“NOT A THING BUT A DOING”: RECONSIDERING TEACHER KNOWLEDGE THROUGH DIFFRACTIVE STORYTELLING

by

COURTNEY L. RATH

A DISSERTATION

Presented to the Department of Education Studies
and the Graduate School of the University of Oregon
in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy

June 2015

DISSERTATION APPROVAL PAGE

Student: Courtney L. Rath

Title: "Not a Thing but a Doing": Reconsidering Teacher Knowledge through Diffractive Storytelling

This dissertation has been accepted and approved in partial fulfillment of the requirements for the Doctor of Philosophy degree in the Department of Education Studies by:

Lisa A. Mazzei	Chairperson
Jerry Rosiek	Core Member
Juliet Baxter	Core Member
Alecia Y. Jackson	Core Member
Scott L. Pratt	Institutional Representative

and

Scott L. Pratt	Dean of the Graduate School

Original approval signatures are on file with the University of Oregon Graduate School.

Degree awarded June 2015

DISSERTATION ABSTRACT

Courtney L. Rath

Doctor of Philosophy

Department of Education Studies

June 2015

Title: "Not a Thing but a Doing": Reconsidering Teacher Knowledge through Diffractive Storytelling

This project is framed by a dilemma: representations of teaching practice are critical in teacher education, and yet the representations we rely on dangerously oversimplify teaching. My central questions emerge from this dilemma. In telling stories about teaching, how messy can the story be before it becomes unintelligible? Why does messiness matter and what does it produce for teachers-to-be? After examining both canonical accounts of teacher knowledge and emergent research that is productively disrupting the field, I draw on the work of Karen Barad to help me imagine both a new way of telling teaching stories, what I call diffractive storytelling, and a new way of thinking about their use in teacher education. In particular, I take up Barad's concept of apparatus to consider what knowing is made possible by traditional teacher stories, what knowing is foreclosed, and what these possibilities and limitations mean for teacher education. Finally, I turn to other apparatuses at work in teacher education, especially standardized assessments such as edTPA, the new performance-based assessment of teacher readiness being implemented across the country. I argue that attending carefully to the apparatus-ness of the instruments used in teacher preparation allows us to contest the naturalization of narrow conceptions of teaching practice and sustains the paradox of holding to standards while resisting standardization.

CURRICULUM VITAE

NAME OF AUTHOR: Courtney L. Rath

GRADUATE AND UNDERGRADUATE SCHOOLS ATTENDED:

University of Oregon, Eugene, OR
University of Houston, Houston, TX
University of St. Thomas, Houston, TX
Reed College, Portland, OR

DEGREES AWARDED:

Doctor of Philosophy, Critical & Socio-Cultural Studies in Education, 2015, University of Oregon
Master of Arts, English Literature, 2009, University of Houston
Bachelor of Arts, English, 1997, University of St. Thomas

AREAS OF SPECIAL INTEREST:

Teacher Education
Feminist Research Methodology

PROFESSIONAL EXPERIENCE:

Instructor & University Supervisor, University of Oregon, 2011-2015

Upper School English Teacher & Department Chair, The Emery/Weiner School, 2004-2011

GRANTS, AWARDS, AND HONORS:

Sammie Barker McCormack Scholarship, University of Oregon College of Education, 2014

Education Studies Travel Award, University of Oregon, 2013, 2014

PUBLICATIONS:

Rath, C.L. (in press) Review of *Emergent Writing Methodologies in Feminist Studies*, edited by Mona Livholts. London: Routledge. *Gender & Education.*

Mazzei, L.A. & Rath, C.L. (2015). Review of *Postfeminist Education?: Girls and the Sexual Politics of Schooling* by Jessica Ringrose. London: Routledge. *International Journal of Qualitative Studies in Education, 28*(5), pp.496-500 doi: 10.1080/09518398.2013.857061

ACKNOWLEDGMENTS

Thanks to my collaborators on this project: Allyn, Christa, Hunter, John, Katherine, Lucy, Nishta, & Shea. Your generosity was overwhelming, and I hope I've produced something worthy of it. I carry all you taught me into my conversations with teachers-to-be.

Thanks to my committee members, Alecia and Jerry and Jill and Scott, for your thoughtful engagement with this work, and for seeing it as possible even when I couldn't. And thanks to Lisa, my mentor and friend, not only for your leadership on this project, but also for your support of me as a scholar and a person.

Thanks to Asilia, Katherine, Nishta, Spirit, and Tristan for your generous reading of many iterations of this work. Your careful attention and thoughtfulness not only improved my thinking and writing, but also helped me hold onto myself, my commitments, and my possibilities.

Thanks to the faculty and staff of the Department of Education Studies and to my colleagues in the doctoral program for making this place a home for me and my work.

Thanks to John for All. The. Things. You deserve to be ensconced in a glass mansion chock full of unicorns.

Thanks to Katherine, my *anamchara*, for seeing in me more than I can see in myself, and for always pushing me to live up to your vision. And thanks to Jeff, for loving Katherine and holding her (and, therefore, me) up, and also for beer.

Thanks to Nishta, Jill, and Shiv for the steady supply of encouragement in the form of dance parties, emergency love rations, bubbles, and pimento cheese dip. And especially for the Big Talk that produced and sustained this project and produces and sustains me.

Thanks to Tristan for the buddy system of grad school survival. None of this would have been possible without you, and all of it was better because of you.

Thanks to Julie and Tina for crafternoons and your dedication to making schools better for students and teachers and your unbounded capacity for love and joy. You help me remember why I do this work.

Thanks to my family: to Dad & Gail for loaner cars and technology support and tamales; to Bub & Robin, Dave & Marilee, Frank, Heidi, Kathie & Jim, Kathy & Steve, Lesa & Trever, Marian & Bob, MaryKai & Curtice, Matt, McKell & Evanicio, and all my amazing nieces and nephews for your support and encouragement.

And thanks to my mom for reteaching me my loveliness, over and over and over again. I love you big much.

For my students.

The bud
stands for all things,
even for those things that don't flower,
for everything flowers, from within, of self-blessing;
though sometimes it is necessary
to reteach a thing its loveliness…

"Saint Francis and the Sow"
by Galway Kinnell

TABLE OF CONTENTS

LIST OF FIGURES

Figure Page

CHAPTER I

FRAMING THE TALE

Throughout my graduate work, I have been preoccupied with this tension: the stories we tell about teaching are dangerously simplistic—they flatten out the complexities of teaching into linear narratives that generally resolve neatly and end well—and yet telling a more complicated story is also dangerous—teacher education relies so heavily on representations of teaching that these representations must be approachable and productive. A description of the landscape formed by this tension, its boundaries and geography, is the subject of this introduction, and its circuitousness is by design. My central questions are these: In telling stories about teaching, how much complexity can readers sustain? How messy can the story be before it becomes unintelligible? Why does messiness matter and what does it produce for readers?

And so, a note on the text: In many ways, this work is traditionally structured. This chapter introduces the problem and establishes my position relative to it. The next chapter reviews the relevant literature on teacher knowledge and the role of narratives in representing it to pre-service teachers. Chapter III examines several qualitative research methods that emphasize narratives—either as data sources, as a means of data analysis, or both—to identify components that will further this inquiry, and demonstrates how concepts drawn from the work of Karen Barad help me imagine both a new way of telling teaching stories and a new way of thinking about their use in teacher education. This chapter also includes details of research design and a description of the collaboratively-produced narrative that emerged from my thinking and writing with teachers during the 2013-2014

academic year. In Chapters IV and V, I survey the new knowings[1] this inquiry produced, several of which I anticipated and several of which came as a surprise. Finally, Chapter VI is a discussion of the implications of this project for the field of educational research, particularly as regards the recent federal proposals for the evaluation of teachers and teacher education programs.

However, my commitments to creating a messy[2] text about teaching cannot help but show up in the story of its development; I think of my dissertation as a process narrative, the meta-story about the composition process I've used to create a new kind of story about teaching. My commitments coalesce around four concerns about writing, which I discuss in more detail later in this chapter, and the diffractive approach I develop in this project is my best effort to ameliorate these concerns. Diffractive analysis[3], reading insights from various sources through and with one another (Barad, 2007, p. 71), is central to both the story and the meta-story of this project. As Lenz Taguchi and Palmer (2013) describe it, a diffractive account shows how "thinking, seeing and knowing are never done in isolation but are always affected by different forces coming together" (p. 676). I have tried to account for my

---

[1] As I explain further in Chapter Three, I am purposefully replacing the term *knowledge*, with its connotations of thing-ness and singularity, with *knowings*, to suggest that is it more productive to consider the products of inquiry as dynamic and plural processes.

[2] I draw this term from Law (2004) and Lather (2010) In *After Method: Mess in Social Science Inquiry*, Law distinguishes between things that can be known, "provisionally stable realities," and things that are multiple, slippery, changeable, and temporary; social science method deals more or less effectively with the first category but less so with the second. *After Method* explores potential methodological approaches to dealing with unstable, messy realities. Lather (2010) invokes this approach in examining educational policy, arguing for educational research *from the side of the messy*, research "that pays attention, simultaneously, to language, bodies and material conditions, to present a mix of interpretations versus seeking consensus, both finding patterns and opening up closures, to show the problems with all efforts to represent reality" (p. 10).

[3] I consider diffractive analysis in more detail in Chapter III. At this point, however, it might be helpful to know that Barad discusses diffraction not as an alternative but as a counterpoint to reflection: "both are optical phenomena, but whereas the metaphor of reflection reflects the themes of mirroring and sameness, diffraction is marked by patterns of difference" (2007, p. 71), in particular, the "differences that our knowledge-making practices make and the effects they have on the world" (p. 72). Reading texts through one another is not an exercise in comparing and contrasting, but in discovering how meaning and matter are co-constituted. Diffraction, for Barad, is not metaphor or analogy but a "tool of analysis" (p. 72), a means of making evident "the entangled structure of the changing and contingent ontology of the world" (p. 73).

thinking, seeing, and knowing in a variety of textual diffractions—extended analogies, marginalia, and pieces of personal narrative—to demonstrate how my research is entangled with my teaching and writing as knowledge-making practice. The personal narratives are italicized, flush left, and titled as "fragments." It is my hope that the fragments, analogies, and marginalia at times amplify and at times interfere with the ideas presented in the main body of the text.

fragment: trust me

In the spring of 1997, I was finishing an undergraduate degree at a small, very conservative, Catholic university in Houston, Texas, to which I had transferred from Reed College, a small, self-righteously radical institution in Portland, Oregon. Even now I can't imagine how I might have arranged my circumstances to be any more whiplash-inducing. But there I was, writing a senior honors paper on the role of the queer protagonist in Jeanette Winterson's second novel, The Passion (1997).

I had found the only even remotely out faculty member on campus—she wrote a memoir about her liver transplant that was released while I was her student, so I dutifully bought a copy at the reading on campus and learned about her "friend" Ann—to be my advisor, and she just raised one eyebrow when I proposed my topic. I wanted to argue that because Villanelle cannot be adequately accounted for inside the folktale structure Winterson invokes in that novel, the gender-fluid protagonist of The Passion makes space for readers to imagine a gender-plural future. I still have no idea whether Dr. Parr was persuaded by my analysis, but she never counseled me toward a less controversial topic, even as we were preparing for the end-of-term presentation when I was to share my research project with the campus community. All I remember from that night is the blank, slightly wide-eyed stares coming from everyone in the audience other than my mom and Dr. Parr, both of whom looked simultaneously slightly apprehensive and quietly proud.

Winterson uses several refrains throughout the novel, one of which is "Trust me, I'm telling you stories." Elsewhere, Winterson (2011) contends

> Stories are compensatory. The world is unfair, unjust, unknowable, out of control.
>
> When we tell a story we exercise control, but in such a way as to leave a gap, an opening. It is a version, but never the final one. And perhaps we hope that the silences will be heard by someone else, and the story can continue, can be retold….
>
> We get our language back through the language of others. We can turn to the poem. We can open the book. Somebody has been there for us and deep-dived the words. (p. 8)

When I proposed my present endeavor to my dissertation committee, they were not satisfied with my research design, which I had neither spelled out clearly nor justified theoretically. To help me in the work of revising, my advisor sent me her notes from the meeting, and one question, buried on the last page, jumped out as exactly the right one: "What does she really want to do?" I had not made my intention clear. Because I doubted it.

After some consideration and several hours of talking and writing with those who help me think about these things, I realized how thoroughly I had internalized an exhortation I heard quite early in my doctoral program, even though I profoundly disagreed with it. In the context of a presentation about his research in a methodology course, Dr. Edward Olivos asserted, rather vehemently, that he would not accept a poem as a dissertation. He was talking about the ways in which we must, by virtue of our participation in the academy, work within proper academic discourse, acknowledging that we must sometimes sell out our principles in order to do so. At the time, the etymology geek in me rose up to protest: any act of creation is poetry, from the Greek verb poiein, "to make, compose." There is no way to write a dissertation, to write anything, that is not a poem.

Now, more confident in my ability to resist the notion that there is such a thing as "proper academic discourse," I think, "Well, I guess it's a good thing I'm a prose writer and not a poet."

Because what I want to do is tell stories.

Stories about teaching. Stories that describe, or try to, the classroom as unknowable and out of control. Stories that leave a gap, create an opening, remain unfinished. In the hopes that teachers-to-be can hear them, can see something for themselves in them.

Stories change us, have us learn something or think newly about ourselves and our lives and our world. The self, whatever that is, that first meets a story is not the same self that leaves it. And we carry the stories that have changed us: they become the lenses through which we encounter ourselves and the world.

Trust me. I'm telling you stories.

Prologue

Statement of the problem. Teacher preparation programs rely heavily on representations of teaching. Each chapter of *Teaching Literature to Adolescents* (Beach, Appleman, Hynds, & Willhelm, 2011), the textbook for the course on English Language Arts teaching methods offered at University of Oregon, opens with what the authors call "a case narrative of a teacher coping with a particular issue related to teaching literature," which is intended to invite discussion both on an abstract level, previewing each chapter's content, and a practical level, drawing examples from student teachers' observations and experiences in their field placements (p. xiii). Other textbooks used in our program are similarly structured, drawing frequently on classroom vignettes to concretely represent the learning theories, pedagogical strategies, and curricular approaches these books survey. Bringing theory into practice seems to be the common intent.

Because our program focuses on social justice, these textbook encounters with representations of teaching complement book-length teacher stories such as Lisa Delpit's *Other People's Children* (2006), Sonia Nieto's *Why We Teach* (2005), Brian Schultz' *Spectacular*

Things Happen along the Way (2008), and Mary Cowhey's *Black Ants and Buddhism* (2006), as well as a critical examination of the representations of teachers in both mainstream films such as *Freedom Writers* (DeVito, Shamberg, & Sher, 2007) and *Won't Back Down* (Johnson, 2012), and documentaries like *Waiting for Superman* (Chilcott, 2010).

Put another way, our teachers-to-be are swimming in representations of teaching, and these representations are of a particular sort, what I call the Teacher Story. A Teacher Story is a tale of some comfortable difficulty—a challenge that is compelling but not too alarming, an issue that generates sympathy but not dismay—and how some flawed-but-not-abject teacher overcomes the difficulty, learning some important lessons about herself and her profession in the process. Teacher Stories are complete and tidy, their morals are obvious, and the disconcertment[4] they produce is temporary. Teaching, on the other hand, is incomplete and messy, morally ambiguous at best but often conflicted, and the disconcertment it produces may be permanent.

The Teacher Story figures heavily in educational research, particularly in the efforts of scholars who focus on teacher knowledge[5] as it is conveyed in various narrative forms (especially Shulman, Cochran-Smith & Lytle, and Clandinin & Connelly, whose research I survey in Chapter II). These researchers seek to document what teachers know in order to elevate the status of teachers from those who "can't do" (but can read from a script) to those who do what others can't. That is, teacher knowledge research presumes that teaching requires a wide array of knowledges, skills, practices, and dispositions, and this research attempts to identify those and describe them in detail.

---

[4] I take this term from Helen Verran (1999), who uses it to describe a moment of puzzlement in which one's certainty is disrupted. Verran argues that we should linger in these moments rather than moving immediately to explanation; put another way, disconcertment is productive.

[5] See Hiebert, Gallimore, & Stigler, 2002; Rosiek & Atkinson, 2005; and Wilson & Berne, 1999, for comprehensive surveys of teacher knowledge research.

My first encounters with teacher knowledge research left me feeling disconcerted: the descriptions of what I supposedly know about teaching didn't feel like what (I think) I know about teaching. And the more precise the descriptions became—distinguishing between content knowledge and pedagogical knowledge, specifying so-called best practices—the more disconcerted I became. While some of my discomfort was alleviated by conversations with my professors about the historical context of this scholarship, what it was attempting to remedy, and the intentions of various scholars to reposition teachers as professionals in possession of valuable knowledge, I was still anxious about the seeming ease with which these constructions of what teachers know and do could be taken up by how-to-teach manuals and teacher evaluation checklists.

As I mentioned at the outset, this project emerges from this disconcertment: descriptions of teaching need to be as complicated and indeterminate and messy as teaching actually is, because how we describe things has consequences. I explore this assertion more thoroughly in the section below entitled "Storytelling Anxieties," and it is this notion that convinced me to attempt a different kind of story about teaching. In the next section, I outline the questions that generated this effort. The following section previews the collaborative storytelling project at the center of this work, and in the final section, I situate myself in the storytelling practices of educational researchers and identify four anxieties about writing.

fragment: the methods course

After years of teaching high school English, teaching an English Language Arts methods course to pre-service teachers was an exercise in managing anxiety, both my own and my students'. Stories from this teaching experience are one of the data sources for this project.

In my high school English classroom, one of the biggest obstacles I faced in coaching students through the close reading techniques expected by the Advanced Placement exams we were preparing for was students' frequent refusal of the deliberateness of writing. Our conversations would go something like this:

Me: So we've identified a pattern of sound devices in this stanza. Why are they here?

Student: Because the author thought they sounded cool.

Me: Probably, yes. I mean, they do sound kind of cool, right?

Student (hesitating): Well…kind of.

Me: Okay, so what else do they do?

Student: Nothing. They are just there.

As if somehow, by accident, alliteration simply appears in writing. Initially I couldn't locate the source of this belief, but after years of interrogating students I came to see this literature-as-accident response as a defensive posture: students were preemptively guarding against my insistence on a right answer. When I asked questions about stylistic elements in a poem, I meant for them to hypothesize, to speculate, to use textual evidence to develop a plausible interpretation. But they heard in my question an echo of years of being trained to produce the right answer.

I tried many tactics to disabuse my students of the notion that there is one right interpretation of a piece of art: I likened interpreting a poem to trying to persuade parents to suspend curfew for the sake of a midnight movie premiere; I showed them established literary critics offering different readings of the same text; I quoted Walt Whitman on my course syllabus, "I am the teacher of athletes,/…He most honors my style who learns under it to destroy the teacher" (1855/1986, p. 81). I even told my own story of being an unhappy student in an

English classroom in which my job was not to read closely and practice constructing persuasive interpretations, but to happen upon the interpretation the teacher wanted through humiliating guesswork. But I could not alleviate their anxiety, and the "it was an accident" response persisted.

I was surprised to find myself facing a similar obstacle in my methods course. One of the central tasks of the course is for students to practice lesson planning, and I was specifically instructed to cover the elements of "backward design," the seemingly obvious strategy of beginning to plan and sequence tasks by determining the end goal and working backward to identify necessary steps and components. I offered my own planning process as a model, showing my students photographs of the color-coded sticky notes I had used to sequence topics around each of the central learning goals of the course, and talking through how I transformed the sticky notes into the assignments and activities that ended up on the syllabus. They took notes furiously, in spite of my assurances that I would post the PowerPoint slides for their reference. And then I asked them to talk in their table groups about potential problems with this approach.

Student: What do you mean?

Me: Well, I mean there might be some limitations to this approach, and I want us to talk about those.

Student: Could you give us an example?

Me: Hmmm…I can ask some additional questions, how about that?

Student (reluctantly): Mm, okay.

Me: In the example of backward design that I just showed you, who made all the decisions about the learning goals?

Student: You did.

Me: And does anything about that trouble you?

Student: Not really. I mean, it doesn't seem very student-centered, and we've learned about how we're supposed to create student-centered classrooms and all, but then we have to produce these unit plans for our work sample, so how can we not decide in advance what we want our students to know?

Me: Exactly.

Student: Huh?

Me: That's exactly the tension I want you to discuss in your table groups, and then we'll talk as a whole class, okay?

Student: Why? I mean, what is there to discuss? There's this huge gap between what we learn we're supposed to do and what we have to do, and we're just going to do what we have to do, so why worry about what we're supposed to do? (Students around the room nod in agreement.)

It took me weeks to recover from this conversation.

I was stubborn at first, deliberately troubling what my students had perceived as necessary and relatively straightforward tasks like writing learning objectives and matching them to the Common Core State Standards, or taken-for-granted ideas like developmentally appropriate and teaching produces learning. They hated it. And some of them hated me.

By week three, the student who, after our first class meeting, had walked with me on my twenty-minute trek home, talking enthusiastically the whole way about how awesome class had been and how excited he was for

next week, was slumped despairingly onto his notebook and avoided making eye contact with me. After I posed a question to the group, he flung his arm in the air without sitting up; when I called on him, he asked into the crook of his arm, "Why are you doing this to us?" After class that night, a helpful young man explained to me not a little condescendingly that he was happy to "debate epistemology and whatnot, having been a philosophy major," but that I should really get on with showing them some strategies for teaching Fahrenheit 451.

Much as I couldn't convince my 11th graders that I was really interested in what they thought about whatever text we were considering, I couldn't convince these student teachers that scripts and lesson plans and formulas for teaching analytic writing or poetry interpretation were not enough to produce good teaching. In both cases, I witnessed my students managing their anxiety, refusing what I was offering in the process. Student teachers have enough to worry about without my pesky questions about the nature of objectives or the problems of deciding in advance what students need to know.

They trust my years of teaching experience to deliver ideas for activities and strategies for conducting class discussions and tips for coaching reluctant readers, but are not persuaded to interrogate and trouble their taken-for-granted ideas about teaching. Because everything feels so new and precarious, it is hard for novice teachers to see that they have taken-for-granted ideas about teaching. In that context, my destabilizing maneuvers were perceived as unnecessary, even cruel.

Research questions and goals of the project. The broad goal of this research project is to think with theory (Jackson & Mazzei, 2012) about the form of the Teacher Story and what it produces for pre-service teachers. My experiment in telling a different story about teaching by capturing narrative accounts of teacher thinking as it happens is driven by these questions:

- How can narratives about teaching and teacher thinking remain incomplete and open-ended but also intelligible?
- How can narrative form be manipulated to tell generative stories about teacher knowledge and hold the stories as necessarily contingent and changing?
- How can stories about teaching refuse reduction and over-generalization in favor of messiness and complexity?
- How can teaching be storied "not as a thing but a doing" (Barad, 2007, p. 151)?
- What imagining is made impossible by the stories commonly found in teacher education texts and textbooks, and what imagining is made possible for teachers-to-be by engaging with something other than the Teacher Story?

The first specific goal of the project is to reconsider the form of the literature review by focusing on research as a form of storytelling. A traditional literature review surveys the field in order to establish what is already known and identify gaps that the researcher presumes to fill with his or her emerging scholarship. My approach in this project will be slightly different. Using the theme of research as storytelling, I will take reviewing the literature as an opportunity to explicate several predominant research stories about teacher knowledge. I will examine the ways these canonical narratives function both to produce new ideas—by spurring lines of inquiry—and restrict them—by delimiting what is possible to imagine within the field.

A second goal is to develop diffractive storytelling as a research method. Telling a story about teaching that isn't always already imagined by established narratives will require

an innovative method, what I am calling diffractive storytelling. Diffractive storytelling, discussed in detail in Chapter III, is inspired by Karen Barad's notion of diffractive methodology, a means of reading insights from various sources through one another in order to "highlight, exhibit, and make evident the entangled structure of the changing and contingent ontology of the world" (2007, p.73), in this case, the world of teaching. In this project, the storytelling occurred in several stages, the first of which created a space for my collaborators, eight teachers from a variety of educational settings, to think with and through each other's insights in response to a provocation. I then arranged selections from their writing into a story, "The ABCs of Teaching," to share with pre-service teachers. Finally, I inserted the reactions of the pre-service teachers as marginalia. The full text of the story can be found in Appendix A; the version with the marginalia is in Appendix B.

A third goal for the project emerged as I engaged with the responses of pre-service teachers to "The ABCs of Teaching," which were produced not only by the story but also by the context in which it was assigned and the conditions under which it was considered. In accounting for all of these pieces of the research setting and circumstances, I was reminded of Barad's (2007) concept of the apparatus[6]. Barad fashions her concept both on and in response to the limitations of Bohr, according to whom "apparatuses are macroscopic material arrangements through which particular concepts are given definition, to the exclusion of others, and through which particular phenomena with particular determinate physical properties are produced" (p. 142). Barad contends that Bohr "mistakes the apparatus for a mere laboratory setup" (p. 144), and instead describes apparatuses as "specific material-discursive practices" that are "boundary-making" and "formative of matter

[6] This concept is discussed in more detail in Chapter III.

and meaning"; apparatuses do not exist in the world "as static structures, nor do they merely unfold or evolve in space and time," but rather "are material configurations" (p. 146).

Thinking about the story as an apparatus allows me to examine the narrative accounts of teaching currently circulating in teacher preparation programs in a new way: how do they work to "enact what matters and what is excluded from mattering" (Barad, 2007, p. 148)? How do they "enact agential cuts that produce determinate boundaries and properties" (p. 148) of teaching? Or, as Jeanette Winterson put it, how do these stories "exercise control, but in such a way as to leave a gap, an opening," to produce "a version, but never the final one" (2011, p. 8)? Most importantly, does a different sort of story-apparatus produce different possibilities for teaching?

Plot treatment (or research design).

Phase I. As this project's central goal is to tell a story about teaching, I recruited eight collaborators, all of whom were teaching in a variety of classrooms in public and private K-12 schools, colleges, universities, and adult continuing education settings. In order to recruit collaborators who were comfortable exploring ideas through writing and sharing their writing with others, I used purposeful sampling (Patton, 1990) to identify an initial group of teachers who are also established bloggers, fiction and non-fiction writers, and university researchers. Using a by-invitation blog, we thought and wrote about our classrooms from September 2013 through March 2014. I posted a provocation—a set of questions or a short reading, an example of which can be found below in "fragment: we know more than we can tell"—for consideration every other week, and collaborators responded to my provocation, other collaborators' responses, or both. Participants also authored posts of their own. As contributions accumulated, we wrote in and with each other's ideas and thought with these ideas about our classrooms and teaching practices. This

phase of the project was focused on collecting ideas without necessarily trying to synthesize them.

Phase II. To supplement the narrative data gathered on the blog and "understand the themes of the lived daily world," I conducted conversational research interviews (Kvale, 1996, p. 27) with four[7] of my collaborators. I developed a preliminary interview protocol[8] specific to each collaborator using their[9] contributions to the blog. Questions focused on uncovering the collaborator's thinking and intention around various classroom practices. Then, after conducting informal observations in their classrooms, I adapted the protocol to include what I noticed in the classroom, adjusting my preliminary questions and generating additional ones. An example of this adaptation is discussed in Chapter III.

Phase III. The third phase of the project shifted from generating new narrative to working the collected narrative into a more polished piece of writing. To begin, I adapted Julia Cameron's (2002) concept of Morning Pages; I selected an excerpt from the blog posts, my notes about classroom visits, and the transcripts of conversations with collaborators each day and wrote in and around it until I had generated three pages of anything goes, stream-of-consciousness writing. This practice, as Peter Elbow (1998) suggests, helped me to see what was there. After several weeks of exploring the data, I was reminded of an essay I encountered in a writing class, Dinty Moore's "Son of Mr. Green Jeans: A Meditation on Fathers" (Moore, 2007), which I used as a model for sequencing bits of data. I wanted a title

---

[7] Though all eight of my collaborators contributed to the blog at least once, only five of them responded to almost every provocation. For logistical reasons (i.e., proximity and the timing of our respective spring breaks), I observed and interviewed four of these five. All observations and interviews were conducted in February and March, 2014.

[8] An example of this protocol can be found in Appendix C.

[9] Throughout this text, I will use the plural pronouns they/their/theirs in an effort to avoid the gender binary inherent in the "his or her" construction.

that would position the essay, with its messiness and its contradictions, to be a parody of how-to-teach manuals such as Doug Lemov's *Teach Like a Champion: 49 Techniques that Put Students on the Path to College* (2010), not to offer a better or more accurate list of traits or skills or techniques, but to suggest that any such catalogue is already inadequate. Finally, I posted a draft of the essay to the blog and encouraged my collaborators to add, adjust, and play with the text. The final version of this narrative can be found in Appendix A.

Phase IV. In order to address the question, what imagining is made possible for teachers-to-be by engaging with something other than the Teacher Story, I asked pre-service teachers in the final term of their credentialing program to consider "The ABCs of Teaching" as one of twelve case studies that served as the primary texts of a course on the scholarship of teaching. Students responded to guided reading questions in an online journal, and discussed the readings in small groups and as a whole class. I collected journal posts and recorded small group discussions for all assigned readings, though my focus was primarily on responses to "The ABCs of Teaching."

In an effort to enable a diffractive reading of the story and the responses it produced in teacher-to-be readers, I selected comments from both students' journals and class discussions and inserted them into the story as marginalia (see Appendix B). Beyond my selection process, the marginalia were also produced by the practices that generated the students' responses to the story, including the time constraints of the assignment, the framing questions in the journal prompt and the class discussion, and the way of reading that was created by previous assignments. That is, throughout the course, which met daily during a compressed summer term, students were reading articles and responding to them almost immediately. Such immediate responses, of course, capture certain things and miss others,

and I wonder how the fragments of this story will linger with these new teachers as they enter the profession.

Storytelling Anxieties

How we describe things has consequences: something is made real in the world when we describe a student as at-risk or a school as failing or a teacher as low-performing. As Rosiek (2013) notes, our inquiries and the knowing they produce "do not offer mere representations of independent objects. They become material semiotic interventions in the continuing stream of experience" (p. 699). Because descriptions produce the subjects they describe, writing about teachers and students and schools feels very risky.

However, such writing and the representations of teaching it conveys are central to teacher education because teaching requires "complex practice under conditions of uncertainty" (Grossman, Compton, Igra, Ronfeldt, Shahan, & Williamson, 2009, p. 2058). That is, practitioners must be able to exercise professional judgment and adjust quickly to changing circumstances, and representations of teaching are offered to teachers-to-be in order to make this daunting task more manageable. The use of representations also allows novices to develop careful attention to the components of teaching practice, provides an approximation of practice as an opportunity for analysis and problem solving, models strategies put to work in various contexts and under various circumstances, and gives student teachers access to diverse classroom settings that may not be available in their practicum and student teaching experiences. In other words, representations do important and necessary work in the preparation of new teachers.

In order to accomplish these goals, however, representations of teaching break the practice down into its component parts, which obscures the profession's messiness and contingency, its indeterminacy and doubt, its shifting and transient nature. While I am

grateful to educational researchers such as Grossman (Grossman, 2011; Grossman, et al, 2009), Cochran-Smith and Lytle (Cochran-Smith & Lytle, 2009; Lytle & Cochran-Smith, 1992), Shulman (1987, 2004), Clandinin and Connelly (Clandinin, 2013; Clandinin & Connelly 1990, 1995, 2000; Connelly & Clandinin, 1999), and others for their work to recover teaching from process-product research and develop the construct of teacher knowledge, I worry that the project of specifying what teachers know—content knowledge, pedagogical knowledge, pedagogical content knowledge, personal practical knowledge[10], and so on—results in what Barad (2007) calls *thingification*.

Barad's explanation of apparatuses, which I consider in more detail in Chapter III, emerges from her critique of representationalism, which rejects the taken-for-granted ontological gap between entities and their representations; Barad seeks instead an ontology that resists the dualism inherent in the object-representation worldview. What is needed in its place "is a robust account of the materialization of *all* bodies—'human' and 'nonhuman'—and the material-discursive practices by which their differential constitutions are marked" (2007, p. 128). Such accounts reject "*thingification*—the turning of relations into 'things,' 'entities,' 'relata,'" (p. 130) in favor of processes and relationships.

The work of social science research, however, consistently pulls towards thingification: new research is expected to contribute to the knowledge base; in the analysis, data becomes separated from the relationships and circumstances that produced it; any account of research is bounded and finite, it begins and ends. Perhaps most troubling, however hopeful I am about the open-ended form and fragmented structure of "The ABCs of Teaching," is the possibility that I have produced a representation of teaching that thingifies the very messiness I intended to convey. By capturing it, however effectively I

[10] These terms are defined and discussed in the literature review in Chapter II.

managed to do so, I have turned it into one more fixed and stable component of teacher knowledge.

This concern about reproducing the very thing I critique and hope to resist is diffracted through four ideas I've encountered in my years as a teacher and student, which I imagine working like bumpers and kickers in a pinball machine: my thinking is rolling around inside the playfield, being propelled in new directions by contact with these worries. I hope that naming them here keeps them present in my thinking throughout this and other research, helping me avoid holes and traps that send me off course and down the drain[11].

Forgetting stories are fiction. Early in my doctoral coursework, I encountered Charles Lemert's "Social Theory: Its Uses and Pleasures" (1993), in which he asserts that the two young boys he describes "knew what they knew because they could put it into words" (p. 2). Lemert's notion that research amounts to "coming up with something coherent to say" (p. 3) is a productive way of thinking about research as storytelling: to research is to construct a coherent narrative to account for and make meaning with data.

Once we begin to conceive of research as fiction—in its etymological sense of being deliberately crafted, not in its pejorative sense of being somehow untrue—then we can ask productive questions about the storyteller and the conditions and purpose of the telling. We can begin to see the limits of dominant narratives. Lemert insists that social theory is properly a public activity, and suggests that more people ought to do it. When narratives proliferate, it becomes increasingly difficult to pin down one particular "truth," and the possibility for multiple coherent explanations raises the level of debate. It might be messier terrain, certainly, but it is also more productive, and a more appropriate setting in which to examine complex topics.

[11] This is the term for the area below the flippers at the bottom of a pinball machine; the ball is lost if it rolls into the drain, potentially ending the game.

Thinking of research as fiction reminds us that it is crafted. That is, any story, even one classified as research, is an artifact crafted from what we choose to include and what we choose to ignore. As such, any story could always be otherwise; there is nothing inevitable about any particular narrative. Further, a good story for entertainment purposes is one in which these choices are not obvious to the reader; the craft remains hidden, our disbelief suspended. But a good story for the purposes of social science research must make those choices plain; the curtain must be pulled back, the craftedness revealed. Researchers must be accountable for the composition process.

fragment: we know more than we can tell

I posted the following provocation on the blog I'm using to collect data:

> I've been preoccupied recently with this quote from Michael Polanyi (2009), "We know more than we can tell." This idea is part of what I'm after with this storytelling project, that we (teachers) know more than we can tell (about teaching), and we certainly know more than most educational researchers do tell about teaching. In introducing yourselves, several of you describe this phenomenon explicitly—Katherine says, "the mechanics seem pretty straightforward, yet there are parts that are impossible to write about," and Shea describes how she can't translate her "own sense of what is ordinary for a second grader" for other adults.
>
> What about teaching feels like more than you can tell? What are some of your teaching stories that don't seem intelligible to audiences of non-teachers? What are some of the stock stories about teaching that frustrate you because they are inadequate or just wrong? What are some of the metaphors you've toyed with in describing teaching?

Only one of my collaborators responded:

> Courtney, it seems that most stories about teaching don't seem intelligible to audiences of non-teachers; ask any teacher who has to deal with administrators who have never set foot in a classroom. The understanding gap is massive. It usually doesn't seem worthwhile to try and make those outside of the profession understand—the myths about who we are and what we do sometimes seem ridiculous. I think we've all endured the obvious: teaching is easy, teachers get a

> three-month vacation, schools don't really teach anything—we should home-school our kids, etc. If anyone who isn't a teacher doesn't understand those basic things about teaching: that it isn't easy, that we work all summer, that you can't do what we do at home [no you can't] what are our options for training teachers in the intangibles?

That no one else ventured an attempt is in itself data.

Forgetting stories make worlds. I do not take poet Muriel Rukeyser to be metaphoric in her assertion, "the universe is made of stories,/not of atoms."[12] That is, what I know about the world I know by way of story, which is to say that what I know is deliberately crafted—selected and sequenced—and is in no way inevitable; there are always other possible selections and sequences. However, we can't make just any world with our stories; what is possible in stories is simultaneously constrained by the world. While the fictive space is expansive, a landscape of imagined possibilities, and experimental—we can write about the world as it seems at present and as we hope it could be in an imagined future, we can try on identities and experiences and try out ways of being in the world—it is bounded by the limits of intelligibility.

In even the most notoriously difficult texts, there are recognizable footholds for sense-making. For example, as strange as the novel *Ulysses* may be, to borrow a phrase from James Joyce's biographer, Richard Ellmann (1982), Joyce constructs his characters by compiling "odds and ends, minutiae" (p. 358), and these resonate with readers. We can picture Bloom's bowler hat, we can relate to his insecurities and his taste for particular foods, we can imagine ourselves having similar conversations and noticing similar details as we walk around our version of Dublin. According to classical literary theory, this approachability is

[12] This oft-quoted line comes from Rukeyser's poem, "The Speed of Darkness," which has been published in several of her collections and is reproduced with permission online here: http://www.poetryfoundation.org/poem/245984.

produced by verisimilitude, the degree to which a literary work is realistic enough to cause readers to suspend disbelief and engage the narrative. It is not that texts cannot imagine outside of or beyond an already existing reality, but that those imaginings must somehow be describable in ways that allow for meaning-making by readers.

In this project, one of my tasks is to re-story "teacher knowledge" as it has been traditionally understood by educational researchers to render its world-making practices more visible. As crafts, both teaching and storytelling involve foregrounding certain things to the exclusion of others. We make these decisions all the time; every time we choose to pay attention to something, we are necessarily not attending to other things. Teaching requires awareness of these decisions so we can adjust our practice as it is unfolding, and this awareness is not something teachers know or have, but something teachers do and are. Examining the representations of teaching used in the preparation of teachers for the worlds they make and the worlds they exclude requires a similar awareness.

Forgetting composition. I want to compose a story that is intelligible, but I also want to take seriously Roger McRuer's (2006) concerns about such composition. He argues that "composing is defined as the production of order" (p. 149), and as such, composition reifies certain *normate* tendencies, specifically heteronormativity and able-bodiedness, in its efforts to order the world into an intelligible product. McRuer takes up the term normate from Rosemarie Garland-Thomson (1997), who defines it this way:

> This neologism names the veiled subject position of cultural self, the figure outlined by the array of deviant others whose marked bodies shore up the normate's boundaries. The term *normate* usefully designates the social figure through which people can represent themselves as definite human beings. (as quoted in McRuer, p. 197).

McRuer proposes another neologism as an alternative, de-composition, which "is an experience of the impossible, and as such cannot simply be implemented (or—even more—

administered) by a writing program" (note 5, p. 237). De-composition is "inimical to 'nuts and bolts' approaches that somehow streamline the process of composition instruction" (p. 165).

fragment: elbow room

Very late in my teaching career, after years of struggling to teach writing effectively, I actually read a book I'd been moving around from apartment to apartment and city to city for about fifteen years, Peter Elbow's Writing Without Teachers (1998). I clearly should have read this book when it was first recommended to me on Day 3 of my very first teaching job. The day before I was going to be responsible for educating a room full of students, I learned that in addition to the 10th grade American literature survey course I had been hired to teach, I was also scheduled to teach Creative Writing. Not only did I have no background in the subject (not a class, weekend workshop, or afternoon presentation) beyond once having dated someone who claimed to be a poet, but also I had no sense of myself as a writer. I read and examined writing, analyzed and deconstructed writing, applied various methods and tools of literary criticism to writing, but I sure as hell didn't generate any writing that anyone else might examine or deconstruct. So how exactly was I supposed to teach other people how to write, creatively or otherwise?

To my rescue came Christa, handing over journal prompts and writing assignments, showing me how to have the students set up portfolios and develop independent writing projects, and recommending her favorite writing books. In the semi-hysterical daze that was my first week in the classroom, I relied heavily on the short-term solutions she offered and set aside books and larger projects for that mythical time "when things settle down." Peter Elbow was consigned to the To Read Over Winter Break stack, which quickly became the Spring Break and then the Summer Break stack, and then I didn't have to teach Creative Writing again, so he moved to the bottom of the pile and then to a bottom shelf and finally to a box, where he rested quietly, not

making any trouble for anyone, until his name came up again one summer, when I spent a week at Bard College learning writing techniques based largely on his ideas.

I could say many things about the Writing and Thinking workshop, and most of them would sound like cheesy book jacket review quotes, but I was made different by that work, as a thinker and a teacher and, most surprising of all, as a writer. And so I started to write things; I enrolled in a writing class for teachers, led a writing workshop for my colleagues, and found a writing group to meet with regularly. And I finally read Peter Elbow.

Christa was right, of course, to recommend Elbow. He's totally my kind of thinker: honest and untidy, not enamored of jargon, funny. We mostly go about writing and teaching writing the wrong way, he argues:

> This idea of writing [the step-by-step approach] is backwards. That is why it causes so much trouble. Instead of a two-step transaction of meaning-into-language, think of writing as an organic, developmental process in which you start writing at the very beginning—before you know your meaning at all—and encourage your words gradually to change and evolve. Only at the end will you know what you want to say or the words you want to say it with. You should expect yourself to end up somewhere different from where you started. Meaning is not what you start out with but what you end up with. Control, coherence, and knowing your mind are not what you start out with but what you end up with….Writing is a way to end up thinking something you couldn't have started out thinking. (p. 15)

Writing, on this account, is not ordering already existing ideas to make them intelligible to a particular audience; writing is discovery of ideas that do not pre-exist the writing, but emerge within it. The writing process is recursive and messy, and this way of thinking about writing begins in uncertainty and resists resolving that uncertainty. Elbow argues, rather, that uncertainty is made sustainable by the inquiry practices of writing and thinking he advocates.

In addition to being impossible inside traditional step-wise writing instruction, de-composition is also at odds with academic writing, which privileges what McRuer (2006) calls the "fetishized finished product" (p. 151). Conference presentations, journal articles,

dissertations, and the like are not generally considered discovery processes but the results of discovery processes. Similarly, stories are a final product of sorts: they are self-contained, even as they exist inside larger contexts and in relation to an audience; they are sequenced such that they have a beginning, middle, and usually an end, even if the end is tentative or posed as an imagined future. And yet, stories are necessary, as the next section details, so the challenge is to tell a story that can be read as expansive even as it comes to a close, a story that can be experienced as opening possibilities even as it forecloses them.

Forgetting to stay lost. Making sense of stories demands coherence and intelligibility, and yet those very properties obscure a final concern about storytelling. I take seriously Emily Dickinson's advice to "Tell all the Truth but tell it slant—/ Success in Circuit Lies" (#427, 1868). Telling it slant evokes, in the poetic terms of rhyme patterns, approximation and imperfection. Put another way, telling it slant is the best we can ever do; any telling is necessarily incomplete, even inadequate, precisely because of the craft involved in choosing and ordering what is to be told. Researchers must keep this impossibility in the foreground of every project: any attempt to describe will inevitably fall short.

However, even from this tenuous position, researchers must still make claims about the world in order to change it for the better. This project of inquiry is inevitable, I would argue; ethical people cannot look away from suffering just because we feel nervous about asserting a truth claim to describe it. We must story the world, and then ask critical questions about the storyteller and the conditions and purpose of the telling. From this necessarily skeptical and anxious position, a position of fundamental indeterminacy[13], we can see the limits of our and other narratives.

[13] I explicate this term in detail in Chapter III.

Sustaining ambiguity is central to Patti Lather's approach to social science research methodology, described in her book, *Getting Lost: Feminist Efforts toward a Double(d) Science* (2007). After all of the various turns (linguistic, critical, deconstructive) and crises (of representation, of science, of confidence), Lather asks, how do we inquire? Because there are still inquiry projects to be taken up, particularly in the field of education. Also, Lather points out how recently turns and crises have been replaced by returns, specifically a return to "scientistic methods" as demanded by what she calls the "worldwide audit culture with its governmental demands for evidence-based practices" (p. 3), of which programs like No Child Left Behind and Race to the Top (U.S. Department of Education, 2002, 2009) are certainly products. This return raises the stakes for ongoing research.

In this context, Lather (2007) wants to reconfigure "empirical work as a site to learn how to find our way into postfoundational possibilities" (p. 35); she wants to work in and with the trouble (caused in particular by the crisis of representation), avoiding the move toward projects that are intended as correctives, and arguing that experimental writing is not a solution to the problem of representing others, but rather just poses a different problem. The task instead is to produce writing in which the text becomes a site of failure, and she asserts that the task of the researcher "is to meet the limit, to open to it as the very vitality and force that propels the change to come" (p. 37). Researchers, she continues, are not going to resolve the power imbalances in research situations, and are not going to change the fact that research is about surveillance and normalization; the only option, then, is to work "within/against," which is about "both 'doing it' and 'troubling it' simultaneously" (p. 38).

Taken together, these poets and scholars are the "deviant others" (Garland-Thomson as quoted in McRuer, 2006, p. 197) who define the boundaries of my project: to craft a story about teacher knowledge that remembers it is fiction and works within and

against the boundaries of the fictive space; a story that successfully resists becoming composed, orderly, and formulaic; a story that resists closure and embraces ambiguity; a story that expands the field of inquiry, particularly with regards to the preparation of teachers.

fragment: research as storytelling

In my first term as a doctoral student, the instructor in my research design course opened the class by asserting her position as a positivist; as she described it, the world is fundamentally knowable and, thus, measureable, and her task as a researcher is to make sense of the world, to tell its story, with factor analysis and multiple regression. The only part of her positivist ontology that makes any sense to me is that we are trying to understand the world by telling a story about it, seeking the best-fit narrative, adjusting along the way to accommodate new data or plot twists. I've been preoccupied with narrative for years, how it is constructed, how it is employed to make meaning in the world, how selves and worlds are made in and out of stories.

As an only child, I grew up surrounded by fictional worlds; I had a room full of them. I would create vast settings out of blocks and Tinker Toys and PlaySkool structures, the ranch house right next to the castle with the hospital set up across town, all spread out on bumpy green carpet. I spent hours navigating these streets, developing characters out of plastic figures and Matchbox cars, creating and resolving conflicts, spinning elaborate tales of intrigue and adventure and romance. We pretended at school, too; at recess, we played at being families or armies or aliens or undersea creatures. Dawn was our ringleader, and her shyness in class mysteriously evaporated on the playground, where she always knew the right answer so she never had to hide behind her hair. She would assign roles and scratch the outlines of our house, spaceship, or aquarium into the playground dirt. She was always willing to play any role the rest of us avoided, and she never worried about how her imaginary selves might bleed into her real life, causing people to forget to save her a seat at the lunch table or pick her last for kickball. I was jealous of her comfort in her own way of being in the world. She never seemed to require the social compass the rest of us did to decide if it was okay to try out a new character

or invent a new game. Perhaps she had already given up on the distinction between the imaginary and the real.

