

THEORY, DESIGN, AND TEACHER EXPERIENCE IN A LITERATURE-FOCUSED PROFESSIONAL DEVELOPMENT

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Abstract

This study answers a call for more transparency in descriptions of literature interventions that might inform future work in professional development design as well as literary pedagogy. The study draws on design-based research models to describe how principles of literary pedagogy were enacted in two iterations of a professional development program for U.S. secondary Language Arts teachers. The first iteration of the PD focused on surfacing teachers' beliefs about literature, helping them to leverage learners' everyday interpretive practices, to use affective evaluation to build literary interpretations, and to ask questions born of genuine curiosity. The second iteration revised the enactment of some principles and integrated activities designed to build trust in the learning community and make time for reflection on and integration of new concepts into current practice. Along with description, the study presents a preliminary experimental finding: teachers in the second iteration reported greater satisfaction with their learning experience, and were more likely to implement professional development practices in their classrooms. The study hypothesizes that these gains result from the integration of time and trust into the learning design.

Keywords: literature education, teacher education, design principles, literary interpretation, professional development

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1. INTRODUCTION

The United States has no national norms for the implementation of professional development (PD) for teachers. PD can range from in-and-out programs, where teachers spend an hour online, to year-long programs with in-person sessions and remote video coaching. Hundreds of commercial providers compete for the chance to carry out PD workshops. In other cases, teachers create and run PD for colleagues within their schools.

However, education researchers have developed robust findings on the characteristics of effective PD, often through meta-analyses of PD interventions. Their work shows that effective PD is content-specific, involves active learning, models specific teaching practices, offers feedback and support, and operates over weeks and months as opposed to days and hours (Darling-Hammond, 2017; Darling-Hammond, Hyler, & Gardner, 2017; Desimone, 2009). In addition, researchers have shown the importance of positive social relationships in teacher training. For example, teachers need to feel respected and empowered in order to open themselves to shifts in practice or beliefs (Gregson & Sturko, 2007). Researchers have also found that PD must be long-term to be effective (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). However, in the U.S., most teachers do not participate in lengthier PD. In a 2008 U.S. government survey of over 100,000 teachers of kindergarten through 12th grade, more than half (57%) of teachers reported that they had participated in fewer than two days of content-based PD (Darling-Hammond et al., 2009, p. 20; see also Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

While the field has outlined general characteristics, PD is a “complex, multidimensional construct” (Rijlaarsdam, Janssen, Rietdijk, & van Weijen, 2017, p. 281). Researchers and teacher educators need to learn more about the design and implementation of specific instances of PD programs, and in particular, long-term or large-scale PD. This need is especially acute in the area of large-scale literature-focused PD for secondary school teachers, where, with a few exceptions (e.g. Athanases, 2003; Olson, Land, Anselmi, & AuBuchon, 2010), such research is scarce. The field also needs more information about the degree to which teachers actually implement Language Arts-focused PD practices when they return to the classroom. Again, with just a few exceptions, research in that area is scarce. A few studies of PDs focused on reading and writing—but not the teaching of literature in secondary schools—do specifically measure teacher uptake. In a study of teacher uptake of popular elementary literacy PDs in more than 100 classrooms, self-reports indicated that teachers increased their focus on comprehension and writing 10-14% more than teachers who did not participate in such PDs (Correnti, 2007). Another study tested teachers on gains in Language Arts content knowledge directly after and then six months after a Language Arts PD and found that teachers forgot much of what they learned in the PD (Goldschmidt & Phelps, 2010).

As a result, those interested in supporting teaching of literary reading and response have fewer PD intervention and measurement models to build on. This lack

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of models is a problem, because many U.S. high school students continue to experience literature instruction that is overly formalized, rigid, and teacher-centered (Chick, Hassel, & Haynie, 2009; Nystrand, Wu, Gamoran, Zeiser, & Long, 2003; Oakes, 2005).

