as part of the multiplication unit and perimeter later on in the year as its own separate stand-alone unit. But, I suppose that's why we're transitioning to the Common

Core, thought Meredith. It makes sense that they should be connected. Better for kids that way, so they understand how they go together.

So now Meredith just had to figure out how to build an assessment for that. She had worked on math assessments before the Common Core. Building district-wide quizzes for math units had been Smart Solutions' first project in the district. Coaches and a few teachers per grade level had been pulled out for a week to work on them.

Embedded within the week had been a series of professional development sessions on reviewing multiple choice items pulled from an online testing bank and on creating new items. During that time, the teachers had created all of the quizzes needed for the year.

It had been so much easier then. Each quiz had five multiple-choice questions, most pulled from the online testing bank and then adjusted slightly. For the Common Core, however, everything had changed. The state assessments would no longer be multiple-choice, or so everyone was saying. Short answer, essay response, show your work, that was the new thing and the new format. Charmaine had mandated that all the assessments still be worth a multiple of five points, so that the schools and districts could easily see who had passed with an $80 \%$ or higher. It had been Lacey who had developed the new format: five multiple-choice questions, a one-point short answer question, and two longer two-point questions that required a written response or a model. This allowed them to use the testing bank for some of the questions, but also pushed them towards the new question types.

Meredith decided to start with the multiple-choice questions first. Depending on the standard, these were either the easiest part to write or the most painful. She pulled up the online testing bank and looked up the standard. The bank listed six questions.

Already a problem, since at bare minimum she would need ten multiple-choice questions: five for the Form A used for the initial testing, and five for the Form B used for the retest. She pulled up the first question:

What is the perimeter of this shape?

A. 21
B. 37
C. 58
D. 75

That didn't seem right at all. This question was on the current district quiz for fourth grade perimeter, but that standard was about calculating the perimeter of any polygon. Hadn't this standard talked specifically about rectangles? She went back and reread it to make sure. Yes, rectangles, and students were supposed to use the formula, whatever that looked like. Most of the rest of the questions weren't much better: one involved the perimeter of a trapezoid, and three of the remaining questions had shapes superimposed on a grid. Meredith had spent enough time around fourth-graders to know that that none of them were going to muck around with a formula when they could just count the squares. They weren't stupid. Only the third question even had a rectangle in it. She bookmarked it and sighed.

Well then, it looked like she would need to create some questions. How do I even begin to write a multiple choice question about a formula? she wondered. Maybe she
could give the formula in the problem, then give them some values. That could work. She began to sketch on a sheet of paper.

The formula for the perimeter of a rectangle is $l+w+l+w$. Maria has a rectangle with a length of 16 and a width of 12. What is the perimeter of her rectangle?
A. 4
B. 28
C. 48
D. 56

That could work, thought Meredith. But even with the other question, it wasn't nearly enough. She went back to the Common Core standards document put out by the state. The document listed three columns: the first column containing the standard itself; a second column listing the mathematical practices related to that standard; and a third column listing explanations and examples. Sometimes the explanations and examples contained sample questions or at least gave her an idea of the wording she could use. Scanning across from the definition, she read:

Students developed understanding of area and perimeter in $3^{\text {rd }}$ grade by using visual models.

While students are expected to use formulas to calculate area and perimeter of rectangles, they need to be able to communicate their understanding of why the formulas work.

The formula for area is $l x w$ and the answer will always be in square units.
The formulas for perimeter can be $2 l+2 w$ or $2(l+w)$ and the answer will be in linear units.

Meredith checked herself. She hadn't actually used either of those formulas. I guess that's why they put them in there, she thought. For arrogant people like me.

Still, whoever had written that explanation clearly did not have to write assessment questions. The frustrating part was that the standards above and below it contained clear example problems. Heck, the standard above it contained four sample problems, one for each operation.

She was still thinking when her phone vibrated. It was a text message from Lacey: On way. Be there soon. She looked at the clock. It was already 1:45.

While she waited for Lacey, she began drafting the two longer essay questions. For some reason, these seemed to be easier for her. When Meredith thought about what the Common Core should look and feel like in the classroom, these were things that she imagined. These were the types of problems that she could envision a teacher posing to a class, then letting them dig in to explore the mathematics. She pictured a classroom, chaotic to an outsider, but where every student was engaged purposefully in a task, where some students were independently choosing to use manipulatives while others opted for mental math, but where everyone came together at the end to discuss their strategy and their process.

She already had an idea for the first essay problem. She wanted to push teachers to discuss with their students the fact that there were multiple ways to write the formula for the perimeter of a rectangle. Even though in the multiple choice problem I wrote I essentially made it sound like there was only one way to write the formula, thought Meredith. I'll have to revise that.

She made a note next to the first problem she had written, then started sketching a second problem below it.

Michael and Jane are trying to find the perimeter of a rectangle.
Michael said, "To find the perimeter, we can use the formula $2 l+2 w$."
"I did it differently," said Jane. "I'm going to use the formula $2(l+w)$."
Who is correct? Explain, and give an example to help justify your thinking.
Meredith sketched some lines and made a note to leave some open space on the bottom for students to draw a sample rectangle.

Rereading the standard again, she noted the small example tucked away in the standard itself: For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

Maybe someone could take that example, and work backwards to find both the missing side and the perimeter. She sketched out a rectangle on her paper. What is something rectangular that students might need to find the area and the perimeter of? A yard? A poster? These problems were always about someone putting tile down on a floor somewhere. What about a rectangular mural? Each of the campuses had murals painted last year, so the kids would probably know what that was. She did some quick calculations and sketched out the following problem.

Mesquite Elementary School is painting a rectangular mural. The mural has an area of 204 square feet and is 17 feet long. What is the perimeter of the mural?

She was adding some workspace when the door opened. "Any snacks in here?" asked Lacey as she dragged her rolling cart in the room behind her. "We met with Kelly

Preston all through lunch and I'm starving." Lacey plopped down as Meredith slid a granola bar across the table to her. Lacey tore it open and took a bite.
"What did you talk about for that long?" asked Meredith. "Our meeting got pushed back to next week, so we haven't seen her yet."

Lacey made a face as she swallowed a second bite. "You know how it always goes. I think the meeting was supposed to be our mid-year checkup after our second benchmark results. That part was quick: I showed Kelly our results and Joe added in his two cents, I told Kelly what our plan is going into standardized testing and Joe went back to his office to get ready for evaluations, Kelly tells me what we should be doing, and I tell her that I agree with her $100 \%$ and in a perfect world with enough resources and staff members who don't quit at Christmas break, that's what we would do. But we don't, so we're going with our original plan." She took another bite and swallowed.
"At least you got to meet with Kelly," Meredith offered. Kelly Preston, a trim, petite brunette, was the curriculum and assessment specialist for Smart Solutions and by far Meredith's favorite consultant to work with. Meredith always felt truly "heard" during their conversations and, unlike her conversations with Smart Solutions' other consultants, Meredith never felt as though she needed to be on her guard or as though a recording of her every word was going to be turned over to the district office.
"I know," nodded Lacey. "The part that took forever was planning for the Common Core build. The one for English Language Arts."
"Oh, that's right," said Meredith. "I'd forgotten that Charmaine roped you into that."

Lacey nodded, and pulled out her computer. "Yeah. Actually, even though it's been a lot of work, I don't really mind. I'm enjoying kind of delving into the standards themselves, you know? Besides, you've taken on such a huge workload with these math assessments. There's no way you could have done it."

Grabbing two water bottles from the center of the table and passing one to Lacey, she shrugged her shoulders. "We're all working on them."
"Yeah, I've done like two, and the other coaches have maybe done one apiece. You've done what, twenty? Thirty? Please. I was in a third grade meeting the other day and they were going over a unit. They had a question about where some of the old fraction standards got moved to, and I was like, 'Hmmm, let's call Meredith.'"
"It's the assessments, Lacey. I just spend a lot of time with the standards writing these assessments, and looking through a lot of different things trying to figure out how to build them. It's not like I'm a natural math whiz or anything. It's just like a puzzle for me, you know? Trying to figure out how all of these pieces fit together. Trying to figure out how to pose a question so that teachers can look at and figure out how to bring Common Core instruction into their classroom."
"That's what I mean, Meredith!" Lacey replied, throwing her hands in the air. "For you, building a Common Core math assessment is like a Sudoku. For me, it's like Chinese water torture."

Meredith rubbed her neck. "Whatever, Lacey. If I'm such an expert, why can't I find five multiple choice questions about fourth-grade area and perimeter? That is starting to feel like Chinese water torture." She filled Lacey in on her dilemma with the
online testing bank and the lack of examples in the state documents. Lacey nodded thoughtfully.
"You know, I think I have a document that a coach in my old district sent me," she said, pulling up something in her computer. "I had asked her to help me with a professional development session last year when our primary teachers started with Common Core. She does some math curriculum work on the side for a textbook company, and she sent me some other state standard documents that she said had better examples." Lacey paused and scanned her computer. "Yeah, here it is. Let me forward it to you."

Meredith's inbox dinged with the new email. She opened it. Inside the email were links to several different state standards documents, and some other websites related to the Common Core. "Anything in here I should check first?"

Lacey laughed. "Are you asking, 'Which of these did you use for the two assessments you built this year?' Answer: no idea. I haven't looked at them since I planned that professional development. In the email, my friend mentioned that the North Carolina documents were pretty good, you know, comprehensive. Maybe start there?"
"Sounds like a plan." Meredith clicked on the link to the North Carolina Department of Education, then found the link to the fourth-grade documents. Pulling up the mathematics standards, she scanned down to 4.MD.3. In the North Carolina documents, there were two pages of explanations and examples for that standard alone. Meredith bookmarked it on her computer so that she could reference it later.
"This is perfect, Lacey. Thank you."
"Just glad someone is using it," said Lacey. "Figures we'd have to go to a different state to work out what's going on with our own standards, right?"

Meredith shook her head, and minimized the screen. "Totally. Sorry, I got distracted by that. Really, I'm dying to know what's happening with the ELA build."
"Yeah. So, basically, we started by doing a lot of reflecting on what went well last year with the math build, and what went...not so well. I shared with her a lot of the things that you and I have talked about, you know: the fact that we spent a lot of time during the curriculum build arranging the math standards into units, but not a lot of time talking about what this was going to look like in the classroom or even how instruction was going to be different than it is right now. Teachers walked away with the idea that a lot of standards have moved from one grade level to another and that some have been removed. I don't think we really got across that instruction needs to look and feel really different than it has."

Meredith nodded. "Definitely. I mean, we spent all of the time building the curriculum maps for math, but we didn't spend hardly any time planning sample lessons or thinking about what we want students to know and be able to do in the classroom. It feels like this year, we're always playing catch up, you know? All of this research we should have done then, we're having to do now on our own time."
"Totally," agreed Lacey. "We talked about that a little bit too, just the fact that the coaches are spending so much time creating assessments and doing all of this additional work that we just don't have time for. Well, I suppose, you're doing the bulk of it, but I know that I would do more if I had the time, you know? My other revelation was that, as much as I whine and complain about building these damn assessments, I do
feel like it's a really valuable professional development experience. Every time I build an assessment, I learn something."
"Absolutely," said Meredith, nodding. "I completely agree."
"Right? I started out really thinking that these Common Core standards were exactly the same as the old standards, just moved around and with more writing. It wasn't until I sat down with the ELA stuff and spent a lot of time researching different standards that I started to understand that the standards themselves were asking about the same things, but in a totally different way." said Lacey. "So here are the coaches building all of these assessments, and who is getting really great professional development on the Common Core Standards and what they mean?"
"We are."
"Right! We are. And so I've got all these teachers who should be learning how to do all of this, who should be learning more about what the standards really mean, and they're not. During the math build, the teachers grouped all the standards together, and looked at the documents provided by the state to see what standards had moved to and from what grade level. We as coaches were the ones who spent the time thinking about the radical shifts in assessment and instruction. The big idea that we had was that this work needs to shift back to the teachers. So, for the ELA build, we're using the time that they would have spent arranging all of the standards into individual units and copying and pasting all of the standards and information into the documents. Instead, the teachers will spend about $80 \%$ of the build planning out end-of-unit performance tasks and classroom instruction."
"Who's arranging the Common Core standards into units and creating the documents, then?" asked Meredith. "Is Smart Solutions providing them?"

Lacey took a sip of water. "No. To be honest, I don't know that Smart Solutions has anything like what we're looking for to even provide to us. Kelly and I are creating them together. She's building the units and creating the documents for fourth through eighth grade and I'm doing them for kinder through third."
"How much time is that going to take? I mean, I don't know, but it seems like that could take almost as much time as building assessments."
"Probably," grimaced Lacey. "But I think, at the end of the day, it's better for me to do that tedious formatting work than teachers, you know? They should be spending their time in professional development actually learning the standards and what it is going to take to teach them, not formatting."
"You're preaching to the choir, Lacey." Meredith laughed.

## Let's Chat

"How were your observations over at Palo Verde?" Caroline asked, looking up from her computer and pushing her glasses back from the bridge of her nose. As part of a Smart Solutions training, all of the coaches had conducted joint observations on the Palo Verde campus the day before.
"Some were okay. A lot of test prep, you know, getting ready for the benchmark testing. The last one was their veteran third grade teacher, you know, the older one who always wears her hair in a bun?" Caroline nodded. "That one was...I don't know. Painful. It was painful." Meredith sighed deeply and plopped herself down into the chair. "I mean, really bad."
"How bad?"
Meredith looked her in the eye. "Bad." Caroline removed her glasses and crossed her arms. She looked back at Meredith intently.
"Give me a little more, Meredith. What happened?"
Meredith shook her head. "I mean, management was fine. Great, even. Kids were on task, using whiteboards, she was checking everyone. It was the content, you know? I just keep going back to the conversations that we've had before about the Common Core and teachers taking that on. I am firmly convinced that the only teachers who will be successful with this Common Core implementation are teachers who have a certain mindset about teaching and learning. They have to be open-minded, able to teach in a non-traditional way, able to guide the students to answers instead of telling them how to do things."
"Did you see that with her?"
Meredith paused, trying to weigh her words. "You know, I can't say that I know her that well. From what I can tell, she's very...linear. She teaches the remedial stuff well, the basics well. She likes structure and order. She takes comfort in knowing exactly what the expectation is, and following it to the letter. It was like she was trying to take the old structure of a lesson and just jam the Common Core content in there. When she did that, it fell apart."

Caroline nodded slightly. "And you think it's a mindset issue?"
"I mean, don’t you?" Meredith said, shrugging her shoulders slightly. "She has the same Common Core documents and assessments that everyone else has, and I don't see them teaching like that."
"Hmmmm." Caroline rubbed her chin absent-mindedly. "I was just reviewing my first set of observation data. Actually, I was having a little bit of a revelation about that when you came in. I tried to do almost everyone's first evaluation in math, just to have a comparison. What I realized was that, looking back on it, the teachers who did the best were the ones who were teaching Common Core standards. Take Ellen, for example. I can't share her scores with you, but I can tell you that she was able to hit every category in the observation rubric. Every category, Meredith. Audrey, too, she did really well. Teachers who were teaching these Common Core lessons were able to hit all of these markers around higher level thinking and rigor that our other teachers weren't able to hit."
"Right, right," Meredith said, nodding. "I mean, essentially what we've been saying all year. I don't want to say if you're teaching the Common Core right, because that's not the right verbiage, but to teach Common Core it's like you can't not teach critical thinking. Because the standards themselves are so rigorous, as long as you are teaching the standards the way they're designed, you pretty much hit critical thinking right out of the chutes."

Caroline glanced at her computer screen, then looked back at Meredith.
"Teachers who are teaching the Common Core are teaching better, period. That's exciting to me."
"I'm starting to hear more about the standards from the staff, too," Meredith said. "You know, for the longest time nobody brought up the Common Core. Now, those K-3 teachers are starting to talk about their lessons and what's going on in the classroom, and how their evaluations went. In grade level meetings, I've started to hear a lot more about
it from our fourth through sixth grade teachers, just more enthusiasm around what is possible in this Common Core transition. And, I suppose, a lot more questions."
"Questions?" Caroline asked. "About the Common Core and evaluations?"
"No, more about the plan," Meredith said, shaking her head. "About the plan to transition everyone to Common Core next year."
"Oh. The 'plan'," said Caroline, holding up her fingers in mock quotation marks.
The 'plan' for next year's Common Core transition had become almost a running joke between Caroline and Meredith. According to the district timeline, fourth through eighth grade was scheduled to transition to the Common Core in math the following year. In addition, all grades were also scheduled to transition to the Common Core standards in English Language Arts. However, neither Caroline nor Meredith had heard much from the district about what that should look like.
"You know there's not a plan," Meredith said, slightly irritated."The only plan is what we're putting into place here on our campus. And that could change in a minute if the district decides to change their mind."

Caroline sighed, rubbing the back of her neck with her right hand. "Well, yes," she said, sounding a little weary. "I know that, and you know that. But that's not what teachers need to hear right now."
"I think, if I were a teacher, I'd want to know there wasn't a clear plan in place to transition to the new standards."
"Would you?" Caroline brought her hand back down to the desk, and looked across the desk with her eyebrows raised. "Would you really? I disagree with that. Teachers need to hear from their administration that there's a plan because they have
enough to worry about. It's our job to worry about whether or not there's a plan, and to fill in the gaps when there's not one. So our message is, "Yes, there's a plan.' It's always, 'Yes, there's a plan.'"

Meredith frowned. "They're going to figure it out, Caroline. I mean, nobody I've talked to is unhappy with Mesquite, not like last year. But they are starting to get frustrated with some things at the district level. I mean, there's been all that PR around our partnership with Smart Solutions. I feel a little like the more that the partnership with Smart Solutions Foundation is touted as the reason for student success, the more it starts to chip away at this bright face that we're putting on at the school site."
"How so?"
Taking a deep breath, Meredith continued. "I don't exactly how to put it. What I've been hearing from some teachers, not teachers on the leadership team who've been involved in things at the school level but regular teachers, is 'Hey, I've just read that Smart Solutions is doing all this, but that's not exactly right, it's the teachers and all of the work we've been doing with engagement and collaboration and grade level teams, don't you think?' And what am I supposed to say to that?"
"Mmmm," said Caroline, pursing her lips.
"And bringing in Common Core, it's like everything we're doing to try and bring the content to the teachers, giving them the freedom to teach in a way that's a little nontraditional or messy or whatever, all of it is happening without any sort of official sanction from Smart Solutions or the district. It's like some weird little underground Common Core Revolution, where we're quietly trying to sneak these changes into
assessments or covertly coach them during grade level meetings. All of it has to happen below the district radar, because nobody actually wants that much change."
"That's where our part is so important, Meredith," sighed Caroline, leaning back in her chair. "We have to be the buffer for teachers between the district expectations and what we know needs to happen for good teaching and learning. We have to keep the façade up, in a way, to keep things running smoothly. We have to do what's right for Mesquite."

Meredith took another deep breath. "You get that, Caroline. I know you get that. You were okay when the third grade initial assessment data didn't look good. I remember when I came to you after that first third grade Common Core math assessment, and you just said, 'Okay, this is where we're at. What can we learn from this to move forward?' When we talked about the same set of data with the district, I felt like we got the message that sounded more like 'This percentage is unacceptable. This is what we expect for the next assessment.' How do you buffer that?"

Caroline allowed a small smile to escape. "Just like we did, Meredith. By handling our staff, and messaging things the way we needed to message them to make Mesquite run smoothly and move our staff forward."

Meredith frowned. "So, when do we tell them there's not a Santa Claus?"
"What do you mean, no Santa Claus?"
"What I mean is, this feels like when I had to tell my kids that Santa wasn't real. There's this really nice idea that makes us feel better, but it's not real, and some day you have to find that out. Our teachers think there's this really nice idea that we have a plan
for the Common Core transition, that we have everything under control. When are we going to tell them that Santa Claus isn't real? That there is no plan?"

Chuckling softly, Caroline cocked her head slightly to the side. "I think you already know the answer to that, don't you?"
"No, I guess I don't," she pressed. "When?"
Caroline chuckled softly again. "Why, after they've already figured it out of course. Until then, we put on a bright face and, if anyone asks, of course there's a plan."

## Who is Going to the Build?

Caroline stuck her head in the doorway and knocked twice on the doorframe. "Hey Meredith," she said. "Can you come to my office for a minute? Charmaine is asking who we're planning on sending to the ELA Build."
"Sure," said Meredith. She saved the document she'd been working on, grabbed her notebook, and walked briskly down the hall.

Charmaine and Caroline were sitting at the round table in Caroline's office. Caroline pushed out a chair for Meredith. Charmaine looked tired: dark circles under her eyes made it look like she hadn't been sleeping, and the Jack in Box bag on the table next to her told Meredith that she was feeling stressed with all of the end of the year trainings, grants, and paperwork she was responsible for.
"Hey, Meredith," said Charmaine, as Meredith slid into the chair. "How's it going?"
"Oh, everything's good," Meredith replied, glancing quickly at Caroline. No need to bring up the math assessments if Charmaine wasn't going to ask. She looked back at Charmaine. "How have you been?"

Charmaine sighed. "Exhausted, you know? I have three separate grants due this week, and I've been locked in my office until two every night since Sunday." She took a drink of her Coke. "It's killing me. Literally killing me."
"I told you, you have to talk to Jim about hiring you an assistant," said Caroline emphatically. "You're going to burn out. As the superintendent, he should know that you've got way more on your plate than you can handle."
"I'm already burned out," Charmaine said. She looked at Meredith. "That's why I'm so glad that you've taken on all of this Common Core stuff this year, Meredith. Seriously. I couldn't handle one more thing. With you on top of it, I don't ever worry about it. I just know that it's going to get done, you know?"

Caroline eyed Meredith. "Yeah, she's been a trooper. That's been a huge time suck for her this year." Caroline raised her eyebrows. "The other coaches haven't been quite as dedicated to the project."

Charmaine sighed again. "I know it. But you know how it is, Caroline. There are other issues going on at those campuses that you don't have here. Schools under improvement plans from the state, for one, and crazy groups of teachers like the ones from Palo Verde that keep emailing me."

Meredith smiled in spite of herself. "Oh, yes. I've heard from them before." Charmaine groaned. "They're harassing you now, too? Unbelievable." She turned to Caroline. "That's what I'm saying, Caroline. We just can't have people like that at the ELA build. Remember what happened when that one teacher was on the fifth grade math team last year? She bitched and moaned during every discussion about how her kids couldn't do the work, how her principal wasn't doing his job, and how Dr.

Davies and I were both out of touch with what was going on in the district. What was her name? Martina?"
"Marta," replied Caroline.
"Yeah, Marta. Don't send anybody like that. No Martas."
Meredith jumped in. "Caroline mentioned you were here to talk about who we're sending to the build?"

Charmaine nodded, and pulled up something on her iPad. "Yeah. So, it looks like we're going to need one teacher for each grade level. The build is the last two weeks in May. Teachers will be out Tuesday, Thursday and Friday of both weeks."
"Six days?" snorted Caroline. "I don't have enough sub days to cover absences now. Where are we going to get the sub money for that?"
"Oh, there's money for subs," said Charmaine, shooting Caroline a look. "Its subs I don't have. By the end of May, a lot of the people on our sub list don't want to work anymore this year. We just can't find anyone to cover these classes."
"But you're telling us we're getting subs?" asked Caroline.
"Publicly, yes. Privately, I'm telling you I'm at least eight short. That means you're splitting two classes, maybe more if someone calls off at the last minute."
"The hell with that," snorted Caroline again. "Joe isn't even sending first and sixth grade teachers. I'm sending a full house."
"I know, I know," said Charmaine. "Believe me, I get it."
"We'll split one class, and you stiff someone else with the other split class. They all got Title 1 increases this year. They've got aides coming out their ears."

