FUNCTIONAL CONCERNS THAT SHAPE TEACHERS' IN-THE-MOMENT DECISION-MAKING

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As a field, we have a limited understanding of what teachers do, what motivates them, and how they learn (Kennedy, 2016). Here, we develop a grounded framework of inquiry-based teaching in mathematics classrooms by beginning with primary evidence of teachers teaching. We seek to articulate an evidence-based account of teachers' functional (rather than aspirational) concerns so that those who support teachers — such as curriculum writers, professional learning specialists, coaches, and teacher educators — can ground their support in the realities of the work of teaching. Our research question is: "What are the functional concerns that shape teachers' decision-making in-the-moments of teaching?".

Keywords: Curriculum, Instructional Activities and Practices, Instructional Vision, Professional Development.

Vignette:

At the non-profit Mathematics Education Program *(*MEP*, pseudonym), the curriculum writing and professional learning teams frequently debate the question, "Where does the writing stop and the professional learning begin?" This is a problem of practice for them. When the writing team designs curricular features that are meant to support equitable outcomes for students, but the professional-learning team sees these curricular features being subverted in practice such that instruction does not actually change, then who is responsible for supporting teachers to enact the curriculum differently? How can these curriculum writing and professional learning teams bridge the ideals designed into the curriculum with supporting teachers to enact those ideals?*

The constraints teachers face in their local and institutional contexts of school as a workplace make answering these questions a perpetual challenge not just for MEP but for mathematics teacher educators, curriculum writers, professional learning specialists, coaches, and teachers everywhere. This is not surprising given the well-documented literature on intended versus enacted curriculum (e.g., Remillard 2005, 2014; Stein et al., 2007). Teachers have a lot to manage at multiple scales: over the span of a course, a unit, a lesson, and even within small group interactions (Ball & Cohen, 1996; Cohen, 2011; Ehrenfeld & Horn, 2020). The decisions that teachers make at each of these scales are consequential for students' learning. These decisions are big and small, conscious and unconscious. Surprisingly, these decisions often do not align with teachers' espoused beliefs about what good teaching looks like (Fang, 1996). This presents a challenge for those designing curricula and professional learning for teachers: Even if teachers know what equitable and ambitious instruction looks like and describe their practice as aligning with their beliefs about equitable and ambitious instruction, this alignment too often is not evidenced in observation. The example from MEP begins to make more sense. The problem of supporting teachers to shift their practices is not only a perpetual problem faced by MEP but is endemic to educational change.

To support teachers in making different decisions, researchers have developed reflection tools for use in professional learning and teacher education. For example, the Teaching for Robust Understanding (TRU) framework helps teachers think about dimensions of classroom activities that might serve as levers for change, helping them to be more reflective about their practice, thus more intentional, and, hopefully, more equitable in their decision-making (Schoenfeld, 2019). Other resources for teachers' decision-making are action-based, such as Smith and Stein's (2008) description of 5 Practices for orchestrating whole class mathematical discussions. Such tools are most helpful for instructional decisions made in the planning stages of instruction. In-the-moment decisions are much more difficult to influence because of the complexity and dynamism of classroom ecologies (Pfister et al., 2015). Likely because frameworks like TRU and the 5 Practices provide aspirational visions of mathematics instruction that focus on ideal models, their descriptions do not quite capture the complexity of decision-making in teaching mathematics. The simplicity of aspirational frameworks is useful for supporting teachers to try new things; yet, teachers still struggle with student-centered teaching.

Currently, our theories of and designs for teacher learning are based more on aspirational, ideal types than on nuanced, evidence-based understandings of what teachers do, what motivates them, and how they learn (Kennedy, 2016). Here, we develop a grounded framework of inquiry-based teaching in mathematics classrooms by beginning with primary evidence of teachers teaching. We seek to articulate an evidence-based account of teachers' functional—rather than aspirational—concerns so that those who support teachers, such as curriculum writers, professional learning specialists, coaches, and teacher educators can ground their support for teachers in the realities of the work of teaching. Our research question is, *What are the functional concerns that shape teachers' decision-making in-the-moments of teaching?.*

Conceptual Framework: Functional Concerns as Lived Pedagogical Responsibility

Recently, teachers' decision-making has been described through a tripartite model of pedagogical judgment (Horn, 2020), including dimensions of pedagogical action, pedagogical reasoning, and pedagogical responsibility. Pedagogical action describes the choices teachers make, whether intentional or not. Pedagogical reasoning is the logic behind these actions—the same action may be done for many different reasons. Pedagogical responsibility involves teachers' sense of obligations to ethical principles or to situational constraints such as mandates from administration. Together, these constitute the pedagogical judgment that informs teachers' decision-making.