Perhaps she already knew the world is made up of stories. Perhaps she knew we understand the world as plot trajectory, believing that trajectory is inevitable given the previous plot points we've lived through, and understanding it to be progressing toward some climactic moment at which the plot points converge into life as we want to live it. We seek out characters and settings and events that fit into the trajectory, and we largely ignore those that don't. The world becomes fodder for the writer, who selects the details she believes advance the plot—she won't, for example, insert space aliens into a nonfiction essay—and so we live, collecting details that forward our stories, ignoring many possible twists and tangents, unfamiliar scenarios, space aliens. We become so insistent on forwarding the plot we lose sight of the fact that we're writing a story. The author and the act of authoring recede so far into the background as to disappear from the tale altogether, and we forget there is a vantage point from outside the narrative, that this is but one of many possible narratives.

Susanne Langer explains how new ideas sometimes take on a life of their own: "They resolve so many fundamental problems at once that they also seem to promise that they will resolve all fundamental problems, clarify all obscure issues" (as explained by Geertz, 1973, p. 3). They are snapped up, she says, "crowding out almost everything else for a while." Over time, she asserts, we start to see where the explanation doesn't fit. We see that it explains certain things very well, other things less well, and some things not at all. If we are flexible and expansive in our thinking, if we are willing to risk remaining uncertain, we practice using a story where it works and not where it doesn't, holding the narrative loosely, rather than becoming story evangelicals and proselytizing where we are not welcome.

Stories are dangerous when we forget they are fiction, when they become so comfortable that we snuggle right down into them and settle in. And any time we catch ourselves getting comfortable, we should be nervous.

CHAPTER II

CANONICAL NARRATIVES OF TEACHER KNOWLEDGE

There is an expansive body of research that attempts to catalog what teachers need to know in order to be effective in the classroom. As several comprehensive reviews of this literature already exist (see, for example, Hiebert, Gallimore, & Stigler, 2002; Rosiek & Atkinson, 2005; Wilson & Berne, 1999), in keeping with my theme of research as storytelling, I offer instead a close reading of two highly cited strands of this research, which represent the canonical stories of teacher knowledge, in order to frame what I think is a necessary and compelling revision to the story.

fragment: on the canon

Once in a department meeting in which we were discussing book lists for the following year, I mentioned that I was considering not teaching The Great Gatsby *in my American literature survey course. My statement was met with looks of incredulity around the table, at least a few gasps, and one set of teary eyes. But for the most cynical teacher in the room—the one forever telling exasperated tales about how, despite his best efforts to tell them what it was over and over and over, his students just "didn't get" the significance of Hemingway's masculine hero—my colleagues were dismayed that I would even think of leaving* The Great Gatsby *off the syllabus.*

I should say at this point that I love this novel. I love how Fitzgerald captures the most horrible human beings with the loveliest language, how he did not look away, and does not let us look away, from the depths to which humanity can easily sink when we forget to take care of one another. I've used Gatsby *to teach about everything from figurative language to the failures of the American dream; I've had students read and reread* Gatsby *through different literary theoretical lenses; I've paired it with Barbara Ehrenreich's* Nickeled & Dimed*, Depression-era photography, and imagist poetry. In my second year of teaching, I was*

told by a very senior member of the department that Gatsby *was hers and I "shouldn't be allowed to teach it."*

Giving up Gatsby *was an experiment in being committed to depth rather than coverage, in seeing if I really meant it when I asserted that it didn't matter what texts we taught because what really mattered were the skills our students developed. They would read* Gatsby *eventually. Everyone does, right? Canonical texts like* The Great Gatsby *are those about which we think, "Everyone's read that, right?"*

The trouble with the canon is that it is finite: there are only so many books that can be covered in a class or read during a summer vacation or a degree program or a lifetime. Of course, this is a depressing thought, because books continue to be written. So when we—and by "we" I mean those who edit anthologies like the Norton or Oxford, those who decide whether a book goes in the "Classics" section or the "Fiction" section, those who compile lists of the 10 best books of the year or the 25 greatest novels of the century or the 100 best books of all time—decide that a book is worthy of being part of the canon, a text that is already part of the canon has to go. Goodbye, Henry Wadsworth Longfellow. Goodbye, Carson McCullers. Goodbye, Theodore Dreiser.

Because (thankfully) the multiculturalists won the canon wars in the 80s and 90s—in spite of the determined efforts of white guys like Allen Bloom—books get ejected in order to make room for voices that have historically been silent in academic spaces, those of women, people of color, immigrants, folks who identify as LGBTQ, and so on. This inclusion is a good thing. And. And there are beautiful passages describing the silence of otherness in McCullers' The Heart is a Lonely Hunter*, which many people will never read because often she no longer makes the cut.*

Discussions of canonical literature are difficult for me because I know that my life is richer for my having read many, many highly canonical texts. And for my having read many, many non-canonical texts. It is because the notion of the canon is so fraught for me that it is productive to think about the teacher knowledge

literature in these terms. There are canonical authors in this field of educational research, and there are reasons they are so widely read. And they represent the absence of other ideas in the field: they occupy space that other ideas therefore cannot.

Delineating the Knowledge Base: The Research of Lee Shulman

In her introduction to a collection of his key essays, *The Wisdom of Practice: Essays on Teaching, Learning, and Learning to Teach* (Shulman, 2004), editor Suzanne Wilson summarizes Lee Shulman's myriad accomplishments within the field of teacher knowledge research this way:

> He delineated a knowledge base of teaching (including the introduction of key terms such as pedagogical content knowledge) and described teacher reasoning first as a process of managing complexity, shifting later in his career to thinking of teacher reasoning as entailing judgment under uncertainty. Finally, he argued for the creation of a knowledge base of teaching that included both principles or strategies generated through research and cases generated through experiences and reflection. (p. 4)

Shulman's program of research did much needed work to professionalize teaching, recovering it from process-product research and the teacher-proof curricular materials it generated. Both Shulman and those researchers following his research trajectory rightly insist that teachers add value to the educational system because we know things, and they have tried to specify those things with increasing precision.

A close reading of Shulman's account of teacher knowledge reveals a central and, I will argue, ultimately problematic assumption about the nature of knowledge. Shulman represents knowledge as a singular though complex object, what he calls "an elaborate knowledge base" (2004, p. 226). This base or body of knowledge exists, it would seem from

Shulman's language, separate from the knower: there is knowledge (out there somewhere) that teachers must both acquire and draw upon in their teaching practice in order to be effective. It is this conception of knowledge as unitary and transcendent that allows Shulman to parse it into its component parts—his delineation includes subject area content knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of learners, knowledge of educational settings and circumstances, and knowledge of goals and outcomes (p. 227)—to facilitate description and understanding. The notion that teacher knowledge can be acquired and transmitted, and that its acquisition and transmission can be measured, depends upon this transcendent conception of knowledge.

Shulman is careful to argue that the knowledge base for teaching, determined largely of content, practices, and skills that most policymakers would recognize as "research-based," is necessary but not sufficient for effective teaching. Teaching, according to Shulman, "begins with an act of reason" (2004, p. 233). The process of what he calls pedagogical reasoning involves teachers moving from "being able to comprehend subject matter for themselves, to becoming able to elucidate subject matter in new ways, reorganize and partition it, clothe it in activities and emotions, in metaphors and exercises, and in examples and demonstrations, so that it can be grasped by students" (p. 233). This process draws not only on the knowledge base for teaching, but also on teachers' ever-increasing experience, reflection, and learning, emphasizing the iterative nature of developing teaching practice.

Further Delineation: Pedagogies of Practice

There is no doubt that Shulman's reconceptualization of the teaching profession does critical work to emphasize the complexity of teaching practice, a project Pamela Grossman and her colleagues take up and extend. In "Teaching Practice: A Cross-Professional Perspective" (Grossman, Compton, Igra, Ronfeldt, Shahan, & Williamson,

2009), Grossman et al. examine the preparation programs for three different "relational" professions, teaching, clinical psychology, and ministry, in order to develop a framework for instructing novices in the professional practices of these fields, what they call pedagogies of practice. They chose these fields because of their shared goal of human improvement and because in each case accomplishing that goal "depends heavily on the quality of human relationships between practitioners and their clients" (p. 2057). These fields also require "complex practice under conditions of uncertainty" (p. 2058), which means practitioners must be able to exercise professional judgment and adjust quickly to changing circumstances. Finally, these professions are familiar to most people, and this familiarity produces misconceptions about the practice, particularly about its complexity.

Grossman et al. identify three concepts in their examination of professional preparation programs in these fields: representation, decomposition, and approximation. In the professions examined here, preparation involves exposure to a wide array of representations of practice; for example, student teachers consider narrative, photographic, and video accounts of classrooms, teaching practice, and practitioner thinking, and spend time observing classrooms directly. Each of these representations necessarily highlights certain components of teaching practice and makes others invisible, however, and any representation can be interpreted in more than one way, so student teachers, with the guidance of an instructor, should be given the chance to debrief and examine the representations critically.

Decomposition of practice involves breaking the practice into component parts and allowing novices to develop their skills at the constituent parts before reintegrating them. The first step in decomposing is "making facets of practice visible to novices" in order to help novices "develop a kind of professional vision" (Grossman et al., 2009, p. 2069), which

involves exposing novices to the technical language of the profession. These researchers note that "there is a certain amount of artifice in the task, but the artifice serves a pedagogical purpose" (p. 2075), and that decomposition presents the necessary challenge of recomposition, both of which, it would seem, need to be made plain to students.

Approximation involves low-stakes opportunities for novices to practice the components of the profession, particularly as these allow them to make and learn from mistakes, what Grossman et al. term "instructive failure" (Grossman et al., 2009, p. 2077). These researchers make the excellent point that the solution to the inauthenticity of university-based preparation programs is not a model that is entirely field-based, "given that practices in the field can often reinforce the status quo and even counter the teachings of the professional preparation program" (p. 2076), but do caution that approximations should increasingly match the demands of actual practice.

Both Shulman's process of pedagogical reasoning and Grossman's framework for pedagogies of practice forward the idea that teacher thinking is complicated and dynamic, shifting the attention of researchers from teacher practice to teacher thinking, but the story this strand of teacher knowledge scholarship tells is limited by its reliance on a concept of knowledge as transcendent. Three problematic assumptions inhere in this conception.

First, though this field of research does not intend to offer up a formula for teacher knowledge, parsing a complex concept into component parts often becomes formulaic in its application. For example, the work sample template used in the teacher preparation program at the University of Oregon, UOTeach, includes a "Reflective Self-Evaluation." To receive full credit, a student's self-evaluation must show "considerable insight and depth, [and the] ability to be constructively self-critical" (UOTeach Program Handbook Assessment Addendum, 2014). Self-reflection has been made measurable—it is worth 4 points out of a

possible 68—and external—the degree to which a student is appropriately insightful, deep, and constructively critical is determined by the student's site supervisor—which runs counter to Shulman's description of reflection as a "set of processes through which a professional learns from experience" (2004, p. 241), a process that is iterative and personal. Put another way, this narrative makes possible a reductionist view of the work of teaching, one that is too easily quantifiable; teachers, like students, become merely the sum of the measurements of their knowledge.

Second, the notion of knowledge as existing in and of itself, somewhere outside of or beyond the material world, demands that knowledge be representable in order to be accessed by knowers. As I discussed briefly in Chapter I and will discuss in more detail in Chapter III, it is this conception of knowledge that is challenged by feminist scholars such as Karen Barad (2007), who calls us to attend not to representations of knowledge as a thing, but to the "specific agential intra-actions [through which] boundaries and properties of the 'components' of phenomena become determinate and [through which] particular embodied concepts become meaningful" (p. 133).

Barad's account problematizes both the conception of teacher knowledge as an object, and the work of educational researchers to represent it accurately. For example, Grossman's framework for teacher preparation relies heavily on the accurate representation of teaching practice. While she raises one limitation to this approach in an introduction to a special section of *Teachers College Record* on teaching practice (2011), noting that "no representation can be complete," she does not develop this concern further, instead asserting that "the important questions in looking at representations of practice include the nature, range, and use of these representations across a professional curriculum—what they enable novices to see and learn and what they leave opaque" (Grossman, 2011, p. 2838). While

these are indeed important questions, they should not displace other, perhaps more fundamental ones. Which representations count as pedagogically useful? And who gets to decide? What does it mean to construct a knowledge base on a foundation of representation, given how thoroughly representation has been problematized in social science research? What would be made possible by considering knowledge not as an object but as a relation, as emerging rather than transcendent? What becomes visible when we consider the canonical story of teacher knowledge as constitutive of one particular reality, as a particular apparatus that makes meaningful one kind of object, and notice that this constitution is not inevitable?

When we imagine story as apparatus, we must contend with how it is necessarily intra-acting[14] with other apparatuses and is "constituted through particular practices that are perpetually open to rearrangements, rearticulations, and other reworkings" (Barad, 2007, p. 134). In this story, the "world is an ongoing open process of mattering through which 'mattering' itself acquires meaning and form in the realization of different agential possibilities" (p. 135), and so we must examine the ways in which teacher knowledge has been made to matter in a particular way, using a particular apparatus, to forward particular meanings, which make possible particular agential possibilities, all of which could be otherwise.

Third and finally, because a conception of knowledge as transcendent necessarily refuses emergence, teacher knowledge research and teacher preparation programs that take transcendent knowledge as given cannot adequately account for how ways of knowing and being emerge from the intra-action of agents, both human and non-human, in any

[14] Barad uses this neologism in contrast to *interaction*, "which assumes that there are separate individual agencies that precede their interaction"; *intra-action* instead "recognizes that distinct agencies do not precede, but rather emerge through, their intra-action" (2007,p. 33).

classroom. This limitation shows itself mostly clearly in the under-theorizing of decomposition and recomposition.

In "Learning from Curriculum Materials: Scaffolds for New Teachers?" (2008), Grossman and Thompson examine the impact of early exposure to particular curricula on classroom practice, discovering that "even when [new teachers] were aware of some of the limitations of particular curriculum materials, their need for guidance often overcame their reservations" (p. 2019). Drawing on Ball and Feiman-Nemser's findings that professors in teacher preparation programs tended to disparage pre-packaged curriculum units, encouraging student teachers to develop their own materials instead, Grossman and Thompson observe that novice teachers learn how to critique already existing curricula rather than "how to adapt them for wise classroom use" (p. 2015). Though they don't name it this way, Grossman and Thompson are pointing to a fundamental disconnect between how curriculum is often examined in teacher preparation programs—with an eye only for critique and dismissal—and how curriculum informs classroom practice—early adoption of curricular materials significantly shaped new teachers' "ideas about language arts as well as their classroom practice" (p. 2020).

This same disconnect seems likely in the use of decomposition, given the lack of attention to recomposition in this framework. Grossman et al. use a grammar analogy to explain that "decomposition makes visible the grammar of practice to novices and may require a specific technical language for describing the implicit grammar and naming the parts" (2009, p. 2069). This analogy shows how decomposition works to isolate and identify "teacher moves" in order to make them more visible to the novice practitioner; however, this way of looking overlooks a critical aspect of grammar, that it does not pre-exist language but emerges in language. Put another way, students are often taught to identify the structure

of correlative conjunctions, and perhaps even to imitate that structure in individual sentences, but this learning does not necessarily mean they can incorporate them appropriately into essays and stories, and does not capture the way in which correlative conjunctions are determined by or emerge within an argument that invites their use. Similarly, novice teachers need practice recomposing discrete moves into ways of being in the classroom, which are more than the sum of their parts, and need practice thinking of teaching as emergent, as not existing outside of relationships and the materials of the classroom.

fragment: safety is overrated

My transition from teaching high school students to teaching teachers began when I was tasked with co-facilitating New Teacher Training, which at The Emery/Weiner School consisted of two half-day workshops before the school year began and ongoing brown-bag lunch meetings throughout the school year. We spent much of the first workshop day figuring out the madness of the rotating schedule and discussing what it was like to plan around the various Jewish holidays that semester, all of which fell mid-week and meant we had a total of thirteen instructional days in the month of October. Eventually we moved into talking about setting the tone, drawing up a syllabus, developing rules or guidelines or protocols (and debating the differences between these terms). We talked in the abstract mostly, as only two of these new-to-Emery teachers had ever taught before. Over the weekend, my students drafted course syllabi to share for feedback.

In our second session, I answered questions about how much homework to assign and how to find out what students already know about a topic. But mostly I encouraged, attempted to reassure, to assuage anxiety. I told them to be themselves, to be prepared to adjust, to hold their plans loosely at first until they got to know their students and what they were capable of. I noticed how the new math teacher pretended to know way more than she did to cover up her nerves; she would quickly become intractable, imposing rigid systems onto

struggling students, not seeing their fear of not being able to do the equations in front of them, because she was so purposefully not noticing her own fear. I saw that the new theater teacher was going to rely too heavily on her looks and humor and then would have boundary issues. I knew the new art teacher was going to face some resistance in her commitment to rigor in her discipline, but that she would win students over slowly, with her passion for visual art and her fundamental belief in the ability of students to become self-expressed.

Over the year, we talked about structuring lessons, using the formula offered in the text Explicit Direct Instruction *(Hollingsworth & Ibarra, 2008), usually referred to as EDI. It is a text designed to reassure the new teacher: it has pull-out boxes and ovals that define terms and highlight important take-aways; it is full of boldfaced phrases and mnemonic acronyms; it offers a handy diagram at the beginning of each new chapter, so learners can track their progress around the circle of designing good lessons that promise to make sure all students can learn. It leaves nothing up to the reader, showing them what to attend to and what to skim over, sparing them the work of thinking for themselves. It scared me even as I was presenting it, mostly because of how readily, how desperately, it was taken up by my new-teacher students.*

*EDI is a product of the No Child Left Behind best practices fetish, and is "supported" by research that does indeed demonstrate that if teachers TAPPLE (**T**each first, **A**sk a question, **P**ause, **P**ick a non-volunteer, **L**isten to the response, **E**cho, elaborate, or explain as necessary) appropriately to Check for Understanding (CFU), they can churn out students whose achievement, as measured by standardized tests, shows marked improvement. And after all, isn't that what education is all about?*

But it isn't, of course.

When I asked my research collaborators to talk about learning objectives, how they thought about their goals for a course, their aspirations for their students, most of them admitted to being pretty bad at generating the kind of objectives they knew they were supposed to write at the top of their syllabi, but they were all able to name what they wanted for their students. None of them were things that could be TAPPLEd. But when I

led the students in my methods course through a similar conversation about objectives and goals, standards and values, the distinctions between them, I lost most everyone. They just wanted to write some SWBATs[15] *according to the formula and be done with it, to pull some objectives from the state standards and "sprinkle them throughout" their lesson plans. They were convinced the language of their objectives didn't matter, that they would be able to work around or against them with no problem. One student said, as though it were this simple, "I'm just going to teach students to think critically and passing the state exams will take care of itself."*

Formulas make us feel better, they convince us that we're going to be okay, that we can follow the pattern and we won't screw up the young people sitting in front of us, or not too badly or too permanently, anyway. We won't be responsible for inflicting harm because we're doing what works. Checking for understanding works. Wait time works. Calling on non-volunteers works. The research says so. Formulas like EDI provide new teachers with a much needed safety net.

But safety is overrated.

It isn't enough to describe teaching only in terms of what we know, particularly when that knowledge must be quantifiable to count as knowledge. Such knowing is necessary, but it isn't enough.

From Knowledge Base to Worldview: The Research of Marilyn Cochran-Smith & Susan Lytle

In an early article, "Teacher Research as a Way of Knowing" (1992), Susan Lytle and Marilyn Cochran-Smith make plain their corrective project:

> In this article, we argue that educators need to develop a different theory of knowledge for teaching, a different epistemology that regards inquiry by teachers

[15] This is the acronym for the formulaic language that begins most learning objects, "Students will be able to…."

> themselves as a distinctive and important way of knowing about teaching. From this perspective, fundamental questions about knowing, knowers, and what can be known have different answers. Teachers are among those who have the authority to know—that is, to construct "capital K" knowledge about teaching, learning, and schooling. And what is worth knowing about teaching includes what teachers, who are researchers in their own classrooms, can know through their own systematic inquiry. (pp. 447-448)

Like Shulman, these researchers seek to establish the complexity of teaching practice over and against dominant narratives that oversimplify and minimize the work of teachers, to position teachers as thinkers and knowers who add value to the educational system, and to make the case that teachers matter. However, to do so, Lytle and Cochran-Smith take up the troubling notion of "capital K" knowledge, which seems at odds with their choice of the verb "construct." Again, like Shulman, they position knowledge as transcendent; what is worth knowing about teaching already exists, is out there—wherever there is—to be discovered by researchers, and all that's needed is to include teachers in the term researchers. I will return to this concern after tracing how this corrective narrative is developed over Cochran-Smith and Lytle's further research.

Cochran-Smith and Lytle's research program is synthesized in the book *Inquiry as Stance: Practitioner Research for the Next Generation* (2009), in which they describe the research on teacher knowledge in three strands: knowledge-for-practice, knowledge-in-practice, and knowledge-of-practice. The first two strands represent the common distinction between formal knowledge—the stuff that educational researchers know—and practical knowledge—the stuff that classroom teachers know; knowledge-for-practice privileges formal knowledge, while knowledge-in-practice privileges practical knowledge. Knowledge-of-practice, on the

other hand, is of a different sort altogether and arises when the knowledge generated by educational researchers becomes "generative material for interrogation and interpretation" by classroom teachers, who "learn when they generate local knowledge *of* practice by working within the contexts of inquiry communities to theorize and construct their work and to connect it to larger social, cultural, and political issues" (p. 250).

Knowledge-of-practice positions inquiry as a way of looking, as a worldview, rather than as merely the task of inquiring, which sets up the work of teaching not as an epistemology but as an ontology in which inquiring is a way of being and knowledge becomes contingent, fragile, and temporary (i.e., always subject to further inquiry). As such, an inquiry stance invites innovative methodologies that consider teachers as sources not only of representations of teaching, but also of theories of teacher knowledge, without uncritically attributing authority to first person experience. That is, because an inquiry stance foregrounds interrogation and interpretation, even teachers' experiences in the classroom are texts that require close reading.

This position, however, is slippery ground, and risks an endless regress into inquiry that makes it difficult for educational researchers to produce the kinds of assertions that seem necessary for changing educational policy. Cochran-Smith and Lytle retreat from the radical uncertainty that is central to knowledge-of-practice into the foundational stability of critical theory, which allows them to offer, for example, a well-grounded critique of No Child Left Behind. While this move is both understandable and arguably necessary to forward the project of school reform, it is not sufficient. The emancipatory project of critical theory requires capital-K knowledge, presumably the knowledge of those who have identified and cast off the lens of the dominant ideology. An inquiry stance, on the other hand, would seem to resist a transcendent notion of capital-K knowledge, replacing it with

lowercase and plural knowledges, which, it would seem, would bring us closer to coming to terms with Shulman's assertion that "the essential feature of teaching is its uncertainty and unpredictability" (2004, p. 464) and Grossman et al.'s description of teaching as practice "under conditions of uncertainty" (2009, p. 2058). Put another way, an inquiry stance would necessitate a more rigorous accounting for uncertainty.

An Inquiry Worldview at Work

Erickson (2014) develops what an inquiry stance might look like in his "modest proposal"[16] for replacing research-based practice with practice-based research; he argues for a form of continuing inquiry in educational research based on the Aristotelian notion of *phronesis*. Erickson begins by describing how current educational reform policies are tied to a particular research paradigm: "We find out 'what works' in a few settings, using the Gold Standard of a randomized field trial of a model of educational practice, identifying and tracking measurable outcomes of the practice" (p. 2). Then we can *scale up*, replicating the practice in other settings, and as long as we have *fidelity of implementation*, we should see the same outcomes as we found in our clinical trial. The presumption is that so-called best practices "are easily exportable on a large scale, if teachers and building principles will only do what they are told to do" (p. 2). This, Erickson argues, is the newest incarnation of scripted curriculum.

As Erickson notes, a fundamental problem with this thinking is that it "requires of the future that it not be original; that it holds still" (2014, p. 3), which, of course, it doesn't. Even in the hard sciences, this research paradigm falls short. In the field of medicine, for example, to which educational researchers are often directed for a model of the smart use of

[16] Erickson's title, "Scaling Down: A Modest Proposal for Practice-based Policy Research in Teaching," alludes to Jonathan Swift's satirical essay, though Erickson opens by noting that his critiques and challenges are not at all modest.

clinical trials (see my discussion of this analogy in Chapter IV), "the attempt to discover general laws…does not work nearly as well as the early proponents of 'research-based practice' in medicine had hoped" (p. 3). This is because doctors do not set out to heal everyone or treat a disease in general, but to help "a particular patient who manifests that disease in particular, situated ways"; similarly, teachers do not teach children in general, "but particular children in particular circumstances of learning and teaching in classrooms and in community life" (p. 3).

While clinical trial research used to develop treatment protocols is certainly one source of information for practicing doctors, it is not the only necessary information for successful patient care. Similarly, education policymakers must realize that the practice of teaching involves more than clinically-tested instructional protocols. Like doctors, teachers use "clinical judgment," which should be supported by "serious investment in long term continuing professional education" rather than replaced with "simple compliance to administrative fiat" (Erickson, 2014, p. 3).

Erickson's notion of clinical judgment, while similar to Shulman's pedagogical reasoning and Grossman's language of using professional judgment to adjust to changing circumstances, moves us closer to sustaining an inquiry stance by providing specific methodological suggestions. Educational researchers and policymakers must give up on attempting to identify universal best practices by means of clinical trials in order to scale up via fidelity of implementation. Rather, we should be attending to

> "Pretty Good Practices" that can be identified, and described in specific enough detail by qualitative researchers, including teachers themselves, so that other teachers could understand what those practices looked and felt like and could try them out in their own classrooms. (2014, p. 4).

Educational practices, in this view, cannot be scripted, but must be tried out, experienced, felt, inhabited, and adapted to the local circumstances. Low fidelity of implementation should not be taken as a failure of teachers to follow directions, but "as the possibility that local adaptation is being done ingeniously" (p. 5).

Local adaptation requires "continuing inquiry" (2014, p. 5), or, to use Cochran-Smith and Lytle's term, the cultivation and maintenance of an inquiry stance. Erickson, drawing on Aristotle, calls this *phronesis*, "the prudential knowledge of local circumstances gathered by wise governing officials order to make local policy decisions"; this way of knowing stands in contrast to *episteme*, or the "knowledge of things in general" (p. 5). *Phronesis* requires iterative inquiry, whereas *episteme* requires description and specification; *phronesis* embraces unpredictability and indeterminacy, while *episteme* positions these as troubling indications that our research isn't designed properly or is not generalizable.

Erickson demonstrates how an inquiry stance might be put to work in educational research, encouraging us to hold the notion of a knowledge base loosely and pay attention to teaching as a local and emergent practice. This shift in research paradigm would answer Patti Lather's call for "practices that exceed the warrants of our present sense of the possible" (2007, p. 36), and move towards "a deconstructive problematic that aims not to govern a practice but to theorize it, deprive it of its innocence, disrupt the ideological effects by which it reproduces itself, pose as a problem what has been offered as a solution" (p. 127). We must maintain a suspicion of, if not give up altogether, the project of building the capital-K knowledge base for teaching. Rather than backing away from the radical unknowability that inheres in an inquiry stance, in pedagogy practiced under conditions of uncertainty, educational research must find ways to make that unknowability more intelligible to practitioners, to student teachers, to teacher educators, and to policymakers.

Supplementing the Canon: A Mix-Tape

What these canonical accounts of teacher knowledge have in common is a transcendent conception of knowledge. Though I appreciate the work such a conception did to establish teachers as both knowledgeable and capable of producing new knowledge about teaching practice, these narratives do not offer educational researchers and teachers adequate means to resist the reductionist push of the standards-and-accountability movement to quantify effective teaching. Put another way, as it is conceived of in these narratives, teacher knowledge is too tidy, which makes it too easily taken up into standardized measures. The canon of teacher knowledge research needs to be expanded to include research *from the side of the messy* (Lather, 2010), "that pays attention, simultaneously, to language, bodies and material conditions, to present a mix of interpretations versus seeking consensus, both finding patterns and opening up closures, to show the problems with all efforts to represent reality" (p. 10). In what follows, I will offer a mix-tape of research from the side of the messy.

fragment: I wear black on the outside

I've read several novels in the last few years that include in the acknowledgements a list of songs the writer was preoccupied with during the writing process. The soundtrack for this project is The Smiths, specifically Complete, the box set of all eight of their albums, remastered and packaged in replicas of the original vinyl covers. As it happens, this boxed set was released the week I began my doctoral program, so had I discovered it sooner, it could have been the soundtrack for my Ph.D.

In high school, I parted company with the boy bands of my decade, Duran Duran and Wham!, and followed a girl I met at summer camp into the world of goth rock. I threw out my pink eyeshadow and practiced with

black liquid liner; I dyed my hair black and started shopping at thrift stores for black dresses to pair with my strategically shredded black tights. I cultivated angst, and wore black to match.

Fashion-wise, it was a brief flirtation, and the angst was even more short-lived (my mother remembers only my 15th year as particularly dreadful), but the music stuck, fueled by my friends Mel and Skylar. They kept me supplied with mix-tapes, mostly compiled from the indie college radio station's 10 p.m. til 2 a.m. playlist.

It makes sense that this project called for The Smiths, as it has been ansgty from its inception. School is a dark topic, it turns out, when you really look carefully.

> *What makes most people feel happy*
> *Leads us headlong into harm*
> ~ *"Paint a Vulgar Picture," The Smiths*

A good mix-tape works on several levels. First, it is a survey, a sampling; it gives a taste and invites the listener to seek out more material by the artist of a particularly seductive track. It also gives away a great deal about the person who compiled it, though more as a sense of someone than any specific information about them. Any mix-tape requires careful selection from many possible tracks, and a good one, carefully selected and sequenced, is more than the sum of its parts: it adds up to something bigger. This analogy works for me on all these levels as I engage with emergent teacher knowledge research, too new to have taken hold in the larger conversation, but promising when considered together. Shulman, Grossman, Cochran-Smith, and Lytle are the Top 40 of teacher knowledge; this mix is more late-night indie college radio.

Track 1: Tobias Roehl. Tobias Roehl, in "Disassembling the Classroom: An Ethnographic Approach to the Materiality of Education" (2012), uses Latour to argue that we must account for the material in classroom spaces and teacher thinking because classroom materials do things; they are not merely "carriers of meanings or means to an end," but "entities that make a difference" (p. 114). For example, textbooks are objects that make a difference. Whether we teach with them or against them, what we teach is constrained by the texts we use; whether they are situated as protagonists or antagonists, they are characters in stories of school.

Roehl examines several other examples in detail, desk arrangement—"in their chairs and at their desks, the students' bodies are aligned in such a way that the direction of their gaze is prefigured toward the teacher and the blackboard" (Roehl, 2012, p. 114)—and the blackboard—"since the blackboard is visible from all places at the desks in the classroom, collective seeing is made possible" and the blackboard becomes a site for "official" knowledge (p. 115), to forward a concept of the classroom as "socio-material assemblage" (p. 110). In this assemblage, classroom materials invite students to be in relation to them and constrain what versions of being and relatedness are possible.

Track 2: Hillevi Lenz Taguchi & Anna Palmer. Like Roehl, Lenz Taguchi and Palmer (2013) attend to the material in educational spaces, though using Barad's agential realism rather than Latour's network theory. Specifically, they examine how girls' ill-/well-being is produced by a variety of performative agents "understood to be entanglements of discourses, places, materialities and embodied practices in or connected to the school environment" (p. 672). This way of considering the issue stands in contrast to the dominant discourse about girls' school experiences, which locates the responsibility for ill-/well-being entirely on the girls themselves.

fragment: personal diffraction/distraction

I remember hearing Hillevi and Anna present about this work at my very first session at my very first AERA. Their use of images and the creativity of the presentation itself made me excited about the possibility of producing innovative work, an excitement that waned rapidly as the conference went on and I sat through scholars reading from (often poorly edited) PowerPoint slides. Not that those slides didn't represent innovative work, but the innovation was hidden by the limited set of tropes acceptable in the academy.

Re-reading this article for my literature review, I was reminded of the first time I had to make a presentation about my research interests. It was in the spring of my first year as a doctoral student, just weeks after that invigorating and depressing trip to AERA, and my research interests were haphazard and hard to name. And yet name them I had to, in a series of assignments that culminated in a presentation to not only my colleagues but also several faculty members. The professor called us up to present in alphabetical order.

I have tremendous anxiety about public speaking, which, in more than a decade of teaching, I've learned to manage by various strategies, one of which is volunteering to go first or second. Getting it over with means I have to expend less energy keeping my terror under control. But my last name put me near the end of the line-up in my cohort, and so I sat for more than an hour, watching the professor interrogate my colleagues, asking questions of their work I knew I couldn't answer about my own. By the time it was my turn, my blood pressure was so high my ears were ringing; I have no idea what I said or how I answered any questions or if there even were any questions. I had to leave early, and I seriously considered asking my partner to drive me to the emergency room. Later one of my colleagues told me how hard it had been for him to watch my distress.

Hillevi and Anna write about how their research about the stress experienced by schoolgirls inevitably invoked their own experiences with work-related stress, and they share a bit about their own "self-treatment

programmes" (2013, p. 675). One of mine involves French fries, which is how I soothed myself after that seminar (not the best strategy, perhaps, given the whole blood pressure thing).

This particular piece of research is like a set of bookends on my career as a doctoral student: I encountered it in my first year and I return to it now, profoundly changed. Reading it this time, I feel my heartbeat speed up at each excerpt from a girls' story about school-related anxiety. At the point in the article that discusses how this anxiety is considered by psychologists and social services workers as the responsibility of the girls to manage, I stop reading and stare out the window.

I realize that I have acquired four healthcare providers, one for each year of this program, to continue to function as a student. I realize that I can't afford both the conference travel seemingly required to establish myself as a scholar and to increase my job prospects, and the healthcare required to sustain myself as a scholar and finish my dissertation. I perform a cost-benefit analysis of each component of my "self-treatment programme" to see where I get the most bang for my buck—a warmongering idiom I despise, perhaps appropriate for the analysis I am despising—and decide what I can reduce and what I can remove. I realize that these cost-saving measures might cost me other things, but since those things don't matter inside my present institutional apparatus, they can't matter to me at present.

I realize I've been staring out the window for fully thirty minutes, and I get back to work.

Lenz Taguchi and Palmer (2013) argue that examining any school-related issue or experience by locating it entirely on the body of the student is inadequate, and that we must attend to such as phenomena in the Baradian sense, as the product of "an entanglement of multiple performative agencies" (p. 673). In their example of diffractive analysis, Lenz Taguchi and Palmer account for "thinking, seeing, and knowing" together (p. 676) as they work bits of data into and through other bits and other reading and the prevailing discourse about schoolgirls and their own experiences as high-achieving women, to claim that "the

phenomenon of school-related ill-/well-being can never be an individual affair; it is rather a collective and distributed phenomenon that engages multiple performative agents that are collectively responsible for counteracting practices as well as prevention" (p. 684). The same could be (and should be) said about students' academic achievement, often unproblematically assumed to exist somehow separate from the instruments that purport to assess it. Over the last decade, the responsibility for achievement has shifted off of students' bodies, first onto families and now onto teachers, but it is still rarely considered as a phenomenon produced by intra-acting agents inside material-discursive apparatuses[17].

Track 3: Deborah Osberg & Gert Biesta. In their article, "The end/s of education: complexity and the conundrum of the inclusive educational curriculum," Osberg and Biesta (2010) take on a conundrum: "the more difference and diversity regular education is able to bring within its realm (the more inclusive it is in practice), the more it perpetuates the cultural exclusions of the existing order (the less inclusive it is in principle)" (p. 594). These authors survey three brands of humanistic approaches to education, liberal, Romantic, and critical, to demonstrate how all three function as normalizing forces to lead everyone "to conform to *someone's* idea of the 'good' society" (p. 596). A particular understanding of curriculum, which Osberg and Biesta hope to disrupt, forwards this normalizing work.

Osberg and Biesta draw a distinction between two understandings of causality, object-based and complex. Object-based causality is deterministic and linear, and "the various states that a system can be in must be understood as discrete, separated not only from other things in space, but also from each other in time" (2010, p. 597). It is possible, in a deterministic system, to know each component of a given process as distinct from other

[17] It is important to note that there are scholars who reject the move to locate responsibility for failing schools on students or teachers' individual bodies, and instead insist that educational reformers attend to macrosocial issues such as systemic racism and poverty (see for example, Berliner, 2013; Darling-Hammond, 2013; Ladson-Billings, 2013).

components, and to determine the rules that govern the process as a whole. When education is conceived of as an object-based system, the implied trajectory involves moving a student from one state, being uneducated, to another state, being educated, by means of some curriculum (understood here as both content and pedagogical practices). This is what Osberg and Biesta call an "ends-oriented understanding" of education, which "underpins every form of education where the end of intention of the educational intervention is pre-defined" (p. 601).

The current obsession with college and career readiness is certainly an ends-oriented understanding of education that falls into the liberal humanist model: to be human is to be "a rationally autonomous agent" (p. 2010, 595), college and career ready, poised to become a good consumer. By specifying the outcome in advance, the educational system "is hostile to those who cannot live up to the norm of rational autonomy, hostile to those whose humanity is not represented by this definition" (p. 595). Given how this article is situated in the debate about inclusive educational practices, Osberg and Biesta take mental illness and disability as their examples. I would argue more broadly that the human subject imagined by our school system, in addition to being mentally and physically able, is white, male (cis-gendered and gender-conforming), at least middle class, likely Christian, and a willing participant in a capitalist economy. Curriculum, particularly as it is constructed inside standards-and accountability culture, is understood to be the educative means towards this end.

In contrast to and as a critique of object-based systems, Osberg and Biesta offer what they call complex systems, systems that have "no distinct boundaries," are "dynamic rather than static, [existing] only in the interaction *between* things," and are recursive, "with feedback loops facilitating interaction between 'prior' and 'subsequent' stages" (2010, p.

597). Because the spatial and temporal boundaries present in object-based systems are missing in complex systems, it is impossible to predict what causes the process to move forward and, thus, to determine universal laws that govern the process.

Instead, chance is "a causal factor, and operator, in complex processes" (2010, p. 598), and "the trajectory of the process becomes radically indeterminate" (p. 599). Rather than working only as an ends-oriented process of normalization and control, education understood as a complex process "is fundamentally open-ended" and exists "in dynamic interaction…with elements 'outside' the system" (p. 603). This dynamic relationality is "a space of responsiveness" (p. 604), not in a mechanistic sense but in the sense of there always being multiple possibilities to choose among. In this space of complex responsiveness, the curriculum does not guide towards a pre-defined end, but "through the presentation of alternatives which complicate the scene, unsettling the doings and understandings of others and demanding the exercise of critical choice" (p. 604).

Track 4: Tara Fenwick & Richard Edwards. Fenwick and Edwards take up complexity in educational policy, drawing on Stephen Ball's term, "wild profusion" (Fenwick & Edwards, 2011, p. 709) to describe the variety of local enactments of educational policies. They argue, using Actor Network Theory (ANT), that while "policymakers have tended to reach toward greater standardization, coordination, and integration in attempts to align implementation more closely with intention" (p. 709), the actual local enactments of policy are more of an "ongoing *bricolage* of endless enunciations, negotiations, resistances, and reconfigurations" (p. 713). Paying attention to the network of actors, their interests, and the particular circumstances that drive local enactment moves us beyond considering multiple perspectives to seeing how "we are part of multiple worlds, or 'reals,' that coexist and overlap, patched together in the same material spaces" (p. 710).

This fluctuating *bricolage* is temporarily stabilized by "texts that transport policy" (2011, p. 711), of which Fenwick and Edwards consider several examples from educational research grounded in ANT, including a Canadian curriculum policy and New York City schools' implementation of components of No Child Left Behind. They also discuss two studies that examine large-scale assessments, the International Adult Literacy Survey (IALS) and the Program for International Student Achievement (PISA), demonstrating how such measuring devices determine and fix a particular conception of knowledge. This process becomes "black boxed and naturalized" and what is measured by the IALS, for example, becomes representative of literacy itself (p. 717). Finally, what assessments like IALS and PISA, illuminate becomes visible as what matters: "Visibility is directly related to value" (p. 712).

Using ANT, Fenwick and Edwards surface the workings of power inside educational policy enactment, specifically the ways in which data production via standardized assessments becomes governance as "the system [becomes] accountable to data production rather than student learning" (2011, p. 718), which also shows points of precariousness. That is, policies and assessments that appear to be all-encompassing and powerful, "actually depend upon provisional linkages that can be interrupted, weakened, and even refused" (p. 719)[18].

As I will argue in more detail in Chapter VI, in the current climate of increased surveillance of teachers via federally mandated teacher evaluation systems and standardized assessments of teacher proficiency, it is not enough to insist that teachers have professional,

[18] I would offer the current parental opt-out movement as one example of the refusal made possible by attending to how a particular assessment is embedded in a larger network of knowledge and value production. School systems, it would seem, assume parents are opting in simply by sending their children to school, and all manner of decisions about curriculum, instructional and behavioral management practices, and assessment are "black boxed and naturalized" (Fenwick & Edwards, 2011, p. 717). That parents can challenge any of the nodes of this network often comes as a surprise as long as the network and its mechanisms of power remain unseen.

pedagogical, and content knowledge. We must also carefully consider how the representations and measuring instruments that purport to capture this knowledge make visible, and therefore valuable, certain understandings of teaching to the exclusion of others. As Fenwick and Edwards argue, we must "focus on the mess, disorder, and ambivalences that order phenomena and not try to reduce them to tidy explanations" (2011, p. 719). Those reductions, I would add, hide both the mechanisms of power and the possibilities for resistance and refusal.

Track 5: Elizabeth de Freitas. In "The Classroom as Rhizome: New Strategies for Diagramming Knotted Interactions," de Freitas (2012) examines how the diagrams used in much educational research enact the linearity challenged by Osberg & Biesta (2010), and offers instead a view of diagrams "as a creative force rather than a reductive one" (p. 557). Following the work of other feminist methodologists who draw on Deleuze and Guattari "to criticize the reductive arboreal coding habits of most educational research, whereby linear models of growth are imposed on complex rhizomatic processes" (p. 557), de Freitas imagines a rhizomatic diagramming technique "that amplifies and ramifies and multiplies that which it engages" (p. 558).

Like other scholars on this mix-tape, de Freitas also reaches for Latour, who posits that "our diagramming practices actually constitute and control what is taken to be visible (and invisible)" (2012, p. 558), and, thus, valuable. As the Teacher Story is used in teacher preparation, so too the diagram is used in educational research to simplify and essentialize, reducing complex, recursive, entangled interactions to boxes and lines. de Freitas offers Deleuze and Guattari's rhizome as an alternative model for mapping the classroom; in contrast to the hierarchy and linearity of trees, which Deleuze and Guattari call the arboreal model, rhizomes are nonhierarchical, containing both "'lines of segmentarity' by which [they

are] stratified and territorialized and doused in signification, but they also contain lines of flight or lines of deterritorialization" (p. 561). These lines of flight, which always loop back to the rhizome, serve to disrupt "patterns of growth that may have become entrenched" (p. 562).

de Freitas thinks about the classroom as "rhizomatic assemblage" in order to account for its "many kinds of agents or nodes aside from human," such as "the blackboards, the projectors, the furniture, even the announcements over the intercom" (2012, p. 562). Mapping the classroom as rhizome allows us to "reimagine agency as distributed across the surface of these rhizomatic alliances," and, as Fenwick and Edwards (2011) similarly suggest, see that "power is not distributed evenly across the surface of an assemblage" (de Freitas, 2012, p. 562). de Freitas experiments with knot diagramming, a form of topological diagramming that "shifts our attention away from concepts of measure and rigid transformation (like linear causal links) and focuses on the stretching and distortion of continuously connected lines and regions" (pp. 564-565), making the case that "the knot is like a rhizomatic assemblage" (p. 565).

As an English major, I must admit my lack of familiarity with the rules of formal mathematical knot diagramming that de Freitas breaks with in her classroom entanglement maps. But while the nuances of her knots are lost on me, the implications of her experiments with diagramming are not. Logic models and conceptual maps abound both in educational research and in reform programs[19], and de Freitas' knot diagrams are an example of a much needed move away from essentialized descriptions and diagrams of teaching and teacher knowledge, of educational spaces and practices, and of schools and schooling. Too often educational researchers and policymakers rely on concepts that are easily described and

[19] I will look at one local example, the TeachOregon logic model, in Chapter VI.

evidence-based, to the exclusion of concepts that are confusing, difficult to grasp, and perhaps impossible to describe in tidy stories and diagrams. de Freitas' knots imagine new possibilities for making the messy more visible and, thus, more valuable in educational research.

Track 6: Lisa Weems. There comes a point in a good mix-tape to introduce an unexpected track, one that makes the listener wonder or think its inclusion a bit of a stretch. Weems' "From 'Home' to 'Camp': Theorizing the Space of Safety" (2010) is that track. Here Weems puts transnational feminism, queer theory, affect theory, and post-structural frameworks of space to work in a reconsideration of the classroom-as-safe-space trope, arguing that "educational spaces that are presumed or designed to promote equity, inclusion, and/or social justice" are themselves contested spaces (p. 558). That is, the safe-space trope is often enacted around the prevailing metaphor of school as home, which Weems traces in other articles (1999, 2004) and situates as reinscribing "imperialist narratives of whitening, rationalizing and desexualizing" the unruly bodies of students (p. 560).

Through a careful analysis of three iterations of camp—as queer drag, as extracurricular space (i.e., summer camp), and as shelter (i.e., camp for dislocated persons)—Weems asserts that "spaces of refuge are not outside of the historical, political, and social networks of meaning and action governed by asymmetrical relations of power" (2010, pp. 561-562). Weems uses Gay-Straight Alliances (GSAs) as an example of spaces that, while "safe" for gender-nonconforming students and students who identify as sexual minorities to "congregate, rally and mobilize a collective identity," are also spaces of "other forms of epistemic violence," in particular "white supremacy, homonormativity (through a collective focus on marriage rights and/or other assimilationist projects) or a depoliticized understanding of sex/gender/desire as a locus of social control" (p. 566).