Charmaine paused. She sighed again. Caroline crossed her arms and stared directly at Charmaine, while Meredith watched them both intently.
"Fine," said Charmaine. "But if anybody asks, their sub cancelled last minute." She took another sip of Coke. "You're bleeding me dry here, Caroline. Tell me who you're sending to this damn training so I can get out of here intact."

A slight smile crossed Caroline's face as she turned to Meredith. "I think Meredith has our list. Mer?"

Caroline has asked her to pull some names about a week ago, and she and the other coaches had talked about it at their meeting. They all remembered the math curriculum build vividly and each coach had her own concerns. Lacey had brought up the fact that last year some of the teams had had such a weak mathematical background that the documents they had created were either incomplete or, worse, mathematically incorrect. "Do you remember the whole rounding debacle?" Lacey had said, raising her voice. "Where that third grade team explained the mathematical basis for rounding with that stupid "Zero to four, drop to the floor, five to nine, climb the vine" chant? We had to sit here and rewrite that entire unit, and they didn't even notice when they delivered it in October. They just high-fived themselves for doing such a great job." The team had all agreed that for the ELA build, strong content knowledge was non-negotiable.

Additionally, the coaches had agreed with Charmaine's concern about attitude: no Martas. Of course, nobody wanted someone around who was going to be negative and depressing. Meredith had also voiced her concerns about inviting teachers whose mindsets matched what they were trying to do with Common Core, teachers who were open to what she viewed as a more creative and less rigid view of classroom instruction.
"Remember Alan Peralta last year at the math build?" she asked insistently, deepening her voice in an impression. "'Where are the worksheets at? How am I going to make a worksheet for this? I've been teaching fifth grade for a hundred million years, and even when the dinosaurs roamed the earth I never taught volume to fifth graders.' It's not enough to be positive, you know? Look at Miranda Kingsley from my campus. She's as sunny as they come, but she can't be the person we send to the build for fifth-grade."
"What do you mean?" another coach had asked.
"She's just...." Meredith had struggled to find the word. "Traditional. She's just very traditional, you know? I mean, she was one of the teachers when I got to Mesquite four years ago that was still using a podium. Very 'Who can tell me?', hands raised, one student at a time. I mean, a podium, for crying out loud. "

Lacey had crossed her arms and nodded. "It's the same for me with my sixthgrade team. They've had a really hard time this year wrapping their heads around the idea of building the mathematical understanding instead of making kids memorize procedures, so they've struggled with even having to answer the question 'Okay, sixth grade is still struggling with decimals and fractions. Why is that, and what can you do to build that?' You remember Marlene Pacheco, been in the district for years? We were talking at their grade level meeting and she just said, 'Oh, I'm going to bring in manipulatives.' Seriously? Come on. It's sixth grade."

Working together, the coaches had created a list of teachers from each campus to send. Meredith flipped to the page in her notebook. She hadn't actually run through the list with Caroline yet. Realistically, though, in a school as small as theirs, with at most three teachers per grade level, the talent pool was only so deep. "Do you mind if we go
out of order? I'd rather do the obvious ones first." Caroline and Charmaine both nodded. "Well, for third grade, definitely Ellen. I'm actually excited to see her take on the build. I think she has the right mindset and could even lead some of the professional development next year. Second grade, Pappadakis. I just don't think that anyone else on that team has the patience to sit through six days of curriculum work. Plus, she's teaching the ELL class again next year, and we need someone who can bring this back to the ELL team. For sixth-grade, Lauren White."
"I have reservations about sending Lauren," interjected Caroline. "She's interviewing right now for instructional coach positions in the Monroe School District and I think at the end of the day she's going to take one."
"She's by far our strongest sixth-grade teacher and I would say one of the strongest on campus when it comes to ELA. We need her expertise."
"I don't think she's coming back, Mer. I need people at the build who can explain these documents to their teams. We can't have a repeat of kindergarten last year."
"What happened with kindergarten?" asked Charmaine.
"At the principal's meeting before last year's math build, that Smart Solutions Foundation consultant Kelly told us that she wanted our best and brightest at the build. She called it a 'cadre of experts' or something like that. In kinder I sent my big up-andcoming star Maggie Thompson. She went, learned all about the Common Core, and then on the last day of school told me she was moving to Vietnam or Thailand or somewhere to teach English and wasn't coming back. Fine. Well, we get to next year, and now no one on our kinder team know how to read the documents, where to find the assessments, or frankly what the hell was going on. We started out the year six weeks behind with that
team and we never caught up. Thank God it happened in kindergarten and not in a testing grade."

Meredith looked over at Caroline, and fidgeted slightly. She wished now that she had gone over the list with Caroline ahead of time. This wasn't what she thought was going to happen. She and Caroline had spent hour after hour discussing how important it was to have content expertise on these teams, and commiserated about how much time and effort had gone in to rectifying the materials. She had thought that she and Caroline were going to be on the same page about who to send.
"The coaches talked about that," Meredith said quietly. "We thought that even if that happened, sending our strongest people would ensure that we had strong documents. Part of the issue was that the documents themselves were weak. There just wasn't enough information there to know what it would look like in the classroom. An okay teacher who can explain the documents is good for this year; but having a really great teacher on the team makes it easy for anyone to communicate the information in those documents year after year after year."
"We're not the Salvation Army, Meredith. We're not. At the end of the day, this is six days of Common Core professional development, and generous though I may be, I'm not in the business of training other districts' instructional coaches."
"I just think -" began Meredith, but Caroline cut her off.
"Look, I understand. In fact, I even agree with you on a certain level, and if I were your position, I would probably be saying the same thing. But unfortunately, I'm in charge of Mesquite Elementary and not the district. I have to make the decision here that helps Mesquite, because if we don't meet the state growth metrics next year, it doesn't
matter what happens five years from now because I'll be fired and you'll be looking for a job. I need teachers at this build I can trust to bring this information back. Lauren's not going. Send Shapiro instead - he's not as strong as Lauren, but his wife just had a baby and I know he's not going anywhere anytime soon."

Meredith bit her lip. Caroline could be like this sometimes, and Meredith had worked with her long enough to know that when Caroline dug her heels in, there was no arguing with her. She made a scribble on her paper. "Fine. Okay. Shapiro for sixth grade. Castelo for fourth grade." She glanced at Caroline, who nodded slightly. "Okay. Kinder, we had talked about Montoya or Pederson. I'd like to see Montoya go. I think she's got a lot of potential to develop."
"Montoya?" Charmaine looked up. "Why do I know that name?"
"She's the one who ended up with all of our English-proficient kindergarteners at the start of this year. Over a third of her class is being evaluated for special education or behavioral disorders. They were basically feral for the first four months of school. You'd remember her because she was the one who had a line of parents at the district office complaining about the other kids in her class."
"Oh, yeah. She was the one with the kid who flipped a table, right?"
"Not kid. Kids. And not table singular - tables. It's been an epidemic this year." Caroline rubbed her temples. "She's gotten it together, I'll give her that. It's not great but it's functioning. Still..." She looked at Meredith and grimaced slightly. "I agree with you, I'd really like to see her develop too. She's got the chops for it. But I still feel like the discipline in that room is being held together with string and wire, you know? A sub in there for six days would be like detonating a bomb."

Meredith took a deep breath. This wasn't the hill she wanted to die on. She exhaled gently, trying to keep her frustration imperceptible to the other two women. "Pederson then?" she chirped, a little too brightly. Caroline nodded again.
"Okay, the last one I have is Terry Danson for first. He's young, but he's good. Very much a big picture thinker."

Caroline nodded again. Charmaine looked at her iPad for a moment, then scrolled up for a few seconds. "I'm just missing fifth-grade," she said, reaching for her Coke again. "Who are you sending from fifth?"

Now it was Meredith's turn to grimace. "To be honest, I don't think we should send anyone from fifth. It's such a weak team this year. So traditional, so focused on building curriculum from their textbook resources instead of the other way around. I just think that sending them to the build would be an absolute disaster."

Caroline turned to Charmaine. "Put Miranda Kingsley down."
"Miranda?" Meredith asked, somewhat shocked. "I mean, the whole team is weak, but Miranda? I would say that she's by far the furthest away from what Common Core teaching should be. I mean, remember the podium?"
"I'd forgotten about the podium. But yes, I remember it vividly," Caroline said, rubbing her neck. "I also vividly remember putting her on an improvement plan following her last evaluation, for a lot of the same reasons. I need her to make a quick improvement in terms of her content knowledge and her instructional delivery. Sitting through six days of discussion and examples on the Common Core...maybe she'll absorb it through osmosis or something. I don't know. But on my end, either she picks it up and improves, which would be great, or she sits through it like a bump on a log, doesn't
improve, and I can let her go with full communication to the union that she was provided all of the professional development available." Caroline looked at Charmaine. "Don't worry, she's been really supportive of the school and the district. She'll be sunny at the build, I promise. Not a Marta."

Not a Marta, thought Meredith, but definitely not a Lauren. She had the sudden urge to get out of the building. The air in the office felt stifling to her, so she gathered her things and stood. "Anything else?" she asked, focusing her eyes on the wall space just above Caroline's head, so as not to give away her frustration.
"No, that should be it," said Caroline, watching her carefully. There was an unspoken understanding that Meredith was allowed free reign with a lot of things on campus because of her experience, but that when Caroline took her position it was final. "Charmaine and I have some budget items to hash out, so we'll be tied up for a while. Can you shut the door on your way out?"
"Sure," said Meredith. "I'm just going to run out and grab a bite to eat. I'll let the front office know." She turned and exited through the door, pulling it shut behind her.

## The "Man"

"Kelly, would you mind helping me take a look at something?" Meredith asked.
The district had scheduled a meeting between Meredith and Kelly to review Smart Solutions' predictions for Mesquite's performance on the state standardized assessment. However, Meredith didn't hesitate to put her own curriculum and assessment questions on the agenda.

Kelly laughed. "Of course. What's going on?"
"Charmaine spoke with us at the coaches meeting last week. She said that before the end of the year, she wants all of the K-2 math assessments redone."
"All of them?" Kelly asked, sounding slightly surprised.
Meredith nodded. "Yeah, they're not in the same standard format as the third through sixth grade ones. Plus, they're really spotty in terms of quality. And all of the K-2 curriculum documents and pacing calendars need to be redone, so that they're in the same format as the rest of the grade levels, and updated for the upcoming school year."
"Okay. Wow." Kelly pursed her lips. "What do you need my help with?"
"I need a time estimate for the project. Charmaine asked me to send it to her by the end of the week." Meredith grabbed a pen, ready to take notes on whatever Kelly said. "How much time do you think that will take? "
"Oh, that's going to take forever," replied Kelly, her hands on her face. "Like...I don't even know. That's massive."

Meredith laughed in spite of herself. "I don't know either. That's why I wanted to ask you! I know that all the units need to be reformatted, and the assessments need to be revised, and there are some assessments that are missing, and the whole thing is just a giant Pandora's box waiting to be opened."
"Six hours."
"Per?"
"Per unit. At least."
They did some quick math. About ten units per grade, about six hours per unit, plus another 20 hours for incidentals, tallied to roughly 200 hours. Meredith sat back, stunned. Two hundred hours, outside the professional day. To be completed between

May 6 and June 30, when she and the other coaches were already trying to complete the massive 300 hour project of building the fourth through sixth-grade Common Core assessments in addition to their full-time work at their respective schools.

Both women just looked at each other. Both were quiet because they knew. It would not be a team completing these 200 hours, not with everyone scrambling through their end-of-the year duties. It would Meredith. Just Meredith.

And quite honestly, Meredith would if she could have, she truly would have, but when she was completely honest with herself, she knew deep in the pit of her stomach that she didn't have 200 more hours in her to give in the seven or so weeks left in the school year. That was nearly thirty hours a week on top of the fifty or so hours she was already working, not to mention the fifteen to twenty hours she was already spending on creating math assessments. "Maybe we can get it done in 150 hours," Meredith said quietly. "That seems more doable, and less expensive for the district."
"I think you have to go with this estimate," Kelly replied softly. "You have to go high. If you turn it around in 150 hours, great. But you have to go high."

Meredith paused again, this time for what seemed like almost a minute. Kelly was quiet, too. Finally, Meredith asked, "Would you mind if I attach your name when I send it to Charmaine? Just so it's evident that this estimate is, you know, based on something."
"Of course. Of course."
Meredith paused, staring off into the wood grain on the table. "I know she can pay me through June 30 ," she said tentatively. "I'll finish what I can, and then...."

Kelly pressed her fingers to her mouth, as if carefully considering her words.
Finally, she said, "I'm thinking of something a principal once said that has really stuck with me. He said, 'When there is all this work to do and it doesn't get done, sometimes what that means is not that anyone did a bad job or that the people working on the task didn't do a good job. When the work doesn't get done, that exposes a fundamental flaw in the system. That person isn't broken, the system is.'"

Kelly paused again, making eye contact with Meredith. "I notice in my work that this happens a lot, and it's not just in your district. In a lot of districts I work with there are these pockets of knowledge throughout the district, knowledge that's all tied up in individual people. And the system becomes reliant on those people, and no one else can get at that knowledge because it's all locked up inside those people. And we never create any systems to get the knowledge out of those people, to record this for the system."

Suddenly, Meredith was almost bowled over by one screaming laser-focused thought: Good Lord, I'm not the solution. I'm the problem.

She, Meredith, was part of the problem, when in her mind she used to be part of the revolution, the solution, the dream. Two years ago, the district started transitioning to the Common Core, and it was going to be a beautiful connection of purpose and vision articulated in the classroom. They needed a way to achieve mathematically rigorous instruction in the classroom. Meredith believed she was going to help this happen by building assessments that would guide teachers.

And I did that, she thought. And then I built more, and more, and more assessments until I became an expert on elementary Common Core mathematics. Except, while I was getting really smart about Common Core and what the standards were
asking, my teachers weren't. Ellen had once mentioned an intense two-week Common Core training that she had received in her old district, and Meredith had flinched slightly, though she didn't know why at the time. She knew now.

There has been professional development here, where we wrestled with the standards, she thought, her mind a rushing torrent of thoughts. There has been, to date on this project, 300 hours of phenomenal PD. And someone here got really good at Common Core. But it wasn't Ellen, and it wasn't any of the other teachers in the district. It was me.
"You okay, Meredith?"
Meredith started. How embarrassing. She hadn't meant to check out like that. "Yeah, fine. Totally fine." She shook her head, glad it was Kelly and not one of the other consultants. "I think that's why we're struggling with the Common Core, our district and other districts too, I would imagine. We just want it 'done'."
"I'm not sure that I follow."
Meredith shrugged. "You know, we focus on what needs to be done, what needs to be created. We want the documents written, the assessments built, and the implementation done. But we've been really hesitant with math to delve into the change. We haven't yet said, 'Hey, our teachers are the key to this change! We need to find teachers who are up for this and train them!' Instead, I sometimes feel like it's been the coaches, Lacey, myself, and the others who have been leading this weird little underground revolution where we're trying to enact the shifts that we know need to happen in our own little spheres, separate from what the district has sanctioned. We've been building assessments and adjusting curriculum, all without the district really
knowing what's happening on the ground." She looked Kelly right in the eye, emboldened by her emotions. "I mean, I don't honestly think Charmaine or anyone at the district office has seen a Common Core assessment I've built or compared it to one of our old assessments. I'm right, aren't I?"
"I'm sure they have," Kelly said quickly. "Charmaine has a lot on her plate, and I know she really appreciates the work that you do. She just trusts your judgment, that's all."

Whoops, thought Meredith. She sighed. "I guess I just feel like the message from the district office is that they want Common Core 'done,' I don't know, like the Ten Commandments handed down from on high. But the documents aren't going to get us there, you know? I don't even know why we're bothering."

She stopped and registered the concerned look on Kelly's face. She must think that I'm going off the deep end, thought Meredith. She smiled at Kelly, hoping to reassure her. Kelly's face relaxed. "Sorry for the rant," she said with a small shrug of her shoulders. "I think I was just feeling overwhelmed."

Kelly smiled again. "No, no, I've got it." She threw her hand up at shoulder level and gave a small chuckle. "I see this every day. Believe me, I get it." She paused and nodded thoughtfully, picking up a pen and absent-mindedly tapping it a few times on the table, then looked at Meredith. "You know, I do curriculum and assessment work with over twenty districts across the nation: big ones, little ones, urban ones, rural ones, the range. And having seen what I've seen, I think the model that Miraflores is following is good."

She pursed her lips. "I mean, thinking about where some of the other districts that I'm working with are, you guys have a clear expectation for what implementation looks like, right?"
"I mean, not really," Meredith replied, a twinge of defiance in her voice. "Like you mentioned, we didn't have a really clear picture of what it should look like in the classroom. There's a lot of things we don't know. That I don't know."

Shifting in her chair, Kelly gave a small laugh. "There's a lot of stuff about the Common Core that nobody knows, Meredith, or that people don't know yet, even us facilitators. I feel like up until a year ago, there was almost a linear amount of information coming out about this. Now it is exponential." She looked at Meredith. "I'm in districts all across the nation, Meredith, and Miraflores did a good job with setting expectations for teachers. I mean, your teachers all know there's a pacing guide and a curriculum map, right? They are administering assessments, right? They are using the documents to plan, right?"
"I guess they are. I still don't feel like the district has a really clear plan."
Kelly nodded thoughtfully. "I'm trying to think of how to best answer your question, because I think that's really a question isn't it? To give you a sense of perspective, I don't feel a negative culture here. I don't get that here, from the teachers, from the principals, from the district office. Everyone has been really supportive of the switch to Common Core."

Meredith sighed. "I guess. I think we all agree that this is the right path, you know? I just wish the path were clearer."

Kelly nodded, placing her elbows on the table again and looking Meredith in the eye. "Look, to level with you, Meredith, and I'm saying this to you as a colleague and not a consultant, I don't love watching the process. The initial, I would say, three or four months is hard. One district that I had a pretty good relationship with, I'd get up in front of the room and the teachers would just give me these awful stone stares. It was like that for a few months, but then it got better. There was a dip in scores at the end of the first year, which was disappointing. Now, the second year of implementation just feels like, okay, we got this under our belts. Every month, we're adding a little bit more. We're talking a little bit more."

Kelly continued, "I mean, that's what happened here in Miraflores, right? At the beginning of the year, there was some panic with teachers. Students were really not doing well on the district assessments. There were some bad feelings about that. I think that what helped that was having the coaches as support and just sort of saying, 'We're just going to keep supporting and keep going, keep going, keep going.' Now, visiting schools at the end of the year, there's a lot of hope around third grade and what they're going to accomplish and what their scores are going to look like, even this year. I'm not sure that you all will see that implementation dip that we saw in this other place."
"God, I hope not," groaned Meredith, and they both laughed.
"I mean, Meredith, your situation isn't unique, even though it feels like it. All of that to say that I think the initial months to year of implementation is not great. Not great in terms of student performance, and not great in terms of teacher morale. So, there you go," Kelly said, smiling. "Speaking of implementation, do you have time to look your March benchmark results? I know it was a while ago."
"Of course. They're in my office. Do you mind if I go get them?"
"Of course, of course. Take your time."
Meredith planned to. She took the long way back from the conference room to her office. The conversation with Kelly had made her head spin, and she needed some time to think.

## And the Bottom Drops Out

Meredith frantically typed what she felt was her eight millionth text message to Caroline. "Nothing?!?!"

Within moments Caroline's reply chimed. "Nope. Nada."
Lacey looked up from her phone. "Nothing?"
Meredith breathed deeply. "Nothing." But how could there be nothing?
It certainly hadn't been nothing for her when she'd gotten the email on Friday night. Her phone had dinged while she was making pizza with her family, their Friday night ritual. Normally she would have ignored her work email until Monday morning, but when she saw it was from Caroline and the subject was "FWD: 2013 Standardized Scores - Mesquite", she immediately handed her youngest son off to her husband and raced out of the kitchen. She stepped into the guest bedroom, the nearest room with a door that locked, and sat down on the bed.

M - Brace yourself - not pretty. $6^{\text {th }}$ grade ok. Remember, still confidential. We'll strategize on Monday. - Caroline

She skimmed through the rest of the forwarded email from Charmaine Winstead and then opened the attachment.

The attachment listed sixth grade first. "Good news first, I guess," said Meredith out loud. $81 \%$ in math, $84 \%$ in reading. Up ten percentage points in both areas. Good, good - but hadn't Smart Solutions predicted $95 \%$ in math and $91 \%$ in reading based on their district benchmark scores? Maybe that was within an acceptable range. Meredith hadn't taken a statistics course since her undergrad years, so who knew. She scrolled through the next two pages. Fifth grade, $58 \%$ in math, down from $61 \%$ last year. Reading, 65\%, down from 70\%. Okay, small drop, thought Meredith. Better than I thought. But - I could have sworn that Kelly said high 60s in math and high 70s in reading.

Fourth grade, same thing. Down six percentage points in both reading and math. Am I going crazy? she wondered. The fourth grade team had celebrated with a happy hour when they had heard Kelly predict that they would outscore last year by 15 to 20 percent. Meredith and Caroline had gone with them, high-fiving each other and the team. She could stomach the drop, but how could she tell them? She didn't even want to be in the same zip code when they found out.

All that was left was third grade. So much work this year. So much work from the team, from her, from all of the rest of the coaches, from Caroline. From the kids. Meredith sucked in another deep breath. Maybe everything would be okay, she reasoned. From their district benchmark scores, things had looked promising. After all, third grade had spent the entire year diving into the Common Core and all of those new Common Core assessments. Maybe these Common Core assessments had been enough to raise the level of rigor. Maybe, with these assessments, she had guessed right.

Nope.

In reading, third grade had dropped from a $77 \%$ last year to a $59 \%$ this year. And in math - Meredith held her phone up to her face to make sure that she saw each number clearly. Last year, they had been at $76 \%$. And this year... $55 \%$. Jesus. That was a massacre. Meredith had sat there stunned for what seemed like hours, trying to wrap her mind around it.

When she had burst into Caroline's office on Monday, she had been beside herself. "What happened?" she said miserably. "What happened?"

Meredith had been sure that there would be a firestorm of debate around the results at the principals' meeting. She and the other coaches were meeting in an adjacent conference room. They had spoken throughout the entire meeting in hushed voices, as if waiting to hear the rumblings from the room next door. The eruption never came, and finally Meredith had texted Caroline.

Nothing. Absolutely nothing.
All of the highest paid minds in our district, and no one has a thought as to why our scores dropped? Meredith thought angrily. About why the data systems that were supposed to be such great predictors failed us? No one has a thought as to what the plan is?
"What does that mean?" Lacey asked. "That they're not talking about it, I mean."