Teachers' functional concerns involve a practical sense of pedagogical responsibility. Functional concerns are pragmatic in that they focus on elements of instruction that are within teachers' control. For example, teachers might feel an obligation to support learners' retention and transfer of content, but they focus their attention—their concern—in-the-moments of teaching on creating coherent and relevant mathematics experiences. In this way, learners' retention and transfer may be goals that emerge from teachers' sense of pedagogical responsibility, as distinguished from the phenomenon of interest here: teachers' concerns.

Teachers' functional concerns are pragmatic and grounded in teachers' lived experience of their work. There is no widely accepted theory or characterization of what teaching is or should be — teachers can view themselves as managers, mediators, actors, salespeople, role models, empowerers, and more (Kennedy, 2016). This is likely shaped by teachers' identity and experiences outside of teaching but is also likely shaped by local school and department cultures, as well as by the curriculum used.

As noted in the opening vignette and evidenced through mathematics education research (Remillard 2005, 2014), curriculum shapes but does not determine teacher's pedagogical activities. Depending on teachers' conceptual understanding of their work, it is quite possible to use a curriculum intended for inquiry in ways that reduce cognitive demand and short circuit opportunities for productive struggle. At the same time, curriculum likely does influence teachers' conceptual understanding of their work, as curriculum is one of the factors that shape school as a workplace (Kennedy, 2010; Jackson, 1968; Moore Johnson et al., 2012). For example, if the local curriculum is designed to get students to produce quick and correct answers on multiple-choice items, teachers' conceptual understanding of their work is likely shaped in ways that are unproductive for student learning.

Theoretical Framework: Conceptual Practices constitute Functional Concerns

Teachers' work is composed not just of a series of pedagogical actions but of conceptual practices — pedagogical actions and the meaning behind them. Examples of conceptual practices include building on student thinking, seeking correct answers, and offering mathematical choice.

From a situative perspective of learning, concepts are not ideas in a person's head, they are conceptual practices — "recurring patterns of purposeful activity that are distributed over people and technologies" (Hall & Horn, 2012, p. 241) in particular practices. Practices, simplistically explained, are activities and routines carried out for a particular taken-as-shared purpose with taken-as-shared meanings in a particular community (Lave & Wenger, 1991) and learning is "an active process of distributing cognition over people and things" (Hall & Horn, 2012, p. 214). Thus, conceptual practices are inextricably connected to the environments in which they take place. In teaching, conceptual practices are tied to curricula, local and national educational policies, departmental cultures, communities served, and more. Still, as mid-level concepts in teaching, teachers' conceptual practices are "more general than a particular set of actions taken in the specific context" with implications for learning that are "better instantiated (and thus more testable) than those of the more familiar Theories of education and psychology" (Lehrer & Schauble, 2004, p. 637-638).

Figure 1 offers a visualization of our conceptualization of conceptual practices as mid-level concepts in teaching. Pedagogical responsibility (part of Horn's tripartite of pedagogical judgment) is depicted as being composed of both functional and aspirational concerns, though the boundary between them is perhaps fuzzy and overlapping. Functional concerns — the topic of this manuscript — are composed of related, distinct, yet minimally overlapping conceptual practices. Each conceptual practice is composed of multiple teacher actions, represented by star shapes. The same teacher action may appear in multiple conceptual practices. Teacher actions contribute to particular conceptual practices based on the context in which the action occurs: It depends on the meaning behind the action.

Figure 1. Illustration of the relationship between pedagogical responsibility, functional concerns, conceptual practices, and teaching actions, with stars representing teacher actions.

Research Design

The mathematics curriculum used by teachers in this study was an inquiry-based support course from MEP that foregrounded student exploration, sensemaking, and relationship building. The course was ungraded and emphasized big ideas in algebra, leveraging technology to support student collaboration on complex mathematical ideas. Because inquiry-based support courses are the exception rather than the norm, the findings of this analysis should contribute to a better understanding of what it means to teach in such courses, and thus also support more nuanced understandings of how to support teacher learning.