In this analysis, Weems reminds us of the importance of interrogating well-intentioned classroom practices, many of which are evidence-based and catalogued as "what works." For example, Standard 2 of the Oregon Professional Standards for Initial Teacher Licensure, represented to teaching candidates in both a midterm and final assessment in each of their terms of student teaching, includes these five sub-standards for creating ideal learning environments:

a. The candidate creates and maintains environments that support individual and collaborative learning and encourages positive social interactions.
b. The candidate creates and maintains an environment that promotes active engagement in learning and self-motivation.
c. The candidate establishes a safe and productive learning environment that includes clear expectations, routines and structures.
d. The candidate shows respect for all students and various student cultures.
e. The candidate establishes an environment that cultivates respectful communication among students and adults. (*UOTeach Program Handbook Assessment Addendum*, 2014, p. 10).

There are many assumptions embedded in this list—that the same learning environment can be safe and productive for all students, that "positive social interactions" and "respectful communication" look the same for all students—all of which produce sameness, which in educational spaces means white, heteronormative, cis-gendered and gender conforming, able-bodied, and middle class.

Teaching candidates, in creating such learning environments, are producing and reproducing this sameness, and the violence required to produce it, by means of sanctioned

instructional strategies and best practices. As Weems reminds us, no classroom or school space is innocent or "outside of the historical, political, and social networks of meaning and action" (2010, p. 561). And since teaching and teacher preparation will (and should) continue, just as schools and teachers will (and should) continue to strive towards creating safer[20] spaces for students, ongoing interrogation of commonsensical notions ought to be one of the professional standards for teaching practice.

Track 7: P. Taylor Webb. In an effort to go out with a bang, I will bring this mix-tape to a close with the only track to offer a direct critique of canonical constructions of teacher knowledge. In "Accounting for Teacher Knowledge: Reterritorializations as Epistemic Suicide," Webb (2007) argues that accountability surveillance—"surveillance technologies, masked as performance-based accountability systems"—causes educators to "fabricate pedagogical and curricular apparitions to be seen as compliant" (p. 279). These fabrications are the product of pedagogical-simulation-reasoning, which Webb offers as an epistemic break from two prevailing accounts of teacher knowledge, the "codifiable paradigm" (p. 280) of Lee Shulman (discussed earlier in this chapter), and the "situational view of teacher knowledge as personal and narrative" (p. 281) offered by Clandinin and Connelly.

Webb's critique of Shulman is similar to mine, though his use of Foucault allows him to account more rigorously for power. That is, according to Webb, Shulman's efforts to codify the knowledge base without identifying the workings of power in such codification made room for corporate and/or governmental forces to "claim educational and pedagogical sovereignty" (2007, p. 280), reintroducing teacher-proof curricula and narrow lists of "what

[20] Thanks to Julie Heffernan for this distinction: while it is not possible to create a safe classroom, as different students might require different and contradictory practices in order to feel safe in a space, it is possible to always be working towards safer classrooms. The safe classroom, then, is not a stable concept nor an arrival point that, once reached, doesn't need to be further negotiated.

works" to govern teaching. Elaborate surveillance systems to enforce this view of teacher knowledge follow directly from the limitation of this paradigm: its inability to account for "the political contexts in which teacher knowledge is developed, practised, and contested" (p. 280).

Since I did not discuss Clandinin and Connelly's concept of teacher knowledge in the earlier sections of this chapter, I will offer a brief summary here. They view teacher knowledge as situated and personal, and represent it using a landscape metaphor. Rather than a codifiable knowledge base, as Shulman suggests, teacher knowledge for Clandinin and Connelly is *personal practical knowledge*, which they locate "in the teacher's past experience, in the teacher's present mind and body, and in the future plans and actions. Personal practical knowledge is found in the teacher's practice" (Connelly & Clandinin, 1988, p. 25). Personal practical knowledge can be discerned in field texts, a variety of record-keeping artifacts such as field notes from classroom observations, journals, letters, transcripts of conversations, photos, stories, and so on (Connelly, Clandinin, & He, 1997). Stories are of particular interest as field texts because, for Clandinin and Connelly (2000), stories are not only the topic but also the method of inquiry, which I discuss further in Chapter III.

On Clandinin and Connelly's account, the task for researchers is to examine how teacher knowledge is captured both by the different kinds of stories teachers tell, and how those stories occur in a particular context, which they call the "professional knowledge landscape" (Connelly & Clandinin, 1999, p. 2). They distinguish between *secret stories*, *cover stories*, and *sacred stories*, each of which is told in a different location in the landscape. Secret stories are stories of practice in the classroom, a space Clandinin and Connelly imagine to be "generally free from scrutiny" (1996, p. 25), and they are generally only recounted to other teachers, thereby keeping them secret. These are when-the-door-is-closed stories.

In out-of-classroom places, cover stories are told. In cover stories, teachers "portray themselves as experts" and tell stories that are considered acceptable inside the standards of a particular school context. Cover stories allow teachers whose secret stories would marginalize or endanger them to remain in the landscape. These are when-someone-is-watching stories. Finally, sacred stories are those "funneled into the school system with the purpose of altering teachers' and children's classroom lives" (Clandinin & Connelly, 1996, p. 25). Sacred stories are told by policymakers, university-based researchers, and non-school-based administrators.

Webb argues that Clandinin and Connelly's professional knowledge landscape is limited in ways similar to Shulman's knowledge base in that it does not require teachers to be aware of "power and normative frameworks operating within" their professional knowledge landscapes (Webb, 2007, p. 281). Not recognizing the power dynamics makes it more likely that teachers will "reproduce inequitable schooling practices" and increases "the probability of perpetuating injustice" (p. 281). Beyond these limitations, Webb argues that both these understandings of teacher knowledge are epistemically ruptured by surveillance, which he describes as both exterritorializing and deterritorializing.

When teacher knowledge is made visible by performance-based assessments, Webb, drawing on Lyotard, describes it as having been exterritorialized, which "occurs through two dimensions of coercion": surveillance, its related practices of data collection and data mining, and the accompanying "threats of school closure, school reconstitution, teacher dismissal, and penalties of reduced school income"; and unannounced visits by auditors of various types (2007, p. 283). The practices that produce exterritorialization "are panoptic mechanisms to hold teachers accountable to 'standardized' knowledge" (p. 284), thereby devaluing any situated knowledge teachers might enact.

Webb uses Deleuze and Guattari to show how exterritorializing becomes deterritorializing as teacher knowledge is "decontextualized from each community, each school, each classroom, and each student-teacher relationship" and reassembled as commodity, produced not in "experiential learning laboratories but [in] streamlined sites of production evaluated by their scientized outputs" (2007, p. 285). In this new, machinic landscape, various components of teaching practice are reconstituted as mechanisms of surveillance and control: professional development becomes discipline; communities of practice become vehicles for "delivering performance standards more effectively"; reflection becomes a tool for "self-correction and auto-production"; and mentors enact "panoptic forms of accountability" (p. 286).

According to Webb, when they know their teaching is being surveilled, teachers reterritorialize by fabricating. A fabrication is similar to a cover story (Clandinin & Connelly, 1996), though more deliberately "a performance created for the sole purpose of being seen and evaluated" (Webb, 2007, p. 286), an effort to "(re)control their knowledge and (re)control the meaning of their professional status" (p. 287). This reterritorialization requires *pedagogic-simulation-reasoning*, "a strategic form of teacher cognition that estimates risks associated with presenting oneself in multiple and competing registers of meaning" (p. 287). Helping teachers fabricate, "to refract, resist, stabilize, criticize, and reterritorialize accountability surveillance" is now, for Webb, the task of teacher education programs (p. 288).

Webb concludes with an examination of how accountability surveillance, with its insistence on rooting out so-called bad teaching, "preempts definitions of 'good' teaching" and makes it difficult for teachers to see themselves as professionals (2007, p. 290). His

analysis makes clear how canonical conceptions of teacher knowledge cannot hold up to contemporary systems of accountability surveillance.

Liner Notes

Taken together, Tracks 1 and 2 change our understanding of school and classroom spaces and have us consider more about materiality than desk arrangement and wall décor. Centering the teacher or even the teacher-student relationship as sites of knowledge production inadequately accounts for the non-human agents in these spaces; rather, we need to consider teachers and students as two of many agents at work in a network or assemblage of intra-acting agencies. This expanded view does not mean that teachers are not important agents, but that what they know and do, the teacher knowledge they enact, must be considered in its intra-actions with the material of the classroom, students, institutional forces, curricula, assessment, educational policy, and so on.

Tracks 3, 4, and 5 offer different conceptions of the complexity of classroom spaces and events, each of which reaches for a different theoretical framework as a means of refusing oversimplification. Thinking with these scholars keeps teacher knowledge on *the side of the messy* (Lather, 2010), which helps us resist the reductionist mechanisms of accountability surveillance. Tracks 6 and 7 show why this resistance is critical, and should be part of teacher preparation: if we are not resisting (and quite probably even when we are), we are reproducing the inequities we mean to dismantle.

Considering teacher knowledge and educational policy from the side of the messy is difficult work. These complex ideas draw on intimidating (to some) philosophical and theoretical thinking, so this work gets branded as impractical at best, elitist and exclusionary at worst. I would argue, however, with Lather (once again), that "we need a density that fits the thoughts being expressed" (1996, p. 528). That is, when our thinking about teaching

produces it as a thing, or a list of things, or even a database of things, and not as a (complicated, difficult to describe, frequently changing) doing, we have conceded critical ground to those who believe that teachers are those who can't.

I will consider the implications of this edgy soundtrack on future directions of teacher education in more detail in Chapter VI, putting these tracks to work in an analysis of the new licensure assessment, edTPA, we are piloting in UOTeach, and proposing new directions for both teacher education and the research that drives it. The next two chapters describe my efforts to produce a non-canonical account of teacher knowledge, "The ABCs of Teaching." Perhaps it is the bonus track.

CHAPTER III
METHODOLOGICAL STORYTELLING

As my explication of canonical teacher knowledge literature reveals, teacher knowledge research casts what teachers know as a knowledge base, static and existing outside of teachers; teachers-to-be must acquire the various elements of this knowledge base during their coursework in teacher education programs, and then must transform this knowledge into practice in their field placements. Eventually teaching candidates must demonstrate their (albeit novice) ability to integrate content and pedagogical knowledge, along with various cultivated dispositions such as cultural responsiveness and reflexivity, into a student-teaching performance to be evaluated by those structures that grant teaching credentials. As Grossman and her colleagues highlight (Grossman, Compton, Igra, Ronfeldt, Shahan, & Williamson, 2009), representations of teaching practice are used throughout the teacher preparation process for a variety of purposes: to interrupt assumptions about a profession that seems familiar to most people because of our experiences as students; to develop a way of looking that allows novices to carefully examine discrete components of complex practices; and to approximate practice in a low-stakes setting that promotes critique and problem solving, allowing novices to learn from their mistakes.

As I note in Chapter II, I appreciate the work of teacher knowledge researchers to reinstate teachers as knowledge producers, and to identify and honor the contributions current practitioners can and must make to the education of future practitioners. I also understand how practitioner knowledge lends itself to narrative form, how it seems commonsensical to represent such knowledge in stories, often authored by practitioners themselves. In this chapter, I will consider those qualitative research methods most

frequently put to use in representing what teachers know—narrative inquiry, arts based research, and autoethnography—in terms of what they make visible and what they obscure[21]. These methods, I will argue, despite their best efforts, slip too easily into what St. Pierre calls "conventional humanist qualitative inquiry" (2011, p. 611) by unproblematically relying on representation, centering the human subject, and *thingifying* knowledge about teaching and teaching itself.

To reject the positivism inherent in conventional humanist qualitative inquiry, St. Pierre argues we must turn towards the *posts*, shorthand for "post-colonial, post-critical, post-humanist, post-Fordist, post-positivist, post-feminist, post-foundational, post-emancipatory, post-subjective, post-everything" (2011, p. 613), not for a new, corrective research methodology (to be summarized neatly in a methods textbook), but for new ways of imagining inquiry. Lather (2013) calls such imagining QUAL 4.0, which she describes as "an inquiry that might produce different knowledge and produce knowledge differently" (p. 635, drawn from St. Pierre, 2000); she offers examples (rather than instructions) that are "in excess of intersectionality in their attention to multi-directionalities, post-human bodies, intra-actional networks, contingency, non-mastery, and incalculables. They take on issues of messy conceptual labor, difference, otherness and disparity, and incompleteness as a positive norm" (p. 642). Most recently, St. Pierre and Jackson (2014) use the term *post-coding analysis*, which they assert "can be thought as non-technique and non-method that is always in a process of becoming" (p. 717).

[21] There are, of course, a variety of other storytelling methods I find compelling, including collective biography (Davies & Gannon, 2006), fiction-based research (Leavy, 2013), and a/r/t/ography (Irwin & de Cosson, 2004), all of which have been put to use in educational research. I chose to focus on narrative inquiry, arts-based research methods, and autoethnography because these methods are the most common in the particular strand of educational research, teacher knowledge or the scholarship of teaching, in which I am interested in intervening most directly with this project.

In what follows, I offer my own post-qualitative imagining, using Karen Barad to help me think differently about the Teacher Story, the ubiquitous narrative of teaching practice. A Teacher Story is a tale of some comfortable difficulty—a challenge that is compelling but not too alarming, an issue that generates sympathy but not dismay—and how some flawed-but-not-abject teacher overcomes the difficulty, learning some important lessons about herself and her profession in the process. Teacher Stories are complete and tidy, their morals are obvious, and the disconcertment they produce is temporary. Teaching, I would argue, is incomplete and messy, morally ambiguous at best but often conflicted, and the disconcertment it produces may be permanent. My efforts in this project "to produce different knowledge and produce knowledge differently" (St. Pierre, 2000, p. 27) cohere around my thinking with Barad to conceive of the Teacher Story as an apparatus, discussed below, and my own non-method, what I am calling diffractive storytelling. While I hope diffractive storytelling helps me avoid "some of the traps in humanistic qualitative inquiry: for example, data, voice, narrative, and meaning-making" (Jackson & Mazzei, 2012), I also acknowledge that my research is constructed inside my commitments to the essentially humanist institution of education.

"Why Narrative? Because Experience": Narrative Inquiry

Clandinin and Connelly's text, *Narrative Inquiry* (2000), synthesizes more than a decade of research on and with narrative inquiry. They begin with Dewey, though they take up his concept of experience without thoroughly specifying their understanding of it[22], and situate narrative inquiry as "both phenomena under study *and* method of study" (p. 4), answering the question, "why narrative?" by surveying other thinkers' engagement with narrative as a means of inquiring. They develop a case study of narrative thinking as it

[22] For a much more thorough explication of experience and the larger pragmatic frame Clandinin and Connelly are invoking, see Rosiek (2013).

shows up at the boundary between "thinking according to narrative inquiry and thinking according to grand narrative" (p. 29), revealing five tensions—temporality, people, action, certainty, and context—as the central qualities of narrative thinking. Throughout the text, Clandinin and Connelly show rather than tell what narrative thinking is and what narrative inquirers do, and ultimately they answer the methodological question, why narrative, with "because experience" (p. 50).

The stories Clandinin and Connelly elicit and help craft, examples of which are collected in *Teachers' Professional Knowledge Landscapes* (1995) and *Shaping a Professional Identity: Stories of Educational Practice* (Connelly & Clandinin, 1999), are primarily autobiographical accounts of professional practice that they describe as a means for practitioners to come to understand themselves and their practice. From one of their earliest articles on narrative inquiry, "Stories of Experience and Narrative Inquiry" (1990), Clandinin and Connelly make clear some risks and limitations of this approach, noting that its central value, that "narrative and life go together," is also the source of potential trouble, as narrative inquirers can "use the data to tell a deception as easily as truth"; other potential risks are carrying "the intersubjective quality of the inquiry" to the point of "narcissism and solipsism" (1990, p. 10), overemphasizing the happy ending, and smoothing the story out without accounting adequately for what gets omitted.

All data requires an interpretive frame, a story, to make it meaningful, so all data can be used to forward deceptions as easily as truths. Theirs is not a knowledge project in the typical sense; Clandinin and Connelly are not explaining or even describing, but telling and acknowledging the telling as incomplete. They resist setting the three-dimensional space of narrative inquiry as an analytic frame, one that would "reduce the stories to a set of understandings"; rather, the narrative inquiry space is experiential, "pointing to questions,

puzzles, fieldwork, and fieldtexts" (Clandinin & Connelly, 2000, p. 54-55). Though they do not adequately develop the concepts of tentativeness or incompleteness, their methods interrupt the more traditional research narrative by resisting certainty and preserving experimentalism. Also, this approach accounts for the role of the researcher as implicated in the present and future stories created in this kind of research more rigorously than more traditional research methods. These challenges serve to destabilize the highly problematic master narrative that positions knowledge obtained from objective, empirical inquiry as the only valid knowledge. Narrative inquiry creates openings for radical possibilities.

Clandinin and Connelly's work, while promising, has limitations, two of which I will consider here. First, several of the key ideas that ground narrative inquiry are under-theorized in even their book-length works—including Clandinin's *Engaging in Narrative Inquiry* (2013), which purports to theoretically situate the dual nature of narrative inquiry as both the subject and the method of inquiry, making the ontological and epistemological commitments of this approach to educational research more explicit—and it is these ideas that seem to have the most disruptive potential. For example, after mentioning the tentativeness of claims produced via narrative methods, they elaborate in only a few sentences:

> In narrative thinking, interpretation of events can always be otherwise. There is a sense of tentativeness, usually expressed as a kind of uncertainty, about an event's meaning….Thus, the attitude in a narrative perspective is one of "doing one's best" under the circumstances, knowing all the while that other possibilities, other interpretations, other ways of explaining things are all possible. (Clandinin & Connelly, 2000, p. 31)

Of course, in the landscape of educational policy, framed as it so often is in terms of evidence-based best practices, it might seem better not to call too much attention to the epistemological implications of insisting that all claims are at best tentative. However, ignoring the trouble does not cause it to dissipate, and more rigorously addressing the political and ethical potential of uncertainty would put Clandinin and Connelly in conversation with various *post* scholars in potentially productive ways.

Such engagement would illuminate a second concern: the unproblematic centering of the human. Clandinin and Connelly justify the use of narrative inquiry with the claim that "humans are storytelling organisms who, individually and socially, lead storied lives. The study of narrative, therefore, is the study of the ways humans experience the world" (Clandinin & Connelly, 1990, p. 2). As MacLure points out (2009), while Clandinin and Connelly might aspire to use narrative to capture the complexity of lived experience, "the voices conjured [in their teacher stories] lack the specificity and distinctive timbre" to move them "beyond 'univocal' and 'unidimensional' representations" (p. 103). Rather, their narratives enact "the humanist voice [that] seems to emanate from a subject who knows who she is, says what she means and means what she says" (p. 104). While a rigorous posthumanist critique of narrative inquiry is beyond the scope of this project, I will offer a quick sketch of the concerns.

Humans are not the only beings who experience, and the world is not merely an inert object to be experienced and storied by human beings. Clandinin and Connelly briefly develop a notion of relational responsibility in regards to the question of who owns stories (2000, pp. 176-177) and around negotiating entry into educational contexts (Clandinin, 2013, pp. 134-135). Rosi Braidotti, in *The Posthuman* (2013), critiques this sort of unitary humanist subjectivity that would worry about ownership and access, replacing it with what she calls a

nomadic subjectivity with "an enlarged sense of inter-connection between self and others, including the non-human or 'earth' others, by removing the obstacle of self-centered individualism" (pp. 49-50). Positioning stories as only human products unnecessarily limits how they can be used to inquire in educational contexts, occupied as they are by a variety of human and non-human agents. Put another way, stories are necessarily co-constituted by teller, context, and audience. As a counterpoint to Clandinin and Connelly's positioning of stories as a necessarily human product, I will reconsider stories using Karen Barad's posthumanist performative framework later in the chapter.

Epistemological Humility: Arts Based Research

One of the central premises of arts based research (ABR) is that "matters of meaning are shaped—that is, enhanced or constrained—by the tools we use" (Barone & Eisner, 2012, p. 1); a research method grounded in aesthetics makes explicit its attention to form and to the ways form informs meaning, disrupting the presumption of transparency that often accompanies more traditional research methods. The ABR methodology intentionally maintains uncertainty, which runs counter to the prevailing project, both cultural and in many fields of research, of reducing ambiguity, and involves the reader directly by focusing on interpretation as an interaction between work and audience.

Barone puts this methodology to work in his book, *Touching Eternity: The Enduring Outcomes of Teaching* (2001), in which a collection of narratives about art teacher Donald Forrister are presented and then analyzed through two different theoretical—or, more appropriately, literary critical—lenses. Both the narrative accounts, told from various points-of-view, and the two analytical readings contradict each other, and so the task of drawing conclusions is left to the reader. This arrangement results, in Barone's words, in a sort of "experimental, postmodernist biography of the teacher and person who is Donald Forrister"

(p. 4) that is designed to "disturb the reader into asking important questions about the nature of the teaching act and purposes of education" (p. 6).

The stories that Barone tells based on his interviews with Forrister and his former students show significantly more writerly craft than the usual interview transcript; they are "literary constructions" that use form and figurative language to evoke meaning (2001, p. 35). This strategy reflects a second central idea in ABR methodology, that "facts, deconceptualized as they often are, are hardly ever adequate for telling the whole story" (Barone & Eisner, 2012, p. 3), and are never without an accompanying rhetoric. An ABR methodology privileges plausibility over certainty (p. 53), and positions art as more likely to produce plausible accounts of subtle, complicated, difficult-to-describe qualities and events. These aesthetic accounts, however, are neither simply a specialized form of description, one that better captures nuance and complexity, nor intended "simply to delight"; rather, they problematize by "produc[ing] a disequilibrium in the reader or viewer—that is to enable someone to 'get a feel' for a set of phenomena that calls into questions previously held perceptions and understandings of that phenomena" (p. 51). In this way, ABR is persuasive rather than proscriptive: it forwards a representation that invites interpretation rather than describing facts or truths as existing separate from interpretation, while maintaining an "interrogative disposition that …promotes a level of dislocation, disturbance, disruptiveness, disequilibrium that renders it sufficiently—even highly—useful and therefore, in this unusual sense of the word, truthful" (p. 16).

Because the central goal of ABR—and, as Barone and Eisner would argue, of research more broadly—is "the capacity for inviting members of an audience into the experiencing aspects of a world that may have been otherwise outside their range of sight and to thereby cause them to question usual, commonplace, orthodox perspectives on social

phenomena" (Barone & Eisner, 2012, p. 56), the transformative nature of reading stories is foregrounded while the transformative nature of telling stories recedes. As Rosiek (2013) notes, because of its pragmatist framework, ABR works "to provide one—but only one of many—accounting(s) of what has occurred" (Barone & Eisner, 2012, p. 59), troubling taken-for-granted accounts without imposing new master narratives, and encouraging the imagining of alternative futures. This methodology also explicitly and thoroughly explores the implications of embracing uncertainty, making "a fundamental shift away from the conventional assumption that all research is meant to bring us closer to a final understanding of various dimensions of the social world" (p. 14).

While ABR includes a more robust accounting of uncertainty and has more generative potential than Clandinin and Connelly's narrative inquiry, it also unproblematically centers the human "percipient": "Truth is not owned simply by propositional discourse; it is also owned by those activities that yield meanings that may be ineffable ultimately but that nevertheless ring true in the competent percipient" (Barone & Eisner, 2012, p. 6). Though this sounds a bit like Barone and Eisner are holding onto a transcendent notion of Truth, they go on to assert that "if art based social research—like art itself—may interrogate an entrenched ideological stance regarding social phenomena it must do so without imposing a 'correct' alternative ideology" (p. 122); instead the goal is to "adopt a stance of epistemological humility, one in which [the researcher] challenges orthodox views without insisting upon a new orthodoxy" (p. 128).

While Clandinin and Connelly (and perhaps narrative inquiry more broadly) privilege the interaction between story and teller, Barone (and perhaps arts based research more

broadly) privileges the interaction between story and reader[23]. As knowledge-making practices, however, stories both produce and are produced by what they recount. Put another way, the story and what is being told, the teller and the conditions of telling, and the reader and the conditions of reading are entangled such that in order to see how stories work to produce knowledge for teachers-to-be, we must think them in ways neither of these narrative methods, nor the one discussed in the next section, affords.

Autoethnographic Peril

In the introduction to her edited volume, *Auto/Ethnography: Rewriting the Self and the Social* (1997), Deborah Reed-Danahay positions autoethnography

> at the intersection of…(1) "native anthropology," in which people who were formerly the subjects of ethnographies become the authors of studies of their own group; (2) "ethnic autobiography," personal narratives written by members of ethnic minority groups; and (3) "autobiographical ethnography," in which anthropologists interject personal experience in to ethnographic writing. (p. 2)

The contributors to this volume explore the different ways "autoethnography foregrounds the multiple nature of selfhood" (p. 3), while providing an antidote of sorts to the problems inherent in ethnographic representations of the other by attempting to capture that multiplicity in a singular narrative. After exploring the tensions and contradictions in various efforts to define the field of autoethnography, Reed-Danahay forwards this definition: autoethnography is "a form of self-narrative that places the self within a social context. It is both a method and a text, as in the case of ethnography" (p. 9), a claim that Clandinin and Connelly also make about narrative inquiry (2000, p. 4).

[23] Becky Atkinson (Atkinson, 2010; Atkinson & Mitchell, 2010; Atkinson & Rosiek, 2009) uses reader-response theory to more completely account for the readers and reception of teacher stories, and I consider her work closely in Chapter V.

Carolyn Ellis' novel, *The Ethnographic I* (2004), is a frequently cited exemplar of this research method. It is the story of a fictional graduate seminar taught by the narrator, Ellis, and it incorporates her instruction about autoethnographic methods into the stories of herself and her students as they grapple with their various research questions. Robust critiques of this method take it to task for its unproblematic overuse of reflexivity (Pillow, 2003) and for merely displacing the objective authority of traditional ethnographic research with a similarly limited subjective authority (Jackson & Mazzei, 2008).

Pillow (2003) calls attention to the frequency with which qualitative researchers offer reflexivity as a means of resolving the problems inherent in representing others, often without defining the term, and goes on to problematize equating reflexivity with recognition, which she argues is central to many reflexive methods evidenced in qualitative research. The subjectivity of the self is not fixed or transparent; it is no more easily apprehended than the subjectivity of other people, so the issues of representation are not alleviated when one represents oneself. As such, Pillow invites an interruption of common-sense reflexive practices in favor of what she calls reflexivities of discomfort, approaches that push researchers away from "clarity, honesty, and humility" and towards "confounding disruptions—at times even a failure of our languages and practices" (p. 192). Ellis' account in *The Ethnographic I* (2004) assumes a stable subject—Carolyn, professor and writer—and is a linear, untroubled narrative of that subject's encounters with her students, who are also represented as stable subjects.

Another approach researchers have taken up as a means of resolving the difficulties in and with representation of research participants is to let them speak for themselves, usually by including lengthy, unedited transcriptions of interview data or excerpts of written materials. The contributors to *Voice in Qualitative Inquiry: Challenging Conventional, Interpretive,*

and Critical Conceptions in Qualitative Research (2009) variously challenge what Jackson and Mazzei call "too easy" notions of voice (p. 3). Just as Pillow (2003) troubles what have become common-sense uses of reflexivity, so do these chapters challenge the reliance on participants voices as somehow more authentic, real, stable, or accurate, thereby erasing the ways in which researchers are "always already shaping those 'exact words'" (Jackson & Mazzei, 2009, p. 2) in the process of selecting and contextualizing them in our research. The extensive use of dialogue in *The Ethnographic I* (2004) to authentically represent Ellis' students, then, serves to obscure the ways in which she fashioned that authenticity: whatever authenticity might be said to exist in these words does not inhere in her students and their stories, but in Ellis' crafting of them into dialogue.

To these two challenges I would add a third. Ellis introduces the concept of "narrative truth" early in the novel, (2004, p. 30) and returns to it in more detail at the end of the work.

> All ethnography is interpretive and thus is fiction, "something made," "something fashioned." Ethnographers represent the "fiction" they write as something that actually happened to characters who actually existed, while novelists freely invent scenes and characters. Thus, the distinction between novelists and ethnographers is blurry rather than sharp. Ethnographers select and omit, often creating composites and typical representations that may describe behavioral means rather than specific actions. Sometimes they camouflage participants' identities and events. Novelists seek a truth of experience, often basing their scenes and character on real life events and real lives. Readers of novels often find profound insights and moral lessons about how to live. The stories we write as ethnographers do not have to be factual to be true. Novels and ethnographies coexist on a continuous plane of truth seeking; they are not oppositional forms of truth telling. (p. 332)

This is a seductive description, which highlights the seemingly radical potential of autoethnography as a research method that can forward a narrative truth that is not necessarily factual, thus avoiding the limits of positivist truth-seeking research. However, its potential is foreclosed in her novel because Ellis hides all the craft; readers do not get to see her struggle with how she tells the story, how she enacts her power as the storyteller.

In the next sections, I will consider how these three narrative methods—narrative inquiry, arts-based research, and autoethnography, all of which are popular in educational research focused on teacher knowledge—are technologies of reflection, which "displace the same elsewhere, in more or less distorted form" (Haraway, as quoted in Barad, 2007, p. 71), and in their efforts to specify what teachers know, researchers putting these methods to use inadvertently *thingify*[24] or sediment such knowing into knowledge.

fragment: anxiety

I have been smitten with quantum physics since I was in high school. I had the great fortune to have a woman for a Physics teacher, one of only two women in my high school math and science education. She was tiny and plain, both unusual qualities in 1980s Texas, and though I couldn't have named it this way at the time, she taught from a belief that everyone could think hard about difficult things. Including Physics[25].

I remember this scene:

[24] I define this term further on page 85.

[25] In identifying this teacher's gender and highlighting these physical qualities, I do not mean to invoke any sort of essentialist notion of woman-ness, nor to reinforce a binary construction of gender, though I acknowledge that I am doing both in spite of my intentions. I do mean to identify this teacher's body as unusual—as a refusal of the big-haired, heavily make-upped, highly accessorized standards for feminine gender expression in which we were operating—in order to argue that her embodiment created new possibilities for a student whose body was also a refusal, though not so deliberately. That is, it was possible for me to imagine myself as a capable Physics student in part because the vehicle of that message was simultaneously asserting that it was possible to survive not matching the feminine ideal being enacted, however partially, all around us.

"The notebook you are writing in right now, is it on the table?" There was a pause as we all tried to find the trick in her question. We were sitting at those awkward lab tables on precarious stools, some of which were too loose and would leave you facing the wrong direction if you moved too forcefully to adjust your position, and some of which were too tight so if you shifted at all you also interrupted class with a shriek of unlubricated metal.

"Yes," someone answered with the expression of one going before a hostile tribunal, and we all waited for her to contest his assertion.

"Does everyone agree?"

"Yes," we muttered reluctantly.

"How do you know?" She sorted through the barrage of tentative answers. "You can see the boundary between the two objects, right? Between notebook and table?"

"Yes," we agreed.

"What would it look like if we looked at this apparent boundary with an atomic microscope?" She went to the board and began to draw atoms, reminding us about all the empty space in those structures. "It's true, isn't it, that if we looked closely enough, at the atomic level, the boundary between the notebook and the table would be mostly empty space, yes? And there's really nothing keeping the outermost atoms of the table from mingling with the outermost atoms of your notebook, right? So the boundaries would disappear?"

As we grappled with that example, she made it worse by propelling herself to sit on the counter at the front of the room. "Now, am I sitting on this counter? Or in it?" We stared at her blankly.

"Both?" someone ventured.

"Depends," another countered.

"Say more about that." She directed this teacher move, which I've enthusiastically stolen, at the second speaker.

"Well… I guess… in the Newtonian universe, you're sitting on the table. The table is exerting an upwards force to counter the force of gravity that's pulling you back toward the earth. Right?"

"Right. I'm sitting here because of the equilibrium of forces acting on solid objects."

"But at the atomic level, parts of you are mingling with parts of the table."

"Yes, the table and I are swapping atoms. And my butt is mostly empty space." She paused for laughter and to let the ideas settle before she made them even more problematic.

She led us, slowly, reluctantly, and sometimes painfully, through a consideration that two things which seem to be mutually exclusive can both be true, depending on how we look at them: light acts as a wave under certain circumstances, like a particle under others. Butts and tables are solid objects with mass and volume, things that appear to take up space in the world, and they are also mostly empty space; they are distinct when I look at them through my glasses, but would be intermingled if I could look atomically. What we call reality, she led us to conclude, depends on how we look at it.

Now, I am not a physicist. I have great anxiety about thinking with Barad in this project; I worry that I will produce an account that, as Barad points out about many popular accounts of these ideas, "sacrifice[s] rigor for the sake of accessibility, entertainment, and, if [I am] honest, the chance to garner the authority of science to underwrite [my] favorite view" (2007, p. 6).

I also worry that I might be taken for one of those pseudo-scientific mystics who believe they can bend reality into a new state by thinking it into existence. Or one of those reality-is-what-you-make-it deniers of systemic

injustice and oppression. Or one of those none-of-this-is-real-anyway embracers of all things ironic, faithless, and cynical.

Anxiety is my primary worldview, it turns out.

Meeting Barad (More Than) Halfway

In *Meeting the Universe Halfway* (2007), Karen Barad performs a particular method of moving through her subject matter:

> I draw on the insights of some of our best scientific and social theories, including quantum physics, science studies, the philosophy of physics, feminist theory, critical race theory, post-colonial theory, (post-)Marxist theory, and poststructuralist theory…[and] read these different areas of study through one another…to provide a transdisciplinary approach that remains rigorously attentive to important details of specialized arguments within a field, in an effort to foster constructive engagements across (and a reworking of) disciplinary boundaries. (Barad, 2007, p. 25)

As she describes it, the book itself "works as a diffraction grating" (p. 37), discussed further in the next section, and the full implications of the argument do not emerge until the end, as the central concepts are worked from their theoretical foundations through examples from a variety fields. Such a complicated text is difficult to summarize, as part of the argument is experiential, so in this section I will resign myself to focusing on three concepts that are central to my project: diffraction, performativity[26], and apparatus. Then I will return to the unusual structure of Barad's text to consider her storytelling method, from which I draw my

[26] In the early chapters of *Meeting the Universe Halfway*, Barad uses the term *performativity* without the modifier, posthumanist, it acquires later in her argument. As I am citing this early material here, I also use (unmodified) performativity.

notion of diffractive storytelling, and discuss briefly how I put Barad's ideas to work in this project. A more detailed elaboration of this analysis is the work of the next chapter.

fragment: the heresy of paraphrase

I learned early on in my time as a doctoral student that it is unpopular, at least in my department, to admit an affinity for the New Critics. This school of American literary criticism flourished in the first half of the 20th century, and takes its name from a key text of the time, John Crowe Ransom's The New Criticism (1941). Other critics associated with this movement, primarily students of Ransom's at Vanderbilt, include I.A. Richards, Allen Tate, Cleanth Brooks, T.S. Eliot, Robert Penn Warren, and the dynamic duo, William Wimsatt & Monroe Beardsley.

The New Critics tended toward fascism in their refusal of extrinsic sources of meaning-making—the author's biography, for example, or a text's social and historical moment or message—and their insistence on the text alone as a location for meaning. As a matter of fact, some of them tended toward fascism in their politics, too.

Their attention to the text was a corrective, an antidote to literary criticism that produced meaning out of biographical material or what an author said or wrote about a text, without serious consideration of the work itself, and for this alone I show the New Critics some love. It is never enough to intend to mean something: craft matters. As a rule-oriented grammar geek and etymology nerd, I want to pay attention to language and how it is ordered. I want to look closely at the figurative language devices in a text and make a case for their function and purpose. I want to notice line and stanza breaks, to think about how syntax makes an argument, to marvel over a well-chosen word and its rich connotations. This is my idea of fun. And I acknowledge its potential for fascism.

Which I do not take lightly. Insisting on close reading often appears to (and often actually does) require the arrival at some right or true interpretation. It turns out white, very well-educated men who travel in a very exclusive circle are mostly those who can produce these. Insisting on attending to the craft of language often appears to (and often actually does) hierarchize language such that Standard American English (or any other dominant language system) is the privileged form of expression to the exclusion of many other vibrant and insightful forms. But these are not necessary consequences of a New Critical approach just because they are its frequent consequences.

It wasn't until my third or fourth methodology course that I realized the strong affinity among my peers and professors for the Reader-response approach over and against New Criticism. The New Critics focused too heavily on craft and not enough on reception or social context; this prompted the next wave of corrective approaches, including Reader-response criticism, which, as its name suggests, emphasizes the role of the reader in acts of interpretation.

Perhaps it is my many years of teaching high school literature classes that makes me so averse to the Reader-response approach. There it can be seen in a form no respectable literary critic ever intended:

> *Me: Why do you think this poem is about the Black Plague[27]?*
>
> *Student: That line about the rats.*
>
> *Me: So let's look at that line. Is it about rats?*
>
> *Student: It's about the color of rats, "rat-grey."*
>
> *Me: So how did you get from the color of rats' fur to the Black Plague?*
>
> *Student: Well, rats spread plague.*

[27] We were discussing the Seamus Heaney poem, "Blackberry Picking," which is just not about the Black Plague.

Me: Yes, and so…

Student: I just feel like this poem is about the Black Plague.

From which opinion he would not budge.

In spite of their flaws, the New Critics give me a response to this student's attempt at interpretation: you cannot make a persuasive case for this 24-line poem being about the Black Plague with one adjective from one line. There is too much other text to consider, text which points to other interpretations. What you feel matters, of course my dear student, but not enough to convince me that a poem about greed is actually about plague.

The New Critics left us with some valuable insights to carry forward, most often expressed in the highly dramatic and dogmatic form of fallacies and heresies. The Intentional Fallacy: the belief that an author's intention is paramount (or matters, really, at all) in interpreting a text. The Affective Fallacy: the belief that how a text makes a reader feel is paramount (or matters, really, at all) in interpreting a text. The Fallacy of Imitative Form (which I mostly dismiss because its originator, Yvor Winters, insults Whitman to explain it) and the Fallacy of Neoclassical Species (something to do with genre theory). The Biographical Heresy: assuming the author of a text is the speaker in the text (which, of course, is just wrong).

And my favorite, the Heresy of the Paraphrase. This heresy comes from Cleanth Brooks' The Well Wrought Urn (1947), in which he draws a distinction between the paraphrasable content of a poem and its essential structure. That is, poems are about things—they have content—but they also are things—they have form—and getting at the content alone is insufficient for making sense of the work. More specifically, treating the content as the center or core, and the form as the outer layer or—gasp!—mere ornamentation is blasphemous. Brooks uses an envelope analogy to explain this heretical thinking, which would liken the form of a poem to an envelope and the content of a poem to the letter inside.

For Brooks, the very terms form (or, more often, structure) and content are inadequate: these are not parts of a text that come together to make a whole. He argues, "the imagery and the rhythm [of Pope's The Rape of the Lock] are not merely the instruments by which this fancied core-of-meaning-which-can-be-expressed-in-a-paraphrase is directly rendered," but rather they "seem to set up tensions with [the meaning of the poem], warping and twisting it, qualifying and revising it" (p. 197).

To paraphrase a text is to erase these tensions and the harmonies they produce.

Barad's Meeting the Universe Halfway is brilliantly built, and I'm about to ignore its architecture in order to summarize its contents. I just feel like this is an act of blasphemy.

Diffraction. Drawing heavily on the work of Donna Haraway, Barad positions diffraction not as an alternative but a counterpoint to reflection: "both are optical phenomena, but whereas the metaphor of reflection reflects the themes of mirroring and sameness, diffraction is marked by patterns of difference" (2007, p. 71), in particular, the "differences that our knowledge-making practices make and the effects they have on the world" (p. 72). In the social sciences, reflexivity is often taken up as an analytical countermeasure to the problematic power dynamics inherent in the researcher-researched relationship, as a way of accounting for (or, at least, making visible) the power-up position of the researcher. Barad joins a variety of other scholars (Davies & Gannon, 2006; Jackson & Mazzei, 2009; Lather, 2007; MacLure, 2011, 2013; Pillow, 2003) in arguing that reflexivity is insufficient, because, as a practice, it assumes that representations reflect reality, and that reflexivity gets us more authenticity. By accounting more thoroughly for the researcher, we get to the *more* real or *really* real.

Reflexivity leaves intact the knower/known binary (along with a host of others, including social/natural, nature/culture, subject/object, and inside/outside), which Barad

rejects. Instead of *knowledge*—"true beliefs concerning reflections from a distance"—Barad is interested in *knowing*—"a material practice of engagement as part of the world" (2007, p. 89), and this is not merely a semantic shift from noun to gerund. It is a shift from arrival point to always journeying, an ongoing-ness that resists thingification. As an ethical move, reflexivity is inadequate because it does not have us take responsibility for the fundamental productive nature of knowledge-making practices: "Making knowledge is not simply about making facts but about making worlds" (p. 91).

Barad gives an expert lesson (complete with helpful diagrams, reproduced below) on diffraction apparatuses and what they produce, particularly the two-slit experiment and the paradox of wave-particle duality, in the first half of Chapter II in *Meeting the Universe Halfway*. A diffraction grating, broadly defined, is any flat surface with periodic openings. Barad's in-the-world example is a breakwater with two openings: waves approach the breakwater in parallel lines, and emerge on the other side of the opening as concentric circles (see Figure 1). If there are two openings, the waves interfere with each other, creating a diffraction pattern. The in-the-lab example is the two-slit experiment, in which light is directed through a screen with two slits in it, producing a diffraction pattern on the target screen (see Figure 2).

For my purposes, the significant point is diffraction apparatuses do more than show patterns of difference: "They highlight, exhibit, and make evident the entangled structure of the changing and contingent ontology of the world" (2007, p. 73). In the case of waves, this entanglement takes the form of patterns of interference and disturbance created by an obstacle (or apparatus, as we shall see in the next section) such as a breakwater or a screen, and the overlapping and bending and spreading of the waves after they pass through the opening. Barad expands on this point to develop her diffractive methodology, which,

broadly defined, consists of "reading insights through one another in attending to and responding to the details and specificities of relations of difference and how they matter" (p. 71).

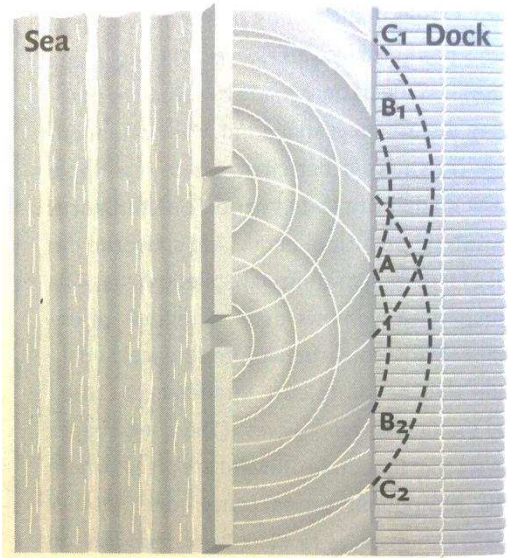

Figure 1. Bird's-eye view of a breakwater. From *Meeting the Universe Halfway*, by Karen Barad, 2007, Duke University Press, p. 78. Copyright 2007 by Nicolle Rager Fuller.

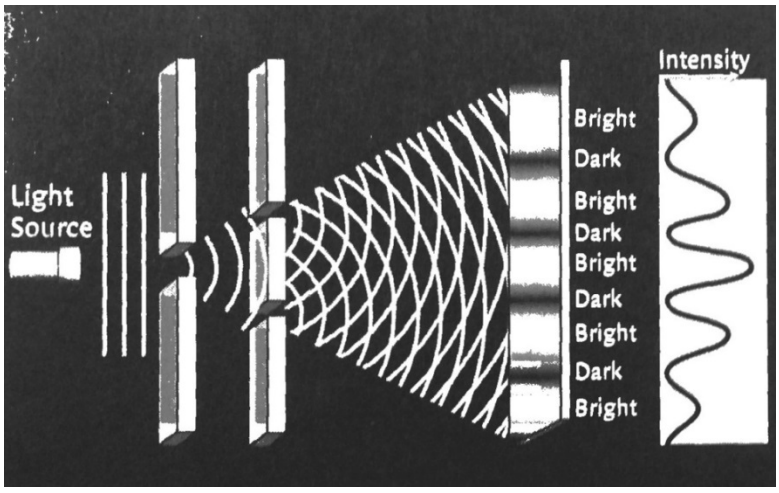

Figure 2. Side view of two-slit experiment. From *Meeting the Universe Halfway*, by Karen Barad, 2007, Duke University Press, p. 79. Copyright 2007 by Nicolle Rager Fuller.

To read through is not to read one idea or set of ideas against another, positioning one as a foil in order to illuminate the other by contrast; nor is it to position two ideas as foils for each other, combining the results into some sort of hybrid. Barad's project is one of "thinking insights from different disciplines (and interdisciplinary approaches) through one another [in a manner that] is attentive to the relational ontology that is at the core of agential realism" (2007, p. 93). As Lenz Taguchi and Palmer describe it, diffractive analysis "can be understood as an enactment of flows and differences, where *differences get made* in the process of reading data into each other, and identifying what diffractive patterns emerge in these readings" (2013, p. 676). Mazzei (2014) describes a diffractive reading as one "that spreads thought and meaning in unpredictable and productive emergences" (p. 742).

Barad makes a diffractive reading more explicit in "Quantum Entanglements and Hauntological Relations of Inheritance: Dis/continuities, SpaceTime Enfoldings, and Justice-to-Come" (2010). In this piece, Barad presents her ideas in scenes and situates the scenes in their "SpaceTime Coordinates," lists of concepts, references, and texts with which she is thinking in that moment. She notes,

> the scenes are neither discontinuous nor continuous with one another (or themselves). (They are not wholly separate, nor parts of a whole.) There is no smooth temporal (or spatial) topology connecting beginning and end. Each scene diffracts various temporalities, iteratively differentiating and entangling, within and across, the field of spacetimemattering. (p. 244)

These lists are doing more than contextualizing; rather, Barad is putting to work the method of "reading insights through one another" (2007, p. 71) in order to show how the researcher, with her past experiences and theoretical predilections and political commitments and

research questions and institutional requirements, comes to be calibrated as a fluid and ever-changing apparatus in a research assemblage.

This not a more carefully articulated reflexivity, but rather an enactment of "new patterns of engagement" that account for exclusions and how they matter (Barad, 2010, p. 243). Diffraction, for Barad, is not metaphor or analogy but a "tool of analysis" (p. 72), a means of making evident "the entangled structure of the changing and contingent ontology of the world" (p. 73). The nature of such analytical tools, or apparatuses, and what is made possible by thinking the story as apparatus are the topics of the next sections, after which I will elaborate my research design.

fragment: imposter syndrome

I first encountered Karen Barad's work at the annual conference of the American Educational Research Association in 2012, where it was the text for the feminist scholars giving papers I could only barely follow. I was smitten with these thinkers, so I built myself a booklist so I could be like them—total fangirl move—and Barad was at the top. The following year I enrolled in Philosophy of Education and was delighted to find Barad on the syllabus.