Meredith and Lacey looked at each other. Meredith shrugged her shoulders. "Hell if I know," she said. Folding her arms on the table in front of her computer, Meredith rested her chin on her forearms and looked up at Lacey. "I had this crazy dream, this nightmare, on Friday after I got the scores from Caroline. In this dream,

Caroline and I were going out into the jungle and we were meeting with the people from Smart Solutions, and Dr. Davies, and Charmaine. We were in this old decrepit Jeep, it was pouring down rain, we were both soaked to the bone because the Jeep didn't have a top to it and water kept pouring in."
"Good start," observed Lacey drily.
"So anyway, Caroline and I pull up in front of this palace, this enormous palace with these lush gardens and these gilded statues, and in the dream I remember telling Caroline, 'Gosh, I hope the place we're staying is as nice as this one, since we have that big presentation to do.' Someone comes out and tells us to keep going during down this scary dark dirt road, filled with potholes, and when we get there-" Meredith drew in a deep breath. "Lacey, a shack doesn't even begin to describe it. Instead of bathtubs, they only had these fishponds. These super tan, super fit people from the Smart Solutions Foundation shows up, I think in the dream they had just gotten back from Hawaii, and Dr. Davies and Charmaine were there and they looked really tan and fit too, and they tell us that before we take a bath we need to somehow get all of the fish out of the pond. And I mean, this water was gross, really murky and unclear."

She took in another deep breath. "So anyway, in the dream I'm so frustrated that I'm about to cry. Like, I am losing my cool, big time. And Caroline, she just jumps right into the pool of water and starts trying to figure everything out, you know, the best she could." Meredith looked Lacey in the eyes again, feeling almost as dejected as she had when she had woken up in a cold sweat that morning after her nightmare. "I mean, I hope this doesn't come off as too sarcastic, but I'm sure we can all see the connections."
"No, I get it," Lacey said quietly. "Joe and I were talking yesterday about the fact that it is the first week in May and no one from the district has spoken to how we plan to build the assessments for seventh and eighth grade. I get it."

They were both quiet, sitting there together in that room, the weight of everything they had talked about and were feeling hanging heavy in the air around them. Finally, Lacey broke the stillness. "I think we both need a soda," she said, smiling at Meredith. "This is a lot to process without some caffeine, right?"

Meredith smiled gratefully. "Yeah, that sounds great. I'm just going to run to the bathroom. You know, collect myself a bit."
"Great. Meet you back here in five, I think I'm going to use the bathroom, too." She stood up and as she passed by Meredith she squeezed her shoulder. "It's all going to work out."
"Of course," said Meredith quietly."Of course."

## CHAPTER 4 - ANALYSIS

## Overview

In Chapter One I told you, dear reader, that this was the story of a so-called "normal" school. Of course, you could argue that I selectively set these narratives at a momentous upheaval specific only to this particular grade level on this particular campus. It felt almost as if everything that could happen, did happen: the grade level team leader, while a veteran, was brand new to the school; a teacher left early in the fall only to be replaced by a string of substitutes; a new teacher is added in December and must regain control of her class; a third teacher at the grade level simultaneously navigated additional state regulations and the burden of supporting students one to four years behind their grade level. To top it off, they all navigated the introduction of new set of standards while at the same time preparing their students to take the spring assessment on a different set of standards. All in all, a lot to swallow, and may seem like an attempt to create a heightened sense of Hollywood drama.

I worked as an instructional coach at another school in Miraflores during this time period in addition to spending significant amounts of time at Mesquite Elementary. As dramatic as this story is, I believe I could have chosen any grade level at any school in Miraflores and uncovered the same level of conflict and tensions, albeit in different forms. Indeed, several additional initiatives and reforms also took place in the district during this time that I left out of the narratives in the interest of preserving my readers' stamina. In my opinion, there is no sense in asking whether the story I tell here was set at a 'normal' school or set in chaos: it was, unfortunately, both.

There are many other researchers who have studied policy implementation in educational contexts and a great deal more who have studied the influence of accountability systems on teachers and schools. As I have read through the research in this field, very few if any of those researchers attempt to portray how these microprocesses (Coburn, 2006) of implementation develop in the minutiae of individuals' day-to-day life. We may see in other research the summative evaluation of how implementation unfolded, but oftentimes the actual process of unfolding remains a mystery. In these narratives, I sought to show how these microprocesses might have (and in some cases did) play out in the context of a school and classroom. This narrative of unfolding implementation is unique to the field and allows readers a rare opportunity to walk in the shoes of an educator in the midst of this reform.

Additionally, the inclusion of the instructional coach's narrative provides a perspective on the implementation process that is unique in the research. Instructional coaches in Miraflores, like in many districts, live on the boundary between two worlds. They are by the nature of their coaching work involved in the day-to-day operations of classrooms but like other school and district personnel lack the sustained contact with students critical to effect direct change in their actions and performance. However, unlike school principals and district administrators, instructional coaches are unable to direct policy and narrate system-wide changes. They must broker between teachers and administration, between policy on paper and policy in practice. This study represents an additional contribution to the field by providing a window into the daily practice of an instructional coach during policy implementation. By viewing both narratives together,
readers have access to multiple perspectives on a single unfolding process of implementation not found elsewhere in the literature.

In the previous section, I presented two sets of narratives showcasing the participants' experiences of implementing a policy initiative in the current accountability landscape. In this chapter, I revisit those narratives to provide my analysis. I will begin by presenting an overview of sense-making as the conceptual framework used to structure my analysis. I will then overlay the sense-making research base with the concept of form-focused versus function-focused change. After introducing my conceptual framework, I will give a brief reintroduction to the Common Core State Standards for Mathematics (CCSSM), specifically in the context of their origin as a function-focused reform.

Following this discussion, I will focus my analysis on how the current accountability landscape influenced how the policy implementation unfolded and the various forms that the policy took. I will also address tensions resulting from the implementation process in this context. In Chapter Five, I will discuss my personal reflections on this study and outline my thoughts regarding this study's further professional and academic implications.

## Conceptual Framework: Sense-Making

Both narratives focused on policy implementation of the CCSSM in an urban Title 1 elementary school. As Spillane, Reiser, and Reimer (2002) note, traditional accounts of policy implementation treat policy as a clear and static stimulus. In this view, implementation failure results from a weak or ambiguous policy stimulus or sabotage by actors who believe the policy to be contrary to their interests (Firestone,

1989; Pressman \& Wildavsky, 1973). These accounts oversimplify the complex process of human sense-making in relation to a given individual's background, knowledge, beliefs, and situation, and consequently how these aspects shape implementation. What traditional policy implementation theory overlooks is that an individual, before deciding how to respond to a given policy, must first construct his own understanding of what it is he is responding to (Spillane \& Callahan, 2000; Spillane et al., 2002). Specifically, the individual must construct his understanding of a) what problem the policy intends to address, and b) the changes in practice designed to address this problem. For individuals, this sense-making process defines their perception of which individuals and organizations should take an active role during the implementation process (Weiss, 1989). Each individual's assignment of roles leads the individual to create explanations that validate particular policy responses (Benford \& Snow, 2000).

Sense-making, therefore, is the process whereby actors construct interpretations from a complex interaction of existing schema (including their personal beliefs and existing knowledge), the situation, and the policy stimuli. According to this theory, we can only understand an individual's responses to a policy stimulus in light of his or her individual interpretation of said policy. For example, Coburn (2001) found that teachers within the same formal grade level networks but with different informal networks interpreted policy messages in drastically different ways. Even individuals that are similar in many regards may react differently to a policy based on unique experiences that influences their interpretations, including but not limited to learning opportunities (Parise \& Spillane, 2010), curricular role identity (Forbes \& Davis, 2008), and life experiences relevant to a particular content area (Drake, Spillane, \& Hufferd-Ackles,
2001). Such interpretations may or may not align with the intent of the policy's original creators (Coburn, 2001, 2006; Collopy, 2003; Spillane \& Callahan, 2000).

A sense-making framework provides a lens to interpret policy implementation because, as Spillane et al. (2002) argued, it allows for analysis from both the "top-down" perspective of the policy itself as well as a "bottom-up" analysis of how the policy is filtered through the schema and situational context of individuals and consequently implemented (p. 420). This triad of schema, situation, and policy signals allow for a more nuanced and formative view of policy implementation than traditional policy research. Spillane and Callahan's (2000) recognition of a sense-making framework for adult learners as well as children compels policy-makers to further investigate the initial concepts held by practitioners, specifically district policy-makers (p. 430).

## Sense-Making in Current Policy Implementation Research

So what does existing sense-making research tell us about policy implementation? Unfortunately for policy makers, sense-making research seems to indicate that policy calling for significant, fundamental change in practice is much easier to enact initially that to fully implement (Coburn 2001, 2006; Collopy, 2003; Drake et al., 2001; Hill, 2001; Spillane \& Callahan, 2000; Russell \& Bray, 2013). A variety of factors contribute to this conundrum. First, individual actors do not present a tabula rasa onto which new policy ideas can be seamlessly imprinted. As mentioned earlier, individuals come to a policy with experiences, knowledge, beliefs, and situational context that influence their interpretations. In the case of educators, they bring with them their past teaching experiences, knowledge about pedagogy and content, their own experiences as students, and their experiences as parents navigating their children's schooling, not to mention a
wide array of personal beliefs and experiences not directly related to their profession (Coburn, 2001, 2006; Drake et al., 2001). Sense-making research indicates that learning new concepts "is not simply an act of encoding these idea; it may require restructuring a complex of existing schemas, and the new ideas are subject to the danger of being seen as minor variations of what is already understood rather than as different in critically important ways" (Spillane et al., 2002, p. 396). As individuals interpret new ideas, they may focus on familiar aspects of the new concept and ignore other more unfamiliar aspects, thus interpreting a concept differently than originally intended by its creators.

The key mediating factor in this complex process appears to be expertise. Cognitive researchers have found that the more extensive one's knowledge base is, the better able one is to process new pieces of information and consequently to understand more subtle policy changes (NRC, 2000). In a study of elementary teachers' responses to mathematics curricula, Drake et al. (2001) highlighted how teachers' differing 'mathematics life histories' contributed to differing understandings of the curriculum itself. Those teachers with a richer 'math life history' were better able to articulate deeper mathematical understandings. That is, an expert is more likely to disregard superficial comparisons between ideas and notice instead comparisons between the ideas' underlying principles.

Additionally, this concept of expertise relates more specifically to one's expertise in a given area (for example, elementary mathematics or biology) than it does to an individual's overall years of experience. An educator considered an "expert" in one content area can be a novice in another based entirely on his or her schema, beliefs and experiences, just as someone else may be an expert surgeon and a novice auto mechanic.

In a case study comparing one teacher's experiences in literacy and mathematics instruction, Spillane (2000) found a high degree of variance in the teacher's instructional practice between the two subject areas. These separate professional identities related directly to the teacher's experience with each specific subject area as a student, her personal interests, her perceptions of each subject area, and her opportunities for professional learning. Teachers' beliefs (Remillard \& Bryans, 2004) and curricular role identities (Collopy, 2003; Forbes \& Davis, 2008) have been shown to additionally impact teachers' sense-making processes.

As noted by both Spillane and Callahan (2000) and Spillane et al. (2002), this sense-making framework supplements rather than replaces traditional implementation theory. Implementation failure due to actors' ulterior motives, ignorance of a given policy, or weak policy stimulus remains a very real possibility. Sense-making theory does not exclude these traditional interpretations. Rather, sense-making allows for us to recognize the ways in which actors may misinterpret or overlook the underlying principles of a given policy based on their underlying schema, beliefs, and experiences

## Form-Focused Versus Function-Focused Change

To add an additional layer to the sense-making framework specific to mathematics education, I introduce the idea of form-focused versus function-focused change in the context of mathematical curricula reform. According to Saxe and colleagues (Gearhart, Harding, Saxe, \& Troper, 1997; Saxe, Gearhart, Franke, Howard, \& Crockett, 1999), the concepts of form-focused versus function-focused change highlight the level of understanding and change that a particular curriculum reform requires. This same framework was used by Spillane and Callahan (2000) to classify
district administrators' interpretation of Michigan science education reforms. Formfocused understandings focus on the forms that pedagogy takes: student work, learning materials, student groupings, the format of student work, and so on. Though they may appear as significant differences to those involved, form-focused changes are typically surface level changes that preserve the idea of pedagogy built on procedural knowledge. Conversely, function-focused understandings relate to what counts as knowledge in that content area and what it means to "do" a particular content area (Spillane \& Callahan, 2000). In function-focused change, pedagogical changes in form are seen as vehicles to achieve more profound functional change.

The concepts of function-focused versus form-focused reform connect directly back to sense-making and expertise. Function-focused change often requires more subtle and nuanced shifts in practice than form-focused change. In order to process and enact these shifts, an individual must look beyond surface-level changes in format to fundamental changes in underlying principles. In a study of district policy-makers sensemaking of fundamental science reforms in Michigan, Spillane and Callahan (2000) found that over $75 \%$ of district policy-makers attended largely to familiar aspects of the policy that aligned to previous reforms and thus interpreted the function-focused policy shifts as form-focused. These policy interpretations led them to institute pedagogical reforms that preserved the previous procedural emphasis of science education in the state while introducing new instructional forms. According to Spillane and Callahan, districtpolicymakers' inability to recognize underlying functional shifts limited their perceived avenues for implementation.

## Sense-making and Function-Focused Versus Form-Focused Change in This

## Study

In this study, I focus on following a single policy through the implementation process. Sense-making provides a lens to analyze how and why the policy as implemented differed from the original intent of the policy creators. In this analysis I use this lens to highlight specific features of the process of policy implementation at one school. My goal is to provide readers of this research with a framework to begin analyzing policy implementation in their own contexts by first considering how individuals' respective understandings, beliefs, and experiences impact their understanding of a given policy and their resulting actions.

Here, I expand cognitive theory framework with the concept of functionalfocused versus form-focused reform because it provides a useful way of classifying policy interpretations and implementation actions in response to mathematics curriculum policy stimulus. Because the research focuses on the policy interpretations rather than the policy of the CCSSM itself, I cannot expect every reader who comes to this research to have a firm background in mathematics education policy during this particular time period. Categorizing the policy and policy responses under the broader categories of form-focused versus function-focused change allows a wider range of readers access to the findings, and conceptualizes the research in a way that makes it applicable across many reforms rather than only to the CCSSM.

## CCSSM as Function-Focused Policy

Sense-making research posits that individuals use their existing schema, beliefs, and experiences to make sense of a policy stimulus. Before addressing the policy
interpretations and resulting actions of individuals, I begin by revisiting the policy itself so that the reader may better frame the later interpretations.

The Common Core State Standards originated in response to two dual concerns: a) current state standards were not internationally competitive and consequently inadequate in preparing individuals for competitive colleges and careers; and b) grade level standards differed greatly from state to state, resulting in an inefficient use of resources related to curriculum and assessment creation, as well as significant state-tostate differences in student proficiency expectations. In response, the National Governor's Association (NGA) and the Council of Chief School Officers (CCSO) oversaw the development of the Common Core State Standards in English Language Arts and Mathematics in 2009. These standards, optional for states and not federally directed, provided common research-based expectations for each grade level in both content areas. To date, 43 states have adopted the Common Core State Standards ("Standards in Your State", 2014). While the Common Core State Standards for English Language Arts are worthy of study in their own right, this study focuses on the Common Core State Standards for Mathematics (CCSSM).

The committee responsible for creating the CCSSM responded to concerns that previous curricula lacked coherence and depth (Schmidt, Houang, \& Cogan, 2002) by reorganizing the standards with the goals of: a) focusing on fewer topics, b) creating coherence by linking topics across grade levels, and c) increasing rigor through a balanced emphasis on conceptual understanding, procedural skills and fluency, and application ("Key Shifts in Mathematics", 2014). To create the standards, the developers began with a series of mathematical progressions, or narratives of how a given concept
developed across grade levels, which were then partitioned into grade-level appropriate standards (Common Core Standards Writing Team, 2013).

We can determine that the creators of the CCSSM intended it as a functionfocused reform based on what is and is not included in the CCSSM. First, in designing the standards the creators of the CCSSM included aspects that directly drew on cognitive science related to expertise and learning progressions. Studies show that experts are able to see patterns in data and information, and can generalize principles from what a novice sees as only random data (National Research Council, 2000). The progressions documents that the CCSSM writers based the standards on rely on an understanding of math as a "small collection of general properties rather than a large collection of specialized properties" (Common Core Standards Writing Team, 2013, p. 6). The standards revisit certain conceptual ideas (e.g. the concept of decomposing and composing, the concept of units) throughout grade levels and across domains to provide students with the experiences they need in order to make mathematical generalizations. This conceptually linked undercurrent from one grade level to another emphasizes larger theoretical principles rather than procedural expectations. Ideally students as 'experts' will see patterns in mathematical content and will consequently derive mathematical procedures on their own from conceptually-based experiences.

Second, we can classify the CCSSM as a function-focused reform because of what the standards do not include. The CCSSM are explicitly not a curriculum but rather a set of common learning expectations ("Myths vs. Facts," 2014). Therefore, the CCSSM, other than providing general explanations and guidance regarding alignment, do not specify the pedagogical methods for instructional delivery. Simply put, the CCSSM
is not a form-focused change because the standards themselves stand apart from statements or recommendations regarding the forms of implementation.

Though the CCSSM were initially developed in 2009, they represent a longer trajectory of function-focused mathematics education reform dating back nearly twentyfive years to the National Council of Teachers of Mathematics' (NCTM, 1989, 1991) development of mathematics standards. These standards pushed for a fundamental deemphasis of procedural knowledge in favor of increased conceptual understanding (Greeno, Riley, \& Gelman, 1984), with parallel shifts in the science standards following in the next decade (Spillane \& Callahan, 2000). NCTM's standards and the related state mathematics standards developed in response to the NCTM's work heavily influenced the development of the CCSSM. The CCSSM are endorsed by, among many others, the NCTM, the National Council of Supervisors of Mathematics (NCSM), the Association of State Supervisors of Mathematics (ASSM), and the Association of Mathematics Teachers (AMTE) (NCTM, NCSM, ASSM, \& AMTE, 2010).

## Educator Sense-Making in the Accountability Landscape

Though the creators of the CCSSM intended it as a function-focused curricular reform, the policy manifested itself throughout both narratives largely as a form-focused reform. In this analysis, I argue that situational context of the accountability landscape significantly affected individuals' sense-making of the reform, which then limited the manifestations of the policy in Miraflores to form-focused expressions. To do this, I will use the narratives and available research to illustrate the process of sense-making and the resulting action steps by the district, the instructional coaches, and the teachers in this
study. Following this chapter, I will provide my personal reflection on this study and some possible implications for future professional and academic work.

When presenting the narratives, I chose to start with the teachers' narratives so that you as the reader might have a chance to experience their world as they saw it before being influenced by information and perspectives in the coach's narrative. In my analysis, however, I have chosen to reverse that order by beginning with the district and then the instructional coaches, followed finally by the teachers. I made this decision not to privilege any particular voice but rather to follow the policy through its natural flow of implementation. That being said, I find it appropriate that in this work that come full circle to end in the place that we started: the day-to-day world of teachers.

## District-Level Sense-Making and Response

Under current accountability structures, the district serves as the mediator between teachers and policymakers at the state and federal level. Because the district in large part creates teachers' situational context through decisions about instructional guidance, including but not limited to decisions about curricula, teacher development and learning opportunities, and assessment, sense-making at the district level influences (though does not totally account for) how teachers and school administrators frame problems and interpret reforms (Parise \& Spillane, 2010; Spillane, 1996; Spillane \& Callahan, 2000; Stein \& Coburn, 2008).

Though noticeably absent in the teachers' narratives, we began to catch a glimpse in the coach's narrative of the district administrators' influence in the process of policy implementation. In this instance, the Miraflores School District and its officials were clearly aware of the change in standards and the resulting assessment conflict during the

2012-2013 school year. Indeed, district administrators in Miraflores made a conscious choice to transition only the third grade to the new CCSSM during that school year, in an effort to both initiate the transition within the testing grades and to mediate the consequences of the switch on assessment scores.

In the "Leadership Meeting" vignette, though principals and administrators expressed trepidation about the impact of the third grade transition on assessment scores and the residual impact of coaches' reduced time on campus, they did not reject the policy itself. This echoed Spillane and Callahan's (2000) findings in regards to policy initiatives that called for significant reconceptualization of science inquiry. Spillane and Callahan reported that, similar to Miraflores, district administrators were aware of the change in state standards. They further noted that, again similar to Miraflores, the district administrators believed themselves to fully understand the policy and be working to incorporate the policy into existing structures, even when their interpretation of the policy differed from the stated goals of the policy (p. 408). Because neither ignorance of the policy nor resistance were factors, we must search elsewhere for a possible cause of the mismatch between the stated goals of the policy and how it was enacted. Since district administrators believed themselves to be implementing the policy as designed, we now move to investigating district actors' sense-making process of the policy.

## Audit Culture

While historically stakeholders have debated the purpose of schooling and what forms that schooling should take, in the United States a political consensus has gathered around the notion that public education's primary rationale is to promote students' mastery of basic skills (Olsen \& Sexton, 2009), to the neglect of other possible aims for
schooling (Rothstein, Jacobsen, \& Wilder, 2008; Sanger, 2012) such as aims related to physical, moral, and civic development. According to critics such as Michael Apple (1995, 2004, 2006, 2007) and Pauline Lipman (2004), neoliberal ideology presently influences classrooms through an audit culture of state regulation and labeling according to assessment criteria, often resulting in state penalization for institutions unable to meet a specific performance level.

The accountability system itself requires the constant production of evidence: evidence of achievement, evidence of efficiency, evidence of 'correct' behavior. Teachers must produce evidence that they are teaching 'correctly,' which then must be audited by someone at the district level. The work of schools and districts, in turn, must then be monitored by the state. In the case of new policy implementation, teachers must produce some type of evidence to prove that they are indeed implementing the policy, which district administrators must subsequently verify. Both groups comply in anticipation of the state's audit of the school and district's performance. This emphasis on production of evidence derived from the neoliberalist framework has intensified public educators' workload in recent years (Apple 1995, 2000).

Research indicates that the district-level administrators play a role in sustaining this audit culture, largely because it is district policy-makers that typically make major instructional decisions regarding curriculum and assessment (Spillane \& Callahan, 2000; Stein \& Coburn, 2008). Indeed, teachers responding to a survey by the National Board for Educational Testing and Public Policy reported feeling more performance pressure from their districts than from their school or building leaders (Abrams, Pedulla, \& Madaus, 2003). This level of district pressure creates an atmosphere where even those
who are not directly affected by the policy perceive dire consequences for failure (Dutro \& Selland, 2012).

In addition to pressure from state accountability systems, Miraflores during this time period strongly adhered to an internally-enforced audit culture. As we see echoed in Caroline's conversation with the teachers about their Jump-Up completion rate, principals and other school personnel became concerned with the perception of how their schools were performing on this arbitrary metrics in addition to their school's actual performance in terms of advances in teaching and learning. Similarly, it is teachers' scores on the evaluation rubric that prompt Caroline to say that the Common Core has led to advances in teaching on the campus rather than a qualitative assessment of development in teacher quality. Both of these examples speak to a subtle audit culture that pervaded even mundane routines.

Additionally, the presence of Smart Solutions as an outside consulting firm exacerbated this tendency towards an audit culture in Miraflores. In addition to the 'normal' pressures to meet state performance metrics, Miraflores also held schools and teachers to an internal set of metrics created by Smart Solutions. These metrics were designed as easily quantifiable behavioral expectations that could be reported out as percentages, as Chris Pisetti discussed during the "Leadership Meeting" vignette. Performance on these metrics was believed by district administrators to be analogous to teacher quality. Low performance on the metrics was seen as evidence that the districts' teachers were unfit to take on more advanced curriculum work.