Studying teachers' functional concerns in an inquiry-based support course is timely. In a 2019 ProQuest Social Sciences Premium Collection database search for "math*" AND "intervention" or "double dose" AND "inquiry" or "reform", only 177 peer reviewed articles in scholarly mathematics education journals were found. Of those, only 20 focused on middle and high school; and of those, only two contained research relevant to the current study on teachers' in-the-moment work of teaching (Johnson, 2001; Marshall et al., 2011).[1] In addition, because this is an inquiry course, the findings should also be relevant to teachers not in support courses but teaching heterogeneous (i.e., mixed-ability) classrooms.

Curriculum

The curriculum context for the teachers in this study was the *Big Ideas* (pseudonym) curriculum from MEP. It was designed based on a developing theory of action grounded in the assumptions of equitable, ambitious mathematics instruction: that all students can engage meaningfully in mathematics in ways that are personally and socially empowering, and that such meaningful engagement begins with enjoyable mathematical experiences in which students can exercise high levels of personal agency. Given this, the features of *Big Ideas* target four anticipated student outcomes: (1) increased engagement in and communication about mathematical sensemaking, (2) positive dispositions towards mathematics, (3) learning grade-level mathematics, and (4) stronger teacher-student relationships. Two lessons were observed in this study. Lesson 3.2 — WHEN WILL IT STOP? Representing Data with a Graph — required students to physically experiment with dropping a ball and recording their observations in Desmos. Lesson 4.11 — CAN YOU STAY ON THE PATH? Lines of Best Fit — required students to explore by plotting lines to stay in certain uncolored regions of a graph in Desmos.

Participants

We collected data from six teachers: Ms. Brewers, Ms. Ennings, Ms. Holder, Ms. Padshaw, Ms. Shea, and Ms. Walker (pseudonyms). These teachers taught in different regions across the United States in schools with different departmental cultures and serving different kinds of communities. The teachers' years of experience spanned from three years to twenty years. All teachers taught grade-level mathematics courses in addition to teaching *Big Ideas*.

Data Collection

Data collection aimed to capture teachers' talk, gestures, and movement through the classroom. Data include Swivl video-records of observations of six teachers from different locations across the United States teaching the same two lessons described above. Each lesson

[1] The other 18 articles returned in the search fell into categories of identifying the effectiveness of intervention (10) and the impact of policy (1), descriptions of interventions (2), the development of student thinking (1) and mathematical interest (1), historical overviews (1), the impact of course trajectories on career paths (1), and a discussion of methods of randomized trials (1).

was followed by a video-recorded debrief with a curriculum coach. These debriefs focused on teachers reflecting on how the lesson went, with coaches acting as thought partners rather than advisors. In addition, teacher interviews were conducted at the beginning and end of the year, but these data are not included in this analysis as interview data tended to illuminate teachers' aspirational concerns.

Data Analysis

To understand the work of teaching from teachers' perspectives, we used grounded theory's constant-comparative methods (Strauss & Corbin, 1990) and made close-to-data inferences about teachers' functional concerns in inquiry-based mathematics classrooms by looking at what was stable and variant across six teachers' enactments of and reflections on two of the same lessons.

Phase 1: Parsing the data. In the first round of analysis, we created time-indexed content logs (Derry et al., 2010) for classroom videos and teacher debriefs with their coaches. Then, we looked for recurring teacher actions — for example, circulating with and looking at the teacher's computer while talking to student groups, walking away from student groups when they have stated a correct answer (sometimes without saying anything), referencing a lesson plan, or reminding students of particular participation norms. We also attended to outcomes of these actions that seemed to satisfy teachers, allowing us to infer meaning behind the actions. We noted, for example, the ways in which teachers organized and set norms for participation structures, cared for relationships between themselves and students and between students, and held themselves and students accountable for pacing.

Phase 2: Narrating emergent themes. From the content logs of both debriefs and classroom videos, we generated descriptive, narrative memos (e.g., Cobb & Whitenack,1996; Powell et al., 2003) organized by themes for each lesson for each teacher. These themes (such as emphasis on individual students' math history and modeling curiosity) were not determined a priori, but rather were emergent from and closely tied to what became salient as we parsed each teacher's lessons and debriefs. Sometimes this process required going back to the video record to clarify or gain more nuance on a teacher's instruction.