Until Philosophy of Education, graduate seminars in our department that covered philosophical content, mostly research methodology courses, had followed a formula: opening lecture that reviewed the central concepts of that week's reading, small-group discussion around questions authored by the professor, full-class discussion of same questions, closing lecture that previewed the central concepts of next week's readings. My colleagues and I had been trained to let the professor do most of the work, and many of us were quite accomplished at lurking around the edges of the conversation, participating only occasionally. As it turns out, this is not how graduate seminars are conducted in the Philosophy department.

Our professor began the course by expressing his dismay at the four-hour time slot, which is standard in Education Studies, and we all agreed.

"Why do you all do this over in your department?" he inquired.

"We have no idea. We hate it."

He structured those hours quite differently from what we were used to, asking students to present on and facilitate discussion of the texts we were considering, and he lectured only occasionally, mostly to provide contextual information about ideas that came up in conversation. Much more rigorous participation was required, and many of us had trouble adjusting. There were some very awkward silences, some of them quite lengthy, inevitably broken by one of the men in the room. Hostility simmered.

Two articles by Barad were assigned for week nine of the term, and I set aside my usual policy of go first and get it over with to work with her text, but by then simmering had turned into boiling over.

"I hate that class."

"Why?"

"Because you are in it."

Hostility + my always-present anxiety about presenting in class (yes, I did become a classroom teacher even though I'm terrified of public speaking) + the difficulty of the material + the sense in the room that I was the so-called Barad expert because I waited until week nine to present = the worst two hours of my graduate career.

And yet, here I am, still a Barad fangirl, even though many of those feminist scholars I follow around AERA have deserted her for Deleuze. That Barad's thinking is explicitly queer and feminist matters to me.

Performativity. Barad works readers carefully and iteratively through an argument about knowledge-making practices, beginning with a critique of representationalism, "the belief in the ontological distinction between representations and that which they purport to represent" (2007, p. 46). In the social sciences, the crisis of representation has most often been dealt with epistemologically, with calls for increased reflexivity on the part of the researcher and various methods for including participants in research design, data collection, and analysis. These measures fall short, according to Barad, because they do not reject the taken-for-granted gap between entities and their representations.

An example from education is the concept *achievement*. The school reform debate is riddled with assertions about achievement that take its very existence for granted: there is some *thing*, achievement, which can be operationalized by various measurement devices, usually some sort of assessment, and then used to describe differences between groups of students (i.e., the achievement gap) or to determine a program's eligibility for federal funding (e.g., the provisions of Race to the Top). In Baradian terms, however, achievement as a concept does not exist as an inherent property of students; achievement is produced by the devices that measure it. Moreover, because the devices that most recognizably measure achievement, standardized tests, are administered to individuals, achievement is produced as the property of an individual; any sense of what might be achieved through collaboration is necessarily undetermined and indeterminable, and any attention to the macrosocial systems that impact students and schools is rendered invisible. I return to this concept below in my discussion of apparatuses.

In seeking an ontology that resists the dualism inherent in the object-representation worldview, Barad forwards performative approaches that account for "the fact that knowing does not come from standing at a distance and representing but rather from *a direct material*

engagement with the world" (2007, p. 49)[28]. As one example of such material engagement, Barad offers a lengthy example of *seeing* by means of a scanning tunneling microscope (STM), delineating all the steps required to produce an STM image to demonstrate how representationalism fails "to take account of the practices through which representations are produced" (p. 53).

Turning to Foucault and Butler, Barad draws parallels to Bohr, emphasizing their attention to "the constitutive nature of practices" (2007, p. 57), which are iteratively performed to call beings into being. Over several chapters, Barad argues that what is needed in place of representationalism "is a robust account of the materialization of *all* bodies—'human' and 'nonhuman'—and the material-discursive practices by which their differential constitutions are marked" (p. 128), which she calls "agential realism" (p. 129). Agential realism rejects "*thingification*—the turning of relations into 'things,' 'entities,' 'relata,'" (p. 130) and replaces it with an ontology that accounts for things in terms of their relations[29].

The work of social science research, however, consistently pulls towards thingification: new research is expected to contribute to the knowledge base; in the analysis, data becomes separated from the relationships and circumstances that produced it, which are relegated to being mere context; any account of research is bounded and finite, it begins and ends. For example, the narrative research methods produce teaching by means of the Teacher Story: teaching is constituted by and inside of the stories repeatedly told about it. Thus constituted, teaching settles into its thing-ness, becomes knowable in and of itself,

---

[28] Barad makes extensive use of italics to highlight key ideas in her text. I have maintained her formatting, so in all cases the emphasis is in the original.

[29] This move toward a relational ontology is not Barad's alone. Though she cites none of them, Black, Chican@, and indigenous feminists such as Patricia Hill Collins, Gloria Anzaldúa, and Eve Tuck (among many others) have also developed relational ontological frameworks. Relying so heavily on Barad as my framing apparatus and relegating these scholars of color to this footnote makes me complicit in the academic marginalization of women of color. I do not know how to adequately name this loss, a question I take up in more detail in Chapter IV, and my reliance on primarily white scholars is a limitation of this project.

separate from teachers and students and classrooms and materials and educational systems. The iteratively performed practices that produce teaching are rendered invisible by its apparent intelligibility.

Apparatus. In the introduction to *Meeting the Universe Halfway*, Barad explicates Michael Frayn's play *Copenhagen*, which takes up the relationship between Heisenberg and Bohr and their infamously mysterious encounter at Bohr's home in Copenhagen in 1941. Frayn puts Heisenberg's concept of uncertainty to work inadequately, in Barad's view, by missing the central distinction between it and Bohr's concept of complementarity. This distinction drives Barad's development of the concept of apparatus. Heisenberg's uncertainty principle, which he ultimately acknowledged as incorrect, posits that we cannot know both the position and the momentum of a particle simultaneously. Bohr contends, however, that the issue is not merely epistemological: it's not that we can't *know* these values, but that "particles do not *have* determinate values of position and momentum simultaneously" (2007, p.19). As Barad points out,

> [Bohr] is making a point about the nature of reality, not merely our knowledge of it. What he is doing is calling into question an entire tradition in the history of Western metaphysics: the belief that the world is populated with individual things with their own independent sets of determinate properties. The lesson that Bohr takes from quantum physics is…[that] there is something fundamental about the nature of measurement interactions such that, given a particular measuring apparatus, certain properties become determinate, while others are specifically excluded. Which properties *become determinate* is not governed by the desires or will of the experimenter but rather by the specificity of the experimental apparatus. (p.19)

Indeterminacy, not uncertainty, is the central issue.

Objects become determined—that is, they become objects—by means of the measuring instruments[30] used to observe them. That is, objects, with determinate properties and boundaries, do not exist separately from the processes by which they are made intelligible, or the "agencies of observation" (2007, p. 115). To revisit an earlier example, achievement becomes achievement as a result of being measured by an achievement test; it is determined, its boundaries are drawn by the assessment's definition of what constitutes achievement. That is, literacy and numeracy, as determined by the test questions on a particular assessment, become achievement to the exclusion of, say, creativity and empathy. If there is no inherent distinction, the only way to distinguish between an object and the agencies of observation is to impose one by choosing an apparatus: "every measurement involves a particular choice of apparatus, providing the conditions necessary to give meaning to a particular set of variables, at the exclusion of other essential variables, thereby placing a particular embodied cut delineating the object form the agencies of observation" (p. 115). Barad describes this cut as "*constructed, agentially enacted, materially conditioned and embodied,* [and] *contingent*" (p. 115). Making such a cut resolves indeterminacy, at least for the moment and under specific circumstances, and the object becomes intelligible. Put another way, objects and "concepts obtain their meaning in relation to a particular physical apparatus" (p. 120).

For Barad, then, the apparatus is not "mere laboratory setup" (2007, p. 144) as she contends it is for Bohr. Rather, apparatuses "enact agential cuts that produce determinate boundaries and properties" (p. 148), and are the "practices of mattering through which

[30] Barad uses the terms *measurement instrument*, *measurement process*, *measurement*, and *experimental practice*, in her discussion of Bohr's philosophy-physics, finally settling on *apparatus* as that which "enacts a cut" between objects and "agencies of observation" (2007, p. 114). This is a shift from Bohr's language of arbitrary cuts, which Barad rejects because of its connotation of accidental or relative. She understands Bohr to be drawing a contrast to the "inherent, fixed Cartesian subject-object distinction" (footnote 27, p. 424), so she uses *constructed* or, most frequently, *agential* to signal an enacted, material, and contingent relationship between knower and known.

intelligibility and materiality are constituted (along with an excluded realm of what doesn't matter)" (p. 170).

Story as apparatus. That we think in narrative has become a commonsensical notion. Telling stories and telling about stories, their nature and their significance, turns up in a wide variety of fields, from Stephen Denning (2007) in business leadership to Jonathan Gottschall (2012) in neuroscience and evolutionary biology, from Chimamanda Adichie (2009) in a popular TEDtalk to the StoryCorps project, which was just awarded a MacArthur Award for its work "encouraging creativity and building effective institutions to help address some of the world's most challenging problems."[31] In the social sciences, this attention to stories is referred to as the narrative turn or the literary turn (for surveys of the narrative turn in social science research, see Andrews, Squire, & Tamboukou, 2013; Hyvärinen, 2010).

Atkinson and Delamont (2006), in their cautionary tale about the uncritical use of narrative, review the literature associated with the narrative turn in qualitative research in service of their call for increased analysis of how narratives work to make meaning and produce knowledge. They note that "social scientists need to treat narratives as 'accounts' and 'performances'" (p. 166), and, thus, to carefully examine "the accounting devices they enshrine" (p. 167) and the aesthetic and dramatic qualities they employ to make their point. That is, we need to analyze how the elements of craft in narratives serve certain rhetorical purposes. Atkinson and Delamont remind us that stories do not reflect, capture, or mirror some already existing reality: they produce it. As such, truth (or accuracy, or authenticity) is not a property of a story.

Though Atkinson and Delamont, in their attention to stories as performances, mean performance in the dramatic sense of the word, their call for increased analysis of how

[31] Retrieved from the MacArthur Foundation website: http://www.macfound.org/programs/macei/

narratives "*create* the realities they purport to describe" (2006, p. 167) can be answered by thinking about stories with the concepts from Barad discussed above. For example, by thinking about story's performativity, we can see how stories function similarly to other instruments of knowledge production; like the scanning tunneling microscope in Barad's example, a story is a productive practice. As an apparatus, a story brings into being, however temporarily, a particular world by means of the selecting and sequencing that is inevitably part of the composition process. Thinking the story as apparatus lifts it out of debates about authenticity and accuracy and instead has us consider what it makes matter and under what conditions.

In more traditional accounts of teaching practice, teacher knowledge has been made to matter in particular ways, using particular story-apparatuses, to forward particular meanings, which make possible particular agential possibilities, all of which could be otherwise. As noted in my discussion of the most frequently used storytelling methods in educational research—narrative inquiry, arts-based research methods, and autoethnography—stories about teaching practice are too often presented as tidy, complete narratives. These polished compositions obscure the constitutive nature of storytelling by being overly committed to verisimilitude, causing the reader to suspend disbelief and become immersed in the narrative. To remain aware of how stories function as apparatuses, however, would seem to require a failure of verisimilitude: readers must be continually, or at least periodically, distracted somehow, in order to remember to ask questions about how the text is working to produce knowing.

Because the goal of teacher knowledge research has been largely corrective—an effort to reposition practitioners as knowledge-producing agents rather than as passive enactors of developed-elsewhere strategies and curricula—the field positions stories of

teaching practice to be celebrated rather than analyzed (Atkinson & Delamont, 2006). As discussed in Chapter II, representations of teaching figure prominently in the education of teachers-to-be, so they have significant impact on how future teachers imagine the profession and its practices. In the research project outlined in the next section, my goal is to produce a different version of teacher knowledge by means of what I am calling *diffractive storytelling*. A diffractive story is one that disperses and disrupts, overlaps and interferes, in order to resist an "easy sense" (Mazzei, 2007) of teacher knowledge. A diffractive story makes its apparatus-ness evident, inviting an interrogation of how it was produced, what it produces for readers, and what it omits or renders invisible. A diffractive story surfaces where differences get made, and (hopefully) makes a difference.

Putting Barad to Work

The broad goal of this project is to think with theory (Jackson & Mazzei, 2012) about the form of the Teacher Story and what it produces for pre-service teachers. Jackson and Mazzei open with an exhortation to researchers "to use theory to think *with* their data (or use data to think *with* theory) in order to accomplish a reading of data that is both *within and against interpretivism*" (p. vii) as a means to resist the centering tendencies of interpretive qualitative research, holding data as always partial and incomplete and data collection/analysis/reporting as always constitutive and emergent. While interpretive approaches claim to be constructivist insofar as they reject the positivist notion of a stable reality that preexists our examination of it, interpretivist research methods are primarily focused on discovery and explanation (even as they insist on moves like making the position/subjectivity of the researcher explicit and experimenting with various forms of reporting results).

Thinking with theory, on the other hand, explicitly takes reality as made rather than understood (2012, p. 3) by leaning on three figurations: plugging in, the threshold, and folding and flattening. Jackson and Mazzei draw these figurations from Deleuze, framing them in terms of connections that produce only temporary meaning, thereby resisting interpretivist moves to explain and understand. Thinking with theory keeps "meaning on the move" (p. 7).

Thinking with Barad helped me to transform my disconcertment about the representations of teaching in the teacher knowledge research into a series of research questions, and then plan a research project around and inside them. Though the process was not nearly as tidy as the previous sentence suggests. I've been advised repeatedly in my doctoral work to let my questions drive my research design and choice of theoretical framework, and I must admit that I failed to follow this stepwise method. In this project, my questions only began to make sense to me once I began thinking about them in light of Barad, and the research design emerged slowly out of a particular entanglement: my dissatisfaction with conceptions of teacher knowledge; my interest in playing with narrative as a method of inquiry; my answer to my advisor's question, "Who do you want to talk to?" (teachers); and my refusal of the assertion that creative writing must be done separately from academic writing. As such, while the next sections will outline the design of this project in a seemingly linear manner, the actual process was anything but.

Research questions. Every time I encountered a first-person narrative about teaching, particularly those offered up by teacher knowledge researchers (for example, case studies such as Chang & Rosiek, 2003; the narratives of practice collected in Connelly & Clandinin, 1999; the teacher-produced research in Lytle & Cochran-Smith, 1992; and the Voices Inside Schools essay series in *Harvard Educational Review*), I knew I wanted to try my

hand at writing about my own teaching, but I didn't know how to convey the messiness of my experience, or even if I could. I also knew that whatever I think I know about teaching I know from being in conversation with other teachers; my knowing is collaborative and co-constituted, as much of my teaching has been. My desire to tell a story about teaching, one different from those I was encountering in the research literature, is driven by these questions:

- How can narratives about teaching and teacher thinking remain incomplete and open-ended but also intelligible?
- How can narrative form be manipulated to tell generative stories about teacher knowledge and hold the stories as necessarily contingent and changing?
- How can stories about teaching refuse reduction and over-generalization in favor of messiness and complexity?
- How can teaching be storied "not as a thing but a doing" (Barad, 2007, p. 151)?
- What imagining is made impossible by the stories commonly found in teacher education texts and textbooks, and what imagining is made possible for teachers-to-be by engaging with something other than the Teacher Story?

Collaborators. To help me think about these questions, I wanted collaborators[32] who would be enthused at the prospect of being in conversation about their craft. I wanted mostly in-practice teachers so that, as a group, we might bring our immediate classroom experiences into the conversation. And since I predicted that these collaborators would be

[32] I use *collaborator* here rather than the more usual *participant* in order to highlight that these teachers, who so generously shared their thoughts and stories and anxieties and moments of triumph, were not merely contributing to this project (from the Latin, *particeps*, "sharing, partaking"), but co-constructing it (from the Latin, *collaborare*, "work with"). That is, other than the first one, provocations were almost always generated from the ongoing conversation, as I explain in the next section.

geographically diverse, I imagined an online collaborative writing space, which meant that my collaborators would need to be comfortable publishing their writing in such a forum. Thinking as broadly as possible about the spaces of teaching—everywhere from yoga studios to university classrooms—I generated a list of former colleagues, classmates, students, and teachers I suspected might be interested and willing.

To these potential collaborators, I sent a recruitment letter that opened with these paragraphs:

> In my first few years of doctoral coursework, I've tried out a variety of metaphors to make sense of the work of educational researchers, and I've settled on this one: research is storytelling. The task of the researcher is to examine a topic carefully and then craft a narrative that best accounts for what she sees. Like any story, research does the simultaneous work of describing, interpreting, and inviting the reader to take on the narrative's worldview as her own. And like any story, *best* is not synonymous with *true* or *real*.
>
> In the educational research literature, what teachers know is represented by the construct *teacher knowledge*, and a great deal of words have been spilled in efforts to adequately represent, define, and specify this construct. When I first encountered this literature, I found that many of its descriptions of teaching did not resonate with my experiences in the classroom. It's not that the descriptions didn't match my experience—my years in classrooms have shown me that there is no single story of good teaching, including my own—but that they failed to evoke something familiar; they were not recognizable; they did not make me write "This." in the margins. Since these stories about what teachers know form the foundation of teacher

preparation programs, which intend to train teachers-to-be in the kind of thinking that makes for good teaching, this lack of resonance worries me.

My dissertation project is about rethinking teacher knowledge as a construct. I hope to find a way to describe teaching that leaves intact its complexity and contingency, its messiness, a way that captures teaching as "not a thing but a doing" (Barad, 2007). I want to maintain its difficult-to-describe quality while capturing it in such a way as to be useful and instructive to pre-service teachers.

Eight teachers accepted my invitation, and at their request, I use their names throughout this description of our work together:

- Allyn, a doctoral candidate in Creative Writing who teaches classes in creative nonfiction at a non-profit literary arts organization in Houston, Texas. Allyn writes for several publications in Houston, and his creative nonfiction has been published in several literary magazines.
- Christa, a 9th and 10th grade English teacher at a private, non-sectarian, college-preparatory school, with students from pre-K through 12th grade, in Houston, Texas. Christa is also a poet, musician, and playwright; during our work together she was developing a transmedia performance piece.
- Hunter, an Assistant Professor of Physics at a large state university in Texas. Hunter's research is in the area of Physics Education and is focused on embodied cognition and the use of gesture and material anchors in the Physics classroom. (Christa and Hunter helped me survive my first year of teaching, for which I am eternally indebted to them.)

- John, a 9th grade English teacher at a private Catholic high school in Houston, Texas, that serves low-income families through a work-study program that covers a large percentage of tuition and expenses. (John and I were students together at an urban public high school in Houston, to which we both returned to teach, though not at the same time.)
- Katherine, a Professor of History at a community college in Washington. During the first part of the project, Katherine participated from Capetown, South Africa, where she was leading a study abroad program. (Katherine and I taught together at a different community college in a diversity course sequence: African History, African Literature, and African Art.)
- Lucy, an 11th grade English teacher at an urban public high school in Houston, Texas. (Lucy and I were students together in a creative writing class Allyn taught for teachers.)
- Nishta, an 8th grade English teacher at an independent, Jewish day school, with students from 6th through 12th grades, in Houston, Texas (where I taught for seven years before beginning my doctoral program). Nishta has published a memoir, writes nonfiction for various publications, and maintains an award-winning food blog.
- Shea, a 2nd grade teacher at a public charter school in Memphis, Tennessee (Nishta introduced me to Shea, who was in her first year of teacher during the project).

Research design.

Phase I. Using a by-invitation blog, my collaborators and I thought and wrote about our classrooms from September 2013 through March 2014. I posted a provocation—

a set of questions or a short reading—for consideration every other week, and collaborators responded to my provocation, other collaborators' responses, or both. Rather than *prompt*, which has the connotation of an anticipated response, I used the term *provocation*, drawing on its etymological root, the Latin term *provocationem*, "a calling forth, a summoning, a challenge." I wrote on the blog:

> My intention is to call forth thinking, summon discussion, and challenge static ideas about teachers and teaching, classrooms and schools, educational systems, and so on. Please respond as you are called without feeling compelled to answer the list of questions or reply directly to the quote. Unless you want to. My hope is that our conversation will become more organic as we proceed, less directed by my wondering and more about yours. Finally, feel free to post provocations of your own; use this space to call out the ideas with which you engage and to invite conversation.

As contributions accumulated, we wrote in and with each other's ideas and thought with these ideas about our classrooms and teaching practices. This phase of the project was focused on collecting ideas without necessarily trying to synthesize them.

Phase II. To supplement the narrative data gathered on the blog, I conducted conversational research interviews (Kvale, 1996, p. 27) with four[33] of my collaborators. I developed a preliminary interview protocol specific to each collaborator using their[34] contributions to the blog, a sample of which is included as Appendix C). Questions focused

[33] Though all eight of my collaborators contributed to the blog at least once, only five of them responded to almost every provocation. For logistical reasons (i.e., proximity and the timing of our respective spring breaks), I observed and interviewed four of these five. All observations and interviews were conducted in February and March, 2014.

[34] Throughout this text, I will use the pronouns they/their/theirs in an effort to avoid the gender binary inherent in the "his or her" construction.

on uncovering the collaborator's thinking and intention around various classroom practices; for example, this question was developed from Katherine's first post on the blog:

> You describe your classroom as a rather unpredictable place; in your words, "the same critical question is going to be tackled differently by every group of students, and how does one plan for that? I don't know until I'm in it." How do you think about this un-plannable nature of the activity? Or how do you approach not knowing until you're in it?

Then, after conducting informal observations in their classrooms, I adapted the protocol to include what I noticed in the classroom, adjusting my preliminary questions and generating additional ones. For example, as she was explaining a particular classroom practice, Katherine broached the subject of what she can and cannot plan for, so I adjusted the above question this way:

> C: The way you described it on the blog is that it's not really something you can plan for, right? Each group[35] is going to approach the question however they're going to approach the question. It's going to look different, and so you can't really plan for that…
>
> K: But isn't that sort of the point? Especially if you're doing something like a very complex question about history, there should be many different ways you can approach it.

Phase III. The third phase of the project shifted from generating new narrative to working the collected narrative into a more polished piece of writing. To begin, I adapted Julia Cameron's (2002) concept of Morning Pages; I selected an excerpt from the blog posts,

[35] In all of her classes, Katherine uses a group inquiry format she adapted from a protocol known as POGIL™, Process Oriented Guided Inquiry Learning. Much of our conversation centered on how and why she established these classroom practices, which make an appearance in the section of "The ABCs of Teaching" called "Temporarily Without Credentials," in Appendix A.

my notes about classroom visits, or the transcripts of conversations with collaborators each day and wrote in and around it until I had generated three pages of anything goes, stream-of-consciousness writing. This practice, as Peter Elbow (1998) suggests, helped me to see what was there.

After several weeks of exploring the data, I was reminded of an essay I encountered in a writing class, Dinty Moore's "Son of Mr. Green Jeans: A Meditation on Fathers" (Moore, 2007). Moore's essay is fragmented into sections—mostly single paragraphs with a few longer passages and a few single sentences—which are titled and ordered alphabetically. The fragments all concern fathers and fatherhood, some loosely and some very specifically, and they are interconnected by recurring details and cumulative effect. The *what* of the story is embedded in the fragments so subtly that I had to read them all through several times, sometimes in order and sometimes randomly choosing a fragment and then jumping to another, before I could make any sense of it. In Moore's essay, meaning—or an understanding of fathers, however incomplete or fleeting—emerges from and inside an accumulation of seemingly disparate but actually connected fragments of experience and desire and memory. I decided to borrow the form and play with sequencing bits of data in a similar way.

As I worked with the data, I also remembered considering Doug Lemov's how-to manual, *Teach Like a Champion: 49 Techniques that Put Students on the Path to College* (2010), in a course on teacher education. During our conversation about the text, I realized that many people (the overwhelming percentage of this book's reviewers on Amazon, for example) think that teaching is essentially a collection of techniques that, once acquired, add up to excellence. I wanted a title that would position the essay, with its messiness and its contradictions, as a parody of sorts, not to offer a better or more accurate list of traits or

skills or techniques, but to suggest that any such catalogue is already inadequate. I landed on "The ABCs of Teaching."

> I posted a draft of the essay to the blog with these instructions:
>
> Feel free to engage with [the story] as you are moved to: Comment or respond. Rewrite sections. Download and add marginalia. Take a bit of what's here and write your own story with/around it. If you feel I have misrepresented something you said and you want to revise, or if you want to add details or develop an idea further, please do. Take the writing as your own to do with whatever seems fun or necessary.

To encourage my collaborators to freely manipulate the text, I also sent the draft as an email attachment in several formats. While I received positive general comments, none of my collaborators took up the task of manipulating the narrative themselves, and no one objected to or revised my selections of their writing. Two collaborators provided line edits and suggestions for small revisions. A final version of the essay appears in Appendix A.

Phase IV. In order to address the question, what is made possible for teachers-to-be out of engaging with a diffractively-told story, I asked pre-service teachers in the final term of their credentialing program to consider "The ABCs of Teaching" as one of twelve case studies that served as the primary texts in a course on the scholarship of teaching. The course began with an introduction to four variations on the form of teacher knowledge—case studies (Shulman, 1997), research inquiries (Cochran-Smith & Lytle, 1990), personal narratives (Connelly & Clandinin, 1988), and activism (Zeichner & Liston, 1987)—and then students read case study examples, responded to a series of questions in an online journal, and discussed the readings in class. To manage the large class size, the professor assigned students into four small groups, which took turns meeting with me in a separate classroom

for more focused discussions of the readings for each class session; these discussions were recorded. I was able to meet with each small group three times during the course.

In an effort to enable a diffractive reading of the story and the responses it produced in teacher-to-be readers, I selected comments from both students' journals and class discussions and inserted them into the story as marginalia. This annotated version of the essay appears in Appendix B. Beyond my selection process, the marginalia were also produced by the practices that generated the students' responses to the story, including the time constraints of the assignment, the framing questions in the journal prompt and the class discussion, and the way of reading that was created by previous assignments. Put in Baradian terms, the course in which teachers-to-be encountered "The ABCs of Teaching" also functioned as an apparatus, which I analyze in detail in Chapter V.

Also, students were asked to comment on passages that stood out for them and the overall format of the story, in particular on its accessibility and usefulness to teacher-readers; as diligent students, most did not stray from these questions, reducing the scope and variety of possible knowings. Finally, the discussions of previous readings had focused on questions of authorial credibility (who is speaking and what do they get to say about teacher knowledge) and narrative authenticity (the feels-real quality of the descriptions), and those ways of inquiring into the text carried over into engagements with this story, even though such questions are at odds with the theoretical framing of the piece.

Remixing as Data Analysis

In their contribution to a special issue of *Qualitative Inquiry* on qualitative data analysis after coding, Holbrook and Pourchier (2014) answer the question that frames this issue—what is it that you think you do when you do data analysis?—with descriptions of three practices: doubting, fabricating, and remixing. First, "we doubt. We chase after the

intangible, undefinable, and the always escaping…. We don't discard what we can't signify, try not to undermine a hunch, and respect the effect of what cannot be spoken" (p. 754). Then comes fabrication, not in the sense of falsification, but as an activity of fashioning, making, and building, in order "to get at something different" (p. 755), something I didn't and maybe couldn't know before I fashioned, made, and built. This practice expands what is considered data, and these researchers include "the detritus of [their] thinking—journal entries, sketches, artifacts, photographs, collages" (p. 755) in the analytical method they call remixing. This opens up both the concept of data, to include much that is typically not considered in data analysis, and the concept of knowing. That is, we come to know, in Holbrook and Pourchier's account of research, not in a tidy, linear fashion, but rather by mixing and remixing, by juxtaposing and erasing, by doing and doubting.

I have different kinds of data—my writing, both private and published on the blog, my collaborators' writing, field notes from classroom visits, transcripts of conversations, the content of my literature review, my well-worn copy of *Meeting the Universe Halfway*, the inspirational artifacts that surround my workspace—all of which I keep considering over and over. I set one bit next to another bit, then I remember something I read for class and track down a source, then I rearrange. I recognize myself in Holbrook and Pourchier's discussion of hoarding: "We hang on to bits—paper scraps, glass shards, whole books, broken objects—anything that appeals to us visually, tactually, intellectually" (2017, p. 758). While I am not a visual artist, I collect bits of language this way, hanging them on the wall of my office, rearranging them to see what happens when I put juxtapose things in new ways or add something new.

fragment: the serial killer collage

There is a scene in Mona Lisa Smile *(Johanson, 2003) that strikes me every time I see it, which, since it is one of the teacher movies in a film class I teach, has been five or six times in the last year. Julia* Roberts, *wearing a strangely lumpy cardigan and a high and bouncy (of course) ponytail, is visited in her studio/office by a student who wants to protest a grade (of course). Roberts' Katherine Watson, a Berkeley-trained radical come to Wellesley to liberate the uptight smart girls, has set up a workspace at the margins of campus, and the camera pans across bulletin boards covered in images and clippings from magazines and newspapers.*

> *Complaining Student: "What's all this?"*
>
> *Watson: "Different things different days. People who inspire me. Artists I admire. Editorials I don't."*

Most every classroom or professor's office I've ever visited has a similar collection: images and bits of text, notes from students and partners, photos of family, things that provoke and sustain.

They always remind me of what I call the serial killer collage. My guilty TV pleasure is crime dramas, the creepier the better. And I've noticed a recurring element: the a-ha moment when detectives become convinced that they have their man (and it is almost always a man) when they open a door (to a room, a cupboard, a locker) and discover a collage of images and newspaper clippings about the crimes being investigated. There's always an intake of breath, and the discovering detectives calls colleagues over to show them the evidence. "See," you can almost hear them collectively thinking, "I knew it was him."

I don't really want to think too much about how teachers and artists are similar to serial killers, but I do want to think about how these collages reveal something about us, about how we think and how we put things together, about how one thing reminds us of other things, about how we are what we pay attention to.

Because our lease agreement prohibits any sort of permanent wall-hanging hardware, my serial killer wall is set up like a clothesline: a photo of my parents at their wedding reception; a poem gifted to me during National Poetry Month; a Rilke quote; a snipped-from-a-magazine image of Michael Stipe; things that provoke and sustain. This project was authored underneath, or perhaps even inside, this collage. I wonder what a-ha moment is in store for my readers?]

Some of my rearranging is motivated by worry. After thinking hard for more than a year about the stories we use to teach teachers-to-be and how we use them and what they produce, and reading and re-reading my collaborators blog posts, I have some suggestions, some ideas about how we could do this differently and why we might want to. I want to say some things about that. But how? Every time I try, I get nervous that whatever term I coin will become the latest way we surveil teachers. Indeterminacy is the new *withitness*. Doubt is the new *grit*[36].

I also worry that how I am making meaning in and with the data is somehow unaccountable. Holbrook and Pourchier refuse such an accounting—"We don't explain, we don't write words in our research diaries to justify our use" (2014, p. 758)—and I don't quite know what to make of that move, which seems at first to be a bit of a cop out, a reliance on some ephemeral aesthetic sensibility. Because I want to intervene in the current conversation about teacher knowledge, which has become rather stagnant, I need my method to be intelligible, to do the necessary work of putting me in conversation with other

[36] The term *withitness* was original coined by Jacob Kounin (1970) to describe the awareness required for effective classroom management; it resurfaced on a variety of education blogs in 2011 (see, for example, Pressman, 2011; Association of American Educators, 2012) as an essential characteristic of effective teachers. *Withitness* was quickly discarded, as solutions-*du-jour* so often are, in favor of *grit*, a description of perseverance usually attributed to Angela Duckworth (Duckworth, Peterson, Matthews, & Kelly, 2007; Von Culin, K., Tsukayama, E. & Duckworth, A. L., 2014), and similarly lauded by educational bloggers as a sure-fire solution for fixing our schools, complete with unfortunate John Wayne references (see, for example, Davis, 2014; Jones, 2014).

teacher education researchers. And yet, I don't think all the things we do with data can or should be explained. After (too) much hemming and hawing, I decided to stand in my not knowing, to see if I might "consider how discomfort gives way to inquiry and how comfort can be found in the loss of certainty" (p. 762). In Chapter IV, I share my serial killer collage and what I noticed in mixing and remixing its images and fragments.

CHAPTER IV

ANTI-THEMATIC

In my high school classroom experience, teaching students to identify the theme of a work of literature is its own special brand of torture. As it happens, many fifteen year-olds do not possess the life experience to notice large-scale patterns in their own lives, so they can't quite get their heads around concepts like *coming of age* or *knowledge vs. ignorance* or most of the other entries on those lists of universal themes literature teachers often rely on to help students with the task of identifying theme. And even if they can confidently identify a theme of *The Great Gatsby* as the limits of the American Dream, they struggle to say anything else about it.

"So what about the limits of the American Dream? What does the text tell us about those limits?"

"Uh…"

"If you had to write a complete sentence using the theme you identified as the subject of the sentence, what would the predicate be?"

"Um, what's a predicate again?"

And so literature teachers rely on formulaic constructions of thematic statements: In [insert book title], [author's name] explores the ways [theme, stated in noun form] is [statement to describe theme]. In *The Great Gatbsy*, Fitzgerald explores the ways the American Dream is not really available to everyone. Which is just dull. Because *The Great Gatsby* is a rich and complicated text with many central ideas—about meritocracy and class certainly, but also about gender and sexuality, truth and lies, deception and manipulation, violence and greed—this or any formulaic thematic statement flattens this richness into a teachable task.

I read and remixed and reread the data, cutting transcripts and printouts of blog posts into sections and arranging them on the floor of my office or taping them to the walls, setting bits of language next to other bits, writing notes in my journal about what struck me. I looked up poems and pictures and references, pulled quotes from books and articles, and mixed them in. I dug out notes from former students, examples of student writing, and other teaching artifacts from my "things to save" filing box. Eventually my attention produced two clusters of data, and I began thinking about each cluster in terms of its central idea or theme: indeterminacy and doubt, and how students are seen and what that seeing produces.

To be clear, I don't think these themes exist in the data separately from my attention, but once I began thinking thematically, I found it impossible to resist, even as I worried about what ideas were being excluded by this thinking. And in spite my trepidation at fixing data in place by thematic grouping, I couldn't think of how else to proceed. In the following sections, I consider each of these themes and then turn my attention to the detritus of my thematic thinking, in which I discovered rich surprises.

fragment: Luetta

Of course, I have found in the data exactly what I designed this project to find: stories of ambiguity and anxiety and how they are lived through or embraced or sustained; stories of messiness and how it is managed; stories of leaving and stories of staying and stories of changing and stories of being.

My former boss, the woman I credit with pushing me in the direction of doctoral study, was forever reminding me that people move through the world looking for data to support their already established worldview. Usually she was trying to help me understand some teacher's intractability and the, to me, faulty reasoning

that maintained it. But she probably also meant for me to interrogate my own way of looking, which always furthered my own already established explanations for how things go.

So yes, I found what I was looking for. But in what remained, I found a few other things. Some surprising things.

Usually I hate surprises.

A note on the text: In the remainder of this chapter, *raw data*, excerpts from collaborators' contributions to the blog, transcripts of our conversations, and notes from my classroom visits, and *remixed data*, excerpts from the essay, "The ABCs of Teaching," are formatted as block quotations, indented and single-spaced; *remixed data* is further distinguished by boldfaced titles. Finally, the fragments in this section are excerpts from my research journal, bits of my thinking about data and the narrative I constructed with it, so are less narrative and more, well, fragmented than those in earlier chapters.

Indeterminacy and Doubt

In Chapter II, I highlighted several strands of teacher knowledge research that seem to acknowledge but then back away from the uncertainty that permeates teaching practice. That is, both Shulman and Grossman use the concept of uncertainty in their descriptions of teaching; Shulman asserts that "the essential feature of teaching is its uncertainty and unpredictability" (2004, p. 464), and Grossman claims that teaching requires "complex practice under conditions of uncertainty" (Grossman et al, 2009, p. 2058). Barad's distinction between Heisenberg's uncertainty and Bohr's indeterminacy illuminates the limits of these descriptions of teaching: these scholars are, like Heisenberg, mistaking indeterminacy for uncertainty.

To revisit this distinction briefly, Heisenberg's uncertainty principle posits that we cannot know both the position and the momentum of a particle simultaneously. Bohr counters that the issue is not merely epistemological: it's not that we can't *know* these values, but that these properties *do not exist* at the same time. The properties of position and momentum are produced by particular measurement interactions and do not exist separately from those. This distinction frames Barad's concept of the apparatus. To return once again to my achievement example, it is not that we can't *know* both the level of literacy and the level of creativity of our students at the same time (by virtue of having selected one assessment over another), but that these properties *do not exist* independently from the measurement interaction that produces them. The problem isn't epistemological uncertainty but ontological indeterminacy.

Because teacher knowledge research focuses on uncertainty rather than indeterminacy, the solutions or interventions such research typically proposes attempt to resolve uncertainty, or at least make it more sustainable. For example, Grossman et al resolve uncertainty using decomposition techniques, the ongoing work of degrading teaching into its component parts. Decomposition is one of three well-established pedagogical moves in teacher education, along with representation and approximation (Grossman et al, 2009), and it purports to deal with two difficulties in preparing future teachers: teaching requires "complex practice under conditions of uncertainty" (p. 2058), and teaching is a profession that feels familiar to many people, perhaps especially those who want to become teachers, which causes them to underestimate its complexity (Britzman, 2003).

Decomposing the practice of teaching into its parts in order to look at them carefully and name them using the professional vocabulary of the practice, what Grossman et al call developing "professional vision" (2009, p. 2069), disrupts familiarity and lets future

practitioners grapple with the complexity of the profession in more manageable doses. While I agree about the importance of developing professional vision, this is an epistemological move to resolve uncertainty that misses the ontological implications of producing teaching with a concept, decomposition, that connotes decay, spoilage, going off. When the practice of teaching is decomposed in order to be explained and examined, it becomes representable in terms of instrumental value: strategies, instructional moves, activities, and so on, are tools for the ubiquitous toolbox. Something about teaching is lost in this way of thinking about it, and it is difficult to name what is missing.

fragment: what is missing

Sometimes I only understand things by way of other people's writing. Though understand is the wrong word. Really it's that sometimes other people's writing has me see what I can't see until I read it.

Keeping Things Whole

In a field
I am the absence
of field.
This is
always the case.
Wherever I am
I am what is missing.

When I walk
I part the air
and always
the air moves in
to fill the spaces
where my body's been.

We all have reasons
for moving.
I move
to keep things whole.

This poem[37] *is an exercise in not-naming, yet noticing the unnamable. Because once I name what I am in terms other than the absence of something else, I have missed something important.*

In this project, every act of naming feels dangerous, like I am contributing to the very work that I critique. There's a way in which this task of challenging the construct teacher knowledge by complicating it always already reifies its thing-ness. I'm just making it a fancier thing, adding a layer of decoration.

How can I keep looking at the practice of teaching as though, whatever it is, it is what is missing?

Because my own teaching experience was saturated with doubt, these too-easy resolutions of the uncertainty of teaching practice were one source of my disconcertment when I began reading in the teacher knowledge literature. At the time, however, I didn't have Barad to help me frame the problem as one of mistaking indeterminacy for uncertainty, and, as is evident in the data I consider below, I used the term uncertainty unproblematically both during my data collection and in early analysis. Thinking at the level of epistemology, it would seem, is my default framework as well.

The subject of doubt was broached on the blog in our introductions.

Provocation #1: who we are

> Introductions are always inadequate somehow, but let's try it anyway. Say a bit about yourself, whatever you feel is important for us to know. Say something about yourself as a teacher—where and who and what, but maybe also how. Maybe say something about what matters most to you in the learning environment, or about what you hope to accomplish in your teaching. Maybe take an initial pass at defining teaching—we won't hold you to it, I promise. Say something about why you teach, what keeps you teaching, how you think about teaching as a profession or way of being or what you do to pay the rent.

I am a lion in a sea of sea turtles.

[37] "Keeping Things Whole," by Mark Strand, is from his Selected Poems (1979), and is reprinted with permission here: http://www.poetryfoundation.org/poem/177001

My pedagogy is Doubt.

I teach high school English at an Independent School in Houston, Texas. (Christa)

The mechanics seem pretty straightforward, yet there are parts that are impossible to write about and can only be experienced; that is, the same critical question is going to be tackled differently by every group of students, and how does one plan for that? I don't know until I'm in it. (Katherine)

To me, learning is the transformation of participation, and being defined that way, it must be partly emergent rather than totally planned. … I guess I try to structure day-to-day activities around particular learning goals that are characteristic of ways of engaging, but leaving it open as to exactly when or after how much engagement the objectives will be met. I want to be open to an objective getting met not on a particular day but over the course of at least a few months of sustained practice in some kinds of activity. … A lot of my instructional choices are aligned with practices I know from playing music and from playing what little sports I've played. In those arenas, emergence is huge. If we knew exactly what would happen, we wouldn't be so interested in doing it again and again. And by doing it again and again, our participation is transformed. So, overall I want there to be enough structure for students to know what their specific options are for participating – like, what song are we playing, or what offensive play are we going to run – but for there to be surprises as to what the time together ends up having been about. … I feel insecure sometimes about not having better defined objectives, since I know it looks good. I worry that I look disorganized. Sometimes, I feel envious of people who teach in environments where it is more acceptable to focus on emergent learning– these environments may be mostly outside of school. (Hunter)

If it were up to me, my only SWBAT ("Students will be able to…") would be "SWBAT work their hardest to grow as individuals and as learners." But, of course, it's not up to me.

I have a different vantage point than some of y'all in that I teach younger kids (second grade) and am in a charter school, where there's a particular drive to make bold claims about what we do and how we do it and then to be able to prove this by showing Results and taking lots of Fancy People on tours from classroom to classroom for quick glances at our rigorous learning. That sounded snarky, and I am

> very fond of my school, but I feel that I'm in the heart of the Common Core, Race to the Top, measurability era in education, and it can put a damper on the fluidity and authenticity that make classrooms so beautiful. (Shea)

Doubt. Impossibility. Emergence. Fluidity. Several collaborators echoed Hunter's desire for "enough structure" for students to see how to engage, going into detail about classroom practices and protocols designed to produce familiarity. These procedures become touchstones for their students, and, perhaps paradoxically, produce more risk-taking.

Because it kept coming up and because of a provocation from my own teaching during this project, I posted this about midway through the project:

> Provocation #6: uncertainty
>
> > Here's an excerpt from something I wrote about my class last week:
> >
> > > By week three, the student who, after our first class meeting, had walked with me on my twenty-minute trek home, talking enthusiastically the whole way about how awesome class had been and how excited he was for next week, was slumped despairingly onto his notebook and avoided making eye contact with me. After I posed a question to the group, he flung his arm in the air without sitting up; when I called on him, he asked into the crook of his arm, "Why are you doing this to us?" After class that night, a helpful young man explained to me not a little condescendingly that he was happy to "debate epistemology and whatnot, having been a philosophy major," but that I should really just get on with showing them some strategies for teaching *Fahrenheit 451*.
> >
> > Clearly I have pushed many of my students well outside their zone of proximal development. They are anxious about becoming teachers and I am making their anxiety worse by suggesting that the strategies I'm modeling can't simply be taken up unquestioned and plopped down into any literature classroom. They can't bear any more uncertainty at this point, and I can't bear the thought of their becoming certain.[38]

[38] One reader found the language of this prompt to be deficit-based and dismissive of students' concerns. As this is the prompt as it appeared on the blog, editing it to more appropriately express my thinking is not possible. My intention in the prompt (however inadequately I expressed it) was to locate the deficit in myself: I failed to meet my students where they were (in a space of anxiety) and instead imposed my agenda ("debating epistemology and whatnot," as my student so aptly described it). As indicated by the questions that follow this anecdote, I think this is a familiar tension for teachers, and this was a productive prompt. Out of the responses

How do you think about uncertainty in your teaching practice? How do you sustain uncertainty (yours and/or your students') while assuaging anxiety (yours and/or your students')? What do you do when showing your students what you really want them to see is too much for them? How do you discover and consider the limits of what your students can handle?

Fiction[39]

There is a lot of push and pull that goes on between the mentor and the students, and the way we (the mentors) deal with that is with a kind of mindfulness—we observe the temperature in the room, and we adjust accordingly, but just enough so that the students can persevere through the dusky terrain of knowledge and skill-building. We step back a little and give them something specific to do, something with a clear goal. As teachers, our strength to withstand uncertainty continues to grow; we come to understand that doubt is the conflict that keeps us coming back for more (so to speak). Students, on the other hand, believe they are in the classroom to learn how to *do* things, concrete things. They are there to find out.

One way to help students withstand uncertainty is to show examples of how doubt is the bedrock beneath the scaffolding of theory, practice, praxis, etc. Great literature or science or business is founded on the concept of doubt: what is it that we know (right now)? And how is this knowledge flawed or imperfect (or not)? What can we add to help stabilize the illusion of certainty, of permanence? Remember the Wallace Stevens quote: "The final belief is to believe in a fiction, which you know to be a fiction, there being nothing else. The exquisite truth is to know it is a fiction, and that you believe in it willingly" (from *Adagia*).

We just have to keep showing our students that reality is always uncertain.

Temporarily Without Credentials

I don't think of myself as a content area expert or anything like that. You can't be an expert in world history; it's simply not possible. And I am willing to live in the insecurity of not having all of the knowledge in the world.

I think a lot of people shy away from teaching because they feel like they have to be an expert before they can stand in front of people and say this is what I know. And in world history, I know enough to fill a thimble, and there's an ocean of information, so I had to become comfortable with saying I don't know that, or that, or that thing over there, or anything else you've asked me about today.

---

came a follow-up prompt about deficit thinking, a response to which is included in "The ABCs of Teaching" as the section titled "Remarkable Brightness."

[39] This section and the following one, "Temporarily Without Credentials," are fragments from "The ABCs of Teaching" taken from blog posts in response to this provocation.

> But it's certainly not the case that I have no information to offer my students. I know things. More importantly, I know how to find information and decide if it's credible.
>
> So I prefer small group conversations, where trading ideas and conveying information happen simultaneously, and set up most of my classes that way. I learn a lot in these sessions as many of my students are history buffs about particular areas that interest them and so have details that I absolutely don't possess.
>
> Also I find that actually sitting down with my students reinforces the idea that they are only temporarily without credentials. In the meantime, they still need to refer to me as "Doctor." I've thought a lot about this and it seems a little schizoid, but I think that what I've come up with is that accomplishments ought to be recognized.