Whether or not the metrics used by Smart Solutions were in fact measures of quality teaching is debatable, and beyond the scope of this work. However, what is
evident in the narratives is how this audit culture shaped what can be interpreted as a lack of autonomy on the part of Miraflores teachers and personnel. Because Miraflores' 'poor' performance on Smart Solutions internal audit metrics reinforced administrators' concerns about student performance on standardized assessments, district administrators validated Smart Solutions' redirection of professional development time and district resources. This pushed the district to adopt the parameters of implementation set by Smart Solutions rather than seeking to develop implementation plans from the bottom-up.

## Form-Focused Policy Interpretation

As district administrators in Miraflores attended to how 'success' was measured, they implicitly and explicitly transmitted their valuation of these metrics to other personnel. We first met the district curriculum director Charmaine Winstead in the "Leadership Meeting" vignette. In the coaches' narrative, we saw Charmaine take on the role of policy 'narrator’ (Ball, Maguire, Braun, \& Hoskins, 2011). As the policy narrator, Charmaine was the district administrator responsible for "'explaining' policy, deciding and then announcing what must be done, what can be done, and what cannot" (p. 626). Charmaine's role as the policy narrator was interesting because her professional role as the director of curriculum is an administrative role outside the traditional district hierarchy of superintendent-principal-teacher. Her significant influence on policy responses at the district level suggests that current policy implementation research may not fully encompass the managerial roles that exist after the advent of NCLB.

What was not seen is telling, not so much of Charmaine personally but of her function within the accountability structure. As a district administrator Charmaine worked outside the daily classroom context of teachers. Instead, she connected to
teachers' classroom work through audited performance data collected at the school level. As argued previously, in the sense-making research expertise has been identified as a factor that mediated whether or not an individual was able recognize a conceptually different reform as something more than form-focused changes in practice. Much like the teacher in Spillane's (2000) case study, Charmaine arguably had expertise in a myriad of additional areas. However, from what is presentedin the narrative, her mathematical life story appeared to lack experience with this particular function-focused reform which consequently impacted her sense-making of this particular reform. This echoes Spillane and Callahan's general finding that district leaders tended to ignore the conceptual underpinnings of a function-focused reform in favor of the form-focused aspects (2000).

Charmaine was not unique in this regard. As we shall see later in the analysis, the teachers also saw the reform as largely form-focused. However, where Charmaine was unique is in her level of influence. As the director of curriculum and arguably the district narrator (Ball et al., 2011) of the policy, her policy responses served to frame the subsequent teachers', principals' and instructional coaches' responses.

In the "Leadership Meeting" vignette, we witnessed two examples of where the accountability context directed district administrators' sense-making process. First, we saw an increased focus on technical metrics related to the state's ELL policy. Initially in this vignette, Charmaine told the principals to limit their focus during their ELL classroom observations to the state-audited items only, reminding them that the state auditors "are not evaluating the quality of instruction." There was no discussion of the original intent of the policy, nor was there discussion regarding the policy's perceived impact on students and teachers. Rather, the focus rested on how to 'pass' the state
metrics and thus avoid accountability sanctions. From this comment, readers infer that this situational context demanded attention to technical pieces which can be easily audited by those outside the school building. Though the narrative does not hint at whether the ELL policy's creators intended it as form-focused or function-focused, this suggests that the existing climate of policy implementation was largely form-focused in response to technical state accountability measures.

Individuals reiterated this focus on audit metrics as the discussion turned to CCSSM work in the district. As voiced by Joe, a district principal, one of the administrators' primary concerns was how the transition to the CCSSM would impact third grade test scores. Once more, we saw little to no discussion of the policy itself, but rather of how the school would be held accountable. Even Lacey's explanation of how the coaches determined the 'gap skills' focused on the forms of assessment rather than functional shifts in what was considered mathematical knowledge. This focus for both policy discussions around policy measurement rather than policy content suggest a widespread influence of accountability structures on policy implementation regardless of the original intent of the policy.

## Emphasis on Curriculum Documents

As discussed previously, sense-making researchers argue that individuals' interpretations of a given policy direct them to sanction specific policy actions aligned with their interpretations while excluding other policy actions. Charmaine's formfocused interpretation of the CCSSM led her to policy actions that focused on alignment
of forms, specifically creating policy documents to transmit the reform and facilitate data collection.

Wenger (1998), in researching communities of practice, outlined how these communities choose to produce records of their beliefs and understandings in documents, journals, and other abstractions. These reifications are transmitted beyond the original community of practice as a method of communicating their beliefs. The curriculum maps, pacing calendars, and assessments created by the instructional coaches existed as examples of this reification of content understandings and pedagogical beliefs. The district tasked the instructional coaches with transmitting not only the standards themselves but also form-based information related to the instructional delivery and assessment of this content. This system represented a standardization of information that directed teachers away from primary sources of information (such as the standards themselves) and into secondary mediated sources controlled by the district. Though presumably intended to support teachers, the curriculum and assessment documents arguably represented an attempt by the district to manage the production of evidence that is required by neoliberal reforms (Apple, 2007) by ensuring that classroom content could be directed and audited by those outside the classroom.

The creation of reified policy documents therefore served to address a secondary concern: teacher quality. The overall perception of district level administrators, as hinted by Charmaine and the principals, and explicitly stated by Chris Pisetti during the "Leadership Meeting" vignette, was that the general teacher quality in Miraflores as measured on metrics created and audited by Smart Solutions representatives was poor. Standardized test scores and the state's threat of impending improvement plans affirmed
such value judgments. In this perception, teachers who were unable to demonstrate success on the previous, "less rigorous" standards were doomed to struggle with the new, "more rigorous" CCSSM. By having district-prescribed curriculum calendars and assessments, policy implementation could be directed by 'experts' (i.e., the instructional coaches) and evaluated by those removed from the classroom (including the district curriculum director and the outside Smart Solutions Foundation consultants).

## Shift in Focus from K-2 Implementation to Grade 3 Implementation

When first introducing the CCSSM to K-2 classrooms the previous year, the district initially veered towards an implementation model organized around conceptuallybased professional development sessions and classroom-based support. Primary teachers received approximately seven district professional development sessions on the CCSSM from a Smart Solutions content expert. Additionally, the content expert visited each school several times to conduct classroom observations during mathematics instruction. Though the district created both a pacing calendar and assessments for the primary grades, teachers used them loosely and district administrators did not audit their use.

Contrast this with the teachers' discussion about their professional development during the "Post-Test Planning" vignette. In this vignette, Ellen shared a resource from a training that she had attended. After a fair amount of discussion the teachers determined that the training was not in fact from Miraflores but from Ellen's previous district. All of the women assumed that Miraflores had held a third-grade training on the CCSSM but that they had somehow 'missed' it: Audrey because she arrived in December, Ellen because she was new to the school and assumed the training had happened the previous spring, and Debbie because she was absorbed in the ELL audit. Through their
conversation we as readers realized that the district did not provide any common professional development for the third grade teachers on the CCSSM.

Why did the emphasis on documents as a means of reform transmission increase dramatically during the initial year of third grade implementation? The wider accountability culture helps to clue us in on district administrators' sense-making process. First, the primary grades in Miraflores did not take a standardized assessment that was used to determine school letter grades ${ }^{4}$. Consequently, the district, schools, and teachers in general deprioritized the district curriculum and assessment documents for kindergarten through second grade. Teachers focused largely on what the skills looked like in practice rather than how they would be assessed on paper because the district did not collect data on K-2 assessment performance. Additionally, because there was no district-audited assessment to be given on a specific day, many teachers used the districtprescribed pacing calendar as guideline rather than a strict schedule.

In contrast, in the "Leadership Meeting" narrative, the principals and district administrators indicated that they were concerned about the impact of the CCSSM on third grade state assessment scores and consequently on school and district labels. This emphasis on students' performance shaped the district's responses to third grade CCSSM implementation. The district's focus on student assessment performance naturally directed the instructional coaches to spend the bulk of their time and effort on assessment and document creation, rather than teacher professional development and classroom coaching. Additionally, prompted by Charmaine, the instructional coaches designed a

[^2]third grade curriculum map based on the CCSSM but included 'gap skills' from the previous set of standards assessed on the state assessment. There was no mention in the narrative of cohesively aligning the two sets of standards, only of making sure that 'all bases are covered' in relation to the state assessment.

The district's emphasis on documents as the primary means of policy transmission significantly shaped the sense-making and policy responses of both the instructional coaches and the teachers. For the instructional coaches, the document revision and creation process forced them to encode and reify their understandings of the CCSSM. While this process of reading and recoding the original policy documents helped to build their understanding of the policy, as I discuss below, it also forced them to reify their interpretations of the policy and thereby unwittingly distanced teachers from interpreting the policy in its original form. Because the teachers viewed the reified curriculum documents as 'vetted' by the district, they interpreted the coaches' interpretation as a complete curriculum document and did not question its accuracy or authenticity relative to the original policy. Miraflores' teachers' interpretation of the policy was not based even directly on the policy itself, but rather on their interpretations of the coaches' interpretation of the policy.

## Instructional Coaches: Sense-Making and Responses

Just as the Miraflores district administrators found themselves in the role of mediator between the state and their teachers, so too did the instructional coaches exist as mediators between teachers and the district. Consequently, district policy parameters shaped their actions which in turn directed teachers' interpretation and responses.

In the second narrative we saw Meredith as instructional coach take on the informal roles of policy 'enthusiast' and 'translator' (Ball et al., 2011). Enthusiasts are those within an organization displaying a greater than average amount of enthusiasm for a policy that they felt "enabled them to do 'proper' teaching, to engage with students in exciting ways, and to grow and develop themselves through creative and productive policy work." These enthusiasts often fulfill the role of policy translator, creating the "events and processes and institutional texts of policy in relation for others who are thus included in the discursive patterns of policy" (p. 630). Meredith clearly supported the CCSSM transition, as evidenced by her conversations with Lacey and with Caroline. In creating documents, Meredith took on the role of translator by taking the information in the initial CCSSM and translating it into district-mandated policy documents.

## Function-Focused View of Policy

In Meredith, we came closest to what can arguably be called mathematics 'expertise.' In contrast to district-level personnel, the CCSSM and mathematics curriculum formed a significant part of Meredith's daily work as an instructional coach. Unlike the teachers or Charmaine, Meredith had spent time working with the CCSSM policy in its original form. Over the course of "Meredith Creates" and "The Man," Meredith realized that for her it was the process of repeatedly working with the Common Core standards that led to a greater (though still incomplete) understanding of the standards and a more function-based understanding of the curricular change. Kelly Preston, the Smart Solutions Foundation consultant, reaffirmed this insight in her conversation with Meredith, relating an anecdote about a fellow consultant who came to similar realizations about the standards after nearly a year of working with them.

Meredith's 'expertise' relative to the teachers or district administrators focused her attention on more principled differences between the CCSSM and the previous standards and ultimately led her to interpret the policy shift differently. Through the narratives, Meredith and the other instructional coaches expressed a belief that the previous standards were not designed or executed in ways that promoted student understanding. Meredith interpreted the CCSSM as inherently capable of producing richer student learning if executed correctly. In the initial "Team Meeting" narrative, Meredith remarked to Ellen that her capacity lesson reflected "what the Common Core is all about, right? Really deep understanding." She then encouraged Ellen by saying "this is how we have to begin teaching so that our kids can handle the new Common Core material." She reiterated this sentiment in the vignette "Let's Chat" as she told Caroline, "I don't want to say if you're teaching the Common Core right, because that's not the right verbiage, but to teach the Common Core, it's like you can't not hit critical thinking."

However, Meredith's expertise was limited by the depth and breadth of her experiences. Though she had more experience with the CCSSM than the teachers she supported, Meredith's developed understandings during her assessment creation indicated that she was still a novice in the field of mathematics curricula. As such, her conception of the CCSSM remained limited to what she was familiar with from the state CCSSM documents. Because Meredith used the documents primarily to create assessments, she attended to material that could be used to inform assessments rather material that could be used to shift the principles for teaching mathematics.

Not surprisingly, Meredith's vision of what CCSSM-based instruction should look like in classroom practice remained unformed throughout the narrative. We did not in this set of narratives see Meredith develop a clear vision of how exactly the policymakers intended teachers to execute the CCSSM to order to achieve rigor or coherence. In the vignette "Meredith Creates," she revealed a rambling visualization of a teacher posing a mathematical problem to the class, then "letting them dig in to explore the mathematics...a classroom, chaotic to an outsider, but where every student was engaged purposefully in a task, where some students were independently choosing to use manipulatives while others opted for mental math, but where everyone came together at the end to discuss their strategy and process." While Meredith felt confident that she could evaluate CCSSM instruction against this metric, she struggled during her coaching conversation with Ellen and her continued conversations with other school leaders to articulate a clear vision of what the district's and school's response to the new policy should be.

While many may latch onto Meredith's classroom fantasy and one could indeed argue that the Common Core standards when fully realized could and perhaps should create exactly this type of classroom, it also expresses a limited understanding of how policy creators intended for underlying principles of teaching and learning mathematics to shift in order to enact the CCSSM as a function-focused reform. Spillane and Callahan (2000) and Hill (2001) found that district actors faced with significant policy change often appropriated policy language to denote different changes than those intended by policy creators. This policy language often connected a functional shift with an instructional form (for example, using the term 'inquiry' to refer to an experiment
protocol rather than an underlying shift in science pedagogy). Here, Meredith appropriated buzzwords related to the policy understandings without actually articulating the fundamental shifts in teaching and learning intended by the policy's creators. This served to make her appear more aligned to the function-focused shifts than her actual policy actions may indicate.

## Role of Curriculum Documents in Policy Transmission

In the vignette "Meredith Creates," we developed a better understanding of how Meredith built her own schema surrounding the CCSSM. As discussed earlier, the district provided professional development through the Smart Solutions Foundation on some of the major conceptual underpinnings and ideas behind the CCSSM during the previous school year. After this initial professional development, Meredith and the other coaches received almost all of their subsequent information regarding the CCSSM from state standards documents during the course of district document creation. In other words, the coaches learned about the standards by reading document reifications (Wenger, 1998) of the ideas behind the reforms. As we saw in the vignette "Meredith Creates," Meredith felt that this process of reading and rereading the documents was a viable way to build her own knowledge base and to develop her understanding of the CCSSM. In her discussion with Lacey, we saw that both coaches believed that time spent in the standards themselves led to better understanding, for Meredith in mathematics and for Lacey in English Language Arts.

However, as noted above, Meredith developed these curriculum documents while she was in the process of developing her own understanding of the CCSSM. The documents she created therefore represented less a reification of the abstract function-
focused principles of the CCSSM and more a reification of Meredith's learning and developed understanding. Meredith viewed the documents as inherently useful because they represented her understanding, limited as it may have been. Her perception that a teacher may be able to take these documents and completely change their instructional practices as a result represented a naïve disregard for teachers' respective sense-making processes and contributed to the form-focused nature of the teachers' implementation, as discussed below.

## CCSSM as a 'Mindset' Issue

Prior sense-making research indicates that schema influences how an individual processes new information and how that individual uses past knowledge to interpret patterns in new information. In essence, the individual uses his or her prior knowledge to fill in gaps in the information available (Brewer \& Nakamura, 1984; Spillane et al., 2002). We as the reader already knew from Meredith's CCSSM vision that she believed that the Common Core instruction should look a certain way: "chaotic" to an outsider, but rich in conceptual learning to one "in the know." Additionally, as we peered into Meredith's comments to Caroline about her classroom observation, we began to gather that Meredith perceived such instruction not so much as a function of content expertise but rather as a function of teacher mindset. In the "Let's Chat" vignette, Meredith asserted to Caroline that in order for teachers to be able to 'teach the Common Core' they must be "open-minded, able to teach in a non-traditional way, able to guide the students to answers instead of telling them how to do things." Meredith consequently attributed that teacher's perceived struggle with teaching mathematics to a mindset about teaching and learning that was contradictory to the CCSSM creators' expectations.

For Meredith, the coaches' use of state-created documents for their own edification legitimated the use of curriculum documents (pacing calendars, curriculum maps, assessments, etc.) as a means of communicating functional change. In the vignette "Meredith Creates," we saw Meredith deliberately crafting essay questions in order to elicit a particular kind of instruction from her teachers. Meredith believed that teachers with the correct mindset should be able to take these district-created documents and internalize the functional changes she intended. However, this 'transfer' did not materialize as Meredith planned. During the "Let's Chat" vignette, Meredith described the teacher she observed as "very linear" and as someone who "takes comfort in knowing exactly what the expectation is and in following to the letter." Here, Meredith viewed a teacher's 'failure' to execute her interpretation of the CCSSM not to a failure of the documents to convey information but rather a deficiency in the teacher's mindset. As Meredith told Caroline, "She has the same Common Core documents and assessments that everyone else has, and I don't see them teaching like that." Meredith did not recognize the possibility that an alternate valid interpretation of the documents was possible based on teachers' individual sense-making processes.

In outlining Meredith's assumptions about teacher mindset, we must also acknowledge that not all of Meredith's actions were consistent with her self-professed function-focused 'mindset.' Though she assessed teachers' mindset relative to their interpretation of her CCSSM documents, we did not see Meredith supplement the documents with additional one-on-one conversations with teachers or group professional development outlining her function-focused view of the standards. When Meredith spoke about the CCSSM, her conversations about fundamental shifts in teaching in learning
occurred only in her conversations with her principal and Lacey, another instructional coach.

While Meredith appeared to believe that the CCSSM was a function-focused reform, her actions in her daily work with teachers appeared much more form-focused. In her coaching conversation with Ellen, Meredith stuck to familiar form-based territory and focused the discussion on quantitative assessment data, the format of lessons for the substitute teacher, and the technical coding of the standards. Despite her professed beliefs, Meredith's actions conformed more to the accountability culture in her district than with the original intent of the CCSSM. As discussed below, Meredith's interactions with teachers around the instructional 'forms' influenced teachers' interpretation of the policy.

## Resulting Tensions

Meredith's narrative collided at several points with the dominant accountability culture. As part of these collisions, Meredith expressed several tensions: tensions related to values, tensions related to responsibility, tensions related to workload, and tensions related to performance.

The first tension in Meredith's narrative related to values. From Meredith's fantasy about the 'ideal' CCSSM classroom, we can infer that Meredith as an educator has more holistic beliefs about the educational process than are found in the dominant accountability culture. Teacher narratives regularly present an orientation towards similar humanistic educational philosophies (Alsup, 2006; Beauchamp \& Thomas, 2010; Crocco \& Costigan, 2007; Danielewicz, 2001; Joseph, 2007; Kirk \& Wall, 2010; Lasky, 2005; Woods \& Jeffrey, 2002). Priestley, Edwards, Priestley and Miller found that, even
when some educators aligned philosophically with a cultural context where outcomesbased standardization was the norm, some still held divergent aims related to teaching "educationally (to address wider educational issues) rather than instrumentally (e.g., to get through syllabus content or simply prepare young people for exams)" (2012, p. 199). Meredith's value on the learning process rather the outcomes put her at odds with the district's focus on state-audited measures, leading to what Meredith referred to as a "the underground Common Core revolution." Meredith's disagreement with Caroline about which teachers to send to the Common Core ELA curriculum build exacerbated this tension. Meredith believed that 'mindset' related to the CCSSM should be the deciding factor while Caroline was driven by more logistical concerns, one of which was how teacher selection might impact standardized test scores. By attempting to embed 'instructional guidance' into the district assessments and selecting teachers based on their mindset, Meredith tried to subvert the dominant accountability culture's focus on outcomes. However, she was overridden on both occasions.

The second tension in Meredith's narrative related to responsibility. Meredith viewed the CCSSM as representing fundamental shifts in teaching and learning. However, as discussed previously, Meredith never articulated a plan for what these shifts should look like in the classroom. But why not? To answer this question, we must look closely back at Meredith's interactions with the district. We first saw Meredith's surprise in seeing that the district had not allocated professional development time for the CCSSM in the "Leadership Meeting" vignette. Later on in the "Let's Chat" vignette, Meredith expressed a growing frustration with what she viewed as a lack of district planning for CCSSM implementation in grades four through eight. Reflecting on the 'façade' that she
feel she must maintain, Meredith sardonically asked Caroline, "So when do we tell [the teachers] that there's no Santa Claus?" Meredith's frustration with the districts' planning mounted during the "Who is Going to the Build?" vignette and reaches its pinnacle during the final vignette. In the vignette "And the Bottom Drops Out," Meredith was shocked that the administrators did not immediately discuss a district-wide drop in state assessment scores.

As we dig deeper into the narratives, we can infer that Meredith saw large-scale planning for CCSSM implementation as the district's responsibility. She believed that it was the district administrators that should have allocated professional development time for the CCSSM; that the district administrators should develop a plan for what CCSSM implementation should look like for grade four through eight the following year; that the district administrators should ensure that 'qualified' teachers should attend the build; and that the district administrators should address the drop in test scores and outline implementation adjustments in the coming year. Because Meredith assigned these responsibilities to district administrators, when district administrators did not execute these responsibilities Meredith perceived this as a failure and experienced tension in her practice.

The third tension in Meredith's narratives was related to workload. The document creation process directed by the district created huge time demands within the organization. In the vignette "The Man," Meredith indicated that the initial CCSSM document creation took 300 work hours to complete, with the district asking for an additional 200 work hours for a secondary project related the CCSSM in grades K-2. All of this work was outside of the normal workday (aside from the coaches' scheduled
weekly meeting). While the district compensated coaches for this work, the time represented an enormous additional burden to their daily responsibilities. These time demands contributed to additional tensions around the workload distribution among the instructional coaches and feelings of guilt about their inability to fulfill the time requirements.

The final tension related to performance. Even as Meredith began to distance herself from the district's accountability-focused mindset, she expressed tension related to performance on the state and district examinations. In the initial "Team Meeting" vignette, Meredith's curriculum discussion centered around student performance percentages on the district report rather than student work on mathematical tasks. In the final vignette, Meredith despaired over the school's dismal performance on the state assessment relative to the previous year. It is clear that Meredith cared a great deal about student performance on accountability measures. Rather than eschewing traditional measures of student performance, it appeared that Meredith still looked to these assessments to validate her curricular work. When her school performed poorly as compared to the previous year, Meredith seemed lost. Her disorientation in this final vignette contributes to an overall lack of resolution in the narrative.

## Teachers' Sense-Making and Responses

As discussed previously, both the district and the instructional coaches set parameters for policy implementation as part of their sense-making process. These parameters influenced how teachers interpreted and implemented the policy. Much like the district administrators, the teachers here attended largely to the form-focused aspects
of the policy reform. Below, I revisit the teachers' narrative vignettes to explore their sense-making and policy responses related to the CCSSM.

## Focus on Content Alignment

In the narrative, the teachers viewed the changes in the curricula embedded in the CCSSM partially as a function of grade level content alignment. We first saw Ellen discuss content alignment with Meredith during the initial Team Meeting vignette. In this vignette, Meredith explained that counting money had been 'reassigned' from a third grade skill under the old state standards to a second grade skill under the CCSSM. Though incidental and not necessarily representative of the principled conceptual shifts of the Common Core, the shift of a third grade skill to the primary grades reaffirmed Ellen's general perception of the Common Core as a 'rigorous' set of standards.