Phase 3: Identifying conceptual practices. After identifying themes in each lesson for each teacher, the themes were compared and collapsed into broad descriptive categories (Strauss & Corbin, 1990). Collapsing qualitatively different kinds of pedagogical activities happening across the teachers allows their common conceptual practices of teaching that can be leveraged for more ecologically valid forms of professional development. We then looked through the content coded under each emergent conceptual practice and engaged in a process of defining each conceptual practice, selecting a spectrum of examples for each. This process allowed us to see how conceptual practices were both unique and related.

Collapsing conceptual practices into functional concerns. The Phase 3 examination of the distinctness of each conceptual practice resulted in four clusters of conceptual practices, with each cluster constituting a functional concern in teaching inquiry-based mathematics.

In our constant comparative analysis of six teachers teaching the same two lessons at different points in the year, we identified 15 conceptual practices. These 15 conceptual practices (codes) represent the daily work of teaching; they are inferred meanings of what teachers do and say (activities, not actions). While distinct, these conceptual practices are also related to each other, clustering together to support four overarching concepts/concerns in teaching inquiry-based mathematics.

Findings

The six teachers in this study came from different contexts but shared the same curriculum. We found that four functional concerns adequately described many of the different decisions teachers made across their classrooms. The overarching functional concerns are all mathematics teaching specific, but also differently emphasize concerns about mathematics or students. The four functional concerns were identified by examining clusters of codes that represented 15 emergently identified conceptual practices (Table 1). Most of these conceptual practices play into multiple functional concerns, including across more strongly mathematics- and student-centered concerns. The conceptual practices are located under the functional concern they most heavily constituted in the data, not the only functional concern they constituted.

Table 1. Teachers' functional concerns in the moments of teaching and the conceptual practices that most heavily constitute them

Functional Concerns	Key Conceptual Practices
Mathematical Correctness and Completeness *How can I make sure that student work is accurate, thorough, and finished?*	● Seeking final answers on a task or sub-task ● Navigating student uncertainty ● Assessing student progress ● Redirecting students' mathematical thinking ● Building on students' mathematical thinking
Mathematical Relevance and Coherence *How can I make sure that mathematics is meaningfully connected to students' prior knowledge and lives?*	● Generalizing mathematical strategies ● Connecting mathematics ● Connecting mathematics to everyday life ● Offering mathematical choices
Student Motivation *How can I make sure that students are interested enough to get started and to persevere through uncertainty and confusion?*	● Offering non-mathematical choices ● Attending to student confidence (high inference) ● Caring for relationships (high inference)
Student Access *How can I make sure that students can get started on the task and that struggle stays productive?*	● Unpacking the task ● Setting participation norms ● Organizing materials and student bodies

An abbreviated illustration of the functional concerns

Importantly, these functional concerns are neither positive nor negative. They look very different in their manifestations across the six teachers in our study. Table 2 provides example teaching profiles to illustrate how each functional concern looked different across the six teachers of this study. The table presents one conceptual practice for each teacher under each functional concern. Looking down each column provides a glimpse into the teachers' practice and looking across the rows provides a glimpse into the diversity with how conceptual practices manifest as teachers navigate their functional concerns.

Table 2. Teacher Profiles along the four functional concerns.