It is important that these narratives of doubt not be reduced to a dispositional quality to be added to the effective teaching checklist: effective teachers develop capacity for ambiguity, and can identify the limits of their content knowledge. These claims—Christa's assertion that reality is always uncertain, Shea's desire for fluidity, Hunter's suggestion that schools are hostile to emergent learning—are dangerous. They trouble commonsensical notions of what school is, how it works, and what it does. Students have been trained—by worksheets and call-and-response instruction, by standardized assessments and all the preparation for them, by having to fit bodies and their functions into too-small furniture and too-regimented bell schedules—that there is a single correct version of reality: there is a right answer. My student's request for "some strategies for teaching *Fahrenheit 451*," for tools for the teaching toolkit, was a request for a right answer. Achievement has come to mean being able to produce right answers. Increasingly, teaching has been reduced to implementing instructional practices that support students in the production of right answers, perhaps because student achievement is the only right answer that counts on assessments of teaching practice. It's not just that there is no room for doubt in this system: doubt disrupts the whole process.

fragment: What Works (Or Not)

I've spent more time than I care to admit exploring the What Works Clearinghouse website[40]. It's a bit like the cliché of the gruesome scene one cannot look away from: I click through various screens, skimming and following links into deep corners of the site, all the while more than a little awestruck that this is what smart people spend their time producing.

It is Shulman's notion of a knowledge base for teaching made painfully literal—it's a searchable database—and stripped of any practitioner-based narratives about experience that he insisted were indispensable. Because those aren't science.

Here's how the What Works Clearinghouse describes the project:

> *The What Works Clearinghouse (WWC) was established in 2002 as an initiative of the Institute for Education Sciences (IES) at the U.S. Department of Education. The WWC is administered by the National Center for Education Evaluation within IES.*
>
> *The goal of the WWC is to be a resource for informed education decision making. To reach this goal, the WWC identifies studies that provide credible and reliable evidence of the* ***effectiveness*** *of a given practice, program, or policy (referred to as "****interventions****"), and disseminates summary information and reports on the WWC website. With over 700 publications available and more than 10,500 reviewed studies in the online searchable database, the WWC aims to inform researchers, educators, and policymakers as they work toward improving education for students.*

I hover my cursor over effectiveness and a text box clarifies that effective means the intervention "caused an improvement in outcome." They go on to define other terms:

[40] http://ies.ed.gov/ncee/wwc/

For nearly a decade, the WWC has been a central and trusted source of scientific evidence for what works in education to improve student outcomes. What does that mean?

> *Central. We want to be the place you turn to when you want to know about education research. We have reviewed thousands of studies on hundreds of education programs, products, practices, and policies.*
>
> *Trusted. We strive to provide accurate information on education research. All of our procedures and policies are publicly available, and our goal is to provide transparent reviews of the research literature.*
>
> *Scientific evidence. In order to tell you what works, we conduct thorough reviews of the research literature and critically assess the evidence presented.*

The work of the WWC is conducted under a set of contracts held by several leading firms with expertise in education and research methodology, and managed by IES on behalf of the U.S. Department of Education.

I have to dig for a while to discover a definition of outcome, but when I do it is as I expected—"knowledge, skills, attitudes, and other desired benefits that are attained as a result of an activity"—with no discussion of which benefits are desirable and to whom and for what, and with an assumption of a simplistic cause-and-effect relationship between some activity and discrete bits of knowledge or skills.

I want to talk back to the What Works Clearinghouse: "That's not how it works. That's not how any of this works."[41]

[41] https://www.esurance.com/commercials/beatrice

Insisting on certainty vs. sustaining doubt. An insistence on certainty, demonstrated by the language of *evidence-based practices*, is a constant in the shifting landscape of national educational policy, making its way from No Child Left Behind through the Common Core State Standards into standardized teacher assessment models and finally into federal guidelines for teacher preparation programs. In this policy landscape, *evidence* means *real* data, that which is obtained using only *rigorous* research methods, specifically the randomized clinical trial. In this view, the knowledge base for the teaching profession should be composed primarily of information derived from clinical trials.

As expressed by Grover Whitehurst[42] in an article in *The New York Times* (Kolata, 2013), this belief relies on a comparison of education to the field of medicine, which, ironically, reveals the problem with such insistence on such a narrow conception of data: "It's as if the medical profession worried about the administration of hospitals and patient insurance but paid no attention to the treatments that doctors gave their patients." Of course, the medical profession must worry about all three of these and myriad other concerns, all at once, a circumstance which is impossible to duplicate in a randomized clinical trial, where the definition of good design is holding all variables other than the one being examined constant. Information gained through randomized clinical trials should be part of the knowledge base for any profession that can use them, but to assert that this is the only knowledge of value in any profession as complicated as education or medicine is dangerously narrow-minded (St. Pierre, 2006).

---

[42] Whitehurst is currently the educational policy expert at the Brookings Institute, and was formerly the director of the Institute of Education Sciences, which is responsible for established the What Works Clearinghouse (WWC). According to the WWC *Procedures and Standards Handbook, Version 3.0*, only research using randomized controlled trials can meet the WWC standards "without reservations (Institute of Education Sciences, 2014, p. 9). Quasi-experimental design studies can meet the standards "with reservations" only if they carefully establish baseline equivalencies between groups. And no other research design is even considered for inclusion in the WWC database.

Whitehurst's claim that there is only one kind of *real* data is an example of what Patti Lather (2007) calls a *return*; according to Lather, all of the various turns (linguistic, critical, deconstructive) and crises (of representation, of science, of confidence) in social science research are beginning to be replaced by various returns: to the real, to the objective, and to "scientistic methods" as demanded by what she calls the "worldwide audit culture with its governmental demands for evidence-based practices" (p. 3), of which policies like No Child Left Behind and its byproducts (e.g., the What Works Clearinghouse) are certainly examples. In this context, Lather wants to reconfigure "empirical work as a site to learn how to find our way into postfoundational possibilities" (p. 35); she calls for research that works in and with the trouble (caused in particular by the crisis of representation), avoiding the move toward projects that are intended as correctives, which by their nature as responses, are necessarily limited by the work to which they respond.

In a commitment to working in and with the trouble, Lather rightly calls for "practices that exceed the warrants of our present sense of the possible" (2007, p. 36), the development of which will require moving beyond notions of correcting or adding to the existing way of knowing in order to "get lost," which, for Lather, is the space not only of ontological possibility but also what she calls deconstructive responsibility. Getting lost, as Lather conceives of it, is generative; it is the space in which researchers can both examine the limits of the projects they take up and continue to pursue them.

Local enactment as one way to get lost. As I discussed in more detail in Chapter II, Fred Erickson (2014) describes the limitations of the medical model that Whitehurst and others draw on heavily in their educational reform rhetoric: doctors do not set out to heal everyone or treat a disease in general, but to help "a particular patient who manifests that disease in particular, situated ways"; similarly, teachers do not teach children in general, "but

particular children in particular circumstances of learning and teaching in classrooms and in community life" (p. 3). While the clinical trial research that is used effectively to develop treatment protocols is certainly one source of information for practicing doctors, it is not the only necessary information for successful patient care. Erickson goes on to assert that educational researchers and policymakers cannot rely exclusively on identifying best practices by means of a narrow concept of evidence-based research, and then scaling up by insisting on fidelity of implementation. Rather, we should be insisting on what he calls local implementation (scaling down) and wiggle room (low fidelity); low fidelity, he argues, should not be taken as a failure of teachers to follow directions, but "as the possibility that local adaptation is being done ingeniously" (p. 5).

In a much earlier editorial about the inadequacy of clinical trials as a model for educational research, Erickson (1992) offers chaos theory as an analogy to explain why local variation is a sign that the knowledge base is being put to proper use, arguing that "randomness can be involved in processes that are not at all disorderly." That is, while research strives to identify patterns, processes, and explanations that are, as Erickson puts it, "globally stable," those globally stable patterns cannot be imposed on "locally unpredictable" situations as rigid heuristics. It is the consumer of the research rather than the producer who must determine its generalizability because the variations in contextual circumstances "can be small differences that have big consequences for the qualitative character of the overall pattern that develops in any local setting" (p. 10).

Because teaching requires "complex practice under conditions of uncertainty" (Grossman et al, 2009, p. 2058), putting knowledge to use in practice is about more than fidelity of implementation. To embrace local variation is to embrace unpredictability and indeterminacy, not as troubling indications that our research isn't designed properly or is not

generalizable, but as evidence that we are holding the notion of a knowledge base loosely and are paying attention to our teaching as an emergent practice. In order for educational research to answer Lather's call for "practices that exceed the warrants of our present sense of the possible" (2007, p. 36), and move towards "a deconstructive problematic that aims not to govern a practice but to theorize it, deprive it of its innocence, disrupt the ideological effects by which it reproduces itself, pose as a problem what has been offered as a solution" (p. 127).

Nearly ten years further into the increased governance of our understanding of what teaching is, Lather's language needs to be the rallying cry of educational research: we must resist efforts to govern the practice of teaching, based on narrow conceptions of both teaching and research about it, which turn teaching back into a scripted, mechanistic practice. Instead, we must persist in, insist on, theorizing teaching. And by this I don't mean to invoke the usual critique of academic work: that we theorize by contemplating in an abstract way that is somehow removed from practice. This version of the scholar is a straw man. I do mean we cannot give up on thinking hard about teaching and trying to describe it in increasingly complicated ways; we cannot give in to producing research that reduces teaching to that which is easily captured and defined and modeled. As Oregon and other states transition to a standardized, performance-based teacher assessment for credentialing new teachers, which I will consider in Chapter VI, we must be careful not to produce standardized teachers inside a state-mandated and surveilled monism.

Rather, we must continue to advocate for local enactment and insist on a pluralist notion of teaching—what teaching *is* is entangled with the location and circumstances of its enactment. Annmarie Mol (2003) shows how this is true with atherosclerosis, describing how it is differently enacted in the consultation room and the pathology lab; in other words,

what atherosclerosis *is* changes based on the location and circumstances under which it is being considered. If educational policymakers are going to reach to the medical profession for a model of professional practice, let them reach for Mol's understanding of multiplicity. This shift in focus would reframe the work of teacher knowledge research as not only concerned with epistemology but also with ontology; to use Barad's term, what we should work towards is an onto-epistemology of teaching.

Seeing Students and What That Seeing Produces

Recently I attended a talk by an educational psychologist who was presenting his research on *being known* (Chhuon & Wallace, 2014). Drawing on both Maslow's work on belonging (1943) and Noddings' writing about the role of care in educational settings (1992), Chhuon and Wallace posit that being known is a protective factor for students and ought to be considered as a component of effective teaching. I was sharing a table with a particularly blunt colleague, who looked at me at one point and said, "Well, duh. What educator, with *any* amount of classroom experience, doesn't know this?" Indeed, getting to know students individually, coming to an understanding of them as whole human beings with lives outside the classroom and desires beyond daily objectives, is a critical part of curriculum design, classroom management, instructional strategies, and so on; every aspect of teaching practice is made easier and more effective when our students are known to us.

But getting to know one's students produces more than a "safe and productive learning environment"[43] in which one can effectively differentiate instruction and use

[43] This language is taken from the Professional Growth Assessment used in UOTeach (*UOTeach Program Handbook Assessment Addendum*, 2014), the credentialing program at University of Oregon, to provide feedback to teaching candidates.

students' interests to create an anticipatory set[44] (Hunter, 1994). Knowing our students expands what we are responsible for, beyond conveying the content and skills of our discipline and giving students opportunities to engage with that content and practice those skills.

> Yesterday, one of my kids lost a tooth—what apparently was his upper right lateral. Ordinarily, or in my own sense of what is ordinary for a second grader, this literal loss is not experienced as such. But for him, this doe-eyed boy who still holds his big sister's hand every day as they walk home from school, this was the simple end of it. I knew better than to ask him what someone undoubtedly would have asked me in my childhood: "Did the tooth fairy come visit you?" Instead, I grinned and asked (mostly, I'll confess, for my own curiosity's sake) "What'd you do with it?" After a beat, he cocked his head and shrugged, "Threw it away."
>
> It was only that evening, at a friend's dinner party when confronted with a young mother's tales of her daughter's recent tooth loss—the $5 she had received, the long process of choosing a whimsical name for her tooth fairy—that I thought back to my little guy. I tried to explain it to my fellow partygoers, to share a slice of life from this little and beautiful person who is such a part of my life five days a week, who after only five weeks of school has found his way in, and was met with a thanks-for-darkening-the-evening lull. (Shea)

Because she already knew him as extraordinary, at least in his vulnerability and capacity for loss, she "knew better than to ask him" an ordinary question. And while her knowing was not intelligible in a different context, "at a friend's dinner party," it produced something for the student, even though that something remains unnamed in this account. The knowing exists as a sense of *something more there*, even when we cannot name any specific something more.

Missing from Chhuon & Wallace's (2014) concept of being known is an honest, complicated discussion of what that work means for teachers.

[44] In Hunter's model for instruction, the anticipatory set is the hook at the beginning of a lesson that draws students' attention to the material. This way of opening a lesson is considered a research-based best practice and has become standard in most lesson plan templates.

I think one of the most difficult things is to figure out how to teach effectively and care enough about my students without feeling at the end of the day like I want to kill myself over each of their personal situations: the ones who live in their cars, are ex-cons, in recovery, raising their children as single parents, working two jobs, are nursing ailing parents. I am the last person to take my own advice, yet some measure of distance is life-saving. And don't we all want to live to teach another day? (Katherine)

Boundaries are key. Some of the teachers here where I teach complain that there are always students hanging around their classrooms, that they never have any space away from students. These teachers are ones that invite a friendly relationship with their students through the comments they make, the tone they use (sarcastic, or jokey, etc), the questions they ask that veer into the students' personal lives. These are beloved teachers (and they are really, really GOOD teachers); I am not judging them harshly. Because they are beloved, they have a profound impact on their students' learning and lives.

Nevertheless, the psychic toll of being a teacher is much greater on them than it is on me, a teacher who "draws lines that define my personal self"[45] differently. These lines indicate/imply that "I'm not that interested in your personal life, Student A; I am only interested in it if it's in the context of the given academic framework (writer's notebook, a personal essay, e.g.). Within those lines, I will be as compassionate and as open to your experience as I can be, and I will share (appropriately) from my experience to help you grow. BUT during lunch time or after school, unless you have an academic need, leave me alone."

As you might imagine, I do not have the hoards of "hangers-on" that these aforementioned teachers have.

Recently, one of those aforementioned teachers sought refuge in my gloriously quiet classroom during lunchtime.

"God!" he said, "My students won't leave me alone."

"No students here," I said, sweeping my arm around my empty domain.

"You're lucky," he said, "Give me some of your fairy dust."

"It's called, 'bitch dust,'" I said. (Christa)

Boundaries are likely key, but they can't be drawn too closely or maintained too strictly, and there is no formula or mechanism for determining where to draw them. Later in the project, Katherine posted on this topic again:

[45] This post was written in response to Katherine's, the full version of which included the line, "Do draw lines that define your personal self: 'I will not comment on your tattoos; you're not permitted to comment on mine.'"

> I am dealing with such a diverse population: age, race, not so much socioeconomic status, where students tend to be more similar, but even some of that. We have students who are homeless, who live in their cars, or shelters. If we know this, and sometimes it's pretty well hidden, we're just relieved that they're in class. I currently have a student who works the night shift and shows up in my 8 a.m. class having come directly from the paper mill. And he's not the first one–sometimes they can't stay awake through the class and if I have a chance, I talk to them about how I know what they're doing is very difficult and I applaud their commitment to changing their lives with education.
>
> I'd like to echo what some of the other posts said about doing what is possible to get students to not shut down. In recent years I've started metaleveling–is this still a word? I learned about it years ago in a communications class–making sure that my students know that I have a working class background, or that I was raised in a Catholic household, or that my parents did not have a chance to finish high school until they were adults. While these things might resonate with students personally, it also gives me a chance to say, Look, this is possible for you, and so they have a cheerleader in me if they want to do the work.
>
> Because I am fortunate enough to teach history, one of our opening conversations every term is about what we carry–this time as it relates to how we might see or analyze what's going on around us, or things long past, but it gives us a time to recognize differences in worldview and where they come from–or similarities, for that matter. So we get to work through a term with those assumptions more or less out in the open as we constantly reexamine them: What makes you draw that conclusion? How is your vision different from that of the person sitting next to you? How might history have been different if it was being driven from the "bottom" instead of the "top?" And while we're on the subject, who decided which way is up, anyway?

On the surface, these two entries contradict: she won't talk about her tattoo, but she will talk about her working class background and her parents' education levels. But where teachers draw boundaries is related to the purpose for drawing them, and if we are seeking personal information from our students in order to inform our practice, we must also share some. More importantly, who I am and how I am known to my students is not only the product of how I've drawn lines around my personal self, as though that self is stable and knowable, but also of how I am produced by the institution in which I teach: how I operate in comparison

to my colleagues and to my students' prior teachers, the classroom conditions, the material under consideration, and myriad other non-human agents that work on me at a particular moment and in a particular context.

J.

I know when J. comes in in the morning that he takes guitar lessons on Tuesday and Thursday, and last Tuesday I said, "J., where's your guitar?"

And he said, "I only have classes on Tuesday and Thursday."

And I said, "J., it is Tuesday."

And he's like, "Oh, crap, I forgot my guitar."

I couldn't have those kinds of exchanges if I hadn't talked to J. about playing the guitar and what that meant to him. Those kinds of things fascinate me and add a dimension to teaching that's important to me. And I understand it's not important to everybody, that some people would just as soon keep their distance from students. But for me, that is a poorer teaching experience.

When students come in in the morning and I can greet them by name and I can ask them how their weekend was and I can say, "Oh, too bad about the football game," because I know they're Seahawks fan and the Seahawks have lost. Or I see someone with a Blazers cap and I say, "That was a pretty tense Blazers game last night." That we can have this kind of exchange means that I can see them, I can know them.

And I know they are having an exchange with me that they don't have with other instructors. When students come to ask me for letters of recommendation, they actually say to me, "Because I feel like you're the only instructor who knows anything about me," which makes me so sad. I can't even believe they make that statement. Because we're not a big school. Our classes are deliberately small. We pride ourselves on serving students, on giving students attention. And I don't want students to be making those statements about me because I don't think that that serves the students very well.

And frankly, the more I know my students, the easier it is for me to work with them, the more I like them, and then I can go to them and say, "Look, you need to work harder," without them thinking I'm picking on them.

Peacocks

There is no perfect system or institution. You can certainly affect change within the system or institution that you find yourself in, and I recommend it, but you can't make that your only work, because really, at the end of the day, it's your students. It's the human beings sitting in front of you who are fragile and amazing

and frustrating and beautiful as hell, and you have to PAY ATTENTION to them. And let them know that you see them, that you want to see them, that they are safe with you. That you will not coddle them, and that you don't feel sorry for them, but that you care about them and you care about their brains and their hearts. And then you have to live that every day.

Sometimes it will be hard to live this, yes. It will be tiring and sometimes disappointing. But it will also be magnificent, and transcendent; it will grow bigger than you. Because you never know what one thing you said or did for a student or a class that they will remember long after you've forgotten, and it will have–literally, no shit–changed their life. You can't walk around every day like a peacock, "I change lives," but you have to try your hardest to carry around the fact that what you do *could* have that kind of impact. So you have to be careful.

You will see and know and get your students better than most of their parents will. You may work with administrators who care that you care about your students, and you may not. You will have to deal with stupid paperwork and deadlines and numbers that you're not really sure measure anything, and you will have to send your students back out into a flawed, flawed world and a dangerous, dangerous hallway, and super fucked-up system, but you get fifty minutes or so a day with them to keep them safe, to push them, to love them.

It will change everything about you.

The literature on being known addresses what is made possible for students when they are known as whole human beings by the teachers and administrators in school settings, but it does not address what that knowing produces for teachers, how we are changed by what we know of our students. This seems like a productive line of inquiry for future research.

Secondary Trauma

When you really see your students, you're going to see things that you wish you could un-see. But you can't. You will see things that you will always know. You will see the young woman who needed to get home safely, so she gave a blowjob to a gang member every day after school in exchange for safe passage to her house. You have to see that. And you have to carry it with you so that she doesn't have to be the only one carrying it.

Sometimes seeing your students produces what is known as secondary trauma, the trauma experienced by those who care for those who live through and in and with primary trauma. Teachers are not usually included in discussions of secondary trauma. But they absolutely should be.

Because teachers have to see the students who can't be seen by the other adults in their lives. The student who didn't want to be the only one of her friends who was still a virgin, so she deliberately got drunk enough to pass out at a party where she knew there would be someone who would rape her. She was so pleased to have lost her virginity that night that it didn't matter that she couldn't say to whom. The student who says to you, "I have a drug problem," and whose parents threaten to sue you if you ever suggest to them or anyone that their son might have a drug problem. The student who has a drug problem because his parents share their drugs with him and he doesn't know how to say no to them. The student who has a drug problem because his parents have medicated him into oblivion and he wants to feel things so he takes more drugs to counteract the prescription drugs he reports to the nurse for every three hours. The student who comes back from rehab and has to change schools because she can't find anyone to hang out with who stays clean. The student who needs an HIV test who needs lunch who needs a coat who needs an adult to be sober long enough to hear her who needs to know that she might not be going to hell who needs a safe place to sleep who needs a hug.

You have to see the students who realize they can do and be more than they ever thought possible because you can see it for them. The students who read something that blows their minds, something you assigned or recommended or had on your shelf or were reading on DEAR[46] day. The student who realized that the woman who cleaned her house and cared for her had her own kids in Guatemala but here she was taking care of some rich white kids instead, so the student learned Spanish and then spent her summers building toilets in Guatemala to give back, even if only vicariously, some of the care she had taken away by having a housekeeper who was also a mother.

You have to see the student who has internalized his parents' racism and so brings a white supremacist book to read for DEAR day, and you have to have a conversation with him about why you're going to say he can't read that in your classroom even though you said students could read absolutely anything because the point is just to get them reading. You have to let him read it, but in the hallway or the library or somewhere where he is not doing harm to others. You have to see him as not meaning to do harm, and you have to see him as someone who can unlearn some of that racism. You have to hold that possibility for him even when he can't.

You have to see the girl who plays dumb in order to get attention even though you know she's really smart, and you have to keep seeing the smartness even when she loses track of it and even when she fights with you and even when she

[46] DEAR stands for Drop Everything And Read, a student-friendlier name for silent sustained reading (SSR), which, because we in education can't resist an acronym, might also be called FVR (Free Voluntary Reading), DIRT (Daily Individual Reading Time), SQUIRT (Sustained Quiet Un-Interrupted Reading Time), WEB (We Enjoy Books), and USSR (uninterrupted sustained silent reading). I don't actually believe that last one is real, but I did find it on a variety of Pinterest reading boards, complete with Soviet-era stylized graphics.

accuses you of hating her. You have to remember that you don't hate her. You love her. You love them all.

You would carry off all of their hurt and fear and doubt except you can't. What you can carry are all the possibilities of them.

The pluralism of this last line, *all the possibilities of them*, reminds us to resist both essentializing language like "creating safe and productive learning environments for all students" (Weems, 2010) and specifying in advance what kind of person schooling ought to produce (Osberg & Biesta, 2010). Seeing students must mean seeing them not as stable, essentialized selves, but as temporary and protean versions of themselves, never seen (in any final sense) and never wholly see-able. Perhaps this comes easily to me after years of teaching adolescents, notorious for their precarious and multiple selves, often in the span of mere minutes. Like teaching, this seeing is a doing: it is not something to be done or accomplished or arrived at, but something to always be doing.

I keep thinking of these lines from T.S. Eliot's "The Lovesong of J. Alfred Prufrock":

> And I have known the eyes already, known them all—
> The eyes that fix you in a formulated phrase,
> And when I am formulated, sprawling on a pin,
> When I am pinned and wriggling on the wall,
> Then how should I begin
> To spit out all the butt-ends of my days and ways?
> And how should I presume?

So much of schooling is about fixing students and teachers in formulated phrases, pinning them down like specimens, measuring and labeling them, and taking what we can measure and label to be the whole of who they are. Formulation, codification, decomposition—these are useful, even necessary approaches to education; they have instrumental value. It seems easy, in educational spaces at least, to forget that there are other kinds of value.

Surprises in the Detritus

While these two themes help me think about much of the data, they fail to illuminate almost as much. In this section, I consider two additional bits of data that made me wonder, and to which I would like to return in future work, once the two themes discussed above have faded a bit in my thinking.

Anxiety (pervasive and persistent). To begin, I return to a bit of data discussed above, and show how it unfolded in further discussion on the blog. In response to my request for introductions at the outset of our collaboration, Christa posted this:

> I am a lion in a sea of sea turtles.
>
> My pedagogy is Doubt.
>
> I teach high school English at an Independent School in Houston, Texas.

When I saw this response, I thought, "This is so Christa," the way it poses an initial, not fully developed idea, in order to invite consideration and collaborative sense-making. Christa does not edit herself as other people so often, too often, do. She is a performer—actress, musician, poet, teacher—and she experiments with language unabashedly.

After a few days, I posted this, hoping to encourage her to say more about lions among sea turtles:

> I've been thinking about this image of lions and sea turtles since you posted it. In my imagining, I am some sort of giant in a classroom full of tiny (and, therefore, fragile, at least relative to me) students, and my job is not to step on any of them. I have this anxiety about teaching often, the sense that a misstep on my part might do some terrible harm. Until this term, I've been teaching undergraduates, mostly first- and second-year students, mostly those who are considering our elementary education major. They are earnest in their desire to save little children from the evils of the public school system, and it's my job to disrupt this notion of teaching as missionary work, to question their motives, to point out their privilege. And I have to figure out how to do this without crushing their souls, or that's how it feels to me.

> This fall, I get to teach Masters students who are getting an English Language Arts certification to teach middle or high school. Since I taught high school English before coming to this program, I already feel more at ease about this course; these are my people, or more so than the undergrads who want to teach kindergarten. And I am less afraid that I will turn them away from the profession. I expect to be less of a lion in the space, and more of an older, more experienced turtle.

To which Christa replied:

> Thanks for responding, Courtney, to this metaphor. I have been thinking about it a lot since I posted; I even tried to "unpack" it, but that seemed like a chore after a while. But yes, your interpretation of feeling "dangerous" in an environment of "endangered species" (I don't know, ARE sea turtles endangered? Probably with acidification of the seas) feels right to me. I used to be torn by the question, "Am I helping or hurting my students?"
>
> I used to.
>
> Now I feel more like that lion in the sense of, "hey! watch and learn people; I'm king of my subject!" The absurdity of this feeling is that — hello! — I'm clearly out of my element. So the task I am doing now is trying to find a way to coexist with these sea turtles so that I can live in their world and not drown.

I have considered this bit of data somewhat obsessively. Christa was one of the collaborators whom I had the privilege to visit during this project. I spent a day with her, watching a variety of classes, attending an assembly, lunching through a department meeting, and I would never describe her as "out of her element," at least in my initial understanding of that phrase as being uncomfortable in school spaces. Christa navigates these and interacts with students and colleagues with ease and grace and humor, so her comment confused me initially.

This confusion was fueled by (or perhaps was entirely produced by) my distinct memory of meeting Christa for the first time on the first day of my teaching career. I was late, which I always find profoundly embarrassing. I had been hired only a few days earlier, and in the rush of last-minute paperwork, no one told me when to report for the standard start-of-the-school-year inservice days. That morning I got a phone call from the school

secretary wondering where I was. This was not how I wanted to begin. The faculty meeting was in the library, and since the principal was addressing everyone from the library entrance, her back to the door and all the teachers and staff facing her, there was no way to walk in without calling attention to myself. I tried to sneak in quietly behind her and find a seat quickly among people I didn't know. This was *so* not how I wanted to begin.

Christa intimidated me. She seemed so sure of herself, so comfortable in the space and in her own skin and in the practice of teaching. Actually, everyone intimidated me those first days except the new art teacher (who didn't last the year, if I remember correctly). But Christa soon became my most enthusiastic cheerleader, sharing all her materials for Creative Writing, which I had only just learned I would be teaching, and eventually a good friend. So, because of my predisposition to think her imminently capable as an educator, I couldn't make sense of the notion that she is out of her element, in the idiomatic sense, in a classroom.

Now I see that *element* might also mean environment or circumstance. That is, lions and sea turtles are of different ecosystems, as, perhaps, are teachers and students. While Christa wrote elsewhere on the blog about the importance of her own learning as a means of sustaining herself as a teacher, that out-of-school, self-selected learning is of a whole other sort than what her students are experiencing. The school environment for students is fundamentally different from the school environment for teachers, even when they are in the same building; this otherness is about power, certainly, but also about choice and a sense of control over one's circumstances. As teachers experience the loss of power, choice, and control in environments increasingly policed by accountability surveillance, perhaps we become more like sea turtles and less like lions.

Once I began reconsidering my initial interpretation of the phrase "out of my element," I saw that it was likely fueled both by my own anxiety worldview and by other expressions in the data of persistent and pervasive anxiety, also from highly experienced, competent educators.

> Last winter, though, I had to get away from teaching. Some sort of complex had developed that damn near prevented me from being able to go through with it each day. To read student writing and figure out something to say about was more than I could bear, and the guilt and the feeling of letting my students down that soon appeared atop that stack of ungraded essays made me sick. When I'd try to plan lessons or write responses, it seemed futile. I felt as though I had nothing really to offer, nothing really to say, and no way to say it so that it stuck. So that it made some sort of impression. Surely someone better than I could be doing something for these students, I thought. (Allyn)

> Allyn, I feel your pain and I have been there, exactly there, exactly. (Christa)

> I sleep much better these days than I did when I started teaching. However, I still worry about the chasm between what I believe I should do for my students and what I am mandated to do to or for my students. I have been reading quite a bit of pedagogy lately, which makes me feel supported, justified, even vindicated, but during school hours it is difficult not to succumb to the STAAR test mania that has seeped into every crevice of HISD. This year I decided to focus on literacy and not to dwell on teaching to the test. Now that the STAAR test is one week from tomorrow, fear and doubt seep into my heart and brain. Should I have focused more on the test? Could I have combined authentic reading and writing with test preparation in a healthier way? Is my job to support the development of lifetime readers, writers, and learners, or is my job to get my students to pass this test and, by extension, high school so that they can proceed with their goals and lives? Why are these two goals apparently in conflict? When is a test strategy a tool and when it is a crutch and when is it an obfuscation of the big picture? How much has my fear of low test scores perverted my teaching? How much has my disregard of test scores impeded my students' achievement? How does one measure student achievement or success in a way that is meaningful to administrators, teachers, and students? (Lucy)

Quicksand

Learning is transforming participation. Teaching is coaching that transformation. So, for me teaching and learning are highly dialogic. Without dialogue, I cannot teach. In that case I can explain things, but I feel sick. Or empty. And I try not to panic. I recently saw a TED talk that described how anxious people

> feel when others look back and don't respond—she called it "social quicksand." That's how I feel when I have not yet succeeded in creating the classroom culture of dialogue. Dialogue is like oxygen to me.

The earnestness of these expressions of anxiety make me suspect it is rooted in deep love, for students and learning and the teaching profession. Knowing how to negotiate and manage anxiety, how to sustain teaching practice inside and in response to it, seems largely missing from the teacher knowledge literature, and I wish I had asked my collaborators more about their practices of self-care. However, while I think this might be a knowing worth knowing more about, I worry (of course) about how that knowing might become knowledge and, thus, another means of assessing teaching practice: effective teachers have developed consistent self-care routines.

The *doing* of teaching. A second bit of data that preoccupied me was also an introduction, John's, which was his only contribution to the blog during the project[47].

> When I was 3, my older sister taught me to read and write. We both thought we were playing; that playfulness lead to a passion for words and language and story and the worlds those things opened up for me.
>
> When I was 4, my abuelito taught me how to pray and love. He was dealing with my abuelita's death; I was watching his interactions with his daughters and with God.
>
> In kindergarten and 3rd grade, my teachers recognized that my boredom and (rare) acting out had more to do with my needing to be challenged rather than needing some discipline. Each of them suggested that I move up a grade, and I ended up graduating high school at 16, college at 20, and grad school at 23.
>
> When I got my Masters in Theology, my plan was to take a "break" from school before going on to get a PhD so that I could teach Religion at the college level. I found out that there was an opening for a 9th grade English teacher at my old high school, and I was offered the job. Mr. Holland's Opus came out that year, and I felt like he did at the beginning of the film, thinking that my teaching high school would only be a temporary gig. But I fell in love with the work – with the doing of teaching – and in spite of some doubts or questions along the way (a few years co-

[47] Soon after I began posting provocations, John's father became very ill and John became primarily responsible for his care, which obviously took priority over his participation in this project.

directing a non-profit, a year and a half in a law school evening program), I've stuck with doing the work.

For me, the doing of teaching is transformative work.

I feel the most fulfilled now as a teacher because I feel as though I have finally found a place to match my theory of teaching with my praxis. In grad school I read and studied a lot of Liberation Theology, and my concept of teaching was formed and informed by reading Paolo Friere, Gustavo Gutierrez, Jonothon Kozol, Rigoberta Menchu and Alicia Partnoy.

When I teach, I try to channel my sister's playfulness and passion, my abuelito's love and compassion, and my elementary teachers' attention and respect.

Part of my attraction to this bit of data is its beauty. As another collaborator commented, "I just wanted to say that this was so, so lovely to read. I feel like I know you now, or at least know a little of what your students must see when they are in your classroom space" (Nishta). I appreciate the way John assembled his influences in response to a provocation to introduce himself; he hovers here, behind his family and teachers and thinkers he respects, but he is also of them and in them and around them. Part of my attraction is its familiarity. I ended up teaching at the same high school, which I also attended, under very similar circumstances, and with very similar ideas about teaching being a "temporary gig."

Most of my attraction, though, is to the way John took up the language of my invitation to participate in the project, to think of teaching as, in Barad's language, "not a thing but a doing" (2007, p. 151). His solution to the seemingly contradictory task of describing teaching while maintaining its difficult-to-describe quality was to simultaneously personalize and contextualize his experience. I wish I had asked other collaborators what their teacher-self assemblages might look like.

Descriptions of teaching like John's stand in sharp contrast to more official versions, like this one from The Chalkboard Project, an "independent education transformation organization" working in Oregon:

> Just what teaching effectiveness is can be understood by studying the models of instruction that capture and define what it is that effective teachers know and do…a set of behaviors that effective teachers incorporate into their daily professional practice. These involve a deep understanding of subject matter, learning theory and student differences, planning, classroom instructional strategies, knowing individual students, and assessment of student understanding and proficiency with learning outcomes. They also include a teacher's ability to reflect, collaborate with colleagues and continue ongoing professional development. (Barry, 2010, pp. 3-4)

This is a commonsensical (Kumashiro, 2009) construction of teacher knowledge that clearly names the "valuable and desirable knowledge" (p. 9) that is presumably required for the production of *good* and *effective* teaching: teaching is a set of behaviors that enact a body of knowledge. The more this story is repeated—enclosed as it so often is inside the larger story about the relationship between effective teaching and student *achievement*, which is, in turn, enclosed inside the larger story about the *achievement gap*—the easier it is to forget that all of these terms are highly contested.

fragment: teacher pride

I once sat in a seedy neighborhood bar in some part of New York City with a former student. At one point in our conversation, she asked if teachers were embarrassed when their former students, say, one who graduated from a prestigious university with a degree in comparative literature, turned out to have a career, say, walking the dogs of rich people. As though teacher pride is somehow related to the annual income or job fanciness of those we've taught.

What I said: Not at all. I am proud you are doing work you can live with and that makes it possible for you to spend your evenings directing plays at an underground theater producing important work. I am proud

you live in a way that works for you without worrying about what it looks like to anyone else. Or mostly. (We laughed.) I am proud you are thoughtful and generous and committed to animal rights activism and theater and reading.

Not that any part of how you've built your life has anything to do with me. Living the best possible life, however you define it, is all I ever want for any of my students.

Achievement, "that word, I don't think it means what you think it means."

What *teaching effectiveness* is, what *teaching* is, is not merely *understood*; it is also experienced and felt, as John's post so eloquently demonstrates. The doing of teaching is co-constructed with students and curricula and the material of classrooms and schools. Teaching is not a thing, so it cannot only be *captured* and *defined* in a *model* that can be *studied*. Despite its popularity and how it has come to be taken as commonsense, this is a wholly inadequate conception of teaching. I will return to The Chalkboard Project in my conclusion to consider what is produced when federal mandates regarding teacher performance evaluation and teacher preparation turn this problematic conception of teaching into high-stakes sorting devices and mechanisms of accountability surveillance (Webb, 2007). First, though, in the next chapter, I consider Phase IV of this project, in which I asked pre-service teachers in the final term of their credentialing program to consider "The ABCs of Teaching" as one of twelve case studies that served as the primary texts of a course on the scholarship of teaching. My attempt to investigate the reception of Teacher Stories was a productive failure that makes clear how, like teaching, stories about teaching change depending on the circumstances, on the larger apparatuses inside which teaching happens.

CHAPTER V

INTRA-ACTING APPARATUSES

Two of my central questions for this project are what imagining is made impossible by the stories commonly found in teacher education texts and textbooks, and what imagining is made possible for teachers-to-be by engaging with something other than the Teacher Story? Like all my research questions, these also emerged out of a disconcertment with the literature, particularly around the reception of stories. In this chapter, I will briefly revisit the narrative research methods I discussed in Chapter III—narrative inquiry, arts based research, and autoethnography[48]—to explain my concern with their treatment of reception, and then explore how I attempted and failed to account for reception in my own narrative project. This failure was the site for further exploration of the story as an apparatus, and helps me think about how any story-apparatus operates inside and is entangled with larger, contextual apparatuses.

On Not Accounting for Reception

As I discussed earlier, as a profession, teaching feels familiar to most people (Britzman, 2003): we were students, often for long periods in our lives, and so we presume to understand teachers and teaching. Overcoming this familiarity is a significant task in the work of preparing future teachers, and, I will argue in my conclusion, in the work of shifting the public discourse around school reform, in which many of the participants rely on commonsensical ideas about what teaching entails.

Stories are similarly familiar. We are constant producers and consumers of narratives, so we presume to understand how they work. However, this familiarity breeds an

[48] As I noted earlier, I recognize that these are not the only narrative-based research methods used in educational research, but they are the methods most frequently put to use to make claims about teacher knowledge.

anyone-can-tell-a-story mentality and a certain kind of contempt for craft in which the effort involved in storytelling gets erased. Accomplished storytellers, like accomplished teachers, work hard behind the scenes in order to make their performances appear effortless; like teachers, storytellers are encouraged to know their audience in order to shape their stories for maximum effect. The field of literary theory, with its origins in the earliest Western philosophies, works to uncover and explain the mechanisms of stories—their language, their construction, their patterns, their evolution—in order to produce sophisticated understandings of how stories work and what they do.

fragment: #SorryNotSorry (or, another brief foray into literary criticism)

While I may have anxiety about taking up the work of a physicist as my theoretical lens in this project, I am perhaps overly confident about my ability to wield various literary critical lenses in examining narratives and accounting for their reception. This is much more comfortable territory for me, given my years as a student and teacher of literature, and my comfort causes me to be finicky. While this fragment will likely come off as snotty and arrogant, particularly because it frames a critique of several well-loved educational researchers, the distinction I briefly sketch here helped me make sense of my trouble accounting for reception, so I'm going to risk sounding like a jerk for a moment.

There is a difference between the Constance School, a direction in literary theory that emerged from the University of Constance in West Germany in the 1960s and 70s, and Reader-response criticism, its American counterpart. Wolfgang Iser seems to be the source of the conflation of these two schools, as he is often identified as a Reader-response critic even though his central assumptions differ significantly from those of Reader-response scholars.

From its origins as a field of study, literary theory has been concerned with how stories are received and understood, and in contemporary literary theory, scholars associated with the Constance School, primarily Hans Robert Jauss and Wolfgang Iser, concern themselves entirely with "reception aesthetics" (Holub, 1993, p. 14). Reception aesthetics is not a rejection of formalism and New Criticism, but rather is an effort to reconcile the apparent incommensurability of strict attention to the text alone with interpretive theories driven by social and historical contexts, particularly Marxist criticism. Drawing on phenomenology, Jauss and Iser attempt to explain how readers interact with the formal elements and structures of text to produce interpretation. For these critics (and, I might argue, for any critics concerned with aesthetics) the nature of the text—how it is made—is central to understanding the interaction between it and its audience: you can't understand interpretation without attending to form, composition, and structure.

Reader-response criticism, on the other hand, is more explicitly in "reaction" and "seeking a corrective to the reification of the literary object" in formalism and New Criticism (Schellenberg, 1993, p. 170). Reader-response critics, namely Jonathan Culler and Stanley Fish in their early works, take up and dispute various claims made by New Critics, shifting meaning-making entirely to the reader. However, both Culler and Fish eventually move away from this hard and fast binary opposition between text and reader in favor of theories that more adequately account for both text and reader (deconstruction and theories of interpretive communities, respectively).

While it has lost much of its critical force in literary theory, primarily because its early proponents have shifted their thinking, Reader-response criticism persists in educational spaces; there it has been linked to Louise Rosenblatt's transactional theory of reading (1969, 1978), though her work is less a theory of literary criticism and more a theory of literacy.

Again, these distinctions may seem semantic and trivial, but not drawing them carefully is what led me down the garden path of thinking I could empirically account for the reception of Teacher Stories and somehow compare that to the reception of "The ABCs of Teaching."

Educational researchers making use of narrative as a method have given little attention to reception; rather, they make many assumptions about it, drawing, I assume, on their own experience to say what happens to readers when they encounter story. And I can only assume, because they don't really say. Let me consider a few examples.

In their method handbook, *Narrative Inquiry: Experience and Story in Qualitative Research* (2000), Clandinin and Connelly devote two chapters to what they call "thinking narratively," and six chapters to the logistics of carrying out and writing up narrative research. They give one paragraph to considerations of audience, and that merely cautions narrative researchers to consider the requirements of academic journals and conferences "so that [narrative researchers] have a chance to push the boundaries, yet not stretch them beyond audience belief" (p. 168). In other words, make sure the work will be intelligible enough to enter conversation with other scholarship in the field.

Reed-Danahay, in her introduction to *Auto/ethnography: Rewriting the Self and Social* (1997), gives no attention to audience in her efforts to define and categorize various forms of autoethnographic writing, but other autoethnographers take it up explicitly. For example, in *The Ethnographic I: A Methodological Novel about Autoethnography* (2004), Carolyn Ellis makes this claim:

> Readers…take a more active role as they are invited into the author's world, aroused to a feeling level about the events being described, and stimulated to use what they learn there to reflect on, understand, and cope with their own lives. (p. 46)

To which I would add, we hope. We hope our readers are drawn in and made to feel things; we hope readers can take some insight away from the text and put it to work in their lives.

By situating writing as art, arts-based researchers come the closest to seriously considering reception. In their methods text, *Arts Based Research* (2012), Barone and Eisner argue that the central goal of arts based research (ABR)—and of research more broadly—is "the capacity for inviting members of an audience into the experiencing aspects of a world that may have been otherwise outside their range of sight and to thereby cause them to question usual, commonplace, orthodox perspectives on social phenomena" (Barone & Eisner, 2012, p. 56). This emphasis on capacity, as opposed to Ellis' assumption of inevitability, leaves open the possibility for multiple experiences and interpretations of a work by its audience. Just as ABR works "to provide one—but only one of many—accounting(s) of what has occurred" (p. 59), it makes room for many possible interpretations of those accountings.

However, in application, particularly in *Touching Eternity* (2001), Barone ends up producing assertions that are distressingly similar to those of Ellis. Because he draws heavily on Iser, Barone more explicitly accounts for the aesthetics of reception; however, while he insists that control over meaning-making lies with the reader of a text, he inadequately accounts for that meaning-making process. That is, Barone imagines an intended reader and asserts in the conclusion of *Touching Eternity*, "My intention here was to persuade readers to question prevailing notions of educational significance. I did so by inviting several characters into the conversation, a teacher and his former students" (Barone, 2001, p. 179). The leap from intention to accomplishment—"I did so"—is unwarranted. Though he repeatedly makes visible his intentions to create a polyvocal, indeterminate text that allows for or even requires multiple interpretations, wishing doesn't make it so, and

Barone leaves reception of these stories entirely unexamined in spite of its centrality to his argument.

Becky Atkinson (2010) attempts an explicit examination of reception in her "empirical study of teachers' focus group conversations about 12 recently published case studies and narratives of teachers' practice" (p. 95). The teachers participating in these focus groups read and discussed the case studies in response to Atkinson's questions, which are not included in this article but presumably drove towards Atkinson's interest "in what [the teachers] thought of the narrative texts based on their knowledge and experience of teaching" (p. 96). Atkinson categorized both the texts and the teachers' responses in several ways, focusing in this article on "the types of appropriations of the texts the individual teachers constructed: critical, conventional, or visionary" (p. 96), which she synthesizes primarily from Barone, Iser, Fish, and Derrida.

While I appreciate Atkinson's work to more thoroughly account for reception, her empirical study is built on a problematic binary between text and reader: "meaning does not stem from the capacity of language to create, stabilize, or express it, but rather from the abilities and resources of the reader to co-construct it" (2010, p. 94; also, Atkinson & Mitchell, 2010; Atkinson & Rosiek, 2009). Understanding meaning-making as an interaction, as Iser does, or as a transaction, as Rosenblatt does (or as an intra-action, as Barad does), would seem to require more slippage between language and reader—a both-and syntax rather than a not-this-but-that syntax—which causes problems for researchers. How do we explain a both-and relationship, particularly if we also want to trouble the individualistic approach to meaning-making that inheres in some Reader-response criticism?

Another troubling assumption in Atkinson's approach is her insistence on intention: "Of course, every writer intends for his or her readers to possess the reading skills,

dispositions, experiences, and background knowledge to actualize the text in the way the writer intended" (2010, p. 94). I might merely caution against such broad generalizations and offer a few examples of writers who do not seem to have these intentions—Imagist poets or Dadaist and surrealist writers, for example, and even Barone, whose use of ambiguity would suggest he doesn't have one specific actualization in mind—if this assumption did not make its way into the analysis, leading Atkinson to assert, "there were clear differences between the writers' intended meaning for texts and the ways in which readers appropriated the texts" (p. 96). How were "writers' intended meanings" determined? And to evoke those infamous New Critics again, how can we be sure that we know a writer's intention? How can the writer be sure that she knows her intentions?

Because I share Atkinson's impulse to not take for granted how a text is received by readers, as it seems to be by many researchers who use stories in their work, I also attempted an empirical study of the reception of teacher stories, though my focus was on pre-service teachers. And while my skepticism of the Reader-response approach allowed me to avoid the problematic assumptions I see in her work, I was no more successful than Atkinson in my efforts to account for reception.

EDST 611: The Scholarship of Teaching

This course is considered the capstone experience of UOTeach, the credentialing program at University of Oregon, and its central objective is to situate our students (as soon-to-be teachers) as knowledge producers. Over the term, their knowledge is compiled into an online resource, the UOTeacher Knowledge Journal, the culminating project of the course. The UOTeacher Knowledge Journal is a collection of student-produced narratives, unit and lesson plans, and how-to and helpful-tips articles, videos, and listicles; the Journal's variety reflects our program's expansive view of teacher knowledge. The importance of practitioner

knowledge to our program is signaled by the UOTeacher Knowledge Journal's placement on the program website[49] and its use as a resource by various courses in the program.