Teachers focused not just on content alignment between grade levels within the CCSSM, but also on content alignment between the CCSSM and the previous set of standards used to inform the state assessment. Though glimpses of this appeared earlier in the individual teacher narratives, Ellen and Audrey first explicitly discussed content alignment in the "Let's Review" vignette. As they planned for standardized test review, Ellen told Audrey, "We just need to review the curriculum map and look for the old standards, the ones that are coded with just numbers ...We've already taught everything from the old test, we just need to go back and review." As the two teachers planned review for the state assessment based on the previous set of standards, they did not discuss conceptual differences between the two sets of standards. They remained focused on the placement of the CCSSM standards relative to the previous set of standards: where a standard had moved and 'gap skills' included in the previous set of standards but not at
that grade level in the Common Core. For Ellen, it was as simple as looking through the documents provided by the district and pulling out those standards labeled with "just numbers." This comment hearkened back to her conversation with Meredith during the opening narrative and indicated that her perception of the difference is largely one of labeling and arrangement.

Ellen's experience with probability on the state assessment reaffirmed this emphasis on content alignment over foundational differences. The reader learned in the "Leadership Meeting" vignette that the third grade curriculum map contained only those old state standards most heavily weighted on the state assessment. Ellen, presumably unaware of this piece, blamed herself for missing the probability standard. In her mind, the issue was one of coverage and content alignment. She panicked because she assumed probability was an isolated skill that she has forgotten to teach. Ironically, it was her students who are able to make connections to their previous understandings about fractions, with some problem-solving success.

## Reliance on Documents

The district's and instructional coaches' use of documents as the primary means of policy transmission directed teachers' focus toward the rote, technical aspects of the standards and their execution (i.e., the system of coding, the presence of writing on the assessment forms). Because the district needed to produce evidence of 'correct teaching and learning' and district administrators feared that the teachers did not have the content expertise to produce acceptable "evidence" on their own, the coaches created a set of documents that could be described as a "one-stop curriculum shop." District documents contained the standards, the examples, some additional aligned resources from the
mathematics textbook, and the assessments. This sent the message to the teachers that all they had to do was to use the district documents and that the district (in reality, the instructional coaches) had already done the work of figuring out what to teach and when to teach it in order to guarantee success on the state assessments.

What was striking about the teachers' use of curriculum documents here is that all three teachers accept the curriculum 'direction' they interpret from the documents. For Ellen and Audrey, their belief that the district has successfully aligned and organized the content for maximum effectiveness muted their overarching concerns about content alignment. In the "Let's Plan" vignette, Ellen reassured Audrey with, "Meredith told us that the district had integrated all the old standards into the pacing calendar, remember? We just need to review the curriculum map and look for the old standards, the ones that are coded with just numbers." In their view, the content had already been vetted by "experts," first at the state level through the state documents and assessments, then at the district and school levels through the creation of district documents.

Ultimately, the use of documents as a primary means of policy transmission served to direct the teachers to the instructional 'forms' rather than underlying functional shifts. Similar to Spillane and Callahan's analysis of science policy implementation in a set of Michigan school districts (2000), these instructional 'forms' were elements of the CCSSM policy but did not represent the core of the reform. One form that teachers attended heavily to was the inclusion of written tasks on the assessments. In the "Writing Resistance" vignette, Ellen did not actively use the district documents to modify the format of her instruction until her second assessment. There, the inclusion of writing and extended response directed Ellen to change the 'form' of her instruction to include
additional writing tasks. Though not as explicit, Audrey and Debbie's use of sentence frames in their instruction reiterated this focus on the inclusion of writing. Though all teachers noted that the new assessments included writing, we saw only a brief discussion in the "Planning for Reteach" vignette of how the form of 'writing' related to the actual mathematical content.

## Production of Evidence

In Miraflores, the state standardized assessments used to determine school labels privileged certain instructional forms. Teachers therefore relied on middle managers such as the instructional coaches for 'expertise' regarding these assessment forms. Even if Ellen had been a mathematics expert, she may have deferred to Meredith because she perceived Meredith to have expertise in assessment related to state accountability measures. We saw Ellen shift in this regard during the "Writing Resistance" vignette. At first, Ellen relied on her content expertise to determine how mathematics should be taught. However, on the second assessment the format technicalities seemed to subjugate Ellen's content expertise. The new assessment format shifted the balance of power from the teacher to the instructional coach as the de facto expert in assessment formats.

This shift in power did two things. First, for the classroom teacher, it legitimated district-created documents such as curriculum maps and assessments. For teachers, these documents were vetted reifications of policy. Their adoption may have represented a coping mechanism for teachers integrating themselves into a new system without informal support networks to explain how official policy documents actually translate into practice (Reis, 1980). Such adoption does not remove the process of schema integration that sense-making research proposes. Indeed, individuals still must interpret
these chunks of information in light of their own existing knowledge, beliefs, and experiences. However, without social peer support networks, individuals may struggle to integrate their own existing knowledge with the information provided in official policy documents because they do not know how much leeway is allowed in practice (Reis, 1980).

Furthermore, this shift encouraged teachers to interpret the reform as a formbased rather than a function-based change. In the "Writing Resistance" vignette, Ellen's observations about students' struggles related directly back to the format. She encountered Jacqueline, who inferred that the teacher made a mistake by putting writing on the test; Martin, who appeared to have some limited understanding of regrouping as a procedure but struggled to formulate his sentences; and Jamari, whose violent reaction to the extended response questions caused him to be physically removed from the classroom. Because her class remained calm and on-task through the initial multiplechoice questions, Ellen connected her students' frustration to the written component alone.

Her focus on the format colored how Ellen interpreted her students' struggles. When Jacqueline stated that they never had to write last year in second grade math, it lent credence to Ellen's perception that the question format was the major difference between the CCSSM and the previous standards. Similarly, Ellen also focused on format during her conversation with Martin. When she prompted Martin, he explained, "Five take away eight is not okay. Eight is bigger than five, so you can't take away. You need to take some from the hundreds...So you take the four and make it a three, then you take the five and make it fifteen, then you subtract. That way you have enough. To...to take away the
eight." Mathematically, it was not clear that Martin perceived any base ten or place value understanding at all. Instead of attending to this and prompting Martin around the mathematical understandings behind his answer (e.g. by asking what he meant by taking the four and making it a three), Ellen attended solely to his struggle to orally construct sentences. She compensated by providing him sentence frames rather than prompting him around the conceptual understandings or by reflecting on her presentation of the mathematical concepts. For Ellen, the large jump in rigor was almost exclusively connected to the increase in writing and the change in assessment format.

Though Ellen served as the third grade team leader, we also began to see some limitations to Ellen's mathematical understanding. In the "Team Meeting" vignette, Ellen contrasted one of the old state standards with the CCSSM by saying "We all knew how to teach it, you know? It's money...Also, those [Common Core] standards were so broad... Are they going to be assessed on a specific strategy, or is it just whatever works for your students? There wasn't a lot of guidance in that regard from the textbook or any of the district documents." She then told Meredith that she and the team presented their students with the algorithm for addition and subtraction because "it seemed to work for a lot of them." For Ellen, her students' performance vindicated this course of action: "They did get almost all the multiple choice questions right, the ones where they just had to solve an addition or subtraction problem. So I was okay with that. I felt like the time wasn't a complete waste."

Students' performance on the assessment, rather an understanding of students' mathematical development, drove some of Ellen's decisions about her mathematics instruction. Likewise, her move to provide the sentence frames for the assessment in
order to help Martin express his thinking rather than providing additional mathematical prompting uncovered a preoccupation with performance on the written part of the exam. In this way, the parameters set by the district and the coaches directed Ellen to attend to the instructional 'forms' of the CCSSM.

In the vignette "ELD and the Common Core", Debbie believed that she had shifted her teaching practices in response to the CCSSM. Her students modeled mathematics by drawing pictures, they presented multiple 'correct' answers (in Debbie's opinion), and they wrote in the context of a mathematics lesson. However, echoing findings from Hill (2001) and Spillane (2000) that educators appropriated reform language to serve purposes very different from what the framers of the reform intended, Debbie appropriated aspects of the assessments but used them to serve different purposes than Meredith (or, in fact, the original authors of the CCSSM) intended. There is Debbie's more obvious misinterpretation of the modeling component of Common Core, which put an undue emphasis on the drawing of pictures over the mathematical understandings that lay behind the drawings. She believed that a student drawing a representation of eighths when asked to represent halves was modeling equivalent fractions. Perhaps so. However, Debbie needed to engage in additional prompting to determine the student's understanding. Her push to allow multiple correct answers here suffered due to her lack of clear criteria. Though students wrote as part of the second part of her lesson, the activity was formulaic. All in all, Debbie attended largely to the forms of instruction and there was little evidence to suggest that she had attended to the profound shifts in content.

Additionally, the district's auditing of student book completion influenced how teachers interpreted the Jump-Up program. The Jump-Up program was ostensibly adopted by the district to provide students and teachers more exposure to the Common Core standards. However, Caroline's comments indicated that in her view the primary benefit of the Jump-Up program was providing practice opportunities for the state assessment. Rather than assessing the impact of the content provided on teacher and student learning of the CCSSM, the district chose to audit solely technical components such as student book completion and parent signatures. As Ellen revealed, some teachers chose to manipulate the program in order to be 'successful' on the audited metrics. We cannot judge the alignment of the Jump-Up program to the original intent of the CCSSM from these narratives. However, whatever the 'quality' of the Jump-Up content, the district and school emphasis on superficial indicators of use bred resentment from the third grade team and directed the team to focus largely on completion strategies rather than on utilizing the program content.

## Conflicting Initiatives

Debbie's thoughts and conversations in both the "ELL and the Common Core" and the "Planning for Math Review" vignette conflicted with Meredith's perception of teacher 'mindset' as the primary cause of teacher implementation misalignment. Unlike Audrey and Ellen, Debbie's implementation of CCSSM was shaped by her experience with the implementation of state ELL policy. Debbie alone had been through schoolprovided professional development focused on a state technical audit: lesson plans, standards posted, schedules adhered to. As Charmaine unironically told the principals, "they are not evaluating the quality of instruction." For Debbie, this directed her focus to
instructional 'forms' because those were how she was used to being measured. As Spillane, Reiser, and Reimer (2002) explain, "what is paramount is not simply that implementing agents choose to respond to policy but what they understand themselves to be responding to. The "what" of policy only begins with the policy texts" (p. 393). In this case, it is not only the 'what' of the Common Core policy texts provided to Debbie that influences her interpretations, but the 'what' of previous policy texts and documents provided to her as part of the ELL audit process. For Debbie, it was entirely logical to Debbie that the CCSSM implementation could be accomplished with a 'checklist' similar to the checklist she received as part of her ELL trainings.

We can classify Debbie as a policy 'receiver,' one who generally passively receives the policy work of others without creating any recognizable input. According to Ball et al. (2011), most beginning teachers like Debbie exhibit what they term 'policy dependency,' seeking "guidance and direction rather than attempting any creativity... Dependency means a reliance on senior colleagues, local texts, materials, guidelines, etc, generated by translators" (p. 632-633). In the "ELLs and the Common Core" vignette, Debbie felt that Meredith and the Smart Solutions Foundation consultant were coming to judge her performance. Debbie's responses echo Ball et al.'s finding that receivers often used aggressive verbiage to describe policy implementation: "Policy is 'enforced' and 'required' of you and 'foisted' on you, and you have to 'adjust', you are 'expected' 'pressurised,' 'instructed,' 'dictated' to, 'hammered,' but also 'measured' and 'judged' by policy" in "a language of assault" (2011, p. 633).

As an ELL teacher, Debbie must process two separate and very different policies: those surrounding the CCSSM implementation and those surrounding the ELL
compliance measures. We see Debbie struggle with trying to meet the needs of her below-grade level ELL students while simultaneously trying to embrace CCSSM policy. Her attempts to balance these two policies created tensions within the accountability culture. For example, her desire to slow down her instruction to meet the needs of her students caused tension on her team when she was regularly behind on the districtprescribed pacing calendar, which affected their grade level assessment and math review schedules. In the same vignette, Debbie's insistence on covering below-grade-level material with her students apart from the 'assigned' skill caused Ellen frustration. Debbie's vignettes parallel findings by Russell and Bray (2013) that teachers responsible for enacting conflicting mandates noted challenges and unintended consequences of the overlapping policies that are not apparent to district administrators or in this case, to other teachers. These findings align with the larger body of sense-making literature, which proposes that individuals' backgrounds, schema, and knowledge influence how they interpret experiences (Spillane, 1999; Spillane \& Callahan, 2000; Spillane \& Jennings, 1997; Spillane et al., 2002; Peck \& Perri 6, 2006; Weick, 1995).

## Influence of Situational Context on Sense-Making

Though the wider accountability culture influenced how the CCSSM policy unfolded, sense-making is ultimately a culmination of many individual factors. Individuals' situational context can also influence their sense-making process.

Though they were experienced teachers, both Ellen and Audrey were 'new' relative to the district. For Ellen, Caroline and Dr. Davies' announcement of Mesquite's A label validated the district's (and by extension, Meredith's and Caroline's) judgment. Ellen positioned herself as a new teacher in the organizational structure. As her
conversation with Meredith during the "Team Meeting" vignette indicated, Ellen particularly characterized herself as 'new' within the context of mathematics content. According to Ball et al. (2011), many new teachers can be classified as policy receivers because their time is devoted towards transitioning into the new organization rather than interpreting policy. Ellen's desire to conform to the district expectations positioned her as a policy receiver, though she potentially could have become policy enthusiast given more time in the district.

Similarly, Audrey's position as a mid-year hire positioned her similarly as a new teacher despite her years of experience. To think of Audrey and Ellen as 'experienced teachers,' then, ignores important situational context. For both, their potential to become a policy enthusiast and/or translator was limited by their situational context during this particular school year. Even teachers who are returning and familiar with their organizational structure may be cast into the role of policy receiver as a new administrator changes systemic operation.

Another aspect of the situational context that should not be overlooked is teacher workload, which has arguably increased under the current accountability structures (Apple 1995, 2000). Each of these teachers had a myriad of other responsibilities outside of CCSSM policy implementation: behavior management; special education paperwork; supporting substitute teachers; lesson preparation; planning for field trips and other school events; and so on. I chose to leave out a number of initiatives brought up during the interviews and observations simply in the interest of preserving my readers' stamina. In thinking about teachers' sense-making, we should not make the assumption as outsiders that teachers live and work in an ideal environment where they have a generous
amount of time to reflect on their daily practice. As a classroom teacher I often had days when I didn't even have time to eat lunch and barely had time to use the bathroom, much less engage in meaningful reflection or extended content investigation. The sheer amount of time required to complete daily teaching preparations and paperwork directed teachers to look for quick comparisons between standards, rather than foundational shifts in practice. As we consider why teachers may interpret policies as form-focused, it is worth noting that with all of their responsibilities teachers simply may not have the professional time to notice anything more than superficial aspects of the many policies they implement.

## Summary

As we reflect on how policy implementation unfolded throughout these narratives, it becomes apparent how significantly the accountability culture influenced the sense-making of actors at all levels. From the district level to individual classrooms, the looming state standardized assessments focused participants' attention on how the policy would be measured rather than on the underlying policy principles. District administrators' concern for student performance on the assessments directed them to focus heavily on the content alignment between the previous standards and the CCSSM. Though not evident in the district's K-2 transition, third grade implementation efforts focused heavily policy transmission via document creation.

This interpretation by district-level administrators directed the instructional coaches towards document creation as a means of policy transmission. Though coaches attempted to embed function-focused aspects into the documents and assessments themselves, teachers interpreting these documents focused heavily on the instructional
forms of the curriculum and assessment documents. These parameters were set regardless of the intentions of the documents' creators because of the method and situational context in which the teachers were interpreting it.

In translating the policy from paper to the classroom, it underwent a series of permutations which altered the policy as enacted from the policy as written, and in fact altered the very nature of the policy itself. Additionally, during this process latent tensions developed for individuals who saw themselves as at odds with the developing form-focused policy. Although individual factors make each sense-making process unique, in this case the nature of the situational context overwhelmed the influence of individual factors.

As I close this analysis, it is worth reiterating that these narratives provide only a snapshot of a specific time and place in the larger narrative arc of Mesquite's history. We should not assume that the same findings would be true now, or even that the same findings would be true the following year. However, we can use this snapshot to provide a powerful reflection on initial policy implementation in schools and from there draw implications about our own practice. In the next chapter I provide my own reflections on this study and outline further implications for professional practice and for research.

## CHAPTER FIVE: REFLECTIONS AND IMPLICATIONS

## Overview

I began my doctoral program the same semester that Miraflores hired me as an instructional coach and conducted my research during my last semester as an instructional coach in Miraflores. During my two years working as an instructional coach at my new school, my narrative drafts and my analysis were my constant companions. For me as an embedded researcher, my research and my professional life were inextricably intertwined. Following this, I offer my personal reflection on this process, followed by what I believe to be this study's implications for professional practice and future research. To close, I leave you, dear reader, with some lingering questions brought to the surface by this work.

## Personal Reflection

I have always been 'good' at school. The last grade I received that was lower than an A occurred in my kindergarten art class, an 'Unsatisfactory' that resulted from a stubborn desire to do my own art projects. Both my parents were educators, I enjoyed reading and could memorize well. I was the high school valedictorian and attended Arizona State University on an academic scholarship. When I became a teacher, I thought I was still 'good' at school. My students walked in lines, learned their sight words, added and subtracted, taught me Spanish, and only hit each other every once in a while.

When I became an instructional coach, I assumed I would be good at that too. Coaching was just school, but with adults, right? I'll spare you the gory details, but suffice to say that my first four months as an instructional coach were the most humbling
that I have ever endured. I was fundamentally terrible at coaching, the human equivalent of the Hindenburg. I assumed that everyone processed information the way that I did, thought the way that I did, and should act the way that I acted. One teacher thought I was so appalling that she quit in October rather than live through the rest of the year under my jurisdiction. To top it all off, I began my doctoral program in the same semester. I had no experience with graduate level research and quickly discovered that I drastically overused the semicolon. I learned that, as far as my doctoral program was concerned, I wasn't nearly as good at school as I thought I was.

Personally, the confluence of these two experiences served one major purpose: to knock me out of my self-absorbed cocoon and to begin envisioning the world through other peoples' eyes. As both a coach and a student, I learned to listen for a while before I spoke. I began to consider how someone might interpret what I said before saying it. I read things that I profoundly disagreed with initially, and then changed my mind. I still faltered, but less disastrously than before.

In many ways, this study was the culmination of this self-development process. I deeply embedded myself in other peoples' lives in the midst of a policy implementation that I had my own strong beliefs about. Afterwards, I reflected on how each of the individuals came to policy implementation as a result of their own unique sense-making processes. Rather than measuring how other stories 'aligned' or 'conflicted' with my own narrative, I began to see my own story as one in a constellation of stories. This allowed me to begin to see larger patterns outside of my own experience.

My work on this study profoundly impacted me as an instructional coach and fundamentally as a human being. As an instructional coach, I am more cognizant of the
multitude of stories that overlay themselves in schools. Even in a school that considers itself highly 'data-driven', I find that the numbers serve largely as mnemonic devices for recalling the narratives of individual students, of lessons, or of professional discoveries. In working with teachers, I now seek to understand the narratives that they construct around their practice to help them build from those narratives or to build new, more empowering narratives for themselves as practitioners. I still predictably falter. On the whole, however, I believe that my work as a narrative inquirer has helped me to grow personally and continues to do so daily.

## Implications for Professional Practice

When I first conceptualized this section, I drafted seven principles for helping schools and practitioners to recognize and execute function-focused reforms. While this list would have made a nice blurb on an educational website somewhere, the result was an interpretation that acknowledged only top-down reform and ignored the valuable bottom-up policy development of daily practitioners. In rethinking this, I was again humbled. The following is a list of suggestions for educators at all levels who work in policy development and implementation. This list is not a set of concrete action steps, but rather a starting point for each of us to begin rethinking our own practice.

1. Seek expertise.

As I think about policy implementation in my own practice I still believe in my power as a practitioner to reject, modify, or accept a given policy. However, I believe that as a practitioner I have a responsibility to base my reaction on as complete an understanding of the original policy as possible. Sense-making research indicates that those with a deeper knowledge base in a given area are more likely to notice subtle
distinctions in policy and are less likely to attend to superficial aspects of the policy. As we debate or implement policies, I believe it is our duty to seek out information and to extend our own expertise in that area, if only just a little. Educators can do this by seeking out those in their field with more experience in a particular area, reading professional literature, reflecting on their own practice, attending conferences, or reading educational narratives related to the phenomena. We must particularly search for information that challenges our initial assumptions and beliefs to extend our schema. We can then choose our responses to a policy based on a deep understanding rather than superficial assumptions.
2. Focus on underlying causes affecting instructional expertise.

To achieve expertise in any field takes many hours of concentrated, focused practice. When we look at educators today, we see a myriad of factors that structurally hinder the development of such expertise. First, the transience of the certified teaching population in certain areas creates conditions in which teachers are constantly 'new' to a given system, school, and/or grade level. The cognitive demands placed on newcomers entering an organization should not be underestimated (Reis, 1980). It is difficult for anyone to develop practical expertise when most energy outputs go towards understanding the underlying values of the new organization. Simply put, it is difficult for teachers to focus on expertise in new content when they are simultaneously trying to learn organizational norms, fit into the dominant culture, and find the best way to obtain resources in their new structure. This cognitive demand is compounded by the fact that teachers are oftentimes trying to implement many different initiatives simultaneously. In a system where priorities are unclear, teachers must determine which outputs of time and
energy will have the maximum 'benefit' for them and their students. If we expect teachers to develop the necessary content expertise to make informed decisions regarding curriculum policy implementation, we must take steps to allow them the space and energy to develop this expertise. Further research and practice should be devoted to keeping novice teachers in the profession; reducing teacher attrition between schools and systems, particularly in low-income or otherwise disadvantaged schools; reducing organizational focus to a smaller subset of initiatives; and providing time for teaching learning opportunities inside the professional day.
3. Seek narratives.

Narrative inquirers argue that we are storied individuals existing in a constellation of other storied individuals. As I have tried to argue throughout these narratives, each individual interprets policies in the context of their own narrative and in what they understand as the institutional narrative. If we do not seek out these narratives and try to understand how our colleagues interpret concepts and events in light of these narratives, we risk missing fundamental understandings about policy ideas that evolve during implementation. Ask others to tell their story. Ask others how the policy fits in their story. Ask yourself how the policy fits into your own story. Tell your own story. Read others' stories and use aspects of their stories to reflect upon your own narrative. This sounds simplistic, but I believe that the first step to formally recognizing narrative research as a valued way of knowing is to value it in our own daily practice.
4. Recognize the limitations of documents.

Wenger (1998) outlined how communities reified their beliefs and understandings in documents, journals, and other abstractions. Communities then transmitted their
beliefs by circulating these reified documents. However, as Wenger explains, a reification is simply a representation which may or may not have meaning for those interacting with it. Thus, participants must negotiate their own meaning from the reified documents.

In my experience, educators like to create documents. We like forms, records, calendars, assessments, guides, and checklists. These documents have a valuable place as records of our own learning and understanding. However, we cannot assume that all of our understandings and beliefs can be transmitted through text alone, nor can we assume as document users that we understand completely the intent of a document's creators merely because we can read the words on the page. Documents must become living things that are discussed and debated and used as tools for understanding, rather than accepted at face value. We must seek to go beyond document creation and adoption during the policy implementation. To begin with, policy implementers may engage in inperson and virtual discussions about the policy, participate in forum or round-table discussions around the original policy, or create their own documents and notations in response to policy stimuli.
5. Talk openly about understandings.