This study describes a PD designed to move teachers away from such formalized approaches to literary teaching by drawing on everyday literary and learning practices as the basis for teaching. In doing so, the study answers a call for more transparency in descriptions of literature interventions that might inform future work in PD design as well as literary pedagogy (Rijlaarsdam et al., 2018). The study follows a developmental research design model, also known as a design-based research model, describing and reflecting on the design and implementation of two iterations of a literature-focused PD for high school Language Arts teachers. In education research, design-based studies are embedded in and meaningful to instructional practice (Reinking & Bradley, 2008). These studies aim both to improve learning for participants and “capture and make explicit the implicit decisions associated with a design process, and to transform them into guidelines for addressing educational problems” (Plomp & Nieveen, 2013, p. 22). Ultimately, we describe the implementation of design principles meant to improve the teaching of literary reading and response, including:

- Surfacing beliefs about literary reading and response
- Using cultural modeling to honor and leverage everyday interpretive practices
- Using affective evaluation to build literary interpretations
- Asking questions born of curiosity
- Building trust within a learning community
- Making time to reflect on and integrate new ideas into existing practice

The study also offers an exploratory comparison of the two iterations of the literature PD, focusing on teacher satisfaction and implementation of PD practices in the classroom. The study also shares preliminary experimental findings about changes in teacher satisfaction and implementation from one cohort to the next, and explores PD design features that may account for this change.

While this study examines whether teachers took up the PD practices in classrooms, it does not address *how* teachers implemented those PD practices, or how students took them up. Those elements are beyond the scope of this study. (Another set of studies [in progress] examines how students in high school classrooms respond when their teachers implement the PD practices. In particular, those studies look at different types of literary responses, e.g. making judgments about characters, reading through critical lenses] and student interaction, using transcribed videos of classroom discussions in the year following the PD.)

In the following sections, we aim to:

- 1) Describe the PD design and its relationship to literary and general learning theories drawn from everyday practice.

- 2) Make an exploratory study of teacher and student surveys to compare teacher satisfaction and frequency of implementation of PD practices in both iterations of the PD.

2. CONCEPTUAL FRAMEWORK

This study draws from a situated learning perspective (e.g., Greeno, 2003; Lave & Wenger, 1991), which argues that learning is bound up in the physical and social contexts in which it takes place. In the context of teacher learning, different settings, relationships, expectations, and interactions will “give rise to different kinds of knowing” for teachers (Putnam & Borko, 2000, p. 6). This framework supports an exploration of how two separate cohorts of teachers have significantly different experiences of what was in many ways the same workshop, built on many of the same PD principles, and taught by the same instructors in the same place.

The study also assumes that literary reading and response are valuable and fulfilling activities for students. Theoretical and empirical work indicate that literary reading opens the door to achieving greater empathy for those not like yourself, considering perspectives unlike your own, seeing yourself reflected in a fresh and new way, appreciating authorial craft, and engaging with other readers and their experiences (Bishop, 1990; Hakemulder, 2000; Keen, 2006; van Peer, Hakemulder, & Zyngier, 2007).

3. OVERVIEW OF THE LARGER PD PROGRAM

The PD described in this study was part of a larger program designed by a U.S. university team of teachers, staff, and researchers, including the authors of this study. Its purpose is to train early career high school teachers working in high-poverty schools across the United States, with a focus on constructivist, culturally sustaining teaching in the content areas. The program required an application and principal recommendation. During the years of our study, the program accepted an average of 25 teachers into each of four content areas (LA, as well as History, Science, and Mathematics). The acceptance rate was about 50%. Each teacher received a stipend and committed to fully participate in the two-year program.