The course begins with an introduction to four theoretical frameworks of teacher knowledge—Shulman (1997), Cochran-Smith & Lytle (1990), Connelly (1988), and Zeichner & Liston (1987)—several of which I discussed in more detail in my literature review in Chapter II. These readings are intended to "provide students with an understanding of the arguments for supporting and paying attention to teacher research, the relationship of respect for teacher inquiry and the status of teaching as a profession, [and] the politics of teacher knowledge research" (Rosiek, 2014). Then students are asked to consider a variety of case studies, defined broadly to include many different forms of narrative descriptions of teaching practice, as examples of "the kinds of writings teacher researchers are producing, the venues in which such research is published, and—hopefully—an illustration of the value of such research." These examples included both well-known essays such as Karen Hale Hankins "Cacophony to Symphony: Memoirs in Teacher Research" (1998) and essays published in previous editions of the Teacher Knowledge Journal, such as Kate Shrum's "Victim-Blaming, Student Disclosures, and A Streetcar Named Desire" (2010). My story, "The ABCs of Teaching," was offered as one of the examples.

In addition to producing content for the UOTeacher Knowledge Journal, the other main assignments of the course are reading responses: students are expected to post to an online journal short responses[50], guided by a series of reading-specific questions provided by the professor, to both the theoretical readings and the case study exemplars. Due before the start of class, these responses serve primarily as an incentive to complete the readings;

[49] https://education.uoregon.edu/program/uo-teach-k-12-teacher-licensure-and-masters-curriculum-and-teaching

[50] The syllabus specifies no more than 100 words, though many students regularly wrote longer entries.

however, they also served as a jumping off point for class discussions of the material. Because the class was quite large—one section had 58 students and the other 41—the professor divided each section alphabetically into four small groups, which took turns meeting with me in a separate classroom for more focused discussions of the readings.

I had taught 30 of these students the previous fall in an English Language Arts methods course, and another 30 of them in one of their undergraduate courses, so in most small group meetings, around half of the students knew me already. These students often sustained our conversations with their enthusiastic participation. My sense is that they were enacting a sort of protectiveness of me and my research project, which I had introduced at the beginning of the course, as several asked me repeatedly during the term if I was getting the data I needed.

fragment: shut it down, fool

One of the surprises in my first year of teaching was discovering the extent to which my students worked to protect me, mostly from each other, but also from scrutiny by school administrators and their parents. They would shush each other, usually much more forcefully than I ever would; "Shut it down, fool," was a familiar expression.

"Ms. Rath, lemme get the attendance. They gonna call you out over the loudspeaker and you'll spill your coffee like las' time."

"Ms. Rath, imma not tell mama 'bout this story you had us read, 'kay? We gotta keep this on the DL, so no mentioning it at conference night next week."

They wanted me to be okay, mainly because they wanted me to stick around. Jesse Jones High School, like many of Houston's inner city public schools, had an extraordinary turnover rate among its younger faculty members, who were often harassed openly by the veteran teachers and unsupported by school administrators.

Because I had been a student at Jones—the panoramic photo of my graduating class still graced the wall in the main office, a discovery that delighted my students—I knew many of those women. One had been my soccer coach, another my Physical Science teacher, and the current principal had been the National Honor Society advisor throughout my years as its secretary. They remembered me, mostly fondly, and so they didn't treat me with the same disdain they rained down on my colleagues.

Jones is located in a part of Houston that was developed following World War II; the grid of streets around the campus are all named after battles—Dunkirk, Calais, St. Lo, Okinawa, Guadalcanal—and many of the small single-family homes were purchased using the new home loan program offered to veterans as part of the Servicemen's Readjustment Act. They were cheap houses and they deteriorated quickly. As the original occupants moved up and out of the starter-house neighborhood, they were replaced by Black families and Cambodian refugees. These two communities were also moving up and out, from the shotgun houses of the section of the Fourth Ward that was originally Freedmen's Town, and from a country broken by genocide. When I arrived at Jones as a freshman, the student population was 70% Black, and the remaining 30% was a mix of white and Asian students. Almost all of the white students were bused from around town to a magnet program for the gifted and talented, a school-within-a-school that occupied one wing of the first floor.

As a student, I had been an outsider, not from the neighborhood. But as a teacher, I was an insider. I got it. I knew how things really were. The veteran teachers protected me, and so did my students.

The teaching candidates I'm supervising now notice the same thing: the students in their field sites want them to be okay; they will do things for and with teaching candidates that they would never do for or with the cooperating teacher in that same classroom.

I don't pretend to understand the mechanism of student protectiveness, but it sustains me.

Failure (Or, If at First You Don't Succeed, Reconsider)

Students posted their reading responses to Blackboard, the online course administration center, and because their posts were linked to the gradebook, they were always identifiable. To avoid the possibility of consciously or unconsciously steering the conversation in response to something I'd read in a student journal, I did not read responses to any of the case studies until after I was finished facilitating small group discussions. Once the course was over, I copied all the responses off Blackboard into separate documents, one for each case study, and only then began to read them carefully (starting with the responses to "The ABCs of Teaching," of course, because my curiosity was killing me).

Because the format of the piece is quite different from the others we considered, I had introduced the reading with a brief preview, explaining that it was a fragmented text compiled from the writing of several in-practice teachers. I encouraged students to be patient with the narrative, and to notice their experience of reading it. The guiding questions about "The ABCs of Teaching" focused on its format: What passages stand out for you in this piece? Why? How would you describe its format? Is it accessible? How might it be useful to you as a teacher-reader? Would you choose to write this way? For what purpose?

Being overwhelmed by the generous sharing of my collaborators has made me very protective of the data and the story I created out of it, so I was nervous to read students' responses. And then I was devastated by one of the first ones I read:

> I know that a lot of people who read this did not like it. It wasn't the content that they didn't like, but rather the way in which it was presented. These little vignettes and small snippets of individuals recounting tales, advice, and highlighting thoughts and moments in teaching stand on their own and do not flow one from the other,

but instead jump around. Often they refer to individuals by name who we do not know, but as we continue to read we find out who this person is. While this was off putting to some, I rather enjoyed it.

I didn't really take in anything past the first sentence, and then my reading of the rest of the comments was entirely an exercise in determining whether this assertion was true. This bit of data became an apparatus, producing my thinking about the rest of the responses, which I skimmed through quickly, keeping a running tally of responses I considered praise and those I considered critique. I even went so far as to calculate how many students had used one of their assignment skips on this reading and, assuming the worst, counted all of them in the critique column. Only when I had reassured myself that more readers liked it than didn't could I look more carefully at the content of the responses, though never outside of this initial sorting.

The students who expressed frustration or dissatisfaction with the piece framed their difficulty in terms of the format, and many of them specifically named the anonymity of the fragments as disturbing:

- "I think I would have preferred some kind of a forward explaining how the paper had been assembled, and possibly who the contributors were."
- "The format of this writing is extremely hard to read. When I am reading, it is hard for me to 'hear' a different voice. Yes, the writing is different, but my brain wants to link them all together and I am really struggling with the content."
- "I could not pay attention to anything else as I was wondering who was talking to me and in what context their experiences were formed."

I wondered at this desire to know who was speaking, particularly given that I had explained a bit about my collaborators and how the piece was constructed when I introduced it to the class.

When I didn't know what to make of the comments, I turned my attention to the research design, and concluded that I had not only asked the wrong question, but also gone about answering it in the wrong way. I wanted to know what "The ABCs of Teaching" made possible for teachers-to-be; I wanted to account for reception. But given the structure of EDST 611, with its daily meetings during a compressed summer term, students were reading articles and responding to them almost immediately, and immediate responses are not the same as reception.

Stories aren't necessarily received in a moment. If we take Muriel Rukeyser at her word that the universe is made not of atoms but of stories, when we take those stories into ourselves, when we consume them, something new is made. And we can't always know what it is or will be or can be or might be. We don't always know immediately how stories inhabit us, how they influence us. There is no way to tell how the fragments of "The ABCs of Teaching" will linger with these new teachers as they enter the profession. Perhaps it is not wrong to ask what a story makes possible, but we must acknowledge that there is no easy way to answer that question.

For example, I didn't remember the Dinty Moore short story[51] until I needed to. I can retrace how I came to read it—it followed an assigned story in an anthology, I was amused by the author's name, I was attracted to the subtitle, "A Meditation on Fathers"—and I remember paying particular attention to the form, the organization of bits of narrative into an interlocking pattern. But I could not have said then, or indeed until the moment that

[51] In Chapter III, I describe in more detail how I came to use Moore's short story, "Son of Mr. Green Jeans" (2007), as a model for "The ABCs of Teaching."

it happened, that engaging with the data would produce that story in my memory, have me track it down in an anthology I bought a decade ago—I could picture the blue and white of the spine and thought it was on a bookshelf in the attic—and reread it, that minute, in the armchair in my office. I could not have said what that story made possible for me in my first encounter with it, because the story didn't make anything possible, until it did. Stories are works of art: they inhabit us, emerging in various guises, some of which we can identify and others of which remain mysterious despite our most careful investigation. They become part of our matter. (And now we are back to Barad.)

A *Matryoshka* of Apparatuses

To quickly review, according to Barad, every practice of meaning-making "involves a particular choice of apparatus, providing the conditions necessary to give meaning to a particular set of variables, at the exclusion of other essential variables" (p. 115). This choice enacts an agential cut, which resolves indeterminacy, at least for the moment and under specific circumstances, and the object becomes intelligible. Put another way, objects and "concepts obtain their meaning in relation to a particular physical apparatus" (p. 120). In Chapter III, I discussed how, in teacher education, stories work as apparatuses to enact a particular knowing about teaching, and in Chapter IV, I attempted to render the apparatus-ness of "The ABCs of Teaching" transparent in order to consider what different possible knowings about teaching it might produce. I return to the apparatus to help me make sense of my failure to account for reception.

Apparatuses do not exist independently, but, like *matryoska*, Russian nesting dolls, are both embedded inside larger apparatuses and contain smaller apparatuses[52]. As an example,

[52] This is an uneasy analogy, as nesting dolls have a stable interiority and exteriority, while the boundaries enacted by apparatuses are necessarily contingent and temporary. So perhaps we might imagine these *matryoska* are teetering on the edge of a shelf, threatening to fall to their destruction?

Barad closely examines an Indian jute mill via a reading of Leela Fernades' *Producing Workers* (1997); the mill "can be understood as an intra-acting multiplicity of material-discursive apparatuses" (2007, p. 237) inside which other apparatuses are operating. Thinking about the EDST 611 classroom as an apparatus, which is both operating inside larger apparatuses—of the university, the teacher credentialing system in the state of Oregon, the national discourse about teacher accountability, and so on—and which contains smaller apparatuses—the course readings, for example—helped me make sense of how my story-apparatus was received by teaching candidates.

After I began reading student responses to all the course readings, I discovered that, quite early on, students adopted a particular stance relative to the literature they were reading: they wanted to know who was "speaking" in the text, a researcher or a practitioner. A distrust of research-based insights emerged in many of their comments, both in their response posts and the class discussions, and began with the first foundational reading, Shulman's "Knowledge and Teaching: Foundations of the New Reform" (1987). As Suzanne Wilson notes in her introduction to a collection of his key essays, *The Wisdom of Practice: Essays on Teaching, Learning, and Learning to Teach* (2004), Shulman "argued for the creation of a knowledge base of teaching that included both principles or strategies generated through research and cases generated through experiences and reflection" (p. 4). This knowledge base would be most effectively captured in case studies, and Shulman imagined a library of such narratives available to practitioners as they are in fields such as medicine and law.

In Shulman's research, case studies are produced collaboratively by a university-based researcher and a school-based practitioner, a model that highlights a central goal of such studies, bridging of theory and practice. Students resisted (and resented) the emphasis

on university-based research in this approach, making statements such as "teachers are the best predictors of what they need to know and learn from their students" and "it needs to be teachers doing the research, not some university people who think they may have a prognosis but have not been in a classroom setting for a while." One student vented a bit more, surfacing a distinction between researchers and teachers commonly expressed at research universities:

> Reading this reminded me of the professors I had when I was an undergraduate student. Many of them were experts in their fields with vast amounts of knowledge. However, many of them lacked the skills to teach it. They weren't teachers, they were never trained as teachers. Their skill and knowledge was in their content, not in the ability to teach it to someone else.

For many of our teaching candidates, the belief that researchers were not trained as teachers made them less credible than in-practice teachers as sources of knowledge about teaching.

Another student in the class, disturbed by the conversation about Shulman's essay, wrote this response:

> Even though I see the value in teacher research as outlined in the Cochran-Smith and Lytle paper, the rigor advocated for by Shulman feels much safer. In discussion yesterday, what I heard from other members of the cohort bothered me. I felt from them a push against trying to make teaching scientific in any way, including using standards of scientific research to come to conclusions from your case studies or other forms of teacher research. I believe that those standards are extremely important, and without them it is too easy to impose your own biases on what you are seeing, biases including racism, sexism, or prejudices against a particular child in your classroom. That's not to say such biases are not present in even the most rigorous of research, but I do think it is lessened. When reading the C & L paper, I felt some of the same push against research standards.

This was the minority opinion, however, and the other students who defended university-based research often framed their support in the context of wanting both kinds of knowledge rather than one instead of the other, which actually corresponds with Shulman's case study model.

This resistance carried over into the engagement with practitioner-produced narratives, and became entangled with the guiding questions about several of the narratives. In the responses to nearly every subsequent reading, students took the questions, examples of which are reproduced below, as openings to make assertions about authenticity and to whom they were and were not willing to listen. Here are some of the questions, and the citations in each bullet point are the case studies with which the questions were paired:

- Is the story believable? What makes it so? Or what makes it less than believable? (Hankins, 1998);
- Does the fact that the teacher is not the author change the experience of reading this for you? If so, how? Is it more credible, less credible? (Kawai & Taylor, 2011);
- Is the autobiographical portion of the essay helpful? Persuasive? Informative? (Hawthorne, 2013);
- Does the moment of teaching seem different after learning about the teachers' biography? (Chang & Rosiek, 2003);
- Did the personal memoir format of this essay work? (Erdmann, 1998).

By the time students encountered "The ABCs of Teaching" in week three of the course[53], these questions, taken in the context of resistance/resentment to university-based research about teacher knowledge, produced students as credential checkers and authenticity determiners.

But I didn't know all of this until after the class was over. That is, in the breakout groups I was facilitating, the conversations rarely centered on authenticity or credibility, no

[53] This course occurs during Summer term, and as such is very condensed, meeting every day and with one or two readings assigned for each class meeting. By the time they read my story, they had considered all four foundational articles, six different case study narratives, searched the content on previous editions of the UOTeacher Knowledge Journals in a scavenger hunt, and reviewed teacher blogs.

doubt because I was facilitating them and my healthy skepticism for those concepts steered the conversations in other directions. Both the resistance/resentment and the ongoing engagement it produced were happening in the other classroom, where the usual practice was to have students talk in small groups and then share out for a full-class discussion. This is a standard instructional move in our department, so students were familiar with it. While it works to include more voices in the discussion, as students who are normally reticent in front of the whole class are more likely to share with a few colleagues, this strategy allows misconceptions to persist unchallenged. In this case, there were two specific misconceptions—that there is a clear distinction between research and practice, and that practitioners are an unproblematic source of knowledge—which carried over into the responses to "The ABCs of Teaching."

"Marginalia Are the Original Comments Section"[54]

My liked-it/hated-it sorting mechanism of student responses both to "The ABCs of Teaching" and many of the other course readings reminded me of the comments section on any even remotely provocative article published online these days. Like the themes I explored in Chapter IV, I am clear that this dichotomy was produced by entangled apparatuses: the structure of the course, the guided reading response questions, my early encounter with the "a lot of people who read this did not like it" response, my protectiveness of the story, and other mechanisms that escaped my attention. I played with a variety of ways of rendering the text of the story and the comments so as to recreate this entanglement for readers. Could I center the story fragments on the page and then add the comments around the outside? Could I then talk back to the comments, like John D'Agata does to his fact checker in *The Lifespan of a Fact* (2012)? Could I sequence the comments

[54] From "Comments" (Collins, 2014).

such that they appeared to be speaking to each other, like rabbinic commentary on the Talmud? Could I do some sort of split text like Lather and Smithies in *Troubling the Angels* (1997)? Could I handwrite the comments in the margins and blank spaces of the story?

Of course, my imagination was constrained by another set of apparatuses, especially the limitations of my technical ability and the limitations of the dissertation form, but the least technical of my ideas, the marginalia, was also the most enticing. I am fascinated by marginalia. As I was considering my options, an article on marginalia from *The New Yorker* appeared in my Facebook newsfeed, Lauren Collins' "Comments" (2014). In it, Collins describes the origins of the Facebook group, Oxford University Marginalia, comprised of Oxford graduate students who document the marginalia they encounter in library books. Her assertion that "marginalia are the original comments section" lingered in my thinking, and then I serendipitously discovered a dusty copy of a *haggadah* in a box of books in the attic.

The *haggadah* is the text used during the Passover *seder*, and it typically includes the traditional prayers and stories as well as a selection of songs and supplemental stories to choose from according to the needs of the group. Lots of children this year? Sing both *Chad Gadya* ("One Little Goat") and *Echad Mi Yodea* ("Who Knows One?"), the counting songs that get faster the higher one counts. No children this year? Opt for less singing and more discussion of the how the oppression of the Jews in Egypt provides insight into contemporary injustices. When I hosted my first *seder*, I couldn't afford even one of the beautifully illustrated, social justice-themed *haggadot* I wanted to use, so copies for all fourteen dinner guests was out of the question. Time to D.I.Y. I copied the sections I liked best from several *haggadot* I borrowed from the library, pasted them into a Microsoft Word

document, and started adding marginalia—questions, comments, various translations of certain passages.

Encountering my previous mixing and remixing, annotated with bits of information and commentary, inspired me to use student responses to annotate "The ABCs of Teaching," and I selected comments from both students' journals and class discussions and inserted them into the story as marginalia (see Appendix B for the full annotated text). I hope this format enables at least an initial diffractive reading of the story and the responses it produced in teacher-to-be readers, but I also plan to experiment further with text rendering in order to include a variety of texts in a more complex diffraction grating. Both versions of the story, "The ABCs of Teaching" and "The ABCs of Teaching, Annotated," make their apparatus-ness visible to readers, and I will discuss in the final chapter what I hope that visibility produces and its implications for teacher education.

CHAPTER VI

STORIES OF THE IMAGINED FUTURE

As I work to finish my dissertation, my department is engaged in a transition to edTPA[55], the performance-based assessment of teaching readiness developed by researchers at Stanford and administered by Pearson. This work is happening across the country; according to the participation map on the edTPA website, 33 states have either adopted edTPA officially or are in the process of piloting it with teaching candidates. The transition team meets biweekly to discuss implementation, and though we talk primarily about logistics—how does our existing curriculum support student success on this assessment, and what programmatic changes do we need to consider?—our conversations are framed inside our program's political and philosophical commitments to social justice. To keep these commitments in view throughout this work, we periodically revisit this quote from Kevin Kumashiro's *Against Common Sense: Teaching and Learning Toward Social Justice*:

> …teaching towards social justice involves preparing students to succeed in whatever context they find themselves, including contexts that privilege and value the dominant narratives, the mainstream culture, the "traditional values," and the rules for succeeding that often are unspoken and taken-for-granted. Curriculum standards are one way that schools can make such rules explicit and accessible. Therefore, while schools should not uncritically teach to standards, it is also the case that schools should not reject curriculum standards as antithetical to social justice education. Rather, schools should use standards in paradoxical ways, namely, by

[55] Though a comprehensive examination of this assessment is beyond the scope of this project, it is the next step in my research, as I discuss later in this chapter. For an overview of the development of edTPA, see Darling-Hammond, Newton, & Wei (2013) and Pecheone & Chung (2006), More general information about the assessment can be found at http://edtpa.aacte.org/, along with an annotated literature review prepared by scholars at the Stanford Center for Assessment, Learning, and Equity (SCALE), http://edtpa.aacte.org/news-area/edtpa-literature-review-now-available.html.

> teaching students to reach them but simultaneously supporting students in seeing where and how the standards have gaps, where they include and exclude certain perspectives and experiences, advance certain goals, privilege certain groups, and so on. (2009, p. xxv)

We are explicitly resisting a teach-to-the-test approach, which mirrors the instruction we provide teaching candidates about standardized assessments in their own classrooms, and are taking the transition as an opportunity for informal program evaluation, particularly around course sequencing and content alignment.

Though our work is not (to my knowledge) explicitly related, it reminds me of the program evaluation Suzanne Wilson describes in "Doing Better: Musings on Teacher Education, Accountability, and Evidence" (2012). Wilson notes, "demonstrating that our programs meet professional expectations is part and parcel of claiming membership in any guild" (p. 40); as such, she accepts the move to documenting "outcomes and effects" in the form of data, which "will make us leaner, more efficient, more honest. Looking at data will help us become better versions of ourselves" (p. 40). But accountability has its downsides, Wilson asserts, which include misplaced attribution of responsibility and the easy equating of operationalizing with standardizing. Most troubling, "accountability can overemphasize that which is measurable and marginalize equally important aspects of our lives that prove less amenable to quantification. Thus, it can distort rather than enhance, constrain rather than enable" (p. 41).

Wilson goes on to describe the difficulties her own program faced as they engaged the task of using data, both qualitative and quantitative, for the purpose of "large-scale studies of program effects" (2012, p. 48); such challenges included issues of confidentiality, missing data, and faculty and supervisor resistance to audit culture and standardization.

These challenges became manageable only when faculty members took up an inquiry into their teaching as part of their "scholarly habits": "With their imaginations fired and driven by their own curiosity about work they were seriously invested in, they energetically opened up to changing how and what they taught" (p. 55). Wilson notes that such inquiry was not motivated by external processes such as accreditation reviews or state-mandated assessments. Our inquiry into teacher performance assessment and what it might mean for our program *is* happening because of a state mandate, one that members of our department actively opposed, but hopefully we can find our way into the scholarly curiosity Wilson describes.

In the remainder of this chapter, I will address how, in the context of large-scale, high stakes, standardized assessments like edTPA and the U.S. Department of Education's proposed regulations for teacher preparation programs (2014), a close examination of the apparatus-ness of Teacher Stories—how they work, what possibilities they produce, and what possibilities they foreclose—is a productive way to "use standards in paradoxical ways" (Kumashiro, 2009, p. xxv). More specifically, I will examine edTPA as an apparatus to consider what knowings about teaching it enacts and what knowings it forecloses. Then, using the two themes that emerged in my analysis of "The ABCs of Teaching," I will consider how edTPA should be entangled with other apparatuses in a teacher preparation program with commitments to culturally sustaining pedagogy and education for social justice activism.

fragment: the quantified self

From pretty much the moment I settled on a dissertation topic, I have been thinking about my next inquiry. It emerged from a single moment in a dance class when the teacher, a fellow graduate student, made a choice

about how to deal with a student in crisis, and what that choice made possible for the other students in the class, what it made possible for me.

Of course, that possibility emerged inside other contexts, most notably my emerging interest in disability studies and my readings in the intersections between disability studies and fat studies. I indulge that interest mostly by reading online, quite casually and often during the commercials of whatever mindless television I sit in front of in the evenings, and over time I have collected a list of blogs I read regularly. On one of them, The Span of My Hips, Josey Ross welcomed 2015 with an article about the Quantified Self movement. Which I had never heard of.

Google helped me out, and I quickly discovered the brief TEDtalk on the subject, given in 2010 by Gary Wolf, and the official Quantified Self group, with their website and annual conference and periodic member meet-ups in various cities around the world. In Wolf's language, the quantified self refers to the use of existing technologies for "quantitative measurement and self-tracking," which, Wolfe asserts, we can use for self-improvement: "if we want to act more effectively in the world, we have to get to know ourselves better."

Someday I will write a short story in which Foucault attends a Quantified Self meet-up.

Ross objects to the quantified self, not because of the usual anxieties about who has access to such data and for what purposes, but because such data collection "reifies the neoliberal approach to health as a project of surveillance and self-governance with a complete elision of the structural factors that affect health much more deeply than the number of steps you take in a day."

How did we get to a place where number of calories consumed or steps taken or minutes of R.E.M. sleep gotten last night constitute self-knowledge? Why do we give over so much of our time and energy and money to this myopic version of knowing ourselves when there are much bigger issues that warrant our time and energy and money? And when did we decide that effectiveness is more important than, say, joy?

The standards-and-assessment movement in education might well be called the Quantified Schools movement.

Data ≠ Knowledge

At the 2015 annual conference of the Oregon Association of Teacher Educators (ORATE), I attended a session called "Growing Partnerships through Transparency: Data Sharing that Leads to Teacher Growth." The presenters from two teacher education programs and one school district described how the school district is collecting performance data for new teachers and sorting it by which teacher education program they had completed. The district then provides that data to the programs, and the program representatives described how they were using that data to evaluate their curriculum in certain areas.

This work is framed both by Cochran-Smith's assertion that "to get from teacher education to impact on pupil's learning requires a chain of evidence with several critical links," each of which is "complex and challenging to estimate" (2005, p. 303), and by a logic model developed by The Chalkboard Project as part of its TeachOregon initiative. TeachOregon is a grant initiative designed to support school districts and universities in designing "innovative models to prepare the next generation of diverse and effective Oregon teachers" (http://chalkboardproject.org/what-we-do/teachoregon/), and it is guided by the logic model in Figure 3.

The TeachOregon logic model is an example of the object-based, deterministic causality critiqued by Osberg and Biesta (2013): each stage is presumed to logically follow from the previous one, and the intermediate and ultimate outcomes are singularities framed in commonsensical (yet highly contested) terms. In its linearity, it erases the complexity Cochran-Smith describes, and tidies up the inherently messy relationship between teaching and learning (Biesta, 2015). Also, effective teaching and high achievement are neither

neutral nor universal concepts, and both are reductive. Effective teaching is more than what can be captured by scores and retention rates, and what teachers want for our students is more than academic achievement. Who we are and what we do exceed operationalization, and any single apparatus, no matter how carefully it is designed, is necessarily unable to capture the plural, contradictory practices of teaching. Put another way, as we saw with the Teacher Story, apparatuses produce certain, monistic knowings. To adequately prepare teachers-to-be for the indeterminacy and pluralism of classroom spaces, we need both an understanding of what knowings any given apparatus produces and an array of apparatuses.

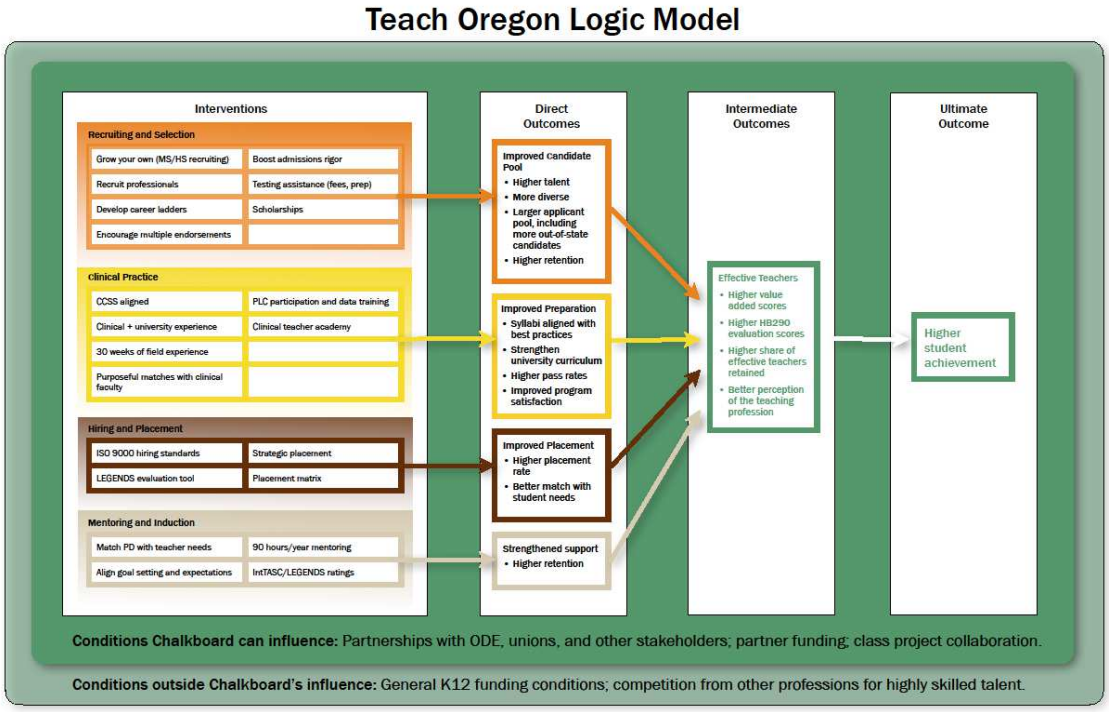

Figure 3. The Chalkboard Project's TeachOregon Logic Model. Retrieved from http://chalkboardproject.org/what-we-do/teachoregon/.

Data is not knowledge, even when careful attention is paid to the apparatuses used to produce and interpret it, and data is certainly not knowing. Data is not separate from the apparatuses in and from which it is produced, so it cannot be treated as though it exists

independently somewhere in the world awaiting discovery or to be made of use. That is, in the data-sharing project I learned about at ORATE, data was understood as neutral, objective, and pre-existing collection and analysis. The comparisons being made were understood to already exist in the world, somehow independent from the apparatuses that produced them (in this case, the scores of new teachers on the INTASC teacher evaluation system and the demographic information about which Oregon teacher education programs had granted their teaching licenses). Wilson's assertion that "looking at data will help us become better versions of ourselves" (2012, p. 40) should specify that such looking must also encompass the data-producing apparatuses at work and the other apparatuses with which they are entangled.

Just as various measurement apparatuses produce data, so does the assessment apparatus edTPA produce teaching. Specifically, teaching is produced inside edTPA as "a process that brings about specific learning" as a result of "skills and techniques that may be derived from research on effective teaching" (Sato, 2015. p. 428). The components of this assertion have been soundly challenged by educational researchers—for example, Gert Biesta (2015) has problematized the assumption that teaching produces learning, and Frederick Erickson (2014) has contested the reliance on research-based practices—and in this project, I have questioned both the concept of teacher knowledge that holds teaching to be merely the sum of its parts, and the notion that teaching can be unproblematically represented. And yet, as edTPA is adopted by more states, its conception of teaching, discussed in more detail in the following section, becomes more entrenched; the work now, it would seem, is to remember the apparatus-ness of this measure, to name what it produces and what it misses, and to find or develop other apparatuses to produce the other knowings that teaching requires.

From Multiple Measures to Multiple Apparatuses

According to SCALE, edTPA is "a multiple measure system that includes two primary components: 1) Teaching-related performance tasks embedded in clinical practice that focus on planning, instruction, assessment, academic language, and analysis of teaching; and 2) a 3-to-5 day documented learning segment" (SCALE, "edTPA," n.d.). This multiple measures approach is intended to capture the complexity of teaching practice, one of SCALE's six fundamental principles. As I discussed in Chapter II, in much of the scholarship about teacher knowledge the complexity of teaching is acknowledged, but then radically reduced by means of a measuring apparatus, in this case a performance assessment that requires teaching candidates to submit "a variety of artifacts of teaching (e.g., lesson plans, videotapes of teaching, student work samples) that represent different areas in which teachers make judgments, and have candidates explain the underlying teaching decisions that they made" (SCALE, "Design Principles," n.d.).

These artifacts are contextualized by a structured writing task, the Context for Learning, which can be no more than three pages long[56]. The "About the Students" section asks only about grade level, the number of students in the room, their gender (for which there are only two options), and for information about students who require supports, modifications, or accommodations that will impact instruction (SCALE, 2014, pp. 52-53). As I will discuss in more detail below, this document is wholly inadequate for describing what teaching candidates need to know about their students in order to make culturally-sustaining (Paris, 2012) decisions about teaching practice. It is perhaps ironic (or perhaps

[56] The final product must contain the prompts, which occupy two full pages in the handbook, so teaching candidates have very limited space to say what they know about their students.

just depressing), that edTPA submissions are scored by evaluators with even less information about the students/teaching candidates they are evaluating.

In our conversations about implementing edTPA, the UOTeach transition team is purposefully taking a broader view of the concept of multiple measures. Using what I've learned in this project about the apparatus of the Teacher Story, and how it makes possible certain imaginings of teaching to the exclusion of others, I work to keep the apparatus-ness of edTPA in the forefront of my thinking about its implementation. This has me (and the transition team in general, though I think they are perhaps a bit tired of my references to Barad) thinking hard about what other qualities, skills, practices, and dispositions are critical to my view of teaching. What does edTPA miss or erase, and what other apparatuses might we put to work in order to make those things visible? In the following section, I return to the two themes from my analysis in Chapter IV as potential knowings that are impossible inside the edTPA apparatus, and yet are critical knowings in teaching practice.

The ABCs of Teaching meets edTPA

Doubt and indeterminacy. The two themes that emerged or were produced by the story-apparatus developed in this project are among the knowings about teaching practice missed by edTPA and similar teacher-evaluation apparatuses. While indeterminacy and doubt figure in most descriptions of teaching, they are not easily accounted for inside systems of assessment and evaluation that are inherently positivist. As I discussed in Chapter IV, when we choose data, narrowly defined as it too often is in an educational policy discourse framed largely in a positivist paradigm, to be the driving force in our thinking about teaching, we cannot also sustain indeterminacy and doubt. I can imagine two alternative choices, though, of course, there are likely many others.

First, edTPA heavily emphasizes analytic writing over reflective writing, even though reflecting on practice (Schön, 1987) is a much-discussed component of effective teaching (see Zeichner, 2005, for a review of the literature on reflective practice in teaching). The written commentaries required for the various edTPA tasks, described in more detail below, require teaching candidates to make claims about the relationship between student learning (always the desired outcome) and planning, instruction, and assessment. To be deemed proficient (i.e., to score at a certain level on the various rubrics used to assess the commentaries), candidates must provide specific evidence, either from examples of student work included in their edTPA submission or by referencing theory or research, to justify their assertions. In other words, they must make a case and provide evidence to support it, a mode of writing that is grounded in certainty. In this variety of analytic writing, which is prompted very specifically to include particular details, there is no room for contradiction and ambiguity, wavering and guessing. And yet, the work of wondering and then inquiring and then wondering again is the very recursive practice of curiosity we hope to instill in our students. What better way to accomplish that than to model it in our own teaching practice?

This recursive practice of curiosity is the domain of reflective writing, which can be put to work as a space of generation, innovation, and play. However, in our credentialing program, UOTeach, reflective practice has been oversimplified and overemphasized. Teaching candidates turn in weekly reflections with minimal guidance about what it is that they are to attend to or consider[57], and, to my knowledge, they consider neither the theory underpinning the use of reflective writing nor its critique (see discussion in Chapter III).

[57] For example, the guidelines provided for the work sample, the state-mandated teaching portfolio teaching candidates complete as part of the certification process, simply indicates that a "reflective self evaluation" is a required component, with no additional instructions. Teaching candidates who turn to the work sample scoring rubric for clarification find this description for a passing score: "Self-evaluation shows reasonable effort to think about one's teaching experience"(*UOTeach Program Handbook Assessment Addendum*, 2014).

Also, by the end of their time as teaching candidates, our students feel like they've reflected *ad nauseum*, and the practice has become rote and meaningless. One student explained that she knew the formula for any reflective assignment—say something about how something she observed worried her, and then say how this or that made her feel better, and then say something about what she would carry into her classroom from this moment—and that she could produce these writing tasks without even thinking about them.

While this student's approach to reflective writing largely misses the point of such work, I do not mean to locate this issue on the teaching candidate: her comments are a critique of our program's overreliance on and under-theorization of reflective practice, not of her work as a student. Between coursework and the demands of student teaching, finding shortcuts like a formula for weekly writing is necessary for survival. At the program level, we must be more thoughtful about our use of reflective writing, particularly as a potential site for the practice of sustaining doubt and indeterminacy. Our students should consider both ideas from the literature about reflective practice, and examples of its critique, and then our reflective writing prompts could be redesigned to direct teaching candidates' attention to thorny moments in their practice, moments of contradiction or paradox, moments not easily resolved into lessons-learned tidiness.

Second, space for indeterminacy and doubt exists inside the concept of local enactment. Here I think educational policymakers can take a page from dance or yoga teachers. Most movement forms have an ideal expression, and classes consist of practices that bring all kinds of bodies into increasing proximity to that ideal form. For example, there is a proper form to various yoga poses[58], but there are reasons it is called a yoga *practice*: yogis engage in poses repeatedly, coming in and out of them, using the breath to move

[58] I do not mean to suggest that there is consensus about proper form across the various traditions or schools of yoga, but that there is ideal form inside each of those approaches.

closer to ideal alignment, while simultaneously making adjustments, using props and modifications to be comfortable in whatever version of the pose the individual body is capable of in that moment. There is an expression that circulates in some yoga studios: there is no yoga pose apart from the yoga pose you are practicing. Put another way, yoga poses exist only in their local enactment in a particular body, and yoga practice moves toward ideal alignment, not only for safety, but also for the full expression of any pose.

Though my experience with movement forms is limited (dance, yoga, NIA), practitioners of various movement arts often use the language of inquiry to describe the practice. One of my teachers often tells the class, "Try this and see how it feels. Then try it bigger, and then smaller. See how it feels in your body, for your body. Find the way your body likes the movement." Yoga teachers talk about finding the edge, the place just at the limit of challenging before the pose or movement becomes painful or damaging, encouraging practitioners to explore, to move closer to their edge and then back away. Academic classroom spaces have something to learn from movement classes, from this inquiry into how to get the individual body closer to the movement's technique or ideal form. Movement classes involve a form of local enactment: how does this pose look in this body in this moment? How does it look different in different bodies? How does it look different today from yesterday, and how will it look different tomorrow? And how do we inquire into these enactments, keeping in mind the ideal form of each movement or pose, without deciding that any particular enactment is right or wrong? I hope to pursue these questions in future research.

Seeing students and what that seeing produces. For teaching candidates seeking an Elementary license, edTPA requires four tasks that capture the three essential components of teaching: planning, instruction, and assessment. There are three literacy

tasks—1) Planning for Literacy Instruction and Assessment, 2) Instructing and Engaging Students in Literacy Learning, and 3) Assessing Students' Literacy Learning—and one mathematics task—Assessing Students' Mathematic Learning (SCALE, 2014, p. 2). In addition to the Context for Learning, discussed above, the edTPA apparatus asks teaching candidates to say what they know about their students (other than what they did or didn't learn during a particular segment of instruction) in only one prompt in only one of the analytic commentaries that accompany each of the four required tasks. In other words, students might write two or three paragraphs about the community surrounding their field site and the various cultural assets students bring to the classroom in around forty pages of analytic writing.

The prompt asks teaching candidates are prompted to identify "personal/cultural/community assets related to the central focus" (SCALE, 2014, p. 14) in the planning commentary for Task 1. This prompt, 2b, is one of fourteen prompts students are expected to cover in no more than nine pages (really more like six and a half, as the prompts must be included in the candidates' response), and this information is not required for a passing score on the rubric associated with this portion of the commentary[59]. That is, a passing or proficient score on Rubric 3, which evaluates candidates' ability to use knowledge of students to drive instruction, can be achieved by candidates without their addressing personal, cultural, or community assets at all :

> Candidate justifies why learning tasks (or their adaptations) are appropriate using examples of students'
>
> - prior academic learning

[59] I am indebted to my colleague, Matthew Graham, for directing me to these specifics of the commentary prompt and the accompanying scoring rubric.

OR

- personal/cultural/community assets.

Candidate makes superficial connections to research and/or theory. (p. 19)

The current assessment apparatus, the work sample, requires a lengthy narrative about the learning context, including descriptions and demographic information about the neighborhood, the school, and the classroom. Candidates are encouraged to "become students of their students and field sites,"[60] and to give a sense of what that means, here are the guiding questions provided to candidates for the school section of the narrative:

> Who attends this school? [All-school student demographics are required.]
>
> What is the school history? How is this important for today?
>
> Who works at the school (i.e., faculty & staff demographics)?
>
> What is the school mission? How is this expressed in the building?
>
> Describe the school building. What does this reveal about what is valued at this school? What does the school environment convey to students, faculty/staff, and guests?

While even these questions do not get at all we might want our teaching candidates to observe and consider about their field sites in order to come to know their students in that particular context, the present version of a context-for-learning narrative is significantly more attentive to personal, cultural, and community assets than the edTPA requirements. That knowledge of students' personal, community, and cultural assets is not actually required for a proficient score on the only rubric on which it is assessed shows how this apparatus does not consider such knowing necessary, much less valuable.

---

[60] This language is from the website for one of the UOTeach methods courses, retrieved from http://blogs.uoregon.edu/edst631/sample-page/learning-context-guide/.

But deep knowledge of students—when they have guitar lessons, which sports teams they follow, what they did with a lost tooth—makes possible certain kinds of relationships that do important work in classroom spaces. Such knowing not only drives the elements of teaching emphasized by edTPA—curriculum design, pedagogical strategies, and assessment approaches—but also produces the conditions in which we can challenge our students to think more deeply or carefully, to consider viewpoints other than their own, and to push past taken-for-granted ideas and opinions. Such knowing also helps teachers see students not as stable, essentialized versions of themselves, but as complex and always transforming. This knowing resists fixing students as formulated phrases, and is never finished.

Finally, such knowing has us hold our students as inherently capable, allowing us to resist deficit thinking and move towards more democratic, pluralist classroom spaces. This move echoes a recent shift in the literature from culturally responsive (Gay, 2010) and culturally relevant (Ladson-Billings, 1995) pedagogy to culturally sustaining pedagogy (Paris, 2012; Ladson-Billings, 2014; Paris & Alim, 2014). Thinking about edTPA as an apparatus, alongside and inside other apparatuses at work in teacher preparation, allows me to consider how it produces certain knowings as valuable at the expense of other possible knowings. As our program is committed to a model of activist teaching in which culturally sustaining pedagogy is the goal, we will need to keep the apparatus-ness of edTPA at the forefront of our thinking as we embed it into other assessment practices that value the knowings we want our teaching candidates to carry into practice, particularly around how they see their students and what that seeing produces.

Implications for Teacher Preparation

In the canonical accounts of teaching practice that are foundational in teacher preparation programs, teacher knowledge has been produced and made to matter inside

story-apparatuses that forward certain meanings and make possible certain agential possibilities, all of which could be otherwise. Becoming aware of the apparatus-ness of both Teacher Stories and other instruments used in teacher education, perhaps especially performance assessments like edTPA, provokes teacher educators to consider what those apparatuses make matter and under what conditions. Such awareness contests the naturalization of narrow conceptions of teaching practice, and sustains the paradox of holding to standards while resisting standardization.

In addition, while the Top 40 teacher knowledge hits are worth listening to, teacher preparation programs should also concentrate on the indie teacher knowledge soundtrack, hopefully detecting these three recurring ideas. First, teachers-to-be should practice thinking about the materiality of classrooms beyond the arrangement of furniture and placement of decorations. Centering the teacher or even the teacher-student relationship as sites of knowledge production, as we've seen in both edTPA and the TeachOregon logic model, inadequately accounts for the non-human agents in classrooms and schools. Teachers and students are two of many agents at work in a network or assemblage of intra-acting agencies. This expanded view does not mean that teachers are not important agents, but that what they know and do, the teacher knowledge they enact, must be considered in intra-action with the material of the classroom, students, institutional forces, curricula, assessment, educational policy, and so on.

Second, teacher preparation programs need to offer teaching candidates representations and conceptions of classroom spaces and events that capture their complexity. Reducing teaching practice to overgeneralized, tidy Teacher Stories might seem to protect candidates—this inclination is often expressed by the "we don't want to scare them away!" sentiment—but, I would argue, oversimplification does (probably much) more

harm than good, particularly when these simplifications get taken up into assessment devices. This attention to the complexities of schools and schooling should include asking difficult questions about the desired outcomes of education, especially how schooling is built to produce a particular version of what it is to be fully human by means of an assimilationist production of sameness. Thinking with these indie teacher knowledge scholars keeps teacher knowledge on *the side of the messy* (Lather, 2010), which helps us resist the reductionist mechanisms of accountability surveillance. If we are not resisting (and quite probably even when we are), we are reproducing the inequities we mean to dismantle.

Third and finally, teacher preparation should train teachers-to-be as inquirers into their own cases of local enactment even as they are being produced by standardized assessments themselves. In the national discourse about education reform, standardization has been linked to equity. For example, a frequent refrain in early articles about the development of the Common Core Standards was that children in Mississippi need to learn the same things as children in Massachusetts. Sameness, however, is not equity, and this language obscures both the deficit thinking and the push towards assimilation that frame standardization projects in education, whether their targets are students, teachers, or teacher preparation programs. In educational spaces, standardization is the reproduction of white supremacy, heteronormativity, and the privilege associated with certain class, gender, and ability positions, and runs counter to the values of culturally sustaining pedagogy (Paris, 2012; Ladson-Billings, 2014; Paris & Alim, 2014). Culturally sustaining teaching practices require not only local but ongoing enactment, teaching not as a thing but a doing.

fragment: burn. it. down.

Sometimes I want to give into the cynicism and angst that lurk around the edges of my beliefs about schooling; I want to turn up The Smiths and sing along with the bleakness.

Usually this happens when I think about my teacher-to-be students, the schooling they've survived and the schooling they are about to become instruments of, or when I think about my complicity, or when I have to, as one of my collaborators so eloquently put it, send my students "back out into a flawed, flawed world and a dangerous, dangerous hallway, and a super fucked-up system."

In my imagination, my version of giving in would be withdrawing, opting out, leaving it to burn, maybe even burning it down myself.

Then, because I really don't have much capacity for cynicism, I dream about ways to make my withdrawal highly visible so that at least it might be registered as a protest, which might produce some kind of change somehow. And then I talk myself back to myself and my hope that maybe Audre Lorde wasn't entirely right. Yes, the master's tools will probably never dismantle the master's house. But maybe we can use them to widen the doors? Or build an addition?

Ultimately, Galway Kinnell beats out Morissey every time.

St. Francis and the Sow

The bud
stands for all things,
even for those things that don't flower,
for everything flowers, from within, of self-blessing;
though sometimes it is necessary
to reteach a thing its loveliness,
to put a hand on its brow
of the flower
and retell it in words and in touch

it is lovely
until it flowers again from within, of self-blessing;
as Saint Francis
put his hand on the creased forehead
of the sow, and told her in words and in touch
blessings of earth on the sow, and the sow
began remembering all down her thick length,
from the earthen snout all the way
through the fodder and slops to the spiritual curl of the tail,
from the hard spininess spiked out from the spine
down through the great broken heart
to the sheer blue milken dreaminess spurting and shuddering
from the fourteen teats into the fourteen mouths sucking and blowing beneath them:
the long, perfect loveliness of sow.