One of the greatest missteps of the current punitive accountability climate is that it produces a fear of professional vulnerability for teachers (Craig, 2010; Crocco \& Costigan, 2007; Lasky, 2005). When educators try to create counter-narratives outside the dominant political narrative of accountability, it often appears to outsiders that "teachers don't know what is best for the children they teach; the teachers aren't providing the necessary education in order for their children to excel," and that teachers
need "non-educators to come in and show the teachers what to do" (Joseph, 2007, p. 291). As Joe noted in the in the "Leadership Meeting" narrative, "We have growth metrics from the state to meet, or we lose our labels. We have directives from the district office to comply with. I tell my teachers that we have to make ten percent growth in all grades, all subjects because if they don't, they're going to be labeled an ineffective teacher and possibly fired. That's the reality we live in. What you said might be true, but it doesn't matter." Even Meredith's judgment of a teacher's mindset in the "Let's Chat" vignette fosters a climate where vulnerability is discouraged.

If we expect to progress as an educational system, as individual districts or schools or even classrooms, we must create safe spaces to discuss our understandings. We must feel safe enough to be exposed as something less than an expert, to admit our need for growth, to ask questions and to disagree. We must be able to come to these spaces without the fear of being evaluated or penalized. From my work in schools, I do not believe that the accountability climate has created a climate of master teachers who are experts at all initiatives and in all content areas. Rather, I believe that the accountability climate silenced those voices and encouraged those individuals held accountable to hide their perceived weaknesses behind a professional mask. Only in removing the veneer of 'mastery' will we be able to actually grow personally and professionally.

## Implications for Research

Along the way, I have developed an intense regard for the power of narrative inquiry as a methodology, and for the power of educational narratives in particular. Like Barone (2007), I too believe that the goal of those constructing narratives "is not to seek
certainty about correct perspectives on educational phenomena but to raise significant questions about prevailing policy and practice that enrich ongoing conversation" (p. 465). Like the teachers in my school, we may use quantitative data to inform our practice. However, it is the stories that we return to over and over again. It is stories that we share in our meetings and our conferences. It is stories that we build around our quantitative data that we revisit with new understandings and new lenses as the years pass. There is much to argue over in regards how we may assess the validity of educational narrative in the wider context of educational research. However, the pervasiveness of narratives in our daily existence confirms for me that they too have a place in educational research. I believe that our first contribution to this debate is to continue to produce a variety of narrative research. As this body of research expands, discussions around the validity and value of narrative research can serve as editing frameworks rather than straitjackets that discourage the creation of educational narratives in the first place. My hope is that researchers resist the "narrowing of the officially sanctioned methodological spectrum" (Barone, 2007, p. 454) and continue to explore narratives of educational phenomena. These narratives have the potential to provoke debate and help contextualize the massive influx of quantitative data surrounding educational policy.

This study, like all narrative inquiries, is set within constructs of temporality, sociality and place. There are many stories to be told: stories of other schools in other places undergoing the same reform, of schools in neighborhoods that differ demographically from Miraflores, of the same school at a different time, of different teachers. Indeed, there are individuals in this story (Caroline Chavez, Charmaine Winstead, Dr. Davies, Chris Pisetti, Lacey, Joe, and all of the students) whose stories are
only touched upon here. To tell the story from any of their perspectives would raise entirely new sets of questions and would be interesting in their own right. I hope that someone writes them some day. I know that I would read them.

Additionally, the subsequent years in Miraflores have brought with them their own reforms and initiatives. This narrative snapshot addressed only the initial year of policy implementation. The story of what happened next and how the second year of policy implementation interacted with other initiatives remains to be told. Again, I hope that someone tells it someday.

As mentioned previously, this study provides only a snapshot in time of Mesquite Elementary. I have spoken in the last few months with teachers from my own campus who underwent this reform. They consistently expressed that they felt that their practice has grown significantly since then. I heard similar comments from the study participants as they provided feedback on the initial round of narratives. Like Meredith, some teachers both at my campus and at Mesquite believed that their experience working with the standards for the second year led to deeper understanding. This study indicates that the accountability structures directed teachers to more form-focused interpretations of the policy during the initial year of implementation. However, the question remains about how the policy implementation evolved during subsequent years. It would be valuable to the research community to investigate whether the policy implementation that I document here remained form-focused rather than function-focused, and if so, how those emphasized instructional forms may have shifted.

## Lingering Questions

Reading this set of narratives and the analysis, many questions remain unanswered. Some of these are small questions that simply exist outside the temporal framework of this research, such as 'What label did the school receive for that year?' and 'Where are the participants now?' These questions I could answer, but refrain from doing so. Providing answers to these questions would impose an artificial conclusion on what is better left as an ambiguous text and would denote in some ways an evaluation of processes and individuals that I am not prepared to give.

Beyond these superficial questions, other more profound questions begin to rise to the surface here about wider culture of teaching. For one, why didn't the teachers rise up against the idea of being assigned one set of standards to teach but being held accountable on another? Why were there no protests, no clandestine meetings, no outward revolt? I believe that some of the work in the analysis chapter hints as to why this may be so. A few additional pieces of information may serve to make this clearer. During this same time period, teachers at Mesquite were up in arms about several different initiatives, most notably a cost-cutting plan to turn Mesquite from a K-6 school to a K-8 school and a new pay-for-performance structure that would require them to undergo five lengthy formal evaluations per year. This was of course in addition to all of the normal squabbles about freezes in pay, reduction of benefits, and redistribution of teachers across campuses. From all of this, we can infer that perhaps, by the time it came to the reforms that affected their daily work in classrooms, teachers had reached their limit of what they were willing to fight for and argue about. Additionally, because the lack of alignment between the CCSSM and state test affected only third grade teachers
during this year, the cause was not at that point in time taken up by the wider teaching population.

You as the reader may also question the lack of 'bottom-up' initiation of implementation included in my analysis. Why, you may ask, is the analysis unidirectional? Why does the implementation process seem to flow solely downhill, with teachers positioned as unwitting pawns? The answer is that, quite simply, this is what my research showed. Other than some scoring adaptations detailed in the "Planning for Math Review" vignette, the teachers in my study were almost wholly policy receivers. As discussed in my analysis, situational context may have contributed to this. Additionally, however, we must consider how the particular content I focus on here may have influenced teachers' roles in policy implementation. Research indicates that while most elementary teachers exhibit a strong curricular role identity as literacy teachers, their role identification as a mathematics teacher is much more inconsistent (Drake et al., 2001; Spillane, 2000). Based on my conversations with participants following data collection, it appears that teachers took a much more active role in the implementation of policy related to the Common Core State Standards for English Language Arts. The content area of the policy itself may have contributed to teachers' positioning as policy receivers.

All that having been said, there remains a lingering question about the larger culture of teaching in the current moment. Though the research is rife with the voices of teachers speaking out vehemently about testing and accountability, sharing how the current system destroys their classrooms and their students, here we have in these narratives teachers who largely accepted and implemented the reforms as outlined by the district. Politically, their voices remain hushed, and we as the reader are left with the
overall questions: How can we describe the current culture of teaching in this particular context? Has the culture of performativity created a politically neutralized teaching class, and if so, how did this happen? Even more importantly, how might this same group of teachers be politically reenergized to act in defense of their own practice?

These questions remain unanswered here. However, these questions deserve to be answered and, if not answered, at least asked. In doing so, we as citizens make the first move to changing our educational system for the better: by first seeking to understand what, after all the smoke and noise, it actually is in practice.

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## APPENDIX A

METHODS

## Overview

During my first year teaching, my class contained a Somali refugee student named Mohamed Mohamed, affectionately known around campus as "Mohamed Squared." Mohamed was four if he was a day, but his mother listed his birthdate as January 1, 2001, and the secretary placed him in my first grade class.

Mohamed had never flushed a toilet before he came to the United States and he wouldn't speak a word to me until the third month of school. Loud noises scared him, he often went catatonic for minutes at a time, and I once caught him trying to eat a cockroach he found on the floor. In my class, I declared that we never used the phrase, "I'm not good at..." but replaced it instead with the phrase "Right now I struggle with...." That year Mohamed struggled with reading, writing, counting, adding, cutting with scissors, buckling his belt after the bathroom, kicking, hitting, and biting.

Before my yearly formal observation from my Teach For America supervisor Annie, the two of us met for a pre-observation conference and reviewed my reading fluency scores. We talked about my instructional strategies, my curriculum, my literacy centers, my small groups, and my data. We talked about Mohamed and the letters he knew and the ones he could only guess at, about behavior plans we had put in place, about his flashcard plan. We discussed the educational implications of Mohamed leaving the first grade able to read only twelve words per minute, a full twenty-eight words a minute lower than our end-of-first-grade goal.

When Annie came in the next day, she observed me work with Mohamed and three other students in a small reading group. We were reading a small book entitled "Trucks," detailing all of the things that could be loaded onto trucks. Each page
contained the sentence frame "The $\qquad$ goes on the truck." We read aloud together. "The hay goes on the truck." "The dog goes on the truck." Raul offered that perhaps the dog jumped on the truck. Bright-eyed Joanna exclaimed, "Yeah!", and we turned the page.

The next page, the final page of our book, showed a photo of a mobile home being loaded onto a semi-tractor trailer. "The house goes on the truck," we read together. Mohamed threw his book down at Annie's feet, startling her enough to make her drop her notes and pen. I rebuked Mohamed, and he shouted a vehement "NO!" I asked rather tersely what the problem was, and Mohamed stood up defiant on his chair. "Miss F, NO! A house cannot go on a truck! It cannot! This book is a LIE!" He turned and shouted to his classmates, as if to rally them to action. "Everybody, listen! This book LIES!" An audible gasp emerged from the other students. Annie looked to me with apprehension.

Child, I thought, what a beautiful and complicated child. Over the course of a year, Mohamed Mohamed had learned not only to read, but interpret and question text on his own grounds. I hope that Annie footnoted her data with his rebellious spirit, because numbers and flashcard plans alone are not the story of my Mohamed Squared.

I include this story not because of the inherent poetry of Mohamed's rebellious declaration but because telling it speaks to the need of finding a way to research that tells the stories of classrooms beyond their numbers and criterion-referenced data sets. In seeking to tell the stories of educators, we must seek methodologies that capture their lived experiences. As a researcher, I sought to do this in my own work, and explain here narrative inquiry as a methodology for encapsulating lived experience as a complement to more traditional quantitative research.

Though narrative inquiry is not unknown in mainstream educational research, here I borrow heavily from the arts-based education tradition of storytelling as a means of presenting varied experiences (Barrett \& Stouffer, 2009; Barone, 2001; Barone \& Eisner, 2006; Kelly, 2013). Initially, the idea for this research began as an offshoot of my work in the Miraflores District. In 2007, Teach For America placed me in the Miraflores School District as a first grade teacher. I taught first grade for two years at Acacia Elementary, then taught third grade for a year before the principal hired me as the school's instructional coach. I remained an instructional coach at Acacia for three years (including the time period of this study). In addition to my on-campus duties, I became involved with the district-wide project of creating mathematics assessments based on the newly-adopted Common Core State Standards. I became excited about the standards themselves and about their potential impact on students. As I talked with teachers, my principal, and my fellow instructional coaches, however, I met with a variety of responses. Some were excited, while others were indifferent, tentative, or even fearful. I began to wonder what effect the state's adoption of the Common Core standards and our subsequent curriculum and assessment work would have on the day-to-day practices of teachers and on the educational experiences of their students. How did teachers interact with the standards? Did the new standards change the way that teachers taught mathematics? How did teachers use or interpret the curriculum documents and assessments created by the instructional coaches?

There are many different ways other than narrative inquiry that a researcher could attempt to answer these questions and present their findings. I hope that others develop an interest in questions like these and pursue them through a variety of avenues, for the
sake of development in the field. I chose to pursue these questions through narrative inquiry and present my findings as a fictionalized set of narratives because I wanted to create a research text that would engage and provoke readers to step inside the experience.

Like many other narrative inquirers, I found inspiration in Barone's seminal work Touching Eternity (2001). Barone created a "polyvocal, conspiratorial" (p.151) arrangement of a stories from a teacher and his students along a continuum of fictionalization. In doing so, Barone attempted to use a variety of narrative creation techniques to engage participants (including himself as the researcher, along with his readers and subjects) in a broader conversation about the nature of teaching and teachers' impact. Barone's work here falls under the category of arts-based educational research (ABER) (Barone \& Eisner, 2006; Kelly, 2013), so named because of its typical use in research related to artistic activity and specific structural components including but not limited to "the creation of virtual reality and a degree of textual ambiguity; the presence of expressive, contextualized, and vernacular forms of language; the promotion of empathetic participation in the lives of a study's participants; and the presence of an aesthetic form through the unique, personal signature of the researcher" (CahnmannTaylor, 2008, p. 8).

I do not consider this work to be arts-based educational research because as poetic as I may consider my narratives to be, I created them as a record of experience rather than as an attempt to create artistic expression. However, in examining the minutiae of educators' lives in relation to CCSSM policy implementation and, indeed, in reflecting on my own experiences, it struck me how similar our day-to-day lives as teachers and
coaches are to the traditional performances of a dancer, of a symphony cellist, of a painter. Teachers perform for students, for supervisors, and for each other; likewise their principals, and indeed their instructional coaches. As we perform our day-to-day roles as educators, we simultaneously navigate our own internal dialogues and make decisions about our practices. In pursuing this methodology and incorporating so many of ABER's design characteristics into my final research text, I sought to capture both the ambiguity and the grounded nature of these experiences and present them in a manner that, like Barone and others influenced by his work, invited the reader to consider multiple possible worlds.

In this chapter, I outline narrative inquiry as the foundation of my research design. I will describe narrative inquiry's underlying principles of temporality, sociality, and place, and I will then discuss some of the challenges inherent in narrative inquiry. Following this, in Appendix B I outline the general population of teachers within Miraflores and the specific sample of participants in this study. I then discuss the data collection of my research project. In Appendix C, I illustrate how my raw data was transformed into the included fictional texts and explain my data analysis procedures.

## Research Methodology: Narrative Inquiry

Narrative inquiry is a qualitative methodology in which knowing is conceptualized as narrative (Clandinin \& Connelly, 2000) and that values individuals' experiences and the meanings those individuals assign to them. While external circumstances may factor into events, narrative inquiry research explores those exterior circumstances more indirectly through their presence in participants' narratives (Craig, 2009). Consequently, unlike quantitative research, narrative inquiry presents no direct
"evidence" or causality between events but rather offers an in-depth exploration of how participants experience a phenomenon.

Researchers engaged in narrative inquiry emphasize stories over theoretical frameworks because, as Sanger (2012) argues using Stocker’s (1976/1997) essay "The Schizophrenia of Modern Ethical Theory," the goal of using these theories is to reduce experience to singular discrete aims and purposes which cannot begin to encompass the range of our human experiences. Stories of experience, argue Clandinin and Connelly (2000), begin with the breadth of human experience and attempt to make sense of this experience narratively through the dimensions of temporality, sociality and place. Researchers may employ theoretical frameworks as a tool to help them make sense of stories, though the studied narratives and the meanings embedded within them retain primacy.

These three dimensions of temporality, sociality, and place intersect not only at the researcher's time of data collection and also at the reader's time of the reading and interpretation. Participants and readers filter an inquiry or text through their own personal experiences and circumstances. Therefore, a researcher may predict but not guarantee a reader's interpretation, since readers' situational contexts shape their encounters with a text which in turn shapes their interpretations of the text (Atkinson, 2010).

## Temporality

One of narrative research's prominent characteristics is that narrative research engage in their narrative inquiry "in the midst" of the lives of all participants, including the researcher (Craig, 2006, p. 108). Similar to Emirbayer and Mische's temporal aspect
of agency (1998), narratives have both a history and a past which may be only indirectly evident within the captured narrative (Clandinin, Murphy, Huber, \& Murray Orr, 2010). As we seek to interpret and to produce narrative inquiry texts, we understand that such texts provide only a snapshot of what may be a much wider narrative arc. For example, in Cheryl Craig's long-term research at T.P. Yaeger Middle School, she noted that when she returned to the school following a turbulent period in her absence, teachers valued the narrative inquiry process as a means to bridge and make sense of disparities between two different but related points in their professional experiences. As Craig reflected back on the narratives created during the two different points in time, each narrative contained different uncertainties based on its temporal placement in the wider narrative arc (2006). While as readers we may desire a concrete ending, we can recognize in narrative research's ambiguity a reflection of that same quality in our own day-to-day lives.

## Sociality

Our experiences and the narratives we create around them do not occur in isolation. Narrative analysis provides an important lens to view policy implementation because it allows individuals to connect their experiences to events in the larger social context, such as a school or district. For example, in Craig's work at T.P. Yaeger Middle School individuals' narratives interact symbiotically with the wider organizational narrative of the school (2006). In this study, Ellen's experience of transitioning to a new district is influenced by the district implementation of the CCSSM. The change in examination format caused her to rethink her content expertise and adapt her instruction. Likewise, Meredith's narrative was shaped by the wider district-level vision setting by the Smart Solutions Foundation and Charmaine Winstead.

Researchers as well as participants make connections between their experiences and the wider social context. Researchers use their personal iterative and projective lenses to make sense of their participants' experiences, making the researchers' personal narrative a salient element in the narrative inquiry process. In Barone's narrative Touching Eternity (2001), Barone readily admits that his own experiences influence his interpretation of the narratives surrounding his subject Mr. Forrister. He explains that the very act of narrating itself is an interpretation, as no narrative can encompass all perspectives and interpretations. Therefore, argues Barone, the researcher's past experiences, current involvements, and future imaginings determine the foregrounding of details in that particular interpretation. Clandinin and Connelly (2000) echo this sentiment in their seminal text Narrative Inquiry, in which they argue, "Narrative inquiries are always strongly autobiographical. Our research interests come out of own narratives of experience and shape our narrative inquiry plotlines" (p. 121). However, Clandinin and Connelly caution prospective researchers to utilize their own narrative as a refined tool, checking the authenticity of research texts against the material of field texts to ensure that the researcher's narrative enhances rather than subsumes the participants' narratives.

In essence, narrative inquirers embark on an exploration of other's sense-making as a method of sense-making themselves. This sense-making in the form of research texts takes place within a specific situational context for the research and the participants. For example, I spent the first three years of my teaching career in the Miraflores District at an urban Title 1 school before becoming an instructional coach at the same school. While teaching, the district invited me to participate on the math curriculum team
building math assessments for the previous set of math standards, which then led into my work with the CCSSM. This research took place during my final months as an instructional coach in Miraflores and in many ways represented a culmination of my experiences there. I conducted this research and wrote these texts as part of my sensemaking at a specific point in time within a specific social context. If I were to recreate this research again now, or five years from now, or twenty-five years from now, the narrative inquiry would undoubtedly be different not only because of the snapshot the research would capture of the participants' larger narrative arc also because future events in my own life would have shaped my lens as a researcher.

Clandinin et al. (2010) viewed narrative inquiry as relational inquiry (p.81) and emphasize the complicated node where researcher and participants interact in various forms of temporality, sociality, and place. They note, "As narrative inquirers, we study the lives of participants as we come alongside them and become part of their lives and they part of ours. Therefore, our lives and who we are and are becoming on their and our landscapes is also under study" (p. 82). An individual's beliefs about teaching and learning often connect to more private aspects of identity and experience. Authentic data collection in the field of narrative inquiry requires not only that the researcher be transparent about her/his own perspectives and partisanship (Craig, 2006, p. 111), but also that the researcher and participants develop genuine relationships.

Sociality as a concept applies to readers as well as researchers and participants. Because each reader comes to the text with his or her own lived experiences, the reader's personal narrative interacts with the narratives encountered in the text. Research indicates that the type of narrative presented to the reader influences this interaction between
reader and text. Atkinson (2010) references Bakhtin's (1981) classification of narratives as either novel or epic depending on their characteristics. Epic narratives, according to Bakhtin, are typically monovocal, normative narratives designed to tell grand stories, leaving little ambiguity or room for the reader to construct personal meaning. In contrast, novel narratives include dissonant perspectives, polyvocality, ambiguity, and incompleteness which may generate metacognitive reflection on the part of readers. Atkinson found that teachers generally resisted epic narratives and responded to novel narratives by reflecting on how their own practice fit into what was presented in the narrative. This emphasis on polyvocality and the inclusion of multiple, sometimes dissonant perspectives is echoed by Clandinin, Pushor, and Murray Orr (2007). My dual narratives from the perspectives of the teachers and the instructional coach represents an attempt to imbue this work with an inherent polyvocality, in order to allow a reader more space to reflect back on his or her own practice from a multitude of experiences.

## Place

Place is the final component of narrative inquiry. Narrative is largely contextual, and the milieu surrounding a given situation impacts the history all participants bring to a given scenario. Indeed, as Lasky (2005) noted, stories told within schools must be understood within the larger educational context of the world at that place in time. Therefore, place must also be explored by the researcher during the process of narrative inquiry. Setting this research in Miraflores, an urban Title 1 school in the southwest, decidedly shaped the stories I collected and consequently the narratives I created. In this study, choosing this particular place had implications for how accountability structures influenced participants and how participants reacted to policy implementation.

## Challenges Related to Narrative Inquiry

When conducting narrative inquiry research, researchers must be mindful of the challenges created by narrative inquiry's relational nature. Among these challenges are the researcher's reliance on relationships for accurate data collection, partisanship on the part of the researcher that might influence data collection and analysis, and readers' interpretations that may differ from the intention of the author. First, narrative inquiry as a methodology relies heavily on the researcher's relationships with participants for relevant data collection (Connelly \& Clandinin, 1988). Without this relational base, researchers may find it difficult to gather enough material to create a coherent picture of the phenomena being studied.

While these relationships are largely dependent on the researcher's social awareness and responsiveness, Seidman (2006) noted that differences in race, ethnicity, gender, age, language, or social status can present obstacles to an authentic researcherparticipant relationship and that data collection may suffer as a result. On the opposite end of the spectrum, Seidman also points out that excessive familiarity between researcher and participant may also create conflicts that shape the data collection, as the researcher may feel uncomfortable following up on discordant but salient points. Alternatively, with a familiar researcher the participant may share things initially that they choose later to retract, resulting in a loss of collected data. Collecting narratives requires a careful building of confidences without venturing too far into the personal or not far enough into the relevant.

Due to the relational aspect of narrative inquiry, the researcher in a narrative inquiry study has a heightened responsibility to the participants (Connelly \& Clandinin,

1988; Seidman, 2006). Narrative inquiry often allows a researcher access to the more private thoughts, memories, and experiences of her/his participants. How a researcher expresses or conceals these vulnerabilities has personal and professional ramifications for participants, particularly in an era of increased evaluation and accountability for teachers and schools (Clandinin et. al, 2010). Because narrative inquiry involves information shared voluntarily by participants, it is critical that researchers not exploit participants' trust and that the participants feel reasonably comfortable with their portrayal in published research. The researcher can accomplish this by allowing participants to review interview transcriptions, co-creating participant texts (Clandininet al., 2010), and asking participants to respond to interview questions conducted via written correspondence (James, 2007), among other techniques. As a further extension of relational ethics, Clandinin et al. (2010) used a myriad of data sources from a compilation of individuals to create fictionalized research texts. This type of research text allowed the researcher to mask participants' individual identities in order to protect them personally and professionally and to facilitate a freer exchange between the researcher and participants during data collection.