Brewer	Ennings*	Holder*	Padshaw	Shea	Walker*
Mathematical Correctness and Completeness					
Presses Ss** to build on their thinking by asking questions	Asks Ss questions but does not press for explanation	"Plays" a hot- and -cold game to get Ss to the correct answer	Prioritizes sensemaking over getting through the lesson and so rarely gets to closure	Accepts incorrect answers as correct and supplements with extra practice	Asks Ss to share strategies in a whole class but does not ask for connections
Mathematical Relevance and Coherence					
Asks Ss what they already know about the lesson's topic to connect to their prior learning	No evidence of connections across mathematics or daily life	References prior lessons to elicit transfer on discrete problem steps	Asks Ss what they already know about the lesson's topic to open up a pre-lesson	Creates spontaneous mini lessons to mathematize students' lives	Tells Ss about connections to prior lessons by mentioning the lessons
Student Motivation					
Expresses interest in Ss' mathematical intuitions	Expresses care for Ss through kind voice and personal greetings to students	Creates sense of urgency by using Desmos teacher dashboard during circulation	Highlights Ss' mathematical ideas and mistakes as interesting and valuable	Offers non-mathematical choices such as whether the lights should be on or off	Slows pacing to account for a perceived mismatch between ability and rigor
Student Access					
Explicitly reminds small groups of how to collaborate during every interaction	Gives students participation directions at the beginning of the task	Tells students to collaborate and addresses individual students	Pre-teaches mathematical ideas and explicitly reminds Ss of participation norms	Gives extensive directions for sometimes up to five minutes	Gives explicit participation directions but is unprepared with resources

*one observation only, **Ss = students

As is evidenced in the table, these functional concerns are not ideals but instead can look quite different in practice. Contrasting Ms. Brewer's and Ms. Shea's columns particularly highlights how differently teachers can enact these functional concerns. Being aware of the multiplicity of ways that teachers work to address these four functional concerns is critical for anyone striving to support mathematics teachers.

At the same time as the individual functional concerns are not ideals, these functional concerns as a set are not an ideal model. There is no particular emphasis or balance that everyone needs to follow; however, a simple thought experiment reveals that missing any one of these functional concerns may lead to inequitable teaching practice. For example, an overemphasis on student access and motivation and a lack of attention to mathematical correctness and completeness is often described as a characteristic of classrooms where teachers have low expectations of students' abilities. An overemphasis the other way around, for example, can describe classrooms with a "no excuses, zero tolerance" classroom culture. In such classrooms, little effort is made to meet students where they are. Productive teaching profiles can be described with all four functional concerns, although the distribution of the conceptual practices that teachers spend their time on can look very different.

Conclusion and Implications

The four functional concerns identified are not what we as educational researchers consider to be ideal. To harken back to the opening vignette, the writing team at MEP would not write curriculum to support teachers to focus on student correctness and completeness. While correctness and completeness are valued by MEP, MEP also understands that they are often overvalued in the classroom. Thus, the curriculum writers prioritize supporting teachers to focus on students' processes of collaborative problem-solving. Still, ignoring teachers' institutionally shaped functional concern for correctness and completeness presents a problem for teachers and the professional learning specialists who support them in the classroom. But, if teachers already focus on correctness and completeness, why do materials need to account for it rather than work around it? The evidence from this study suggests that even teachers using an ungraded inquiry-based curriculum and who have had a plethora of support from professional learning specialists still focus on these four functional concerns.

Because of this we argue that teachers' practical sense of pedagogical responsibility needs to be attended to in designs for learning. By attended to, we do not mean designed-out (e.g., preventing teachers from focusing on correctness), but instead, designed-in such that teachers can clearly see how these four functional concerns will be met. Since teachers will meet these functional concerns in many different ways when left to their own devices (often determined by apprenticeship of observation, Lortie, 1975), it is critical that our aspirational, idealized forms of instructional practice are designed-in through a lens of functional concerns. We wonder: Could designing curriculum, professional learning opportunities, and teacher education with these functional concerns and their conceptual practices in mind — in addition to aspirational concerns such as those articulated in the TRU framework and the 5 practices — help bridge the gulf between the ideals designed into curricula and the realities of teachers' ability to enact those ideals in the constrained contexts of school-as-a-workplace?

References

Cobb, P., & Whitenack, J. W. (1996). A method for conducting longitudinal analyses of classroom video recordings and transcripts. *Educational Studies in Mathematics, 30*(3), 213-228.

Cohen, D. K. (2011). Teaching and its predicaments. Harvard University Press.

Derry, S. J., Pea, R. D., Barron, B., Engle, R. A., Erickson, F., Goldman, R., ... & Sherin, B. L. (2010). Conducting video research in the learning sciences: Guidance on selection, analysis, technology, and ethics. *The Journal of the Learning Sciences, 19*(1), 3-53.