Each PD cycle took place over two years, and each included two intensive face-to-face summer PD workshops. Each workshop lasted ten days. Teachers learned discipline-specific teaching approaches, as well as more general constructivist approaches to teaching “core practices,” such as asking open-ended, arguable questions and facilitating discussion (Grossman, Hammerness, & McDonald, 2009). Teachers also began research on equity-focused projects they could implement in their schools. Each week, teachers spent about 18 hours in content-focused sessions, and about 5 hours in other sessions. Table 1 presents a schedule for one week.

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Table 1. Schedule for all PD participants

Monday	Tuesday	Wednesday	Thursday	Friday
9:00-9:25 Community opener	9:00-9:25 Community opener in content sessions	9:00-9:45 Across campus community opener	9:00-9:25 Community opener	9:00-10:00 Peer-led session
9:30-12:00 Opening day sessions: Who we are, how people learn, core practices	9:30-12:00 Content sessions	10:00-12:00 Content sessions	9:30-12:00 Content sessions	10:15-12:00 Content sessions
Lunch	Lunch	Lunch	Lunch	Lunch
1:00-1:45 Opening day sessions: Research	12:45-3:00 Content sessions	12:45-3:00 Content sessions	12:45-3:00 Content sessions	12:45-4:15 Content sessions
2:00-4:15 Session on how to be a teacher leader working for equity	3:15-4:15 School team time	3:15-4:15 Session on how to be a teacher leader working for equity	3:15-4:15 School team time	

After each summer PD, teachers participated in online coaching throughout the following school year. Teachers implemented PD approaches in their classrooms, filmed those classes, and met monthly with a dedicated coach and small groups of colleagues to share videos and reflect on their teaching. Each school year, teachers spent about 30 hours preparing for or meeting with their coaches.

4. OVERVIEW OF THE LANGUAGE ARTS PD

Our study focuses on two iterations of the PD for Language Arts. It tracks the experiences of two separate cohorts (Cohort One and Cohort Two) who participated in those two iterations. Most of this article describes the design and enactment of each cohort's first week of the summer PD. This study also shares preliminary experimental findings about changes in teacher satisfaction and implementation from one cohort to the next, and explores PD design features that may account for this change.

4.1 *Pedagogical principles and design models of this PD*

4.1.1 *Practice-based teacher education*

Like the program as a whole, the Language Arts PD subscribed to a practice-based teacher education model, which is designed to help teachers develop “core teaching practices,” such as asking productive questions or facilitating whole-group discussion. The model assumes that to develop expertise in core teaching practices, teachers need to see examples of those practices, analyze the components that make up the practices, rehearse or “approximate” them with fellow teachers and coaches, and then reflect on and revise their approaches (Grossman et al., 2009). For example, teachers might watch a video of a strong teacher-facilitated classroom discussion about a poem and then analyze the different components that contributed to that strong facilitation. Then teachers might prepare and rehearse a discussion with fellow teachers and coaches, where they practice some or all of those discussion components (Lampert et al., 2013). This process provides models, scaffolds, and immediate coaching and feedback (Grossman et al., 2009).

4.1.2 *Everyday practices*

The larger PD program also drew on two related pedagogical models, both of which move outside the realm of traditional academic teaching and learning to honor and build on everyday learning practices. First, the cognitive apprenticeship model emphasizes that implicit cognitive processes can be learned by “making thinking visible” (Brown, Collins, & Duguid, 1989; Collins, Brown, & Holum, 1991). One way to make such thinking visible is to analyze the components of a particular task (e.g. writing an interpretive argument or teaching a lesson on critical lenses) and reflect on the knowledge, skills, and cultural assumptions one might draw on when engaging in a task (Hillocks, 1982).

Second, in cultural modeling (Lee, 2007) and funds of knowledge frameworks (Moll, Amanti, Neff, & Gonzalez, 1992), practitioners understand that students carry with them abundant knowledge and skills from their out-of-school experiences, which teachers should integrate into classroom learning. For example, in the domain of literary interpretation, Lee (1995) identified complex interpretive skills involved in the African-American practice of “playing the dozens,” using hyperbole, imagery, and irony to playfully insult one another. Lee studied ways to make these interpretive practices visible in the classroom and help students apply those and other skills to interpretations of other texts. Lee further argued that teachers should use song lyrics and other “cultural data sets” in the classroom—texts that are culturally familiar to students and that teachers can use to help build on students’ everyday practices (Lee, 1995; Lee, Spencer, & Harpalani, 2003).