For myself, my position as a familiar figure within the Miraflores School District created an initial bond with my study participants. For the teachers, I was a familiar face that they had seen at district-wide events. Before meeting with the teacher participants, I sought and received initial approval for my study from both the district superintendent and the school principal. For the teachers, this district and school-level support allowed teachers the freedom to participate without fear of professional recrimination from supervisors. To keep our meetings from being overly familiar and therefore
unproductive, I took several steps during data collection to set appropriate boundaries. All meetings were held on the Mesquite Elementary campus or at the Miraflores District office, never at my campus or at a more casual off-campus site. The interviews were clearly tape-recorded, with the teachers visually able to see the tape-recorder. In formal and informal conversations with the teachers, I was careful to respond to frustrations and questions as an outside observer would, rather than as a district "insider." Classroom observations were formally scheduled with the teachers so that my classroom visits were clearly delineated as part of my research. Additionally, during my time in Miraflores I never participated in any sort of formal observation protocol through Smart Solutions Foundation or through the district on the Mesquite campus, making it clear that my position at Mesquite was solely that of researcher.

That is not to say that I held the teachers completely at arm's length. During this research I developed positive relationships with all three teacher participants. All three shared personal things with me unrelated to their teaching or work in Miraflores, signifying a certain level of trust. As part of our conversations, I shared some anecdotes from my teaching experience as way to build rapport and to clarify my understanding of the participants' perspective. As the study continued through the year, participants kept me updated on developments within the school and grade level as part of the natural extension of that relationship.

This delicate relational balance extends to the researcher's awareness of bias within his or her data collection and interpretation. According to narrative theorists, all human beings understand themselves and the world around them through the development of narrative. Ostensibly, researchers are no different. However, the purpose
of narrative inquiry is to bare the narratives and interpretations of the participants. In order to do so, a researcher must explore his or her own narrative and biases so that he or she may more clearly see the perspectives of participants. This can be difficult to do, particularly as researchers often co-live the experiences and situations they are documenting along with participants (Huber, Murphy, \& Clandinin, 2003), and bring their own histories and expectations for the future to bear on those situations.

The challenge of bias for me was particularly relevant when presenting the perspective of Mesquite's instructional coach because of the nature of our relationship. I knew the instructional coach for two and a half years prior to beginning data collection. We had worked together as team on projects and had additionally collaborated as part of the district's team of instructional coaches. During this time we had numerous conversations about our schools, the district, the larger educational climate, and the nature of our work as instructional coaches, not to mention many conversations about our personal lives outside of school. Because I was closer to her than I was to the teacher participants, two additional challenges arose: making sure that in sharing her perspective that I did not overshare aspects beyond those which she was comfortable with; and making sure that in developing the character of Meredith that shared aspects of both of our perspectives without subsuming her perspective into my own.

Ultimately, my fictionalization of Meredith includes both the perspective of Mesquite's instructional coach and my own perspective. In analyzing the instructional coach's interview transcripts as well as my own notes and journal entries during this time period, I sought to capture aspects, themes, and feelings common in both sets of data. I then used these commonalties to construct the fictional Meredith and to follow her
throughout the narratives. By fictionalizing Meredith based on these commonalities, I felt that I was able to ensure that this perspective was grounded in the data set while simultaneously protecting the instructional coach's privacy by not creating what I present in the narrative as Meredith's perspective solely from my interviews and observations of her.

The third challenge relates to how individual readers engage with and interpret narrative inquiry. Research texts are ultimately a form of communication between a researcher and a wider community of readers. When researchers transform field texts to research texts, they must consider how readers may interpret an intended text as this interpretation may impact the form a researcher uses to convey his or her intended message. Like researchers, readers' narratives influence the interactions they may have with a text. This may mean that an individual interprets a particular narrative differently than an author intended. Atkinson (2010) found that in her research this dissonance resulted from readers' perceived disconnect between text and their practical personal experiences rather than readers' confusion due to misunderstanding of the text. Polyvocal, ambiguous narratives may allow individuals more space to recognize their own stories in the narrative than monovocal prescriptive narratives (Atkinson, 2010; Clandinin et al., 2007). As noted previously, my desire to allow readers multiple points of entry into the text influenced my decision to include the dual perspectives of the teacher and the instructional coach as two separate narratives. I feared that the risk of inferring a monolithic single "true" story by only presenting one narrative was too great. Consequently, for readers who identify with either perspective, I present here one narrative may be familiar in the context of their own personal stories, and one narrative
that pushes back against their familiar narrative by presenting a discordant but no less valid narrative.

## My Role as a Researcher

In considering my role in this study and how my perspective as both researcher and participant may affect my bias, I look to Keith Kelly (2013) and his reflection on his ever-changing role identification during his dissertation. As a jazz musician studying how secondary students develop as jazz musicians, Kelly wrote that
when observing informal sessions, I participated in the multi-faceted ways expected, such as playing at jam sessions or socializing at a house party. In formal settings, at times I was an observer and at other times a participant, at times a student and at others a teacher. In both performing and educating facets of the jazz world, I am an insider, and my role fluctuated depending on the setting and circumstances. (2013, p. 52)

Kelly acknowledges that, although his goal is to present the stories of other jazz players, his own lens as a musician and as a teacher inevitably colors his research through what he collects, how he interprets it, and how he presents it. I am no different. Like Kelly, I too hold strong beliefs about my field. I believe, like Kelly, that we must question the structure of our current systems and evaluate both their strengths and their weaknesses. I believe that it is our duty to ask ourselves how we might improve our system, particularly for the most vulnerable among us. I believe that, for all their controversy, the Common Core Standards do represent a positive shift in our state and national educational climate (though, of course, much remains to be seen).

I believe that the work of teaching and learning is strongly bound up in our identities as teachers and as students. I believe that we do a disservice to teachers by casting them as experts merely because of their profession, and we have a responsibility
to teachers to consider their lives and identities as learners. As a teacher, I hold strong beliefs about a teachers' responsibility to their students and their ownership of the curriculum process. As an instructional coach, I hold similarly strong beliefs about how teachers should be supported, about what things can be taught directly and what things must develop some other way. As a learner, I have beliefs about how adults learn best and about how systems can be designed to support that learning.

As part of this research, I intended to tell a series of stories about a group of individuals attempting to navigate a specific policy implementation, which I have done to the best of my ability. However, as Kelly did, I acknowledge here that my lenses inevitably color everything that I create as a researcher on this project.

## Narrative Inquiry within this Study

I chose narrative inquiry for both personal and professional reasons.
Professionally, I sought to view an aspect of teacher's lives which has been arguably constrained within the current climate of accountability. In this context, researchers' narratives related to the storied lives of educators is a way to present unheard voices and unseen perspectives. Additionally, from a professional perspective narrative inquiry was an appropriate methodological option given that, during this study, I was living the dual role of researcher and district colleague. The embedded co-experience of the narrative inquiry model allows the researcher to be "living in the midst" of the phenomena being studied (Craig, 2006, p. 108).

Finally I hoped, perhaps selfishly, that through the process of narrative inquiry into the experiences of participants I would gain a greater understanding of participants’ experiences which would inform my work with teachers and help me make sense of my
own work as an educator. The reflections of Tom Barone (2001), Jean Clandinin and Michael Connelly (2000) about their experiences as narrative inquirers highlight how just as a researcher uses their own narrative to construct and make sense of participants’ narratives, so too may participants' stories reflect light on the experiences of the researcher. In one instance, Connelly's interaction with his Chinese immigrant doctoral student prompted him to reinterpret his own memories of a Chinese immigrant from his childhood (2000, pp. 52-56). I believe that, like Connelly, my research proved to be a lens for me to reevaluate my own experiences and in doing so, helped me create a greater depth of meaning related to my practice.

In this appendix, I outlined narrative inquiry as the foundation of my research design. I described narrative inquiry's underlying principles of temporality, sociality, and place, and I discussed some of the challenges inherent in narrative inquiry. In Appendix B, I outline the population and sample relevant to this study. Following that, I describe data collection process. In Appendix C, I describe my process for turning my field texts into research texts, as well as my process for data analysis.

## APPENDIX B

## DATA COLLECTION

## Population

Miraflores Elementary School District is a Title 1 elementary school district located in an urban area in the southwestern United States. The district at the time of data collection encompassed five schools and served approximately 2,600 students in grades K-8. As of September 1, 2012, the district employed 140 certified staff members and 117 classroom teachers.

## Sample

The sample for this particular study was all stakeholders responsible for facilitating or helping to facilitate third grade mathematics instruction during the 20122013 school year at Mesquite Elementary School in the Miraflores School District. This included the three third grade teachers at Mesquite elementary (two third-grade mainstream teachers and one ELL teacher who taught a combined third and fourth grade class), the instructional coach, and one Smart Solutions Foundation consultant.

## Data Collection Procedures

Prior to beginning data collection, I made contact with Miraflores' assistant superintendent and Mesquite's principal. I presented a brief overview of my proposed plan of study to them in order to seek their support. Additionally, to gain access to the teachers at Mesquite Elementary, I presented an outline of my proposed study to Mesquite's instructional coach and secured her participation in the study. The coach facilitated an initial meeting with the third grade team, attended by all three third grade teachers, where I outlined my initial research plan. I then followed up with teacher participants individually to confirm their participation. Data collection took place between February and June of 2013.

## Instrumentation

For this study, I collected data using three instruments: a) interview protocol modified from the Seidman three-part interview, b) classroom observations collected via field notes and c) a researcher's journal.

## Interview Protocol: Modified Seidman Three-Part Interview

The Seidman interview protocol (Seidman, 2006) is a phenomenological interview protocol focused on recording and analyzing participants’ experiences. This protocol consists of three 90 -minute, in-depth, semi-structured interviews with three separate and compounded objectives. During the first interview, the researcher explores the participants' historical narratives in relation to the topic at hand. During the second interview, the researcher uses the historical narrative to ask for details of the participant's current situation in the context of the topic being studied. Finally, in the third interview, the interviewer asks the participant to make meaning of his or her experience relative to the topic. This interview protocol is appropriate as a beginning framework for narrative inquiry interviews because it places the participant's current experience in the context of his/her past experiences and asks the participant to reflect on the meaning these experiences had for them.

Seidman's protocol is not specifically designed to conduct narrative inquiry of individuals experiencing a change over a defined span of time. For example, Seidman recommends that each of the three interviews take place no fewer than three days and no more than a week apart (pp. 14-15). The three-week maximum time span that Seidman recommends for this interview protocol does not permit longitudinal data collection over the course of the school year. Rather, this protocol, derived from life history
interviewing, appears to be more specifically designed to study issues regarding identity and life history reflection.

As such, I modified the interview protocol in several ways. Ideally, following Seidman's protocol, each participant would have completed three individual interviews ranging from 45 to 90 minutes each. For some participants, this time requirement proved difficult to meet and so modifications to this schedule were made. Each participant completed between one and three individual interviews, with each interview session ranging from 45 to 120 minutes and some interviews combined into a single session. I believe that this reduction in the number of interviews for some participants did not impact data collection for several reasons. First, Seidman's protocol is designed for the interviews as an isolated set of data apart from other data sets such as observations and is additionally designed for an outside researcher to enact with unfamiliar participants. Because of the nature of this study, I was able to supplement the information provided during the one-on-one interviews with information collected during classroom observations, observations of grade level meetings, and informal conversations, thus collecting information relative to each individual aspect of the interview protocols over the course of data collection. The modification of this interview protocol matched the modified purpose for data collection relative to its original intent.

Additionally, though Seidman recommends the time span between interviews to be between three to seven days, interviews took place between one to seven weeks apart. Seidman recommends a shortened time frame so that the participant does not lose "the connection" between interviews, though he additionally adds that "as long as a structure is maintained that allows participants to reconstruct and reflect upon their experience
within the context of their lives, alterations to the three-interview structure and the duration and spacing of interviews can certainly be explored" (p. 15). I believe that the time extension in this study was appropriate for several reasons. First, as mentioned previously, data collection took place in a way that was responsive to participants' individual time constraints. To support their participation in the study, I was flexible with meeting times to best fit their schedule. Second, as the researcher I was able to use the time between interviews to understand how individuals' perspectives of CCSSM implementation changed over time in response to different events during the school year. Ultimately, while Seidman's concern regarding the loss of connection between interviews is valid, this concern was effectively a non-issue in this particular study given that participants were continually and actively engaged in the curriculum work with the CCSSM as part of their day-to-day professional practice. Additionally, I engaged in observations, informal conversations, and written communication between interviews, which kept teachers engaged in the study between interviews and may even have allowed for teachers' deeper reflection during the interviews (James, 2007).

For teacher participants, the interviews were semi-structured around the following sets of questions.

- Interview 1 (Life History): How did the participant come to be a third grade teacher at Mesquite Elementary in the Miraflores School District? How did the participant experience mathematics as a student? What was the participant's experience with teaching mathematics prior to this year? What was the participant's experience with CCSSM prior to this year? What are the
participant's expressed beliefs about teaching and learning mathematics expressed based on these prior experiences?
- Interview 2 (Contemporary Experience): What is it like for the participant to be a third grade mathematics teacher at Mesquite Elementary in the Miraflores School District during the 2012-2013 school year? What is his/her classroom, planning, instruction, and professional practice like? How is he/she making decisions regarding his or her professional practice? How do other school initiatives interact with his/her mathematics planning and instruction?
- Interview 3 (Meaning): What does it mean to the participant to be a third grade mathematics teacher at Mesquite Elementary School in the Miraflores School District? What does it mean to the participant to teach CCSSM curriculum? Given what the participant has said in interviews one and two, how does he or she make sense of his or her curriculum work in the context of his or her life and professional experience?

I did not intend for these questions to be all-encompassing. The interviews were intended to be semi-structured, and I posed these questions as initial questions, then followed up with additional questions based on participants' responses and data collected during observations.

I have included a full list of questions for the teacher participant interview protocol in Appendix D. I pilot-tested the interview protocols with a third grade mathematics teacher at Acacia Elementary school who was not part of the study sample. For the interviews with the instructional coach and the Smart Solutions Foundation
consultant, I adapted the interview protocol based on their position and relationship with CCSSM implementation in Miraflores.

## Observations

To better understand the CCSSM implementation experience, I observed teachers interacting with the CCSSM in a variety of contexts, including during mathematics instruction and in collaborative planning. I conducted these observations in between formal interviews. I observed each teacher between two and four times during her math instruction and conducted three observations of grade level meetings with all three teachers present. I used the observation data to inform my subsequent interviews and additionally to directly create teacher vignettes set during classroom instruction and grade level meetings (as discussed in Appendix C).

During observations, I took detailed field notes. During each observation I attempted to record as thoroughly as possible the setting, dialogue, and details of the observation, with special attention to topics or ideas brought up during previous data collection. Following the observations, I made additions to my field notes to clarify my understandings and notations. Observations were typically followed by a brief informal conversation with participants. My observations were primarily focused on the teacher participants, with many of my informal observations of the instructional coach coming as part of my own reflections following our coaches meetings, district level meetings and informal conversations.

## Journal

One of the challenges for narrative inquiry researchers noted by Clandinin and Connelly (2000) is how they as data collectors and text creators balance the inclusion of
their own narratives without subsuming the authenticity of participants' narratives. In order to lend clarity to my own narrative, I kept a journal throughout the data collection and analysis process. This journal was separate from my observations and data collection. Rather, I recorded my experiences and perception of the events in my practice, at my site, and within the district so that I had an explicit record of my experience to utilize during the data analysis process, as I discuss in Appendix D. The journal was kept as a series of dated word documents on my computer, beginning at the start of data collection. Entries varied in length according to my particular experiences at that time. Though the format resists empirical validation, the use of memos as means to interpret data and reframe perspective is advocated by Corbin and Strauss (2008).

## Limitations and Delimitations

## Limitations Related to Position of Instructional Coach

As an instructional coach in the Miraflores School district during data collection, I conducted research in the dual role as colleague and researcher. While this provided me invaluable insight into Miraflores's CCSSM implementation, it also presented a potential limitation. In this particular study, I addressed this limitation in two ways.

First, because the coach position is site-based, I excluded the third grade teachers at my school site, Acacia Elementary School, from the interview process. By restricting the study to third grade teachers at Mesquite Elementary, I included only teachers who were not directly coached and supported by me. This allowed me to maintain my professional relationship with the teachers at my school site.

Second, I was sensitive to political implications within the district when conducting my narrative inquiry for both my participants and myself. As such,
participants were allowed the opportunity to review relevant interview transcripts and research texts based on their observations and interviews. In reviewing, participants also had the right to veto the inclusion of any information that they felt would be damaging to their professional careers.

## Limitations Related to District Level Context

For a school district, no reform exists in isolation. Rather, an individual reform is intertwined other concurrent initiatives being enacted. During the 2012-2013 schoolyear, Miraflores enacted a number of initiatives, including ELL audit procedures and a new teacher evaluation system. Though not all of these initiatives were captured in the final research text, all of these initiatives interacted with teachers' and students' experiences of CCSSM implementation. Furthermore, the sum experience of negotiating these responsibilities also has ramifications for both the implementation process and teachers' individual and collective sense-making that I documented. Though this study focused on the initial stages of CCSSM implementation, curriculum is intertwined with many other facets of teachers' identities and work lives in ways that may vary based on teachers' personal and professional characteristics.

## Delimitations

This study was conducted with teachers from Mesquite Elementary Schools in the Miraflores Elementary School District in the southwestern United States during the 20122013 school year. All teachers in the study were responsible for teaching third grade mathematics in mainstream or ELD general education classrooms at a K-6 elementary schools. Therefore, the findings and results may not be generalizable to other subpopulations, locations, subject areas and/or time periods. That said, this fine-grained
analysis of how the first year of policy implementation unfolds may provide broader practical and theoretical insights into the implementation process.

## APPENDIX C

RESEARCH TEXT CREATION AND DATA ANALYSIS

## Overview

After the data collection period, I searched for a format for constructing and presenting research texts that would adequately capture the understandings developed and the sometimes cacophonous nature of my narrative inquiry. In reading through a series of methodologically similar articles and dissertations, I happened upon Keith Kelly's 2013 dissertation entitled A New Cartography: Learning Jazz at the Dawn of the $21^{\text {st }}$ Century. Kelly attempted to present how a typical secondary education student develops their identity and skills as a jazz musician. Kelly conducted a series of observations of and interviews with various jazz musicians, both professional and secondary education students, and as his research text constructed a longitudinal narrative of Ben, a fictional high school jazz musician created as a composite of Kelly's research texts and encompassing a series of vignettes spanning across Ben's high school years.

For me, this research text was revolutionary. The fictional account allowed me as the reader the feeling of being a fly on the wall during an individuals' day-to-day experiences. Because of the chronological compilation of vignettes, my understanding of the time, sociality, and place developed gradually over the course of my interactions with the research text, and in some ways recreated for me as the reader the researchers' experience of noticing, of theory development and refinement. As an individual unfamiliar with the context of secondary jazz education, I was able to connect with character's experiences through the fictional nature of the text and used even this unfamiliar context to reflect on my own broader experiences. Additionally, Kelly's use of third person narration introduced me to the idea that multiple perspectives could be presented within the same research text, and in doing so it was possible to use the
contrast between perspectives to illuminate new aspects of the narratives. While I was initially inspired by Barone (2001), it wasn't until encountering Kelly's research text that I found what I considered to be a viable presentation method for my work.

A series of considerations drove my choice to fictionalize my research texts as two separate narratives. First, fictionalizing allowed me to effectively present participants' experiences over the course of the school year rather simply during the more limited period of data collection. Seeing the development of CCSSM implementation over the course of the school year rather than during the more artificially constrained time period from February to June allowed readers more intuitive access to the implementation process from start to finish, much the way that Kelly's chronological arrangement of vignettes over the period of an individual's high school career allowed for easier reader access to Ben's narrative arc.

Second, fictionalization allowed me to present a more intimate day-to-day picture of CCSSM implementation. My work schedule and my participants’ schedules did not afford me the opportunity to capture all of the minutiae relative to their personal and professional lives. While I was able to capture some moments during my observations, many other instances were related second-hand as part of the formal interviews and informal conversations. As it is the day-to-day interactions with curriculum that are most relevant to educators' practice, this presentation is designed to allow easier access points for the reader to recognize aspects of his or her own practice.

Finally, fictionalizing the narratives allowed me to present two sometimes discordant perspectives without privileging one over the other and while maintaining adequate privacy for the participants involved. In our current educational climate, to be
seen as anything less than a master educator with a firm and accurate command of content opens the door to very real professional ramifications. Fictionalizing allowed participants to be more vulnerable in exposing their professional practice without fear of direct implications. Additionally, presenting the two fictionalized narratives allows the reader to watch both the teachers and the instructional coach develop as learners in the context of the CCSSM, rather than artificially validating the coach's perspective based on her position outside the classroom.

Below, I outline my general process for transforming my field texts into the research text, and provide an example of how one specific vignette was created using a compilation of field texts. I then outline my process for data analysis.

## Research Text Creation

After the initial transcription of my interviews during the fall of 2013, I reread each interview transcript, journal entry, and set of field notes several times, both individually and in the context of all of the information provided by the individual participant. In the interview transcripts, I separated the transcripts into smaller segments dealing with responses to specific questions, containing specific anecdotes, or related to a particular topic. After each segment, I made a series of personal notes related to that particular segment. These notes were responsive to what the segment contained and ranged from questions raised by the material, connections to other data points such as observations or other portions of the transcript, and ideas for potential vignettes. Additionally, during this process I made a series of transitional memos to help clarify my understanding of events, individuals' perspectives and themes relevant in the data.

I then began to conceptualize what these themes and perspectives might look like chronologically throughout the course of the school year and what contexts would be the most appropriate for presenting these themes. I developed a series of approximately 25 potential vignettes that I could present as part of the chronological narrative. For each event, I drafted notes regarding the time of year, the setting, the participants, larger themes that the event connected to, and salient points relative to the theme that I wanted to develop. In my reflections on my own practice, I noted several common settings and contexts: classroom instruction, grade level meetings, one-on-one meetings between teachers and the instructional coach, coaches meetings, and informal conversations between the coach and other administrators. I also made notes regarding aspects of the larger narrative arc to be resolved (or left unresolved). In this process, I determined that some vignettes needed to be expanded into two separate vignettes while other sets of vignettes could conceivably be condensed into a single vignette or were unnecessary. At the end of this process I developed outlines for approximately 20 vignettes. Based on the events in the vignettes and the theme development that each of those vignettes allowed, I placed the events on a rough chronological continuum throughout the year.

In the fictionalized narrative, I determined that there would be three teacher characters (Ellen, Debbie, and Audrey), loosely corresponding to the teachers in my study. I included aspects unique to their specific personal context as was relevant to their sense-making process. Other personal aspects were altered or switched between characters in order to protect their privacy, and some aspects of their personal and professional lives were invented by me in order to maintain narrative cohesion. I decided to keep three teacher characters in the fictionalized narrative rather than reducing it to one
because I believed that the group's dynamic contributed to their individual sense-making process and rang more true to the world that teachers themselves live in. Also, presenting slight variations on individual teachers' perspectives within the teacher narratives challenged the perception of one monolithic teacher perspective of CCSSM implementation and highlighted the relevance of situational context in individual sensemaking. This presentation of "one policy, many teachers" was my own small spin on Barone's concept of "one teacher, many students" as presented in Touching Eternity (2001).