If I had written my own version of the teacher-self assemblage John offered as his introduction for this project, this poem would have been at the center of it. It is the center of my beliefs about the doing of teaching.

It is the apparatus inside which my teaching is produced.

APPENDIX A

THE ABCs OF TEACHING

Angular Momentum

My first teaching job was at Jesse H. Jones High School, the institution from which I had graduated seven years earlier. I was ridiculously unprepared for most of the things that happened during the years I taught at Jones, starting with the teaching schedule that appeared my mailbox the day I set foot in the building as an employee: I discovered I was scheduled to teach creative writing.

We were regularly assigned to teach classes that we weren't actually trained to teach. Teaching assignments appeared in our mailboxes a few days before the school year began, and often they would include courses the registrar decided should be taught because she had students she needed to assign somewhere. So she would create the classes she needed—remedial math, SAT preparation, newspaper, whatever she could dream up—and assign them to any teacher who had a low student load relative to other teachers in the building. To her, a light student load meant smaller classes that she could easily combine, creating open periods into which she could schedule drafting or creative writing.

Because I taught in a special school-within-a-school program with a different maximum class size than the rest of the school, these scheduling assignments would get changed after a few days, but we had to do something with the kids who showed up in our room for at least a little while.

What Hunter tried to do was get students to play.

He had equipped his classroom with all kinds of things to help make physics accessible—not understandable, though it had that effect, too, but literally accessible, as in students could pick things up and try them out—springs stretched across the ceiling and pulley systems and ramps and weights and whatnot.

To fill those awkward ninety minutes with a group of students he would likely never see again, Hunter tried to get one of them to sit on a spinning stool while holding a 10-pound weight. "Sit on the stool and hold the weight out in front of you," he instructed. "And I'll spin you around. Then…"

"Man, I ain't doing that."

"No, really, just hold the weight away from you like this, and then once you're spinning, pull the weight in close to your body and see what happens. It's cool."

"It ain't cool. I ain't doing that."

Hunter was puzzled. "Um, okay, I'll do it."

As he was telling the story, I could picture Hunter talking with this kid, this white, geek-hipster hybrid trying to persuade this wary, wannabe-(or perhaps actual)-gangsta to sit on a stool and spin around. And I could picture him hopping on the stool to demonstrate, recruiting another student to set him spinning as fast as possible, and how his shoulder-length hair and his tie would have flown out from the center line of the spin. As he pulled the weight into his chest and spun faster, he probably laughed, and as he slowed to a stop, he would have gestured to the class with the weight, inviting someone else to try.

Eventually most kids in the class tried, and then played with other things in the room as well, Hunter explaining the physics to them as they moved around the space. "Mister, what's with this?"

"Oh, that's…"

"He thought I was trying to embarrass him," Hunter explained in response to my puzzled expression, "So I had to do it first."

And then I caught up, "Jesus. That means some teacher did that. Some teacher humiliated this kid. That's why he thought that's what you were going to do."

"Yep, that's what that means," Hunter replied.

Becoming Persons

A few days ago, a student made an off-hand remark about how surely faculty complained about students, and I realized I don't complain about students anymore. Not really at all. Maybe every once in a while I feel frustrated about somebody underachieving, and I think "What do they think they're doing? Why sort of try instead of really trying? Attend *some* classes, do *some* work, but not really enough to make any of it worth doing?" It's more of a puzzle to me than a source of frustration. It doesn't really go beyond that point of me just wondering about it.

I have peace that it's okay if people don't learn all the stuff I think they should learn, but, from the opportunities that I provide, they learn what they're ready to learn. Though I don't enjoy watching people fail, so it's not like "whatever."

It's more like I prioritize their becoming persons, which requires a certain degree of autonomy and freedom.

So I felt proud to tell my student honestly that I don't complain about them. In my first few years of teaching, I don't think I would have believed that I could get to this attitude, probably both because I was young and stupid and because I was inexperienced with teaching. It was so much about me struggling with students to get them to do what I wanted

them to do, like they were action figures or something. No wonder they often didn't cooperate.

Charged

Because I did not enter the profession with any desire to stay in it for life (although I've been in it for life thus far!), I did not have a lot of expectations for how it would be. I started off—and I still work in this vein—with the idea that if the subject is interesting to me, then I can make it interesting to my students. I don't think I appreciated how important professional development would be in helping me stay interested in things and in helping me find many more ways (other than my way) to help my students connect with the subject. So much of the prescribed professional development in my early days seemed to me tedious and disconnected from the reality of the classroom, but looking back, I see that the value in any professional development is that it provides me with the opportunity to learn something, even if that learning is how to persevere through something tedious and unsatisfying.

The best professional development offers me a way to learn *with* my peers, rather than learning from them (although this is a natural by-product of learning with them). Workshops where I am involved in analysis, writing, commenting, providing feedback, and reflecting always stimulate me and recharge me toward teaching. And if I'm charged, then I'm going to be a way more awesome teacher than if I'm not charged.

The key discovery for me has been how important it is for me as a teacher to continue to learn, to place myself in learning situations that stretch me out of my own comfort zone, where the learning curve is high and the stakes are real. Because I like these types of situations, I naturally seek them out. What surprised me at first was how these types of learning opportunities were few and far between for teachers. What surprises me now is how many awesome opportunities there are out there for me to stretch, learn, and grow—not as a teacher, but as a learner. It's the emphasis on my own life-long learning that helps me remain a strong teacher.

Distance

I think one of the most difficult things is to figure out how to teach effectively and care enough about my students without feeling at the end of the day like I want to kill myself over each of their personal situations: the ones who live in their cars, are ex-cons, in recovery, raising their children as single parents, working two jobs, are nursing ailing parents.

I am the last person to take my own advice, yet some measure of distance is life-saving. Because don't we all want to live to teach another day?

Emergence

I am not very organized when it comes to learning objectives. I have learned to be able to call forth extemporaneously what my learning objectives are while an activity is happening,

or just before or just after. I used to just do stuff and call it good for you. But then I learned to say what I was doing while I was doing it, which I believe is an improvement. But I don't usually plan what I'll say about it before we get into the teaching situation.

I'd like to believe my stance is philosophically motivated and justified, which it is, partly at least. To me, learning is the transformation of participation, and being defined that way, it must be partly emergent rather than totally planned. I try to structure day-to-day activities around particular learning goals that are characteristic of ways of engaging, but leaving it open as to exactly when or after how much engagement the objectives will be met. I want to be open to an objective getting met not on a particular day but over the course of at least a few months of sustained practice in some kinds of activity.

A lot of my instructional choices are aligned with practices I know from playing music and from playing what little sports I've played. In those arenas, emergence is huge. If we knew exactly what would happen, we wouldn't be so interested in doing it again and again. And by doing it again and again, our participation is transformed. So, overall I want there to be enough structure for students to know what their specific options are for participating—like, what song we are playing, or what offensive play we are going to run—but for there to be surprises as to what the time together ends up having been about.

I feel insecure sometimes about not having better defined objectives, since I know it looks good. I worry that I look disorganized. Sometimes, I feel envious of people who teach in environments where it is more acceptable to focus on emergent learning; these environments may be mostly outside of school.

Fiction

There is a lot of push and pull that goes on between the mentor and the students, and the way we (the mentors) deal with that is with a kind of mindfulness—we observe the temperature in the room, and we adjust accordingly, but just enough so that the students can persevere through the dusky terrain of knowledge and skill-building. We step back a little and give them something specific to do, something with a clear goal. As teachers, our strength to withstand uncertainty continues to grow; we come to understand that doubt is the conflict that keeps us coming back for more (so to speak). Students, on the other hand, believe they are in the classroom to learn how to *do* things, concrete things. They are there to find out.

One way to help students withstand uncertainty is to show examples of how doubt is the bedrock beneath the scaffolding of theory, practice, praxis, etc. Great literature or science or business is founded on the concept of doubt: what is it that we know (right now)? And how is this knowledge flawed or imperfect (or not)? What can we add to help stabilize the illusion of certainty, of permanence?

Remember the Wallace Stevens quote: "The final belief is to believe in a fiction, which you know to be a fiction, there being nothing else. The exquisite truth is to know it is a fiction, and that you believe in it willingly" (from *Adagia*).

We just have to keep showing our students that reality is always uncertain.

Guilt

Last winter, I had to get away from teaching. Some sort of complex had developed that damn near prevented me from being able to go through with it each day. To read student writing and figure out something to say about it was more than I could bear, and the guilt and the feeling of letting my students down that soon appeared atop that stack of ungraded essays made me sick. When I'd try to plan lessons or write responses, it seemed futile. I felt as though I had nothing really to offer, nothing really to say, and no way to say it so that it stuck. So that it made some sort of impression. Surely someone better than I could be doing something for these students, I thought.

Since then, I've taught a few writing workshops for adults, but I've been making my living as a reporter and freelance writer.

And I don't miss teaching. Not one bit.

Hope

The thing about teaching that I didn't expect when I began is how it doesn't ever really get easier. That is, I still feel all the anxiety my first time in a classroom. I just know how to manage it better.

I can make my uncertainty inhabitable. And that makes the anxiety survivable. I do it by relying on touchstones: I teach at least a few texts I feel at home with, I use in-class writing activities with my students that also serve to focus and calm me, I wear mascara, I remember that I have hope.

I'm sure there's some evolutionary biologist who explains our fear (of the unknown, of the new, of uncertainty, of instability), but we sure seem to have lots of it. I think of all the ways we resist uncertainty, culturally speaking, all the ways we insist on sameness and comfort and knowing. And I think this is the biggest sign that schools are failing—we have created a generation of right-answer-finders and then we've sent them out into a world where there aren't any. Or where the right answers are temporary and fleeting; they change or drift away even as we grasp them.

It's Going to Be Okay

Today, my students completed their course evaluations for first semester. One student wrote this: "She always has what we are doing that day on the board as we walk in. I bet she takes a lot of time at home to write the lesson plans."

AHAHAHAHAHAHAH.

I don't.

But I do think constantly about what we're learning together and how I can make it more meaningful for them, more challenging, more relevant. And I try to articulate what we'll be doing in class each day on an agenda that I project on the board. Having taught for 20+ years now helps me with being able to work this way. On the other hand, I've *always* worked this way. The difference is that now I know that it's going to be okay: we're going to be okay no matter what.

The main tool I use is a consistent structure in class. Every day has a specific rhythm that the students can count on, which allows for a lot of divergence and emergence within the structure.

Warm Up—I guide them in 2 to 5 minutes of Brain Gym activities (physical activities that center around cross-lateral patterning and breathing and stretching). This is my second year using Brain Gym, and it's a great addition to my course.

Writer's Notebook—5-15 minutes, which includes five minutes of sustained writing, where they are directed to unleash their unconscious onto the page; it includes sharing out loud (for whole class sharing, I ask the students to underline a sentence reflects something particularly relevant to what we're studying at the moment. Often though, I have them partner and share what they wrote with one or two other people).

Content/Review/Discussion—This takes up the rest of the class period (currently, we operate in 45 minute periods. Next year, the 30-year-old schedule is shifting to a modified block schedule, so once a week, students will have English (and their other subjects) for an 85-minute period. I'm excited to have more time to do different activities during class time.

J.

I know when J. comes in in the morning that he takes guitar lessons on Tuesday and Thursday, and last Tuesday I said, "J., where's your guitar?"

And he said, "I only have classes on Tuesday and Thursday."

And I said, "J., it is Tuesday."

And he's like, "Oh, crap, I forgot my guitar."

I couldn't have those kinds of exchanges if I hadn't talked to J. about playing the guitar and what that meant to him. Those kinds of things fascinate me and add a dimension to teaching that's important to me. And I understand it's not important to everybody, that some people would just as soon keep their distance from students. But for me, that is a poorer teaching experience.

When students come in in the morning and I can greet them by name and I can ask them how their weekend was and I can say, "Oh, too bad about the football game," because I know they're Seahawks fan and the Seahawks have lost. Or I see someone with a Blazers cap and I say, "That was a pretty tense Blazers game last night." That we can have this kind of exchange means that I can see them, I can know them.

And I know they are having an exchange with me that they don't have with other instructors. When students come to ask me for letters of recommendation, they actually say to me, "Because I feel like you're the only instructor who knows anything about me," which makes me so sad. I can't even believe they make that statement. Because we're not a big school. Our classes are deliberately small. We pride ourselves on serving students, on giving students attention. And I don't want students to be making those statements about me because I don't think that that serves the students very well.

And frankly, the more I know my students, the easier it is for me to work with them, the more I like them, and then I can go to them and say, "Look, you need to work harder," without them thinking I'm picking on them.

Kryptonite

I remember feeling as if my student papers were coated with Kryptonite dust: they repelled me viscerally. I could not get near them, try as I might. I would look at my bookbag, slumped near the door of my apartment, and I would tick off the reasons I needed to go toward the bookbag and pull out the papers and just eat the dismay that was already welling up in my gut before I even touched them, knowing as I did that the experience of grading would be painful intellectually and spiritually and physically, but also knowing that my students were waiting—had been waiting a while now—for my feedback, their grade, the knowledge of what they were doing well and what they were not doing well. My whole body went weak and limp; all I could do was anything else but grade those papers.

Underneath my self-imposed drama/crisis was my sense that "the grades" I needed to put on the students' papers were, in fact, painful, damaging intellectually, spiritually, and—perhaps—physically to my students. If I didn't have to grade the papers, if I only had to write feedback, even mark writing errors, I would not hate this part of teaching so much. Truly, it's this part—the grading—that caused me to quit.

Lions

I am a lion in a sea of sea turtles.

My pedagogy is Doubt.

In my first imagining, I am some sort of giant in a classroom full of tiny (and, therefore, fragile, at least relative to me) students, and my job is not to step on any of them. I feel dangerous in this environment of endangered species. (I don't know, *are* sea turtles endangered? Probably with acidification of the seas.)

I used to be torn by the question, "Am I helping or hurting my students?"

I used to.

Now I feel more like a lion in the sense of, "Hey! Watch and learn people; I'm king of my subject!" The absurdity of this feeling is that—hello!—I'm clearly out of my element. So the task I am doing now is trying to find a way to coexist with these sea turtles so that I can live in their world and not drown.

Markers

What I remember about my first week of teaching: arriving home after the first day and being so tired that I fell asleep on my living room floor; handing out copies of Whitman's "Song of Myself" on Day One and having a student arrive on Day Two exclaiming, "This guy's on crack!"; the brown paper bag of office supplies with red pens and a green gradebook and a black stapler I was required to collect from the school's supply room. I had three staplers in my room already—you got one every year even if you already had several—so I tried to give it back. I remember the woman who worked in the supply room telling me in a conspiratorial whisper, because she liked me, that I should never turn down anything I was offered, even if I didn't need it or it seemed wasteful, because I wasn't going to be offered very much.

I remember that one of the seven police officers assigned to our campus mistook me for a student when I was buying a soda during my planning period; he requested my hall pass and we had to walk together to the office so the school secretary could confirm that I was, in fact, a teacher. Later I discovered that he shared the story with his colleagues, I generously assume to spare them the trouble of stopping me, and another officer remembered me from when I was a student. By my car, really, because he had had to let me out of the student parking lot three days a week so I could go to University of Houston and take classes.

I remember that these moments felt like landmines that could blow off my façade of knowing what the hell I was doing.

Not knowing how something is supposed to go—the way you order in a new restaurant and whether or not you need to bus your own table, phone calls to inquire about hours or availability, the procedures in libraries or hospitals or school cafeterias, that you should just take the stapler that's offered to you—is always an opportunity to embarrass myself, and teaching triggers all of my anxiety about these things. Am I going to get called out for not turning something in or filling something out? Am I going to forget a book or a handout or my shoes? When I turn my back to my students to write something on the board, will there be any dry erase markers? I cover myself in every possible way. Other women carry Kleenex or tampons or breath mints in their handbags; I carry dry erase markers.

Night Shift

I have students who are homeless, who live in their cars, or shelters. If I know this—and sometimes it's pretty well hidden—I'm just relieved that they're in class. I currently have a student who works the night shift and shows up in my 8 a.m. class having come directly from the paper mill. And he's not the first one. Sometimes they can't stay awake through the class and if I have a chance, I talk to them about how I know what they're doing is very difficult and I applaud their commitment to changing their lives with education.

In recent years, in order to do what is possible to get students to not shut down, I've started metaleveling—is this still a word? I learned about it years ago in a communications class—making sure that my students know that I have a working class background, or that I was raised in a Catholic household, or that my parents did not have a chance to finish high school until they were adults. While these things might resonate with students personally, it also gives me a chance to say, "Look, this is possible for you," and so they have a cheerleader in me if they want to do the work.

Outliers

Periodically I ask my students to give me feedback on index cards (informal versions of "exit tickets"), particularly after assignments I'm trying out for the first time. Last week I got this response to a question about the midterm project:

"I didn't like the grading for the midterm project, either failing or 100%. I don't think it's fair to do a few small things incorrect and have it be an automatic fail. Made me feel like you thought I wasn't trying."

I was puzzled. My syllabus says this about the writing assignments for the course:

"Both formal written assignments and informal private writing should be considered opportunities to develop your writing skills. Seek out guidance for revising, and be open to feedback about your work. Be prepared to revise your work more than once."

And I do a whole spiel at the beginning of each class about writing being an iterative process, and how, in an effort to lower the stakes for writing assignments so students can really practice, I will accept multiple rewrites and conference with students and so on.

Clearly none of that landed with this student.

My first reaction was defensiveness: "Well, she clearly didn't read the syllabus or listen to my song and dance about how I grade writing!" "Well, they weren't small things and there were many of them!" "Well, when you don't bother to correct the misspellings pointed out to you by your word processing program, I do think you're not trying!"

My next move was to decide she was an outlier—the only student to say anything like this in the small pile of index cards—and remind myself that I should discard her response.

But, of course, the outliers are what I fall asleep worrying about, what I think about for weeks, what I talk over with my colleagues. The kids I don't connect with, the ones who don't like me, who think I'm unkind or unfair or, worst, unhelpful. The assignments that bear no resemblance to the instructions. The sentences that start, "Well, it's like you said…," and then are finished with something that I seriously hope never came out of my mouth. Because these are the places where my best intentions went awry, and I wonder if paying more attention to them is actually more productive than paying attention to all the places where what I meant seems to have been understood.

Peacocks

There is no perfect system or institution. You can certainly affect change within the system or institution that you find yourself in, and I recommend it, but you can't make that your only work, because really, at the end of the day, it's your students. It's the human beings sitting in front of you who are fragile and amazing and frustrating and beautiful as hell, and you have to PAY ATTENTION to them. And let them know that you see them, that you want to see them, that they are safe with you. That you will not coddle them, and that you don't feel sorry for them, but that you care about them and you care about their brains and their hearts. And then you have to live that every day.

Sometimes it will be hard to live this, yes. It will be tiring and sometimes disappointing. But it will also be magnificent, and transcendent; it will grow bigger than you. Because you never know what one thing you said or did for a student or a class that they will remember long after you've forgotten, and it will have–literally, no shit–changed their life. You can't walk around every day like a peacock, "I change lives," but you have to try your hardest to carry around the fact that what you do *could* have that kind of impact. So you have to be careful.

You will see and know and get your students better than most of their parents will. You may work with administrators who care that you care about your students, and you may not. You will have to deal with stupid paperwork and deadlines and numbers that you're not really

sure measure anything, and you will have to send your students back out into a flawed, flawed world and a dangerous, dangerous hallway, and super fucked-up system, but you get fifty minutes or so a day with them to keep them safe, to push them, to love them.

It will change everything about you.

Quicksand

Learning is transforming participation. Teaching is coaching that transformation. So, for me teaching and learning are highly dialogic. Without dialogue, I cannot teach. In that case I can explain things, but I feel sick. Or empty. And I try not to panic. I recently saw a TED talk that described how anxious people feel when others look back and don't respond—she called it "social quicksand." That's how I feel when I have not yet succeeded in creating the classroom culture of dialogue. Dialogue is like oxygen to me.

Remarkable Brightness

I have to be very conscious of the way I think and of how I express it. The South is still a land of judgments, and my whole reason for coming back here was to make steps in turning that around. I feel judged at times for not being religious, or for having a childhood of privilege when many of my co-teachers are first-generation college graduates. Sometimes there's an undertone suggesting that those folks really "get it," really understand what's going on with our students because they went through it, too. Pity the nice white lady who thinks she gets it but really has no idea.

In other words, we all have "deficits" in the eyes of others, depending on whom you ask. I don't want assumptions to be made about me based on my on-paper profile or my socioeconomic background, and I wouldn't want it for my students either. Every single one of my students has a remarkable brightness within them, and that's all there is to it. Period.

Yes, it may be that in some cases, their grandmothers are more involved than their fathers. (I, meanwhile, had two grandmothers who never knew any of my teachers' names.) Yes, it may be that I have difficulty getting some families to follow through on attending conferences or helping with homework. (Meanwhile, these kids may appreciate the attention that they receive in school and make the most of it more than a student with helicopter parents.)

But when I think back to the school experiences that many of my kids' parents had, I can't blame them. When I see the strength that their families have shown in trying to trust the system anyway, in choosing a turnaround charter school where perhaps things will be different, I see bravery and openness that I'm not sure I have. Most of all, I see love. All of my kids' families love their babies and want what they believe to be best for them. I want that too.

Secondary Trauma

When you really see your students, you're going to see things that you wish you could un-see. But you can't. You will see things that you will always know.

You will see the young woman who needed to get home safely, so she gave a blowjob to a gang member every day after school in exchange for safe passage to her house. You have to see that. And you have to carry it with you so that she doesn't have to be the only one carrying it.

Sometimes seeing your students produces what is known as secondary trauma, the trauma experienced by those who care for those who live through and in and with primary trauma. Teachers are not usually included in discussions of secondary trauma. But they absolutely should be.

Because teachers have to see the students who can't be seen by the other adults in their lives. The student who didn't want to be the only one of her friends who was still a virgin, so she deliberately got drunk enough to pass out at a party where she knew there would be someone who would rape her. She was so pleased to have lost her virginity that night that it didn't matter that she couldn't say to whom. The student who says to you, "I have a drug problem," and whose parents threaten to sue you if you ever suggest to them or anyone that their son might have a drug problem. The student who has a drug problem because his parents share their drugs with him and he doesn't know how to say no to them. The student who has a drug problem because his parents have medicated him into oblivion and he wants to feel things so he takes more drugs to counteract the prescription drugs he reports to the nurse for every three hours. The student who comes back from rehab and has to change schools because she can't find anyone to hang out with who stays clean. The student who needs an HIV test who needs lunch who needs a coat who needs an adult to be sober long enough to hear her who needs to know that she might not be going to hell who needs a safe place to sleep who needs a hug.

You have to see the students who realize they can do and be more than they ever thought possible because you can see it for them. The students who read something that blows their minds, something you assigned or recommended or had on your shelf or were reading on DEAR day. The student who realized that the woman who cleaned her house and cared for her had her own kids in Guatemala but here she was taking care of some rich white kids instead, so the student learned Spanish and then spent her summers building toilets in Guatemala to give back, even if only vicariously, some of the care she had taken away by having a housekeeper who was also a mother.

You have to see the student who has internalized his parents' racism and so brings a white supremacist book to read for DEAR day, and you have to have a conversation with him about why you're going to say he can't read that in your classroom even though you said students could read absolutely anything because the point is just to get them reading. You

have to let him read it, but in the hallway or the library or somewhere where he is not doing harm to others. You have to see him as not meaning to do harm, and you have to see him as someone who can unlearn some of that racism. You have to hold that possibility for him even when he can't.

You have to see the girl who plays dumb in order to get attention even though you know she's really smart, and you have to keep seeing the smartness even when she loses track of it and even when she fights with you and even when she accuses you of hating her. You have to remember that you don't hate her. You love her. You love them all.

You would carry off all of their hurt and fear and doubt except you can't.

What you can carry are all the possibilities of them.

Temporarily Without Credentials

I don't think of myself as a content area expert or anything like that. You can't be an expert in world history; it's simply not possible. And I am willing to live in the insecurity of not having all of the knowledge in the world.

I think a lot of people shy away from teaching because they feel like they have to be an expert before they can stand in front of people and say this is what I know. And in world history, I know enough to fill a thimble, and there's an ocean of information, so I had to become comfortable with saying I don't know that, or that, or that thing over there, or anything else you've asked me about today.

But it's certainly not the case that I have no information to offer my students. I know things. More importantly, I know how to find information and decide if it's credible.

So I prefer small group conversations, where trading ideas and conveying information happen simultaneously, and set up most of my classes that way. I learn a lot in these sessions as many of my students are history buffs about particular areas that interest them and so have details that I absolutely don't possess.

Also I find that actually sitting down with my students reinforces the idea that they are only temporarily without credentials. In the meantime, they still need to refer to me as "Doctor." I've thought a lot about this and it seems a little schizoid, but I think that what I've come up with is that accomplishments ought to be recognized.

Upper Right Lateral

Yesterday, one of my kids lost a tooth—what apparently was his upper right lateral. Ordinarily, or in my own sense of what is ordinary for a second grader, this literal loss is not experienced as such. But for him, this doe-eyed boy who still holds his big sister's hand every day as they walk home from school, this was the simple end of it. I knew better than to

ask him what someone undoubtedly would have asked me in my childhood: "Did the tooth fairy come visit you?" Instead, I grinned and asked (mostly, I'll confess, for my own curiosity's sake) "What'd you do with it?" After a beat, he cocked his head and shrugged, "Threw it away."

It was only that evening, at a friend's dinner party when confronted with a young mother's tales of her daughter's recent tooth loss—the $5 she had received, the long process of choosing a whimsical name for her tooth fairy—that I thought back to my little guy. I tried to explain it to my fellow partygoers, to share a slice of life from this little and beautiful person who is such a part of my life five days a week, who after only five weeks of school has found his way in, and was met with a thanks-for-darkening-the-evening lull.

Verb (Non-finite)

There's something strange about teaching. Or, rather, there are many strange things. But I think one of them is that it looks from the outside like teachers are experts, passing along their knowledge to less knowledgeable students. Inherent in the teacher-student dynamic seems to be this notion of a more-knowledge position, always occupied by the teacher, and a less-knowledge position, always occupied by the student. And knowledge always passes from more to less.

But that's not really how it is.

Try this: Rewrite the above description of teaching by replacing 'knowledge' with 'knowing'; then you'll be closer to how it really is. But still not quite there.

With Joy

I just needed to stop grading a piece of student work so that I could cry. Cry. With joy.

> *The thing I love most about writer's notebook is that I can write whatever I would like to (except when there is a prompt) and I am not afraid to write what is on my mind anymore.*

A boy wrote this.

> *and I am not afraid to write what is on my mind anymore.*

He's fifteen, gawky, growing weedily. Today he flicked his clear plastic retainer in and out of his mouth while taking the vocabulary test, an action which only a child can get away with, although—even still—it. grossed. me. out.

Fifteen year old boys can be totally gross.

What arrests me about this boy's statement is how he reveals (unintentionally probably) that he used to be afraid, but that now he feels safe enough with me as his teacher (this is the second year in a row he's been in my English class) to admit it. Not afraid of the dark, or

afraid to wear his hair a certain way, or afraid to try out for soccer, but afraid to write what was on his mind. And now he's not.

I have played a specific, important part in this child's transformation, and it thrills me.

XOXOX

I want to tell my second graders that I love them. I want to tell them that I'm proud of them for trying so hard, but also that I'm annoyed when they give up. I want to tell them how much this all matters for their future, but also that it's not everything. I want to tell them that I had a beautiful education handed to me and never knew quite how lucky I was, but also that they know things I never had any idea about when I was seven. I want to tell them that while I may act like I'm mainly here to teach them things like addition and sound blending, I'm secretly on a mission to help them develop empathy and a broader perspective. I want to tell them that they teach me as much as I teach them.

Yawp

I have a complicated relationship with teacher movies. I teach an undergraduate course that uses mainstream teacher movies to surface and then challenge stereotypical representations of teaching. And even as I recognize how troubling these depictions of teaching are, most all of the movies we watch make me cry. Because some part of me really wants to believe that all it takes to turn a child's life around is one great teacher.

And I know better. I've read Michael Apple and Henry Giroux. I know that schools are embedded in macrosocial systems of oppression, and that schools reproduce that oppression in their curricula and their discipline practices and their furnishings and their very narrow view of what constitutes valid knowledge. And I know that these systemic issues are not and cannot ever be entirely overcome by an individual teacher working in isolation in her classroom, and that such a belief damages both teachers and students.

I know.

And yet. I really want to believe that when Mr. Keating makes Todd "get in yawping stance," and then turns what looks at first to be the humiliation of a student in front of the class for not doing his homework assignment into a breakthrough moment, that he has changed Todd's life. That he has brought forth a new version of Todd, more self-expressed, more free, more joyful.

I want to believe that, because of Mr. Keating, Todd will go forth, not a bit tamed and untranslatable.

Zeus

Knowledge is painfully acquired. Viz. Before Athena, goddess of wisdom, was born from her father's head, Zeus had the most fuckedly painful headache of his immortal life, so

painful, he longed to die like a mortal. Then—suddenly—wisdom came into the world, and she had flashing grey eyes and was from then on her father's favorite.

APPENDIX B

THE ABCs OF TEACHING, ANNOTATED

Angular Momentum

My first teaching job was at Jesse H. Jones High School, the institution from which I had graduated seven years earlier. I was ridiculously unprepared for most of the things that happened during the years I taught at Jones, starting with the teaching schedule that appeared my mailbox the day I set foot in the building as an employee: I discovered I was scheduled to teach creative writing.

We were regularly assigned to teach classes that we weren't actually trained to teach. Teaching assignments appeared in our mailboxes a few days before the school year began, and often they would include courses the registrar decided should be taught because she had students she needed to assign somewhere. So she would create the classes she needed—remedial math, SAT preparation, newspaper, whatever she could dream up—and assign them to any teacher who had a low student load relative to other teachers in the building. To her, a light student load meant smaller classes that she could easily combine, creating open periods into which she could schedule drafting or creative writing.

Because I taught in a special school-within-a-school program with a different maximum class size than the rest of the school, these scheduling assignments would get changed after a few days, but we had to do something with the kids who showed up in our room for at least a little while.

What Hunter tried to do was get students to play.

He had equipped his classroom with all kinds of things to help make physics accessible—not understandable, though it had that effect, too, but literally accessible, as in students could pick things up and try them out—springs stretched across the ceiling and pulley systems and ramps and weights and whatnot.

To fill those awkward ninety minutes with a group of students he would likely never see again, Hunter tried to get one of them to sit on a spinning stool while holding a 10-pound weight. "Sit on the stool and hold the weight out in front of you," he instructed. "And I'll spin you around. Then…"

"Man, I ain't doing that."

"No, really, just hold the weight away from you like this, and then once you're spinning, pull the weight in close to your body and see what happens. It's cool."

"It ain't cool. I ain't doing that."

Hunter was puzzled. "Um, okay, I'll do it."

This part stands out to me, because it brought up a possibility I had not thought about. When I ask a student to do something, I could keep in mind their varied experiences with teachers. Each student will have their own level of trust with teachers. I will need to work on earning their trust before I ask them to take a risk on my request.

As he was telling the story, I could picture Hunter talking with this kid, this white, geek-hipster hybrid trying to persuade this wary, wannabe-(or perhaps actual)-gangsta to sit on a stool and spin around. And I could picture him hopping on the stool to demonstrate, recruiting another student to set him spinning as fast as possible, and how his shoulder-length hair and his tie would have flown out from the center line of the spin. As he pulled the weight into his chest and spun faster, he probably laughed, and as he slowed to a stop, he would have gestured to the class with the weight, inviting someone else to try.

Eventually most kids in the class tried, and then played with other things in the room as well, Hunter explaining the physics to them as they moved around the space. "Mister, what's with this?"

"Oh, that's…"

"He thought I was trying to embarrass him," Hunter explained in response to my puzzled expression, "So I had to do it first."

And then I caught up, "Jesus. That means some teacher did that. Some teacher humiliated this kid. That's why he thought that's what you were going to do."

"Yep, that's what that means," Hunter replied.

Becoming Persons

A few days ago, a student made an off-hand remark about how surely faculty complained about students, and I realized I don't complain about students anymore. Not really at all. Maybe every once in a while I feel frustrated about somebody underachieving, and I think "What do they think they're doing? Why sort of try instead of really trying? Attend *some* classes, do *some* work, but not really enough to make any of it worth doing?" It's more of a puzzle to me than a source of frustration. It doesn't really go beyond that point of me just wondering about it.

"Becoming Persons" gave me hope. Every day I tried eating in the teachers' lounge, at both schools I taught at, I heard teachers complaining about their students. Not saying things like "I'm worried about this student" or "I don't know how to help this student" (although I heard that too) but "so-and- so is such a little asshole" or "I cannot stand my student." It's just nice hearing from someone who doesn't want to complain about students every day.

I have peace that it's okay if people don't learn all the stuff I think they should learn, but, from the opportunities that I provide, they learn what they're ready to learn. Though I don't enjoy watching people fail, so it's not like "whatever."

[It's more like I prioritize their becoming persons, which requires a certain degree of autonomy and freedom.]

For me this quote highlights exactly what teaching should be about, exactly what teaching is about for some. The adventure of learning and growing requires a degree of autonomy so that the learner might learn and grow and then learn to learn and grow on his/her own.

So I felt proud to tell my student honestly that I don't complain about them. In my first few years of teaching, I don't think I would have believed that I could get to this attitude, probably both because I was young and stupid and because I was inexperienced with teaching. It was so much about me struggling with students to get them to do what I wanted them to do, like they were action figures or something. No wonder they often didn't cooperate.

Charged

Because I did not enter the profession with any desire to stay in it for life (although I've been in it for life thus far!), I did not have a lot of expectations for how it would be. I started off—and I still work in this vein—with the idea that if the subject is interesting to me, then I can make it interesting to my students. I don't think I appreciated how important professional development would be in helping me stay interested in things and in helping me find many more ways (other than my way) to help my students connect with the subject. So much of the prescribed professional development in my early days seemed to me tedious and disconnected from the reality of the classroom, but looking

The format of this reading made it hard for me to focus on the content. I appreciate getting information from different views and experiences especially regarding the first years of teaching, but at the same time, the reading was not only choppy, but confusing…. I could not pay attention to anything else as I was wondering who was talking to me and in what context their experiences were formed.

back, I see that the value in any professional development is that it provides me with the opportunity to learn something, even if that learning is how to persevere through something tedious and unsatisfying.

The best professional development offers me a way to learn *with* my peers, rather than learning from them (although this is a natural by-product of learning with them). Workshops where I am involved in analysis, writing, commenting, providing feedback, and reflecting always stimulate me and recharge me toward teaching. And if I'm charged, then I'm going to be a way more awesome teacher than if I'm not charged.

My initial reaction to this quote is "I can't wait to feel that way again," which bummed me out… I just can't wait to be re-charged fully.

The key discovery for me has been how important it is for me as a teacher to continue to learn, to place myself in learning situations that stretch me out of my own comfort zone, where the learning curve is high and the stakes are real. Because I like these types of situations, I naturally seek them out. What surprised me at first was how these types of learning opportunities were few and far between for teachers. What surprises me now is how many awesome opportunities there are out there for me to stretch, learn, and grow—not as a teacher, but as a learner. It's the emphasis on my own life-long learning that helps me remain a strong teacher.

Distance

I struggle with this a lot as well. I get bogged down with all the difficulties my students are facing outside of school and then feel like I am too hard on them in class. … I don't know if it will ever get easier but I realize that my students need the structure I provide because they weren't getting it elsewhere. What I can do is show them that I care and want them to be happy and comfortable at school while learning and being held accountable.

I think one of the most difficult things is to figure out how to teach effectively and care enough about my students without feeling at the end of the day like I want to kill myself over each of their personal situations: the ones who live in their cars, are ex-cons, in recovery, raising their children as single parents, working two jobs, are nursing ailing parents.

I am the last person to take my own advice, yet some measure of distance is life-saving. Because don't we all want to live to teach another day?

Emergence

I am not very organized when it comes to learning objectives. I have learned to be able to call forth extemporaneously what my learning objectives are while an activity is happening, or just before or just after. I used to just do stuff and call it good for you. But then I learned to say what I was doing while I was doing it, which I believe is an improvement. But I don't usually plan what I'll say about it before we get into the teaching situation.

I'd like to believe my stance is philosophically motivated and justified, which it is, partly at least. To me, learning is the transformation of participation, and being defined that way, it must be partly emergent rather than totally planned. I try to structure day-to-day activities around particular learning goals that are characteristic of ways of engaging, but leaving it open as to exactly when or after how much engagement the objectives will be met. I want to be open to an objective getting met not on a particular day but over the course of at least a few months of sustained practice in some kinds of activity.

A lot of my instructional choices are aligned with practices I know from playing music and from playing what little sports I've played. In those arenas, emergence is huge. If we knew exactly what would happen, we wouldn't be so interested in doing it again and again. And by doing it again and again, our participation is transformed. So, overall I want there to be enough structure for students to know what their specific options are for participating—like, what song we are playing, or what offensive play we are going to run—but for there to be surprises as to what the time together ends up having been about.

I feel insecure sometimes about not having better defined objectives, since I know it looks good. I worry that I look disorganized. Sometimes, I feel envious of people who teach in environments where it is more acceptable to focus on emergent learning; these environments may be mostly outside of school.

I'm not sure if I have read anything in this program that better crystalizes what I believe a successful lesson is. It is a balance of hyper-specific criteria and free-for-all execution.

Many teachers do this process backwards. They start vague and open, and expect specificity later. They say "You can write about anything you want!" Yet, when it comes time to evaluate, they are disappointed that the end product is scattered and didn't fit into their expectations. They give too much freedom at the start, which is overwhelming, and too much limitation at the endpoint, which is confusing and frustrating for students who failed to guess the specific endpoint expected of them.

Yet, when you flip the order, two amazing things happen. Firstly, you get a lot more creativity, ownership, and ambition from the students. The time taken to go over the criteria (the rules in a game, the key in which a song will be played) on the front end create a common structure and a common jumping off point. The kids know where everyone will start, ("We're all going to write a rap about circles!") and they know it's ok (even preferable) for them to end up at a wildly different locale from their neighbors. Secondly, the whole class gets to bear witness to an amazing set of trajectories. It's not just the teacher who knows the script, but the whole class. So, there is so much more joy in discovery when all the raps about circles get laid out, because each student knew where they all started and can truly appreciate the journey of how those raps were crafted.

Fiction

There is a lot of push and pull that goes on between the mentor and the students, and the way we (the mentors) deal with that is with a kind of mindfulness—we observe the temperature in the room, and we adjust accordingly, but just enough so that the students can persevere through the dusky terrain of knowledge and skill-building. We step back a little and give them something specific to do, something with a clear goal. As teachers, our strength to withstand uncertainty continues to grow; we come to understand that doubt is the conflict that keeps us coming back for more (so to speak). Students, on the other hand, believe they are in the classroom to learn how to *do* things, concrete things. They are there to find out.

I didn't really like the format of this article. It was difficult to follow because it was a compilation of different mini-stories. With the title "The ABCs of Teaching," the reader has no idea what the main point of the article is (if there even is one). The mini-stories were mostly interesting, but there is no guidance or map to be able to find what I want to find.

One way to help students withstand uncertainty is to show examples of how doubt is the bedrock beneath the scaffolding of theory, practice, praxis, etc. Great literature or science or business is founded on the concept of doubt: what is it that we know (right now)? And how is this knowledge flawed or imperfect (or not)? What can we add to help stabilize the illusion of certainty, of permanence?

Remember the Wallace Stevens quote: "The final belief is to believe in a fiction, which you know to be a fiction, there being nothing else. The exquisite truth is to know it is a fiction, and that you believe in it willingly" (from *Adagia*).

Rather than differentiating and finalizing our theory of education, is it not possible to have a constant, adaptable, ever changing pool of collected knowledge?

We just have to keep showing our students that reality is always uncertain.

Guilt

Last winter, I had to get away from teaching. Some sort of complex had developed that damn near prevented me from being able to go through with it each day. To read student writing and figure out something to say about it was more than I could bear, and the guilt and the feeling of letting my students down that soon appeared atop that stack of ungraded essays made me sick. When I'd try to plan lessons or write responses, it seemed futile. I felt as though I had nothing really to offer, nothing really to say, and no way to say it so that it stuck. So that it made some sort of

…it made me inexplicably sad and rather worried that I may get to a point where I can't bear teaching anymore.

This confession of guilt cast a little shadow in my mind. Is this where I'm going to be in 5 years?

impression. Surely someone better than I could be doing something for these students, I thought.

I enjoyed reading the different perspectives, even (especially?) those of teachers who quit.

Since then, I've taught a few writing workshops for adults, but I've been making my living as a reporter and freelance writer.

And I don't miss teaching. Not one bit.

Hope

The thing about teaching that I didn't expect when I began is how it doesn't ever really get easier. That is, I still feel all the anxiety my first time in a classroom. I just know how to manage it better.

I can make my uncertainty inhabitable. And that makes the anxiety survivable. I do it by relying on touchstones: I teach at least a few texts I feel at home with, I use in-class writing activities with my students that also serve to focus and calm me, I wear mascara, I remember that I have hope.

Bless this post. Reassurance. It spoke to me, for me.

I'm sure there's some evolutionary biologist who explains our fear (of the unknown, of the new, of uncertainty, of instability), but we sure seem to have lots of it. I think of all the ways we resist uncertainty, culturally speaking, all the ways we insist on sameness and comfort and knowing. And I think this is the biggest sign that schools are failing—we have created a generation of right-answer-finders and then we've sent them out into a world where there aren't any. Or where the right answers are temporary and fleeting; they change or drift away even as we grasp them.

The author suggests that we all prefer continuity and dislike change. As such, we are apt to reproduce this mindset in the way we teach. In essence, we prepare our students to not like change in a world that is constantly changing. Though I do not come away with any great solutions to this charge, it is certainly food for thought. Should there be some planned "discomfort" in the classroom so that students learn how to be comfortable with change and the unexpected? Probably.

It's Going to Be Okay

Today, my students completed their course evaluations for first semester. One student wrote this: "She always has what we are doing that day on the board as we walk in. I bet she takes a lot of time at home to write the lesson plans."

AHAHAHAHAHAHAH.

I don't.

But I do think constantly about what we're learning together and how I can make it more meaningful for them, more challenging, more relevant. And I try to articulate what we'll be doing in class each day on an agenda that I project on the board. Having taught for 20+ years now helps me with being able to work this way. On the other hand, I've *always* worked this way. The difference is that now I know that it's going to be okay: we're going to be okay no matter what.

This was a great read. I know I have so many horrible, horrible days ahead of me as a teacher, but I also know I have so many great days ahead of me.

The main tool I use is a consistent structure in class. Every day has a specific rhythm that the students can count on, which allows for a lot of divergence and emergence within the structure.

Warm Up—I guide them in 2 to 5 minutes of Brain Gym activities (physical activities that center around cross-lateral patterning and breathing and stretching). This is my second year using Brain Gym, and it's a great addition to my course.

Writer's Notebook—5-15 minutes, which includes five minutes of sustained writing, where they are directed to unleash their unconscious onto the page; it includes sharing out loud (for whole class sharing, I ask the students to underline a sentence reflects something particularly relevant to what we're studying at the moment. Often though, I have them partner and share what they wrote with one or two other people).

Content/Review/Discussion—This takes up the rest of the class period (currently, we operate in 45 minute periods. Next year, the 30-year-old schedule is shifting to a modified block schedule, so once a week, students will have English (and their other subjects) for an 85-minute period. I'm excited to have more time to do different activities during class time.

A couple things I was wondering while reading this were: What's the common factor? Is there a deeper theme or organization that I am not seeing?

J.

I know when J. comes in in the morning that he takes guitar lessons on Tuesday and Thursday, and last Tuesday I said, "J., where's your guitar?"

And he said, "I only have classes on Tuesday and Thursday."

And I said, "J., it is Tuesday."

And he's like, "Oh, crap, I forgot my guitar."

I couldn't have those kinds of exchanges if I hadn't talked to J. about playing the guitar and what that meant to him. Those kinds of things fascinate me and add a dimension to teaching that's important to me. And I understand it's not important to everybody, that some people would just as soon keep their distance from students. But for me, that is a poorer teaching experience.

These stories keep me afloat.

When students come in in the morning and I can greet them by name and I can ask them how their weekend was and I can say, "Oh, too bad about the football game," because I know they're Seahawks fan and the Seahawks have lost. Or I see someone with a Blazers cap and I say, "That was a pretty tense Blazers game last night." That we can have this kind of exchange means that I can see them, I can know them.

And I know they are having an exchange with me that they don't have with other instructors. When students come to ask me for letters of recommendation, they actually say to me, "Because I feel like you're the only instructor who knows anything about me," which makes me so sad. I can't even believe they make that statement. Because we're not a big school. Our classes are deliberately small. We pride ourselves on serving students, on giving students attention. And I don't want students to be making those statements about me because I don't think that that serves the students very well.

"J." is the type of interaction I was able to have with many of my middle school students during my winter practicum, and the relationship that I didn't have time or opportunity to establish with my high school students during spring practicum. I valued those moments of conversation, and enjoyed them. I loved getting to know my students as people, and not just bodies in my classroom. Hearing their stories, starting to understand who they are and the influences that shaped them, and being able to talk to them about things other than school was very meaningful to me. I know some of them also valued that interaction, and told me so. These interactions were so important to me that I really noticed their absence during my spring term. I had significantly more students and with less time for each. The day moved by very quickly with few opportunities to interact with individuals. This lack of personal connection was a negative experience for me. I kept trying to figure out ways to connect with my students as I had during winter term, but I did not find any good solutions.

And frankly, the more I know my students, the easier it is for me to work with them, the more I like them, and then I can go to them and say, "Look, you need to work harder," without them thinking I'm picking on them.

Kryptonite

I remember feeling as if my student papers were coated with Kryptonite dust: they repelled me viscerally. I could not get near them, try as I might. I would look at my bookbag, slumped near the door of my apartment, and I would tick

off the reasons I needed to go toward the bookbag and pull out the papers and just eat the dismay that was already welling up in my gut before I even touched them, knowing as I did that the experience of grading would be painful intellectually and spiritually and physically, but also knowing that my students were waiting—had been waiting a while now—for my feedback, their grade, the knowledge of what they were doing well and what they were not doing well. My whole body went weak and limp; all I could do was anything else but grade those papers.

…I want to overcome this dilemma and not allow it to overwhelm me as a new teacher. I want to figure out a productive and positive system in which I don't let grading build up, but instead am empowered to stay on top of it. It's interesting because I realize how students can feel discouraged if they have to stick to a timeline of due dates; yet (in my opinion) when the teacher doesn't hold timely return dates, it shows a level of disrespect for the students work.