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4.1.3 *Literary interpretation and whole-class discussion*

PD facilitators integrated these models for the PD workshop. In the workshop's first week, the PD focused on the teaching of literary reading and interpretation. In the second week, the PD focused on whole-class discussion of literature. The facilitators chose to focus on these areas because researchers have consistently identified them as challenging for Language Arts teachers, and because, in a pre-PD survey, a majority of participating teachers likewise identified these areas as particularly challenging.

Over the course of the workshop, teachers surfaced ideas about literary reading, analyzed components of literary interpretation, and practiced adapting two flexible interpretive approaches to different materials and teaching contexts. The week culminated in a rehearsal of a literary discussion. This study focuses on week one of the PD. Table 2 shows an overview of the first week of the Language Arts workshop for Cohort One.

4.2 *Participants*

4.2.1 *Teachers*

Teachers from Cohort One ($n = 27$) and Cohort Two ($n = 24$) worked in a range of large- or medium-sized U.S. cities, with about 70% of each cohort working in public schools, and about 30% working in public charter schools. (In the U.S., public charter schools are funded with government money, as are regular public schools; however, charter schools have more freedom to experiment with both structure of their school time e.g. longer school days and content of their classes e.g. a focus on computer programming. An average of 80% of students in participants' schools were living in low-income households, as measured by their eligibility for government funded meals. Table 3 shows participants' demographics, including self-identified gender, race/ethnicity, and first-generation college graduate status (meaning that the participant was the first in their family to graduate from a college or university).

Table 2. Language Arts PD schedule, Cohort One

	Monday	Tuesday	Wednesday	Thursday	Friday
	9:00-9:25 Community Opener	9:00-9:30 Community opener	9:00-9:45 Across campus community opener	9:00-9:25 Community opener	9:00-10:00 Peer-led session
Morning Session	Introductory sessions for all teachers	What do you think literature is "for"? Overview of our week together Introduction to task analysis	Try finding accessible texts to highlight student affective response	Your students' written work Practice affective evaluation with regard to thematic interpretation Choosing texts	Model of a rehearsal Prepare for rehearsals
	12:15-1:00 Lunch	12:00-12:45 Lunch	12:00-12:45 Lunch	12:00-12:45 Lunch	12:00-12:45 Lunch
Afternoon Session	Introductory sessions for all teachers	Task analysis of "Prisoner's Dilemma" Introduction to using affective evaluation	Practice affective evaluation with rules of notice	Designing interpretive tasks for real-world audiences	Rehearsals: Using affective evaluation to lead interpretive discussion of literary text
i Home-work	Pre-institute survey	Choose or create for helping students build connotation	Read "Rules of Notice" (Rabinowitz, 1989)	Finalize text and focus for rehearsal	
	2:00-4:15 Session on how to be a teacher leader working for equity	3:15-4:15 School team time	3:15-4:15 Session on how to be a teacher leader working for equity	3:15-4:15 School team time	

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Both cohorts were racially/ethnically diverse, with white teachers making up less than 50% of the each cohort. This diversity is not representative of U.S. teachers as a whole; in fact, white teachers made up 83% of the profession in 2011 (Boser, 2014). However, the cohorts were demographically quite different. For example, in Cohort One, no teachers identified as Asian American, while four teachers did so in Cohort Two. Cohort One included eight teachers identifying as African American, while Cohort Two included two.