Ehrenfeld, & Horn, I. S. (2020). Initiation-entry-focus-exit and participation: a framework for understanding teacher

groupwork monitoring routines. *Educational Studies in Mathematics, 103*(3), 251–272. https://doi.org/10.1007/s10649-020-09939-2
Enyedy, N., Goldberg, J., & Welsh, K. M. (2006). Complex dilemmas of identity and practice. *Science Education, 90*(1), 68-93.
Fang, Z. (1996). A review of research on teacher beliefs and practices. Educational Research, 38(1), 47-65.
Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: theory and practice, 15*(2), 273-289.
Hall, R., & Horn, I. S. (2012). Talk and conceptual change at work: Adequate representation and epistemic stance in a comparative analysis of statistical consulting and teacher workgroups. *Mind, Culture, and Activity, 19*(3), 240-258.
Hall, R., & Jurow, A. S. (2015). Changing concepts in activity: Descriptive and design studies of consequential learning in conceptual practices. *Educational Psychologist, 50*(3), 173-189.
Horn, I.S. & Little, J.W. (2010). Attending to problems of practice: Routines and resources for professional learning in teachers' workplace interactions. *American Educational Research Journal, 47*(1), 181-217.
Horn, I. S. (2020). Supporting the development of pedagogical judgment. In G. M. Lloyd & O. Chapman (Eds.), *International handbook of mathematics teacher education, Volume 3: Participants in Mathematics Teacher Education* (2nd Edition, pp. 321-342). Brill Sense.
Horn, I. S., Garner, B., Buenrostro, P., & Marshall, S. (2022). Putting formative feedback into practice. In I. S. Horn & B. Garner, *Teacher learning of ambitious and equitable mathematics instruction: A sociocultural approach* (pp. 98-122). Routledge.
Jackson, P.W. (1968, 1990). The Daily Grind. Life in Classrooms. Teachers College Press.
Jackson, K., Gibbons, L., & Sharpe, C. (2017). Teachers' views of students' mathematical capabilities: Challenges and possibilities for ambitious reform. Teachers College Record, 119, 1-43. https://www.tcrecord.org/content.asp?contentid=21791
Johnson, I. (2001). Standards-Based Teaching: Alive and Well in Portugal. *Mathematics Teaching in the Middle School, 6*(9), 538-542. http://www.jstor.org/stable/41181024
Kennedy, M.M. (2010). Attribution error and the quest for teacher quality. *Educational Researcher, 39*(8), 591-598.
Kennedy, M. M. (2016). How does professional development improve teaching?. *Review of Educational Research, 86*(4), 945-980.
Lehrer, R., & Schauble, L. (2004). Modeling natural variation through distribution. *American Educational Research Journal, 41*(3), 635-679.
Lortie, D. (1975). School-teacher: A sociological study. University of Chicago Press.
Marshall, J. C., Smart, J., & Horton, R. M. (2011). Tracking perceived and observed growth of inquiry practice: A formative plan to improve professional development experiences. *Science Educator, 20*(1), 12-22.
Moore Johnson, S., Kraft, M.A., Papay, J.P. (2012). How context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement. *Teachers College Record, 114* (10), p. –. http://www.tcrecord.org
Pfister, M., Opitz, E. M., & Pauli, C. (2015). Scaffolding for mathematics teaching in inclusive primary classrooms: A video study. *ZDM, 47*(7), 1079-1092.
Schoenfeld, A. H. (2019). Reframing teacher knowledge: a research and development agenda. *ZDM*, 1-18.
Remillard, J. T. (2005). Examining key concepts in research on teachers' use of mathematics curricula. Review of Educational Research, 75(2), 211-246.
Remillard, J. T., & Heck, D. J. (2014). Conceptualizing the curriculum enactment process in mathematics education. *ZDM*, 46(5), 705-718.
Stein, M. K., Engle, R. A., Smith, M. S., & Hughes, E. K. (2008). Orchestrating productive mathematical discussions: Five practices for helping teachers move beyond show and tell. *Mathematical thinking and learning, 10*(4), 313-340.
Stein, M. K., Remillard, J., & Smith, M. S. (2007). How curriculum influences student learning. In F. K. Lester's (Ed.), *Second handbook of research on mathematics teaching and learning, 1*(1), (pp. 319-370). National Council of Teachers of Mathematics.
Strauss, A., & Corbin, J. (1990). Basics of qualitative research. Grounded theory procedures and techniques. Newbury Park, CA: Sage.