I kept one instructional coach (Meredith) in the fictionalized narratives because each school in Miraflores had only one instructional coach. To invent another would have created an artificial group dynamic where one did not exist. In Meredith's narratives, I included aspects of the instructional coach's interviews and observations overlaid with my own experience. For example, I used my journal entries and my personal experience to draft the portion of the vignette "Meredith Creates" in which Meredith uses the standards to create a fourth grade assessment on area and perimeter. My own metacognitive analysis of my thought process during assessment creation allowed me to more thoroughly articulate Meredith's thought process than interview or observation data alone, and I believe allowed me to use my experience to supplement rather than subsume the instructional coach's narrative.

Other characters (Caroline Chavez, Charmaine Winstead, Chris Pisetti) were created as fictionalized representations of those roles based on information collected during the interviews, observations, and reflections. None of the individuals in these roles at Mesquite or Miraflores were included in this study, and these portrayals are not
meant to accurately represent the beliefs or mindset of individuals in those roles. Instead, the aspects of these characters included in the vignettes is meant only to capture the interaction of administrators with the participants themselves and its corresponding impact on the teachers' sense-making. I believe that a realistic future extension of this research would be to extend this work to include observations and interviews to individuals in these administrative roles. However, this was beyond the scope and intent of my study.

After determining my working outlines of vignettes, I then sorted each set of observation field notes, journal entries, and interview segment to where it could best inform a particular vignette. For example, this segment below came from my initial interview with Teacher 1, as part of her response about how she came to teach at Mesquite:

And I finally just decided...it's time to take a different approach and I came here, just realizing that [Miraflores], in some ways, has put it all together. You know, the things that we all know need to happen, and the things that research tells us work. [Miraflores] has somehow been able to put those together in a way, sort of like a recipe that finally coalesces, you know? (laughs) And they, they finally have been getting somewhere where other districts have not been as successful. (Interview 1, Teacher 1, 2013)

Based on my anticipated series of vignettes, I determined that this segment most directly tied back to the initial vignette that later developed into "Welcome Back, Mustangs" in that it helped speak to a teacher's initial enthusiasm coming into the district, a point I intended to showcase in that vignette.

After I had sorted all of my data into potential vignettes, I reread all of the data (interview segments, observational data, and journal entries) relative to that potential vignette. I made additional notes on themes or points that had changed or developed as
part of my reorganization of data. I again collapsed some potential vignettes based on some of the developing themes, leaving me with approximately 16 potential vignettes. This data reorganization was completed in the fall of 2013.

I began drafting my initial vignettes in January 2014. I initially began writing the vignettes in a roughly chronological order regardless of their featured characters. Some vignettes were taken largely from a single teacher's perspective. For example, the two vignettes detailing a mathematics lesson were based loosely on actual observations in those classrooms and supplemented with information from each teacher's interview transcripts. Other vignettes were compiled out of a series of observation field notes and interview segments from individuals. Below, I outline how I created "Planning for Reteach" vignette as an illustration of my process.

The "Planning for Reteach" vignette was created out of a compilation of interview segments from the three teacher participants and the instructional coach, as well as a set of observational field notes from a teacher planning meeting directly prior to the state assessment in April. Based on my outline for vignettes, I wanted to capture the dynamics of a grade level meeting, including some of the tensions expressed during the interviews around the difference in pacing calendar and some of the teachers' differing perspectives on the math review structure. I also wanted to include some of the teachers' frustration around the participation in the "Jump Up" math program, a mandatory program designed to ostensibly inform teachers about the Common Core that they interpreted as more of a hindrance.

After sorting my data, I had 31 interview segments from this group of participants (the three teachers and the instructional coach) that related to these ideas or themes, or
that could be included as a natural extension of these discussions. Below, I list a sample
of these interview segments.
When I think about the beginning of the year when we were having these conversations and we were trying to get reteach going and we were doing all of these pieces, I was really more concerned about [our ELL teacher] doing her compliance things to get through the audit. I know I didn't attend to what was happening around math the way I should've because that wasn't the fire that needed to get tended at that point. (Coach, Interview 2, 2013)

There isn't time in my day to spend a lot of time either previewing what they're going to be running into in Jump-Up this week, or going back and going over what they've already done that they weren't able to do very well. Sometimes I feel like there's so much pressure to get the darn Jump-Up book done that I feel like, 'Oh, god, I'd better not assign another math page in addition to the Jump-Up because I know they won't do the Jump-Up, and then that'll be bad'. I don't like feeling that way, like I've got to adjust my homework because they've got to do their Jump-Up. (Teacher 1, Interview 1, 2013)

There's a constant struggle with the kids over doing [Jump-Up] and bringing it in. And an awful lot of the teachers have this thing going where they don't send it home. They secretly do it in class. And they never send it home. And then they have a $100 \%$ turn-in rate. And then [the principal] wants to know why other people don't have $100 \%$ turn-in rate. And we're not going to say, "Well, did you know that the ones with the $100 \%$ turn-in rate don't bring it home? And the teachers are signing the booklets, not the parents?' We're not going to tell her that. But, so, we just kind of, month to month, just sort of, "Okay...we'll try better...We'll do better...' So its not my favorite. (Teacher 1, Interview 1, 2013)

I need to take more time, an extra week on this [fraction assessment], because they need the extra time with the vocabulary building and the sentence writing. They need that extra time. That was the biggest part of working with my mainstream team, was I had to have extra time in those portion of the calendar to where I couldn't really participate in a lot of things that they did. That was a big, big pace. It was a fight for a while, because [the district and the school] really want us working as a team. At the same time, we can't as much. (Teacher 3, Interview 1, 2013)

The other two [teachers] used the librarian upstairs. She took our hundreds and eighties and practiced what they had done. Wasn't really making it better, but just made it stronger. Then they took their twenties, and forties, and sixties, and what not and practiced with them between the two classrooms. We worked it our, because I'm keeping a pretty big chunk in my room [chuckles]. They didn't spread out. Now, if there were any real, real lows, like if for example [a teacher] had a bunch of zeros, she would send 'em over to us and we would reteach those
basic concepts even with them. We had a really good process going, and it worked. Granted, some of the time I was really behind, like a whole week, on some concepts, but it didn't hurt the other kids to come over. Relearn 'em anyway. If you're coming in at a zero or a twenty or something, that didn't hurt 'em. (Teacher 3, Interview 1, 2013)

In addition to interview segments such as these, I also utilized my own journal entries and observation field notes from an observation of a grade level planning meeting. The initial banter is taken directly almost from my observational field notes, as I felt it captured some of the playful group dynamic absent in the individual vignettes and provided a balance to the somewhat tense conversation. I tried to mimic other aspects of this banter during the conversation itself, most notably in the team's discussion around the "Jump-Up" program. The makeshift "plus, check, minus" scoring system in this vignette was closely modeled out of a scoring system that organically developed on the Mesquite campus and spread to other campuses in the district, including my own.

As I read and reread through data pertinent to each vignette, I refined my original outline to include extended notes about characters' perspectives in this particular event based on past events and on the their larger narrative arc. For example, in this vignette Ellen's character must balance some of her frustration about pacing calendar alignment with her role as the team leader. She feels compelled to 'keep order' and to reach a productive outcome, and in doing so feels tensions with the previous year's structure advocated by Debbie. Instead of releasing her frustration on her team, she vents instead about the Jump Up program. While the themes themselves are built from overall themes in the interviews and observations, I fictionalized the exact thoughts and dialogue included in each vignette. I make no claim that this exact conversation occurred, nor do I make the claim that if this conversation occurred that it must have occurred exactly in
this way. I only suggest that, based on my interviews and observations, that these scenes represent one possible way that these characters may have developed and expressed themselves in their natural context.

After considering each character's perspective and the purpose for that vignette in the larger narrative, I drafted the vignette. Each vignette required multiple rounds of revision to ensure the natural flow of events in and between vignettes and to emphasize (or deemphasize) certain aspects of the narrative in order to better help it serve its purpose. Starting in June 2014, I sent copies of the initial research texts to my participants for review. I sent each participant only those narratives informed by their interviews and observations. I did not have the participants review all narratives because of the risk that participants would view differing perspectives within the narratives as a misinterpretation of their perspective. I then revised the narratives based on participantprovided feedback and in some cases created additional vignettes.

At the end of my vignette drafting in August 2014, I again reorganized my vignettes from their direct chronological order regardless of participants into two separate narratives roughly following their present structure. One narrative included those vignettes focused on the teachers' perspectives, while the second narrative focused on the perspective of the instructional coach. This allowed each narrative to build a more cohesive arc and to allow for clearer contrast between the two sets of narratives. In each respective narrative, the vignettes remained in roughly chronological order.

Additionally, in revising the narratives, I realized that during my initial drafting I had tried to capture as many external events happening in the district as possible in order to allow the reader to develop a clear picture of what it was like to implement CCSSM in
this particular time and place. While this was valuable as part of my drafting process, the end result was chaotic and resulted in a barrage of different initiatives, acronyms, and concepts for the readers to keep track of that ultimately detracted from the main themes of the narrative.

Following the finalization of these narratives, I began my analysis. During the analysis phase, I read and reread the two respective narratives through the conceptual lens of sense-making. Analytically, I removed myself from the individual narratives and attempted to follow the policy itself through its iterations. For me, following the policy through the respective narratives maintained the authenticity of the narrative because these narratives were not created to highlight specific aspects of the policy or to prove a particular point about the policy itself. Rather, in drafting my aim was to create an authentic narrative representation of individuals' experiences. Returning to the policy after the narratives were finalized ensured that I minimized some of the bias inherent in the narrative inquiry. Additionally, as a narrative inquirer I believe that we do indeed lead storied lives, and that we learn through the stories of others and ourselves. My analysis developed organically from the narratives based on my area of interest. The existence of the narratives independent of the analysis allows the opportunity for these narratives to serve as the research text for other relevant areas of study.

Starting with the original policy intentions of the educators, I followed the policy as it was first interpreted by the district and then passed on to the instructional coaches, and finally translated to teachers. I analyzed how individuals at each level made sense of the policy, and how this sense-making process impacted subsequent iterations of the policy itself. As I did this, I created several transitional memos to help me clarify my
understanding of my own sense-making. My analysis of the two respective narratives is included in Chapter Four.

As I conclude, I must make a note about my analysis. My analysis, no less than my research text, is bound up in my current constraints of temporality, sociality, and place. In my analysis, I pick up on some things while ignoring others. My attentions and understandings are deeply related to my own sense-making process based on my own beliefs, knowledge, and experiences at the time of this writing. It is entirely possible that another individual would read these texts and draw quite different conclusions than I did, just as it is quite possible that I myself my one day pick up these texts and, in a different time and place, draw different conclusions. I attribute this not to any fatal flaw in the research text but rather to the inherent nature of narrative inquiry itself. As such, I welcome further review and interpretation of this work.

## APPENDIX D

## TEACHER PARTICIPANT INTERVIEW PROTOCOLS

## Teacher Participant Interview 1 (Life History):

Interviewer: "The focus of this interview is to collect some background information about you, your teaching experiences, and your experience with mathematics. This information will help me get a better picture of your personal and professional experience so that I can begin to understand your experience transitioning to the Common Core Standards. As we go forward, I'll be asking you a set of questions. If you have any questions or if the question is not clear to you, please let me know and I would be happy to clarify.

1. Background (Teaching)
a. Tell me a little bit about yourself.
b. What influenced you to become a teacher?
c. Tell me about your experiences as a student.
d. What was your student-teaching experience like?
e. How did you come to this district?
f. Tell me about your experience at $\qquad$ School and in this district.
g. Have you always taught third grade? If not, how did you come to be a third grade teacher?
h. How would your colleagues describe your teaching style? How do you think that your coach or your principal would describe your teaching style?
i. Do you feel that this accurately describes your teaching style? If not, what would you add?
2. Background (Mathematics)
a. When you were a student, what were your experiences like with mathematics?
b. Describe some of those experiences. What were some experiences in math classes or with mathematics that were memorable to you?
c. How were you taught mathematics? How does the way that you were taught mathematics compare to the way that you teach mathematics?
d. Do you enjoy mathematics? Do you enjoy teaching mathematics?
e. Tell me about how you plan for math. Has this changed from last year to this year?
f. Tell me about your math curriculum. How do you use the district-created materials? How do you use the district-adopted curriculum?
g. Third grade in your district has shifted to the Common Core standards in math this year. What experience, if any, had you had with the Common Core standards before this school year?

## Teacher Participant Interview 2 (Current Experience):

"In our previous interview, we talked about your teaching experience and your previous experiences with mathematics, both as a student and as a teacher. In this interview, I'll be asking you about your current experience this year in teaching math based on the Common Core Standards. I may also ask you some questions about other initiatives at your school or within the district focused on teaching and learning that might relate to your math instruction. Finally, I may also ask you some questions related to the math lesson that I observed, to help me better understand how you plan for and teach math. The focus of these questions is to better help me understand your experience this year. If
you have any questions or if the question is not clear to you, please let me know and I would be happy to clarify."

1. Experience related to the Common Core (planning, instruction)
a. Tell me a little bit about your experience transitioning to the Common Core Standards this year.
b. When did you first learn that you would be responsible for teaching the Common Core Standards this year?
i. When and how did you get information about what that transition would be like?
c. What professional development have you received that relates to the Common Core?
i. Describe the professional development.
ii. How did it impact your professional practice?
d. Walk me through the planning process for your most recent Common Core based unit.
i. Where do you look for information related to the standards?
ii. What materials or resources do you use?
iii. Do you plan alone or with your colleagues? Describe a typical planning session for math.
e. When you are teaching a lesson based on the Common Core standards, what does instruction look like in your math class?
i. How does this compare to your math instruction in previous years?
ii. How have your students responded to this type of instruction?
f. Tell me about the lesson that I saw.
2. Decision-making
a. This year, third grade is responsible for transitioning to the Common Core, but they still have to take the AIMs test. Tell me a little bit about that.
i. How do you balance the two sets of standards?
ii. How do make decisions about where to spend instructional time?
iii. How do you see your school and/or district trying to balance these two sets of standards?
3. Other initiatives
a. Tell me a little bit about some of the other initiatives going on in your school and/or district this year.
b. Which of these initiatives, if any, do you find that has impacted your math instruction? How do these initiatives relate to your math instruction?

Teacher Participant Interview 3 (Meaning):
"In our previous interviews, we talked about your teaching experience and your previous experiences with mathematics, both as a student and as a teacher. We also talked about your current experience this year with teaching math and with the transition to the Common Core. In this interview, I'll be asking you to reflect on your experience teaching the Common Core State Standards this year. I will also be asking you to reflect on that transition at the school and district level. The focus of these questions is to better help me understand your experience this year. If you have any questions or if the question is not clear to you, please let me know and I would be happy to clarify."

1. As you think back on your experience teaching the Common Core Standards in Math, what stands out to you?
a. What were some of the biggest changes or shifts for you?
b. Did anything surprise you during this transition?
2. When we spoke during our first interview, you described your teaching style/professional experience as $\qquad$ . Do you feel that still accurately describes you? Is there anything that you would add to that description based on your experience this year?
a. If there is something you would change, what would you attribute that to?
3. How do you feel that the experience of teaching Common Core-based mathematics fits with your personal teaching style?
4. Next year, fourth through eighth grade teachers in the district will be transitioning to the Common Core Standards in Mathematics. If one of those teachers came to you and asked you what it means to teach "Common Core math", what you would you say to them? How would you describe your planning/instruction for Common Core?
5. For teachers transitioning to the Common Core, what questions do you anticipate those teachers having about Common Core and the transition to Common Core? How would you respond?
6. On the school and district level, how would you suggest preparing teachers for this transition?
7. How did you balance the transition to Common Core with the other initiatives going on within your school/district?
8. How did you balance the transition to Common Core with preparing for the AIMS test?
9. How do you think the transition to Common Core impacted your students? Why?
10. What are your plans for the coming year?
a. If returning to teaching at same school:
i. Thinking ahead to the next year, are there any adaptations that you would make to your math instruction based on your experience this year with Common Core?
b. If leaving to teach at a different school:
i. Can you tell me about your decision to leave?
ii. Thinking ahead to the next year, are there any adaptations to your math instruction that you will bring to your new school based on your experience this year with Common Core?
c. If leaving teaching altogether:
i. Can you tell me about your decision to leave?
ii. Can you tell me what you anticipate your math class might look like next year if you were returning to teaching?

## APPENDIX E

## CONFIDENTIALITY STATEMENT

## Teachers' Experiences of the Transition to Common Core Standards: A Narrative Inquiry CONFIDENTIALITY STATEMENT

As a researcher working on the above research study at Arizona State University, I understand that I must maintain the confidentiality of all information concerning research participants. This information includes, but is not limited to, all identifying information and research data of participants and all information accruing from any direct or indirect contact I may have with said participants. In order to maintain confidentiality, I hereby agree to refrain from discussing or disclosing any information regarding research participants, including information described without identifying information, to any individual who is not part of the above research study or in need of the information for the expressed purposes on the research program.

Signature of Researcher

Signature of Witness

Printed Name

Printed Name

Date

Date

## APPENDIX F

TEACHER PARTICIPANT INFORMED CONSENT FORM

# INFORMED CONSENT FORM (SOCIAL BEHAVIORAL) <br> MINIMAL RISK <br> ARIZONA STATE UNIVERSITY 

***************************************************************************

## CONSENT FORM TITLE OF RESEARCH STUDY

## INTRODUCTION

The purposes of this form are to provide you information that may affect your decision as to whether or not to participate in this research and to record the consent of those who agree to be involved in the study.

## RESEARCHERS

Megan Frankiewicz, Doctoral Candidate under the supervision of Dr. Jeanne Powers, PhD. Of the Mary Lou Fulton Teachers College at Arizona State University has invited your participation in a research study.

## STUDY PURPOSE

The purpose of the research is to collect information related to educators' transition to mathematics curriculum based the Common Core State Standards in Mathematics (CCSSM). While several studies have explored the experiences of teachers implementing curricular changes, none have explored the current curriculum transition related to the CCSSM. The study aims to tell the story of how this transition unfolds in a school district, and how it is experienced by individuals.

## DESCRIPTION OF RESEARCH STUDY

If you decide to participate, then you will join a study involving research to better understand the experience of curriculum transition related to the CCSSM during the 2012-2013 school year. If you decide to participate in this study, I will not tell anyone how you respond or act as a part of this study. If you agree to begin the study, you may stop your participation at any time. You may ask questions about the study at any time and are not required to answer all questions asked.
If you say YES, then your participation will last for approximately five months, from now until the end of the school year, in your classroom. You will be asked to participate in at least one initial interview, lasting between 45 and 90 minutes.

Based on data collected during the initial interview, you may be asked to participate in a series of additional interviews to further explore your experience, with a maximum commitment of 15 total hours over the 5 month span. Additionally, you agree to allow a minimum of three classroom observations during your math instruction time, each lasting no longer than a class period (approx.. 45 minutes each). You may also be asked to allow observations during your grade level planning time or grade level meeting time, as appropriate.

A maximum of approximately 20 subjects will be participating in this study.

## RISKS

There are no known risks from taking part in this study, but in any research, there is some possibility that you may be subject to risks that have not yet been identified.

## BENEFITS

Although there may be no direct benefits to you, the possible benefits of your participation in the research are a better understanding of the Common Core transition which may lead to improved planning for curriculum implementation. Additionally, this research may raise awareness of the perspectives and experiences of teachers undergoing a curriculum transition.

## CONFIDENTIALITY

All information obtained in this study is strictly confidential. All information in this study is strictly confidential unless disclosure is required by law (such as being a danger to yourself or others). The results of this research study may be used in reports, presentations, and publications, but the researchers will not identify you. In order to maintain confidentiality of your records, the researchers will take the following steps"

1. All interviews will take place in a private setting agreed to by both the researcher and the participant.
2. Pseudonyms will be used for all participants.
3. After participants have had access to interview transcripts for review, all names will be replaced with pseudonyms and the original transcripts will be deleted.
4. Narratives of participants will be combined into composite narratives, in order to further protect the identity and privacy of participants.
5. Only one electronic copy of the revised transcript will be kept. This copy will be on a secure password protected account and will be delete upon completion of the study.
6. I will securely delete all digital recordings upon completion of the study.
7. All email correspondence will be conducted via a secure, non-district email account.

## WITHDRAWAL PRIVILEGE

Participation in this study is completely voluntary. It is ok for you to say no. Even if you say yes now, you are free to say no later, and withdraw from the study at any time. Should you withdraw from the study, your recordings and transcripts will be kept until completion of the study in case you should choose to rejoin. Following completion of the study, all recordings and transcripts related to the study will be deleted.

## COMPENSATION FOR ILLNESS AND INJURY

If you agree to participate in this study, then your consent does not waive you of any of your legal rights. However, no funds have been set aside to compensate you in the event of the injury.

## COSTS AND PAYMENTS

The researchers want your decision about participating in the study to be absolutely voluntary. Yet they recognize that your participation may pose some inconveniences. In order to help offset your inconveniences, you may receive a small gift upon completion of the study.

## VOLUNTARY CONSENT

Any questions you have concerning the research study or your participation in the study, before or after your consent, will be answered by Megan Frankiewicz at 480-209-9102 or Dr. Jeanne Powers at 480-965-0841.

If you have questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk; you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at 480-965 6788.

This form explains the nature, demands, benefits and any risk of the project. By signing this form you agree knowingly to assume any risks involved. Remember, your participation is voluntary. You may choose not to participate or to withdraw your consent and discontinue participation at any time without penalty or loss of benefit. In signing this consent form, you are
not waiving any legal claims, rights, or remedies. A copy of this consent form will be given to you.

Your signature below indicates that you consent to participate in the above study.

## INVESTIGATOR'S STATEMENT

"I certify that I have explained to the above individual the nature and purpose, the potential benefits and possible risks associated with participation in this research study, have answered any questions that have been raised, and have witnessed the above signature. These elements of Informed Consent conform to the Assurance given by Arizona State University to the Office for Human Research Protections to protect the rights of human subjects. I have provided (offered) the subject/participant a copy of this signed consent document."

Signature of Investigator $\qquad$ Date $\qquad$

## APPENDIX G

INSTITUTIONAL REVIEW BOARD APPROVAL

## ASU Kinowledge Enterpise

Office of Research Integrity and Assurance

| To: | Jeanne Powers <br> ED |
| :--- | :--- |
| From: | (fork Roosa, Chair <br>  <br> Soc Beh IRB |
| Date: | $02 / 07 / 2013$ |
| Committee Action: | Exemption Granted |
| IRB Action Date: | $02 / 07 / 2013$ |
| IRB Protocol \#: | 1301008759 |
| Study Title: | Narratives of Curriculum Remform: A Dissertation Proposal |

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(2) .

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.


[^0]:    ${ }^{1}$ In the narratives, the term "Common Core" is typically used to refer to material related to the CCSSM. This was the most common reference term used by participants, and I have included it as such.

[^1]:    ${ }^{2}$ For a more detailed explanation of the research methodology and data collection, see Appendix B.
    ${ }^{3}$ For a detailed explanation of how the narratives were created, see Appendix C.

[^2]:    ${ }^{4}$ Miraflores' second grade students took the Stanford 10 assessment at the same time that grades 3 through 8 took their state standardized assessment. However, the state did not include Stanford 10 scores as an accountability measure.