Table 3. Teacher participant demographics (self-identified)

Demographics	Cohort One %	Cohort Two %
Gender		
Female	61	79
Male	33	21
Declined to state	6	0
Race/Ethnicity		
Asian American	0	17
African American/Black	29	8
Latinx	22	13
Middle Eastern	0	4
Multiracial	4	13
White	41	46
Declined to state	4	0
First-Generation College Graduate		
Yes	33	50
No	66	50

4.2.2 Students

Each participating teacher identified one or more “target” classes with whom they planned to implement PD teaching approaches. These target classes ranged from 9th to 12th grade, were tracked and untracked, and included classes for students categorized as English Learners and students diagnosed with learning disabilities.

4.2.3 *Instructors*

Four instructors, including the authors of this study, worked with teachers during the first week of the PD. The group included an Iranian American woman and three white women. Generally, two or three instructors were present in the PD workshop room at any given time, acting as a lead facilitator or an assistant. We gathered the teacher cohort in the morning, and responded to questions they had written down at the end of the previous day. We then began workshop sessions designed to surface and help teachers practice interpretive instruction.

5. DESIGN PRINCIPLES FOR LITERARY READING AND RESPONSE: ITERATION ONE

In general, principles of learning and teaching “define the space for choices teachers must make” as they design specific instructional activities in the classroom (Rijlaarsdam et al., 2018, p. 283). In designing the first iteration of the Language Arts workshop, we drew from theories of literary response and epistemic cognition (e.g. Lee, Goldman, Levine, & Magliano, 2016; Rabinowitz, 1987), and cognitive- and socioculturally-based research on literary reading and response (e.g. Enciso, 1994; Janssen, Braaksma, Rijlaarsdam, & Van den Bergh, 2012; Lee, 2007; Mahiri, 2001). We focused on five design principles of literary pedagogy:

- **Surface beliefs:** To interrogate and potentially disrupt their teaching practices, teachers need to surface their underlying assumptions about teaching, students, and content.
- **Use cultural modeling:** To build interpretive skills in the Language Arts classroom, students need opportunities to recognize and leverage their everyday, out-of-school interpretive practices.
- **Use affective evaluation:** To move from literal to interpretive sense-making, readers can recognize and interrogate their affective responses to texts.
- **Attend to rules of notice:** To make multi-layered interpretations of texts, readers can attend to common authorial moves, such as patterns, ruptures, and figurative language, and apply affective evaluation to those moves.
- **Pay attention to curiosity:** To help readers engage in interpretive or analytic thinking, teachers must disrupt “one right answer” thinking and ask questions based on their own and students’ curiosity.

These principles overlap and inform one another, as do learning activities designed to enact those principles. However, in the following section, we will describe each principle separately, and pair it with a representative learning activity to shed light on how each principle was enacted in the first iteration of the PD.

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5.1 Principle: Surface Beliefs About Literature

Teachers' beliefs, both about content and ways of knowing that content, affect their instructional approaches (Davila, 2015; Holt-Reynolds, 2000; Zheng, 2009) and their capacity to change their practice (Whitcomb, 2004). To inform their goals and pedagogy, teachers need to identify underlying and sometimes inchoate assumptions about the "purpose" of literature. For example, in one study of a teacher preparation program, groups of educators stalled in their design process until they realized, through arguments, that they held differing beliefs about the goals of literary discussions (Anagnostopoulos, Smith, & Basmadjian, 2007). We thus designed an activity to help teachers surface their beliefs about literature's "purpose" in their students' lives.

Activity: Surfacing assumptions about the functions of literary reading. We designed an activity using contrasting cases (Schwartz, Tsang, & Blair, 2016). Specifically, we created a hypothetical scenario that contrasted *Romeo and Juliet*, the standard-bearer for the traditional U.S. high school canon, and Sherman Alexie's *The Absolutely True Diary of a Part Time Indian*, which is emblematic of a movement in Language Arts towards incorporating rich, accessible texts by authors of color. Alexie's popular novel tells a coming of age story about a Native American teenager's attempt to negotiate between Native and white worlds.