Underneath my self-imposed drama/crisis was my sense that "the grades" I needed to put on the students' papers were, in fact, painful, damaging intellectually, spiritually, and—perhaps—physically to my students. If I didn't have to grade the papers, if I only had to write feedback, even mark writing errors, I would not hate this part of teaching so much. Truly, it's this part—the grading—that caused me to quit.

Lions

The format of this writing is extremely hard to read. When I am reading, it is hard for me to "hear" a different voice. Yes, the writing is different, but my brain wants to link them all together and I am really struggling with the content.

I am a lion in a sea of sea turtles.

My pedagogy is Doubt.

In my first imagining, I am some sort of giant in a classroom full of tiny (and, therefore, fragile, at least relative to me) students, and my job is not to step on any of them. I feel dangerous in this environment of endangered species. (I don't know, *are* sea turtles endangered? Probably with acidification of the seas.)

I used to be torn by the question, "Am I helping or hurting my students?"

…the profession of teaching is kaleidoscopic. We spend a lot of time discussing the fact that outsiders "don't understand us (teachers)" and don't understand teaching. This article was refreshing for a variety of reasons, one of which is the fact that often times, WE don't even understand teaching.

I used to.

Now I feel more like a lion in the sense of, "Hey! Watch and learn people; I'm king of my subject!" The absurdity of this feeling is that—hello!—I'm clearly out of my element. So the task I am doing now is trying to find a way to coexist with these sea turtles so that I can live in their world and not drown.

Markers

What I remember about my first week of teaching: arriving home after the first day and being so tired that I fell asleep on my living room floor; handing out copies of Whitman's "Song of Myself" on Day One and having a student arrive on Day Two exclaiming, "This guy's on crack!"; the brown paper bag of office supplies with red pens and a green gradebook and a black stapler I was required to collect from the school's supply room. I had three staplers in my room already—you got one every year even if you already had several—so I tried to give it back. I remember the woman who worked in the supply room telling me in a conspiratorial whisper, because she liked me, that I should never turn down anything I was offered, even if I didn't need it or it seemed wasteful, because I wasn't going to be offered very much.

I liked the brief glimpse into a teacher's classroom, or thoughts, or moment of impact. If the writing wasn't particularly meaningful to me, it was over before it became boring or annoying to read. If the writing appealed to me, it was just long enough to either leave me with one resonating statement or have me feeling a strong sense of shared appreciation.

I remember that one of the seven police officers assigned to our campus mistook me for a student when I was buying a soda during my planning period; he requested my hall pass and we had to walk together to the office so the school secretary could confirm that I was, in fact, a teacher. Later I discovered that he shared the story with his colleagues, I generously assume to spare them the trouble of stopping me, and another officer remembered me from when I was a student. By my car, really, because he had had to let me out of the student parking lot three days a week so I could go to University of Houston and take classes.

I remember that these moments felt like landmines that could blow off my façade of knowing what the hell I was doing.

Not knowing how something is supposed to go—the way you order in a new restaurant and whether or not you need to bus your own table, phone calls to inquire about hours or availability, the procedures in libraries or hospitals or school cafeterias, that you should just take the stapler that's offered to you—is always an opportunity to embarrass myself, and teaching triggers all of my anxiety about these things. Am I going to get called out for not turning something in or filling something out? Am I going to forget a book or a handout

… it bothered me a little that I had no sense of the authors of each section I think that since teaching is such a personal profession to which each individual brings his or her own life experiences, values and belief systems, I would have liked a little more development of those who were telling their stories.

or my shoes? When I turn my back to my students to write something on the board, will there be any dry erase markers? I cover myself in every possible way. Other women carry Kleenex or tampons or breath mints in their handbags; I carry dry erase markers.

Night Shift

I have students who are homeless, who live in their cars, or shelters. If I know this—and sometimes it's pretty well hidden—I'm just relieved that they're in class. I currently have a student who works the night shift and shows up in my 8 a.m. class having come directly from the paper mill. And he's not the first one. Sometimes they can't stay awake through the class and if I have a chance, I talk to them about how I know what they're doing is very difficult and I applaud their commitment to changing their lives with education.

This helped me to see that my first year of teaching will not be about what I am teaching or how I am teaching it; instead it will be about who I am teaching and how I am connecting to each person in my classroom.

In recent years, in order to do what is possible to get students to not shut down, I've started metaleveling—is this still a word? I learned about it years ago in a communications class—making sure that my students know that I have a working class background, or that I was raised in a Catholic household, or that my parents did not have a chance to finish high school until they were adults. While these things might resonate with students personally, it also gives me a chance to say, "Look, this is possible for you," and so they have a cheerleader in me if they want to do the work.

Outliers

Periodically I ask my students to give me feedback on index cards (informal versions of "exit tickets"), particularly after assignments I'm trying out for the first time. Last week I got this response to a question about the midterm project:

"I didn't like the grading for the midterm project, either failing or 100%. I don't think it's fair to do a few small things incorrect and have it be an automatic fail. Made me feel like you thought I wasn't trying."

I was puzzled. My syllabus says this about the writing assignments for the course:

"Both formal written assignments and informal private writing should be considered opportunities to develop your writing skills. Seek out guidance for revising, and be open to feedback about your work. Be prepared to revise your work more than once."

…this narrative style seemed much like talking to a close family member or friend. I have never written in this way. The thought never even crossed my mind. I now want to experience more writing like this, and even give it a shot.

And I do a whole spiel at the beginning of each class about writing being an iterative process, and how, in an effort to lower the stakes for writing assignments so students can really practice, I will accept multiple rewrites and conference with students and so on.

Clearly none of that landed with this student.

My first reaction was defensiveness: "Well, she clearly didn't read the syllabus or listen to my song and dance about how I grade writing!" "Well, they weren't small things and there were many of them!" "Well, when you don't bother to correct the misspellings pointed out to you by your word processing program, I do think you're not trying!"

My next move was to decide she was an outlier—the only student to say anything like this in the small pile of index cards—and remind myself that I should discard her response.

The ones I don't connect with leave me with the feeling that I don't know anything and I don't know how to respond to them as a complex human being and ultimately that I am just adding to the many burdens they might already be carrying with them. It's hard to know if there is any positive affect my presence is having on these students and that's what causes my sleepless nights.

But, of course, the outliers are what I fall asleep worrying about, what I think about for weeks, what I talk over with my colleagues. The kids I don't connect with, the ones who don't like me, who think I'm unkind or unfair or, worst, unhelpful. The assignments that bear no resemblance to the instructions.

The sentences that start, "Well, it's like you said…," and then are finished with something that I seriously hope never came out of my mouth. Because these are the places where my best intentions went awry, and I wonder if paying more attention to them is actually more productive than paying attention to all the places where what I meant seems to have been understood.

Peacocks

There is no perfect system or institution. You can certainly affect change within the system or institution that you find yourself in, and I recommend it, but you can't make that your only work, because really, at the end of the day, it's your students. It's the human beings sitting in front of you who are fragile and amazing and frustrating and beautiful as hell, and you have to PAY ATTENTION to them. And let them know that you see them, that you want to see them, that they are safe with you. That you will not coddle them, and that you don't feel sorry for them, but that you care about them and you care about their brains and their hearts. And then you have to live that every day.

I think that this passage is beautiful and really encapsulates the nature of teaching, the delicate balance you must strike, and the importance of caring teaching that does not compromise academic rigor. It captures for me the intimately personal connections that we have with our students, but also what is conveyed by classroom climate, our interactional style, and many more nuanced elements of communication. Teaching is about so much more than mastery of content, and this passage addresses many of these other facets of the profession.

Sometimes it will be hard to live this, yes. It will be tiring and sometimes disappointing. But it will also be magnificent, and transcendent; it will grow bigger than you. Because you never know what one thing you said or did for a student or a class that they will remember long after you've forgotten, and it will have–literally, no shit–changed their life. You can't walk around every day like a peacock, "I change lives," but you have to try your hardest to carry around the fact that what you do *could* have that kind of impact. So you have to be careful.

You will see and know and get your students better than most of their parents will. You may work with administrators who care that you care about your students, and you may not. You will have to deal with stupid paperwork and deadlines and numbers that you're not really sure measure anything, and you will have to send your students back out into a flawed, flawed world and a dangerous, dangerous hallway, and super fucked-up system, but you get fifty minutes or so a day with them to keep them safe, to push them, to love them.

Never knowing when you will really reach a student is part of the glorious unknown that makes teaching so exciting.

It will change everything about you.

Quicksand

Learning is transforming participation. Teaching is coaching that transformation. So, for me teaching and learning are highly dialogic. Without dialogue, I cannot teach. In that case I can explain things, but I feel sick. Or empty. And I try not to panic. I recently saw a TED talk that described how anxious people feel when others look back and don't respond—she called it "social quicksand." That's how I feel when I have not yet succeeded in creating the classroom culture of dialogue. Dialogue is like oxygen to me.

I wanted to become a teacher not because I read a book about education theory, but because I wanted to put myself in a position to positively affect my students' lives. As someone who didn't have the best K-12 experience, I want to ensure that all of my students feel safe in my classroom. I don't think it's possible to create a safe, caring environment unless you're willing and able to have a genuine dialogue with students. I couldn't have said it better: "dialogue is like oxygen to me."

Remarkable Brightness

I have to be very conscious of the way I think and of how I express it. The South is still a land of judgments, and my whole reason for coming back here was to make steps in turning that around. I feel judged at times for not being religious, or for having a childhood of privilege when many of my co-teachers are first-generation college graduates. Sometimes there's an undertone suggesting that those folks really "get it," really understand what's going on with our students because they went through it, too. Pity the nice white lady who thinks she gets it but really has no idea.

In other words, we all have "deficits" in the eyes of others, depending on whom you ask. I don't want assumptions to be made about me based on my on-paper profile or my socioeconomic background, and I wouldn't want it for my students either. Every single one of my students has a remarkable brightness within them, and that's all there is to it. Period.

…the teachers are being so real in their discussions. I did not feel as though these teachers were "sugarcoating" their experiences, but rather giving a real explanation of their feelings about and experiences with teaching. This made this reading much more meaningful for me. I also loved the quote that said, "Every single one of my students has a remarkable brightness within them."

Yes, it may be that in some cases, their grandmothers are more involved than their fathers. (I, meanwhile, had two grandmothers who never knew any of my teachers' names.) Yes, it may be that I have difficulty getting some families to follow through on attending conferences or helping with homework. (Meanwhile, these kids may appreciate the attention that they receive in school and make the most of it more than a student with helicopter parents.)

But when I think back to the school experiences that many of my kids' parents had, I can't blame them. When I see the strength that their families have shown in trying to trust the system anyway, in choosing a turnaround charter school where perhaps things will be different, I see bravery and openness that I'm not sure I have. Most of all, I see love. All of my kids' families love their babies and want what they believe to be best for them. I want that too.

Secondary Trauma

When you really see your students, you're going to see things that you wish you could un-see. But you can't. You will see things that you will always know.

You will see the young woman who needed to get home safely, so she gave a blowjob to a gang member every day after school in exchange for safe passage to her house. You have to see that. And you have to carry it with you so that she doesn't have to be the only one carrying it.

Sometimes seeing your students produces what is known as secondary trauma, the trauma experienced by those who care for those who live through and in and with primary trauma. Teachers are not usually included in discussions of secondary trauma. But they absolutely should be.

Because teachers have to see the students who can't be seen by the other adults in their lives. The student who didn't want to be the only one of her friends who was still a virgin, so she deliberately got drunk enough to pass out at a party where she knew there would be someone who would rape her. She was so pleased to have lost her virginity that night that it didn't matter that she couldn't say to whom. The student who says to you, "I have a drug problem," and whose parents threaten to sue you if you ever suggest to them or anyone that their son might have a drug problem. The student who has a drug problem because his parents share their drugs with him and he doesn't know how to say no to them. The student who has a drug problem because his parents have medicated him into oblivion and he wants to feel things so he takes more drugs to counteract the prescription drugs he reports to the nurse for every three

I am so thankful that this little section exists, between "Remarkable Brightness" and "Temporarily Without Credentials," because it talks about the part of teaching that has affected me the most and that I've talked about the least. I love teaching writing. I love giving students the opportunity to tell their stories, but with this comes the nauseating feeling of "wishing you could un-see." I don't know what to do with that. The way that this author phrased it ("You have to carry it with you so that she doesn't have to be the only one carrying it") made me feel less alone in the despair, the gravity, and the honor of playing this role in the lives of other humans.

hours. The student who comes back from rehab and has to change schools because she can't find anyone to hang out with who stays clean. The student who needs an HIV test who needs lunch who needs a coat who needs an adult to be sober long enough to hear her who needs to know that she might not be going to hell who needs a safe place to sleep who needs a hug.

You have to see the students who realize they can do and be more than they ever thought possible because you can see it for them.

… it is okay to carry my students' burdens. In fact, I must. Teaching is loving, above all else.

The students who read something that blows their minds, something you assigned or recommended or had on your shelf or were reading on DEAR day. The student who realized that the woman who cleaned her house and cared for her had her own kids in Guatemala but here she was taking care of some rich white kids instead, so the student learned Spanish and then spent her summers building toilets in Guatemala to give back, even if only vicariously, some of the care she had taken away by having a housekeeper who was also a mother.

I love this piece, although I don't think that it's a case study or teacher knowledge in the way that Shulman or the other writers we've read would want it to be. It's powerful for teachers, for aspiring teachers, for retiring teachers, to see a little bit of themselves or their classroom reflected in someone else's struggles. It makes me feel both better and worse about my potential as a teacher because of the anxiety issues I deal with. It inspires me to be all of the safe, welcoming, inclusive, kind things that these teachers strive to be in their classes.

You have to see the student who has internalized his parents' racism and so brings a white supremacist book to read for DEAR day, and you have to have a conversation with him about why you're going to say he can't read that in your classroom even though you said students could read absolutely anything because the point is just to get them reading. You have to let him read it, but in the hallway or the library or somewhere where he is not doing harm to others. You have to see him as not meaning to do harm, and you have to see him as someone who can unlearn some of that racism. You have to hold that possibility for him even when he can't.

You have to see the girl who plays dumb in order to get attention even though you know she's really smart, and you have to keep seeing the smartness even when she loses track of it and even when she fights with you and even when she accuses you of hating her. You have to remember that you don't hate her. You love her. You love them all.

You would carry off all of their hurt and fear and doubt except you can't.

What you can carry are all the possibilities of them.

Temporarily Without Credentials

I don't think of myself as a content area expert or anything like that. You can't be an expert in world history; it's simply not possible. And I am willing to live in the insecurity of not having all of the knowledge in the world.

I'm so glad I'm not the only one that had this crushing weight of having to be this book of knowledge because I am a teacher. One of main concerns going into to teaching was that I wasn't expert in all subjects. I mean I'm not expert on any subject, so how could I teach all the subjects as an elementary teacher?

I think a lot of people shy away from teaching because they feel like they have to be an expert before they can stand in front of people and say this is what I know. And in world history, I know enough to fill a thimble, and there's an ocean of information, so I had to become comfortable with saying I don't know that, or that, or that thing over there, or anything else you've asked me about today.

But it's certainly not the case that I have no information to offer my students. I know things. More importantly, I know how to find information and decide if it's credible.

…we as teachers do not need to and cannot possibly know everything. That lifts a great burden from our shoulders! Instead, seeing our students as sources of knowledge and valuable experiences, we can provide opportunities for their experiences to shed light on the world. We all have a voice. We are all a work in progress. We all have more room to grow.

So I prefer small group conversations, where trading ideas and conveying information happen simultaneously, and set up most of my classes that way. I learn a lot in these sessions as many of my students are history buffs about particular areas that interest them and so have details that I absolutely don't possess.

Also I find that actually sitting down with my students reinforces the idea that they are only temporarily without credentials. In the meantime, they still need to refer to me as "Doctor." I've thought a lot about this and it seems a little schizoid, but I think that what I've come up with is that accomplishments ought to be recognized.

Upper Right Lateral

Yesterday, one of my kids lost a tooth—what apparently was his upper right lateral. Ordinarily, or in my own sense of what is ordinary for a second grader, this literal loss is not experienced as such. But for him, this doe-eyed boy who still holds his big sister's hand every day as they walk home

from school, this was the simple end of it. I knew better than to ask him what someone undoubtedly would have asked me in my childhood: "Did the tooth fairy come visit you?" Instead, I grinned and asked (mostly, I'll confess, for my own curiosity's sake) "What'd you do with it?" After a beat, he cocked his head and shrugged, "Threw it away."

I do find myself wishing for resolution, for more advice, for more in general, but I appreciate that it is fleeting, incomplete, and honest. Deeply honest.

It was only that evening, at a friend's dinner party when confronted with a young mother's tales of her daughter's recent tooth loss—the $5 she had received, the long process of choosing a whimsical name for her tooth fairy—that I thought back to my little guy. I tried to explain it to my fellow partygoers, to share a slice of life from this little and beautiful person who is such a part of my life five days a week, who after only five weeks of school has found his way in, and was met with a thanks-for-darkening-the-evening lull.

There were so many moments as I was reading that I kind of yelled in my head, "YES! That's exactly it! That's exactly how I feel, and see teaching, and see my students!"

Verb (Non-finite)

There's something strange about teaching. Or, rather, there are many strange things. But I think one of them is that it looks from the outside like teachers are experts, passing along their knowledge to less knowledgeable students. Inherent in the teacher-student dynamic seems to be this notion of a more-knowledge position, always occupied by the teacher, and a less-knowledge position, always occupied by the student. And knowledge always passes from more to less.

Some days can feel like this in the classroom. Like I am living some sort of lie, pretending to have my life and emotions together for the sake of my students whose lives might be tumultuous. However, I feel that in accepting these moments for what they are and talking honestly with students, a safer and more inclusive classroom is created. The emphasis on how horrible grading is and how it sucks the fun from teaching and learning was also a powerful insight. Teaching is not beautiful and it is very humbling most of the time.

But that's not really how it is.

Try this: Rewrite the above description of teaching by replacing 'knowledge' with 'knowing'; then you'll be closer to how it really is. But still not quite there.

With Joy

I just needed to stop grading a piece of student work so that I could cry. Cry. With joy.

> *The thing I love most about writer's notebook is that I can write whatever I would like to (except when there is a prompt) and I am not afraid to write what is on my mind anymore.*

A boy wrote this.

> *and I am not afraid to write what is on my mind anymore.*

He's fifteen, gawky, growing weedily. Today he flicked his clear plastic retainer in and out of his mouth while taking the vocabulary test, an action which only a child can get away with, although—even still—it. grossed. me. out.

I laughed out loud, kids are hilarious, they can be totally awesome and inspiring and totally gross and annoying all at the same time, it's great!

Fifteen year old boys can be totally gross.

What arrests me about this boy's statement is how he reveals (unintentionally probably) that he used to be afraid, but that now he feels safe enough with me as his teacher (this is the second year in a row he's been in my English class) to admit it. Not afraid of the dark, or afraid to wear his hair a certain way, or afraid to try out for soccer, but afraid to write what was on his mind. And now he's not.

I have played a specific, important part in this child's transformation, and it thrills me.

XOXOX

"XOXOX" really made me think of my experience teaching my first graders and how much I thought of every single one of them as my own. They were MY kids.

I want to tell my second graders that I love them. I want to tell them that I'm proud of them for trying so hard, but also that I'm annoyed when they give up. I want to tell them how much this all matters for their future, but also that it's not everything. I want to tell them that I had a beautiful education handed to me and never knew quite how lucky I was, but also that they know things I never had any idea about when I was seven. I want to tell them that while I may act like I'm mainly here to teach them things like addition and sound blending, I'm secretly on a mission to help them develop empathy and a broader perspective. I want to tell them that they teach me as much as I teach them.

Working in the primary grade levels it's quite natural to want to coddle and provide emotional support for my students. I also want to express my disappointment when students decide to give up on their learning, especially the students I know who are more than capable of accomplishing the task at hand.

Yawp

I have a complicated relationship with teacher movies. I teach an undergraduate course that uses mainstream teacher movies to surface and then challenge stereotypical representations of teaching. And even as I recognize how troubling these depictions of teaching are, most all of the movies we watch make me cry. Because some part of me

really wants to believe that all it takes to turn a child's life around is one great teacher.

And I know better. I've read Michael Apple and Henry Giroux. I know that schools are embedded in macrosocial systems of oppression, and that schools reproduce that oppression in their curricula and their discipline practices and their furnishings and their very narrow view of what constitutes valid knowledge. And I know that these systemic issues are not and cannot ever be entirely overcome by an individual teacher working in isolation in her classroom, and that such a belief damages both teachers and students.

I know.

And yet. I really want to believe that when Mr. Keating makes Todd "get in yawping stance," and then turns what looks at first to be the humiliation of a student in front of the class for not doing his homework assignment into a breakthrough moment, that he has changed Todd's life. That he has brought forth a new version of Todd, more self-expressed, more free, more joyful.

It's an intimate reading because you're reading about someone's inner thoughts and feelings in a particular moment, and those inner thoughts and feelings are the most personal because they are secrets within that person's inner being, especially if they were being absolutely raw and honest.

I want to believe that, because of Mr. Keating, Todd will go forth, not a bit tamed and untranslatable.

Zeus

Knowledge is painfully acquired. Viz. Before Athena, goddess of wisdom, was born from her father's head, Zeus had the most fuckedly painful headache of his immortal life, so painful, he longed to die like a mortal. Then—suddenly—wisdom came into the world, and she had flashing grey eyes and was from then on her father's favorite.

I can't recall a time that I've read the word "fuckedly" in a school-related reading assignment.

The collection of anonymous voices lends itself to arresting honesty—and some pain. I appreciated the teachers who quit and are unapologetic, and the horrendous details about the pain our students' live with. Literature is controversial and unapologetic as well. Literature hurts a little bit. This writing, like literature, feels much more free to me. It feels unafraid, and therefore, true.

APPENDIX C

EXAMPLE OF INTERVIEW PROTOCOL:

Questions for Research Collaborator Dr. K. Sadler

1) In your introduction on the blog you identify yourself as "more of a facilitator than a teacher." Say more about that distinction. What's the difference?
2) You describe your classroom as a rather unpredictable place, in your words, "the same critical question is going to be tackled differently by every group of students, and how does one plan for that? I don't know until I'm in it." What do you think has students tackle a question differently? Can you share some examples of the kinds of differences you have seen?
    a. follow up: How do you plan for it? That is, how do you think about this un-plannable nature of the activity?
    b. follow up: How do you approach not knowing until you're in it? That's something that makes me quite anxious, even though I'm committed to not knowing until I'm in it, so I've had to develop some anxiety-management techniques.
3) You wrote that "good students" keep you teaching. What makes someone a good student? How do good students show up for you?
    a. follow up: Do students bring their goodness with them to your class? Or do you think there's something about how they interact with you and the course material that invites them to be their best?

4) You mentioned at one point that "actually sitting down with [your] students reinforces the idea that they are only temporarily without credentials," and it made me wonder about the physical arrangement of your classroom. How do you arrange the classroom so that you can sit in your students' small groups?
    a. follow up: Do your students comment on this arrangement? I wonder if it's different from what they usually experience at C. College.
5) Did any of these things about your classroom look different while you were teaching in Cape Town? I'm curious about how the change in venue might have changed what was happening in terms of your teaching practice and how students were grappling with the material.
6) When you say your advice to your students while in Cape Town was to "be flexible," what did you have in mind?

REFERENCES CITED

Adichie, C. (2009, October 7). Chimamanda Adichie: The danger of a single story [Video file]. Retrieved from http://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story.html

Andrews, M., Squire, C., & Tamboukou, M. (2013). *Doing narrative research* (2nd ed.). Thousand Oaks, CA: sAGE.

Association of American Educators. (2012, June 13). "Withitness": Being aware of what's going on in the classroom [Web log post]. Retrieved from http://www.aaeteachers.org/index.php/blog/764-withitness-being-aware-of-whats-going-on-in-the-classroom

Atkinson, B. (2010). Teachers responding to narrative inquiry: An approach to narrative inquiry criticism. *Journal of Educational Research, 103*, 91-102. doi: 10.1080/00220670903323461

Atkinson, B. & Mitchell, R. (2010). "Why didn't they get it?" "Did they have to get it?": What reader response theory has to offer narrative research and pedagogy. *International Journal of Education & the Arts, 11*(7), 1-24.

Atkinson, B. M., & Rosiek, J. (2009). In A. Y. Jackson. & L. A. Mazzei (Eds.), *Voice in qualitative inquiry: Challenging conventional, interpretive, and critical conceptions in qualitative research* (pp. 97-113). New York, NY: Routledge.

Atkinson, P. & Delamont, S. (2006). Rescuing narrative from qualitative research. *Narrative Inquiry 16*(1), 164–172.

Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Durham, NC: Duke University Press.

Barad, K. (2010). Quantum entanglements and hauntological relations of inheritance: Dis/continuities, spacetime enfoldings, and justice-to-come. *Derrida Today, 3*(2), 240-268. doi: 10.3366/E1754850010000813

Barone, T. & Eisner, E. (2012). *Arts based research*. Los Angeles, CA: Sage.

Barone, T. (2001). *Touching eternity: The enduring outcomes of teaching*. New York, NY: Teachers College Press.

Barry, R. A. (2010). *Teaching effectiveness and why it matters*. Marylhurst, OR: Marylhurst University.

Beach, R., Appleman, D., Hynds, S., & Wilhelm, J. (2011). *Teaching literature to adolescents* (2nd ed.). New York, NY: Routledge.

Berliner, D. C. (2013). Effects of inequality and poverty vs. teachers and schooling on America's youth. *Teachers College Record, 115*(12). Retrieved from http://www.tcrecord.org/library/content.asp?contentid=16889

Biesta, G. (published online, 2015). Freeing teaching from learning: Opening up existential possibilities in educational relationships. *Studies in the Philosophy of Education.* doi: 10.1007/s11217-014-9454-z

Braidotti, R. (2013). *The posthuman*. Cambridge, United Kingdom: Polity Press.

Britzman, D. P. (2003). *Practice makes practice.* Albany: State University of New York Press.

Brooks, C. (1947). The well-wrought urn: Studies in the structure of poetry. New York, NY: Mariner.

Cameron, J. (2002). *The artists' way* (10th anniversary ed.). New York, NY: Penguin.

Chang, P.J. & Rosiek, J. (2003). Anti-colonialist antinomies in a biology lesson: A sonata-form case study of cultural conflict in a science classroom. *Curriculum Inquiry, 33*(3), 251-290.

Chhuon, V. & Wallace, T.L. (2014). Creating connectedness through being known: Fulfilling the need to belong in U.S. high schools. *Youth & Society, 46*(3), 379–401. doi: 10.1177/0044118X11436188

Chilcott, L. (Producer), & Guggenheim, D. (Director). (2010). *Waiting for superman* [Motion picture]. USA: Paramount Vantage.

Clandinin, D. J. (2013). *Engaging in narrative inquiry*. Walnut Creek, CA: Left Coast Press.

Clandinin, D. J., & Connelly, F. M. (1990). Stories of experience and narrative inquiry. *Educational Researcher, 19*(5), 2-14.

Clandinin, D. J., & Connelly, F. M. (1995). *Teachers' professional knowledge landscapes*. New York, NY: Teachers College Press.

Clandinin, D. J., & Connelly, F. M. (1996). Teachers' professional knowledge landscapes: Teacher stories. Stories of teachers. School stories. Stories of schools. *Educational Researcher, 25*(3), 24-30.

Clandinin, D. J., & Connelly, F. M. (2000). *Narrative inquiry: Experience and story in qualitative research.* San Francisco, CA: Jossey-Bass.

Cochran-Smith, M. (2005). Studying teacher education: What we know and need to know. *Journal of Teacher Education, 56*, 301-306.

Cochran-Smith, M. & Lytle, S. (2009). *Inquiry as stance: Practitioner research for the next generation.* New York, NY: Teachers College Press.

Cochran-Smith, M. & Lytle, S.L. (1990). Research on teaching and teacher research: Issues that divide. *Educational Researcher, 19*(2), 2-11.

Collins, L. (2014, December 15). Comments. *The New Yorker*. Retrieved from http://www.newyorker.com/magazine/2014/12/15/comments-6

Connelly, F.M. & Clandinin, D. J. (1988). *Teachers as curriculum planners: Narratives of experience*. New York, NY: Teachers College Press.

Connelly, F. M. & Clandinin, D. J. (1999). *Shaping a professional identity: Stories of educational practice*. New York, NY: Teachers College Press.

Connelly, F. M., Clandinin, D. J., He, M. F. (1997). Teachers' personal practical knowledge on the professional knowledge landscape. *Teaching and Teacher Education*, *1*(7), 665-674.

Cowhey, M. (2006). *Black ants and Buddhism: Thinking critically and teaching differently in the primary grades*. Portland, ME: Stenhouse.

D'Agata, J. & Fingal, J. (2012). *The lifespan of a fact*. New York, NY: Norton.

Darling-Hammond, L. (2013). Inequality and school resources: What it will take to close the opportunity gap. In P.L. Carter & K.G. Welner (Eds.), *Closing the opportunity gap: What America must do to give every child an even chance* (pp. 77-97). New York, NY: Oxford University Press.

Darling-Hammond, L., Newton, S.P.,& Wei, R.C. (2013). Developing and assessing beginning teacher effectiveness: The potential of performance assessments. *Educational Assessment, Evaluation and Accountability, 25*(3), 179-204. doi: 10.1007/s11092-013-9163-0

Davies, B. & Gannon, S. (2006). *Doing collective biography: Investigating the production of subjectivity*. Berkshire, United Kingdom: Open University Press.

Davis, V. (2014, January 9). True grit: The best measure of success and how to teach it [Web log post]. Retrieved from http://www.edutopia.org/blog/true-grit-measure-teach-success-vicki-davis

de Freitas, E. (2012). The classroom as rhizome: New strategies for diagramming knotted interactions. *Qualitative Inquiry, 18*(7), 557-570. doi: 10.77/1077800412450155

Delpit, L. (2006). *Other people's children: Cultural conflict in the classroom*. New York, NY: New Press.

Denning, S. (2007). *The secret language of leadership: How leaders inspire action through narrative*. San Francisco, CA: Jossey-Bass.

DeVito, D., Shamberg, M., & Sher, S. (Producers), & LaGravenese, R. (Director). (2007). *Freedom writers* [Motion picture]. USA: Paramount.

Dickinson, E. (1868). #427. In T. Johnson (Ed.), *Final harvest: Emily Dickinson's poems* (p. 248). Boston, MA: Little, Brown.

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology, 92*(6), 1087-1101.

Elbow, P. (1998). *Writing without teachers*. New York, NY: Oxford University Press.

Ellis, C. (2004). *The ethnographic I: A methodological novel about ethnography*. Walnut Creek, CA: AltaMira Press.

Ellman, R. (1982). *James Joyce*. New York, NY: Oxford University Press.

Erdmann, A.B. (1998). Middle-age teaching: A time of vitality. *Harvard Educational Review*, *68*(4), 583-587.

Erickson, F. (1992). Why the clinical trial doesn't work as a metaphor for educational research: A response to Schrag. *Educational Researcher, 21*(5), 9-11.

Erickson, F. (2014). Scaling down: A modest proposal for practice-based policy research in teaching. *Educational Policy Analysis Archives, 22*(9), 1-7. doi: http://dx.doi.org/10.14507/epaa.

Fenwick, T. & Edwards, R. (2011). Considering materiality in educational policy: Messy objects and multiple reals. *Educational Theory, 61*(6), 709-726.

Garland-Thomson, R. (1997). *Extraordinary bodies: Figuring physical disability in American culture and literature*. New York, NY: Columbia University Press.

Geertz, C. (1973). *The interpretation of cultures: Selected essays*. New York, NY: Basic Books.

Gottschall, J. (2012). *The storytelling animal: How stories make us human*. Boston, MA: Mariner.

Grossman, P. (2011). Framework for teaching practice: A brief history of an idea. *Teachers College Record, 113*(12), 2836-2843.

Grossman, P. & Thompson, C. (2008). Learning from curriculum materials: Scaffolds for new teachers? *Teaching and Teacher Education, 24* (2008), 2014-2026

Grossman, P., Compton, C., Igra, D., Ronfeldt, M., Shahan, E., & Williamson, P.W. (2009). Teaching practice: A cross-professional perspective. *Teachers College Record, 111*(9), 2055-2100.

Hankins, K.H. (1009). Cacophony to symphony: Memoirs in teacher research. *Harvard Educational Review, 68*(1), 80-95.

Hawthorne, S. (2013). Poverty and education: A narrative [Web log post]. Retrieved from http://teacherknowledge.net/cohort4/poverty-and-education-a-personal-narrative/

Hiebert, J. I., Gallimore, R., & Stigler, J. W. (2002). A knowledge base for the teaching profession: What would it look like and how can we get one? *Educational Researcher, 31*(5), 3-19.

Holbrook, T. & Pourchier, N. M. (2014). Collage as analysis: Remixing in the crisis of doubt. *Qualitative Inquiry, 20*(6), 754–763

Hollingsworth, J.R. & Ibarra, S.E. (2009). *Explicit Direct Instruction*. Thousand Oaks, CA: Corwin Press.

Holub, R. C. (1993). The Constance school. In I.R. Makaryk (Ed.), *Encyclopedia of contemporary literary theory: Approaches, scholars, terms* (pp. 14-18). Toronto, Canada: University of Toronto Press.

Hunter, M. (1994). *Mastery teaching: Increasing instructional effectiveness in elementary and secondary schools, colleges, and universities*. Thousand Oaks, CA: Corwin Press.

Hyvärinen, M. (2010). Revisiting the narrative turns. *Life Writing, 7*(1), 69-82. doi: 10.1080/14484520903342957

Institute of Education Sciences. (2014). *What Works Clearinghouse Procedures and Standards Handbook, 3.0* [Pamphlet]. Washington, D.C. Retrieved from http://ies.ed.gov/ncee/wwc/documentsum.aspx?sid=19

Irwin, R. L. & de Cosson, A. (Eds.). (2004). *a/r/tography: Rendering self through arts-based living inquiry*. Vancouver, Canada: Pacific Educational Press.

Jackson, A. Y. & Mazzei, L. A. (2008). Experience and "I" in autoethnography: A deconstruction. *International Review of Qualitative Research, 1*(3), 299-318.

Jackson, A. Y. & Mazzei, L. A. (2009). *Voice in qualitative inquiry: Challenging conventional, interpretive, and critical conceptions in qualitative research.* New York, NY: Routledge.

Jackson, A. Y., & Mazzei, L. A. (2012). *Thinking with theory in qualitative research: Viewing data across multiple perspectives.* London, United Kingdom: Routledge.

Johanson, F. (Producer), & Newell, M. (Director). (2003). *Mona Lisa smile* [Motion picture]. USA: Revolution Studios.

Johnson, M. (Producer), & Barnz, D. (Director). (2012). *Won't back down* [Motion picture]. USA: 20th Century Fox.

Jones, M. (2014, March 17). True grit: How to foster perseverance in the classroom [Web log post]. Retrieved from: http://www.bercgroup.com/blog/true-grit-how-to-foster-perseverance-in-the-classroom

Kawai, H. & Taylor, E. R. (2011). The work children do: Unpacking gendered conflict in an elementary classroom. *Harvard Educational Review, 81*(4), 646-666.

Kolata, G. (2013, September 2). Guesses and hype give way to data in study of education. *The New York Times*. Retrieved from http://www.nytimes.com/2013/09/03/science/applying-new-rigor-in-studying-education.html?_r=0

Kounin, J. S. (1970). *Discipline and group management in classrooms*. Huntington, NY: Holt, Rinehart and Winston.

Kumashiro, K. (2009). *Against common sense: Teaching and learning toward social justice* (Revised Edition). New York, NY: Routledge.

Kvale, S. (1996). *InterViews: An introduction to qualitative research interviewing*. Thousand Oaks, CA: Sage.

Ladson-Billings, G. (2013). Lack of achievement and loss of opportunity. In P. L. Carter & K. G. Welner (Eds.), *Closing the opportunity gap: What America must do to give every child an even chance* (pp. 11-22). New York, NY: Oxford University Press.

Lather, P. (1996). Troubling clarity: The politics of accessible language. *Harvard Educational Review, 66*(3), 525-545.

Lather, P. (2007). *Getting lost: Feminist efforts toward a double(d) science*. Albany: State University of New York Press.

Lather, P. (2010). *Engaging science policy: From the side of the messy*. New York, NY: Peter Lang.

Lather, P. (2013). Methodology-21: What do we do in the afterward? *Qualitative Studies in Education, 26*(6), 634-645.

Lather, P. & Smithies, C. (1997). *Troubling the angels: Women living with HIV/AIDS*. Boulder, CO: Westview Press.

Law, J. (2004). *After method: Mess in social science inquiry*. New York, NY: Routledge.

Leavy, P. (2013). *Fiction as research practice: Short stories, novellas, and novels*. Walnut Creek, CA: Left Coast Press.

Lemert, C. (1993). Introduction: Social theory, its uses and pleasures. In *Social Theory: Classical and Multicultural Readings* (pp. 1-23). Boulder, CO: Westview Press.

Lemov, D. (2010). *Teach like a champion: 49 techniques that put students on the path to college*. San Francisco, CA: Jossey-Bass.

Lenz Taguchi, H. & Palmer, A. (2013). A more 'livable' school? A diffractive analysis of the performative enactments of girls' ill-/well-being with(in) school environments. *Gender and Education, 25*(6), 671-687. doi: 10.1080/09540253.2013.829909

Lytle, S. & Cochran-Smith, M. (1992). Teacher research as a way of knowing. *Harvard Educational Review, 62*(4), 447-474.

MacLure, M. (2009). Broken voices, dirty words: On the productive insufficiency of voice. In A. Y. Jackson. & L. A. Mazzei (Eds.), *Voice in qualitative inquiry: Challenging conventional, interpretive, and critical conceptions in qualitative research* (pp.97-113). New York, NY: Routledge.

MacLure, M. (2011). Qualitative inquiry: Where are the ruins? *Qualitative Inquiry, 17*(10), 997-1005.

MacLure, M. (2013). The wonder of data. *Cultural studies <=> Critical Methodologies, 13*(4), 228-232.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*(4), 370-96. Retrieved from http://psychclassics.yorku.ca/Maslow/motivation.htm

Mazzei, L. A. (2007). *Inhabited silence in qualitative research: Putting poststructural theory to work*. New York, NY: Peter Lang.

Mazzei, L. A. (2014). Beyond an easy sense: A diffractive analysis. *Qualitative Inquiry, 20*(6), 742-746.

McRuer, R. (2006*). Crip Theory: Cultural signs of queerness and disability*. New York: New York University Press.

Moore, D. (2007). Son of Mr. Green Jeans: A meditation on fathers. In (Eds. L. Williford & M. Martone) *Touchstone anthology of contemporary creative nonfiction*. New York, NY: Touchstone.

Nieto, S. (2005). *Why we teach*. New York, NY: Teachers College Press.

Noddings, N. (1992). *The challenge to care in schools*. New York, NY: Teachers College Press.

Osberg, D. & Biesta, G. (2010). The end/s of education: Complexity and the conundrum of the inclusive educational curriculum. *International Journal of Inclusive Education, 14*(6), 593-607.

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher*, *41*(3), 93–97. doi: 10.3102/0013189X12441244

Paris, D. & Alim, H. (2014). What are we seeking to sustain through culturally sustaining pedagogy? A loving critique forward. *Harvard Educational Review, 84*(1), 85-100.

Patton, M. (1990). *Qualitative evaluation and research methods*. Beverly Hills, CA: Sage.

Pecheone, R. L., & Chung, R. R. (2006). Evidence in teacher education: The Performance Assessment for California Teachers (PACT). *Journal of Teacher Education, 57*(1), 22-36. doi:10.1177/0022487105284045

Pillow, W. (2003). Confession, catharsis, or cure? Rethinking the uses of reflexivity as methodological power in qualitative research. *Qualitative Studies in Education, 16*(2), 175-196.

Polyani, M. (2009). *The tacit dimension*. Chicago, IL: University of Chicago Press.

Pressman, B. (2011, October 14). Withitness in the classroom [Web log post]. Retrieved from http://www.education.com/reference/article/using-xray-vision-substitute-teacher/

Ransom, J.C. (1941). *The new criticism*. New York, NY: New Directions.

Reed-Danahay, D. E. (1997). *Auto/ethnography: Rewriting the self and the social.* Oxford, United Kingdom: Berg.

Roehl, T. (2012). Disassembling the classroom—an ethnographic approach to the materiality of education. *Ethnography and Education, 7*(1), 106-126.

Rosenblatt, L. (1969). Towards a transactional theory of reading. *Journal of Reading Behavior, 1*(1), 31-51.

Rosenblatt, L. (1978). *The reader, the text, the poem: The transactional theory of literary work*. Carbondale: Southern Illinois University Press.

Rosiek, J. L. (2013). Pragmatism and post-qualitative futures. *International Journal of Qualitative Studies in Education*, 26(6), 692-705.

Rosiek, J. L. (2014). Scholarship of teaching course syllabus [Course handout]. Department of Education Studies, University of Oregon, Eugene.

Rosiek, J. L., & Atkinson, B. (2005). Bridging the divides: The need for a pragmatic semiotics of teacher knowledge research. *Educational Theory, 55*, 421-442.

Ross, Josey. (2015, January 3). The problem with (the problem with) the quantified self movement [Web log post]. Retrieved from https://thespanofmyhips.wordpress.com/2015/01/03/the-problem-with-the-problem-with-the-quantified-self-movement/

Sato, M. (2014). What is the underlying conception of teaching of the edTPA? *Journal of Teacher Education, 65*(5), 421-434.

SCALE. (2014). *edTPA Elementary Education Assessment Handbook*. Stanford, CA: Stanford University.

SCALE. (n.d.). Design principles for teaching performance assessments. Retrieved from https://scale.stanford.edu/teaching/assessment-system

SCALE. (n.d.). edTPA. Retrieved from https://scale.stanford.edu/teaching/edTPA

Schellenberg, E. (1993). Reader-response criticism. In I.R. Makaryk (Ed.), *Encyclopedia of contemporary literary theory: Approaches, scholars, terms* (pp. 170-174). Toronto, Canada: University of Toronto Press.

Schön, D. (1987). *Educating the reflective practitioner.* San Francisco, CA: Jossey-Bass.

Schultz, B. (2008). *Spectacular things happen along the way: Lessons from an urban classroom*. New York, NY: Teachers College Press.

Shrum, K. (2010). Victim-blaming, student disclosures and *A Streetcar Named Desire* [Web log post]. Retrieved from http://teacherknowledge.net/cohort1/index.php?option=com_k2&view=item&id=72:narrative-victim-blaming-student-disclosures-and-a-streetcar-named-desire&Itemid=112

Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review, 57*(1), 1-22.

Shulman, L. (2004). *The wisdom of practice: Essays on teaching, learning, and learning to teach*. San Francisco, CA: Jossey-Bass.

St. Pierre, E. A. (2000). The call for intelligibility in postmodern educational research. *Educational Researcher, 29*(5), 25-28.

St. Pierre, E. A. (2006). Scientifically based research in education: Epistemology and ethics. *Adult Education Quarterly, 56*(4), 239-266. doi: 10.1177/0741713606289025

St. Pierre, E. A. (2011). Post qualitative research: The critique and the coming after. *Sage handbook of qualitative inquiry* (4th ed., pp. 611-635). Thousand Oaks, CA: Sage.

St. Pierre, E. A. & Jackson, A. Y. (2014). Qualitative data analysis after coding. *Qualitative Inquiry*, 20(6), 715-719.

UOTeach Program Handbook Assessment Addendum. (2014). Eugene: University of Oregon.

U.S. Department of Education. (2002). Elementary and Secondary Education Act (NCLB). Retrieved from http://www2.ed.gov/policy/elsec/leg/esea02/index.html

U.S. Department of Education. (2009). Race to the Top Fund (as part of the American Recovery and Reinvestment Act of 2009). Retrieved from http://www2.ed.gov/programs/racetothetop/legislation.html

U.S. Department of Education. (2014). U.S. Department of Education proposes plan to strengthen teacher preparation [Press release]. Retrieved from http://www.ed.gov/news/press-releases/us-department-education-proposes-plan-strengthen-teacher-preparation

Verran, H. (1999). Staying true to the laughter in Nigerian classrooms. *The Sociological Reiew*, 47(S1), 136-155. doi: 10.1111/j.1467-954X.1999.tb03486.x

Von Culin, K., Tsukayama, E. & Duckworth, A. L. (2014). Unpacking grit: Motivational correlates of perseverance and passion for long-term goals. *Journal of Positive Psychology*, *9*(4), 1-7.

Webb, P.T. (2007). Accounting for teacher knowledge: Reterritorializations as epistemic suicide. *Discourse: Studies in the Cultural Politics of Education*, *28*(2), 279-295.

Weems, L. (1999). Pestalozzi, perversity and the pedagogy of love. In W. Letts & J. Sears (Eds.), *Queering elementary education: Advancing the dialogues about sexuality and schooling* (pp. 27-38). Boulder, CO: Rowman Littlefield.

Weems, L. (2004). Troubling professionalism: Narratives of family, race, and nation in discourses of educational reform. In B. Baker & K. Heyning (Eds.), *Dangerous coagulations: The uses of Foucault in the study of education* (pp. 227-262). New York, NY: Peter Lang.

Weems, L. (2010). From "home" to "camp": Theorizing the space of safety. *Studies in the Philosophy of Education, 29*, 557-568. doi: 10.1007/s11217-010-9199-2

Whitman, W. (1986). *Leaves of Grass* (1855 ed.). New York, NY: Penguin.

Wilson, S. M. (2012). Doing better: Musings on teacher education, accountability, and evidence. In (M. LaCelle-Peterson & D. Rigden, Eds.) *Inquiry, Evidence, and Excellence: The Promise and Practice of Quality Assurance. A Festschrift in Honor of Frank B. Murray.* Washington, D.C.: Teacher Education Accreditation Council. Retrieved from http://eric.ed.gov/?id=ED541693

Wilson, S. & Berne, J. (1999). Teacher learning and the acquisition of professional knowledge: An examination of research on contemporary professional development. *Review of Research in Education, 24*, 173-209.

Winterson, J. (1997). *The passion*. New York, NY: Grove Press.

Winterson, J. (2011). *Why be happy when you could be normal?* New York, NY: Grove Press.

Wolf, G. (2010, June). The quantified self [Video file]. Retrieved from

https://www.ted.com/talks/gary_wolf_the_quantified_self

Zeichner, K.M. (2005). Research on teacher thinking and different views of reflective practice in teaching and teacher education. In G. Handal & S. Vaage (Eds.), *Teachers minds and actions: Research on teachers' thinking and practice* (pp. 9-28). London, United Kingdom: Routledge.

Zeichner, K. M. & Liston, D. P. (1987). Teaching student teachers to reflect. *Harvard Educational Review*, 57(1), 23-48.