The hypothetical scenario reads as follows:

You teach 9th graders at your school. You only have time to teach one full work of literature in the upcoming school year. You can teach *Romeo and Juliet* [commonly taught at the 9th-grade level] or Sherman Alexie's *The Absolutely True Diary of a Part Time Indian*. How do you go about making that decision? What do you think you might choose, and why?

Initially, the scenario generated a lively discussion about the relative value of traditionally canonical works and accessible young adult fiction, the role of literature as a builder of common culture, and as a mirror and window into other worlds (Bishop, 1990). However, as the discussion evolved, teachers on the "Shakespeare side" found themselves defending not just their individual choice but a set of conventional cultural norms and identities to which they were not wholly committed. Those on the "Alexie side" likewise found themselves rejecting the canon in more dramatic terms than they intended. Consider the following exchange between two white teachers:

Teacher 1: Ultimately what you're saying is that it's better for them to read a dead white man than a living Native American one.

Teacher 2: It's not like I believe Shakespeare is more important than Alexie, and I actually...prefer on my own to read *Part Time Indian*. I'm really more of an Alexie kind of person. I'm just saying that if I had to choose, the language, the culture, at least now they [students] have this common experience with like a common text [*Romeo and Juliet*].

5.2 Principle: Use Cultural Modeling Framework

Lee's cultural modeling framework (1995, 2001) draws both on theories of "funds of knowledge" (e.g. Moll, Amanti, Neff, & Gonzalez, 1992) and the cognitive apprenticeship model (Collins, Brown, & Holum, 1991). Cultural modeling assumes that students engage in rich everyday interpretive practices, and teachers should recognize, make visible, and leverage those practices in the classroom.

We enacted these principles in two ways. First, we included cultural data sets in the Language Arts content sessions and modeled ways that teachers might use them to make visible, and build on, students' everyday interpretive skills. Second, we developed activities designed to help teachers draw on *their own* everyday interpretive skills in relation to literary reading and response, which we could then help teachers use in their classrooms.

Activity: Task analysis. The PD instructional team asked teachers to explore how they themselves read and made interpretive meaning of literary texts—not as teachers, but as everyday readers. We predicted that teachers would draw on affective evaluation and rules of notice, because, as we will discuss, research has shown those practices to be common to literary reading and response (Miall & Kuiken, 1999; Peskin, Allen, & Well-Jopling, 2010; Levine & Horton, 2015; Rabinowitz, 1987; Rainey, 2017).

We presented teachers with a one-page excerpt from the novel *Prisoner's Dilemma* (Powers, 1996). The excerpt, which stands alone as a short story, is rich in imagery and ambiguity, allowing room for teachers to explore different interpretations and interpretive approaches. The story describes a father and children gazing at the stars on a cold night, feeling distant from one another.

Facilitators asked teachers first to read the story "just to enjoy it," and then to read it again to build interpretations "as you normally would." We did not suggest a particular interpretive approach. After reading and jotting down interpretive notes, teachers performed a "task analysis," meaning they identified and analyzed the discrete skills needed to complete the task at hand (here, literary interpretation). They then interviewed one another to surface some of the components of their interpretive processes, as shown below in a transcribed dialogue:

Teacher 1: First I read the first paragraph, and then I jumped back to read the title.

Teacher 2: Okay. Why did you do that?

Teacher 1: Because titles are important and I often skip them, even though I always tell my kids to pay attention to them. So then I [kept reading to] just make sense of what was happening in the story, like here, wondering how all the kids were "spread out like spare handkerchiefs" on the dad, were they just lying on him? So I have a question mark there. Then at about the fourth paragraph, I began to notice all the imagery of darkness and cold, and so I started underlining that and annotating, and then I went back to the beginning because I remembered that same kind of imagery in the first paragraph, and I underlined that as well, and wrote "emotionally cold" on the margin.

Teacher 2: Yeah, I saw that too. Why? What made you notice all the imagery of darkness and cold?

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Teacher 1: I don't know. It—like there's cold here, here, and here (points to lines in the text). Okay, and when I reached the end, I wrote "sad," because I felt so sorry for the kids here, when their father is gone.

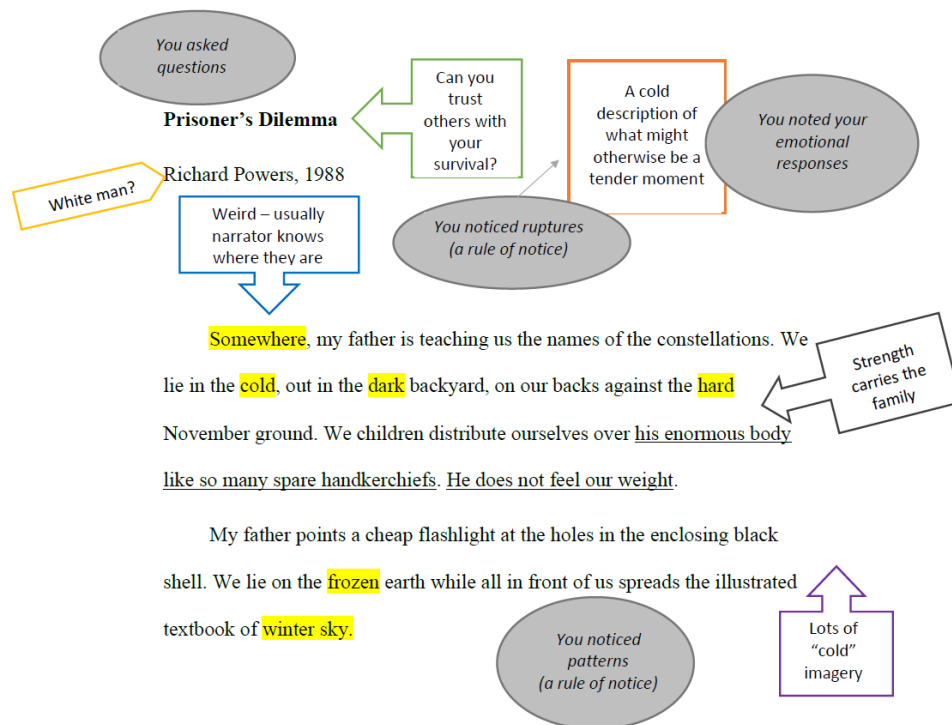
To make visible the teachers' range of interpretive processes, we displayed the short story on a whiteboard and asked each teacher to annotate one line or phrase, creating a "group interpretation" of the text. We then highlighted teachers' engagement with affective evaluation and rules of notice.

Figure 1 reproduces the first lines of the group interpretation. The rectangles and colored highlighting show teachers' individual annotations to the text. The circles show the teachers' and PD facilitators' meta-level comments about those annotations.

5.3 Principle: Use Affective Response and Evaluation to Guide Meaning-Making

Literary theory has long explored the fundamental role of feeling in literary reading and writing (Booth, 1983; Lawrence, 1961; Morrison, 2008; Rosenblatt, 1995). Feeling works in at least two ways in literary response: First, research in literary processing shows that readers' immediate affective responses often guided their attention to important story events and literary language, such as metaphor or sensory imagery (Bruner, 1991; Miall & Kuiken, 2002; van Peer, Hakemulder, & Zyngier, 2007). Here, affective responses can be defined as embodied responses, such as getting chills, or finding a description to be "striking" or eye-catching (Miall & Kuiken, 1994). Affective responses can also be defined as valenced. Readers will have fairly immediate positive and/or negative responses to language, characters, or events (Williams et al., 2002; Zillmann, 1995). For example, in one study, a student noted that a short story's description of a back yard was negative: "All of these words—cold, dark, hard—are negative," and another student judged a character to be lonely after reading a description of his actions (Levine & Horton, 2015, p. 143).

Figure 1. Cohort One's "group interpretation" with facilitator comments



Some researchers have leveraged the affect-related nature of literary reading for classroom literary instruction. In several studies, when high school readers learned to attend to their individual affective responses, they were more likely to move from literal to interpretive readings, compared to their control-group peers (Eva-Wood, 2004; Levine & Horton, 2013).

A second type of feeling-based response is a reader's judgment of authorial tones, moods, and worldviews. For example, a reader can evaluate the degree to which an author seems to expect readers' sympathy for a character (e.g. Frankenstein's monster) or whether a textual worldview leans toward optimism or pessimism (Levine, Hall, Goldman, & Lee, 2018; Rabinowitz & Smith, 1998).

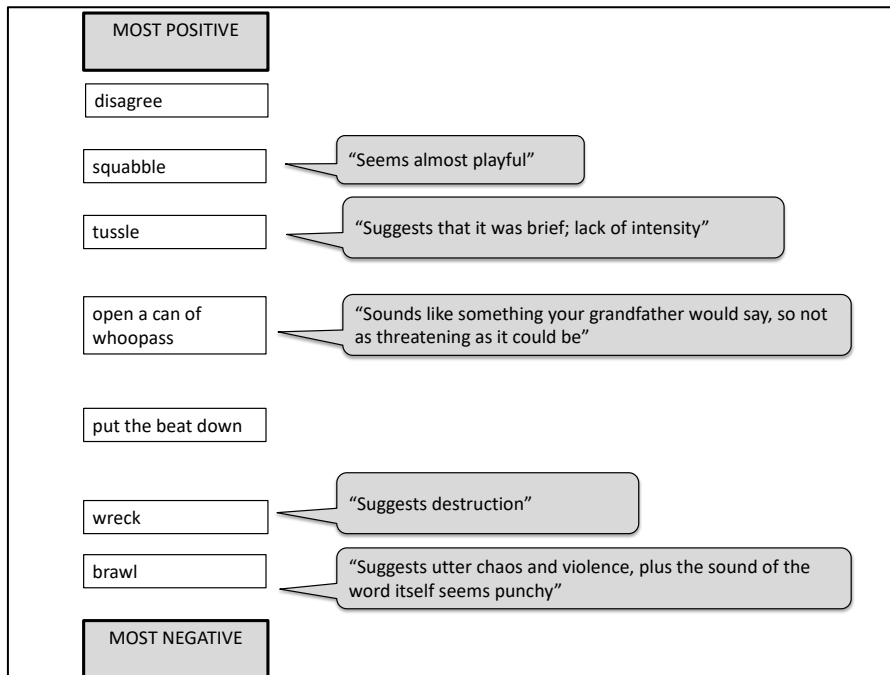
To make teachers aware of the role that feeling played in their own literary reading, instructors introduced an affect-based approach to reading literary texts called affective evaluation. In this approach, students read a text through an affect-based lens. They let their affective responses guide them to parts of texts that seem especially positive, negative, or both. Then they explain those affective evaluations. Studies show that this approach helps students move from literal to interpretive sense-making of literary texts (Levine, 2014; Levine & Horton, 2013, 2015).

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In those studies, teachers and students used a physical shorthand to indicate their immediate affective evaluations, putting their thumbs up to signal more positive, thumbs down for more negative, or one up and one down to indicate a combination of effects. In our PD, we called this process “up/down/both/why.”

Activity: Reading with up/down/both/why. To introduce this approach to teachers, PD instructors created a cultural data set with which teachers could practice affective evaluation. Small groups of teachers received index cards, each holding a synonym for the verb “to fight,” and asked teachers to try to come to consensus about where each word might fit on a scale of negative to positive effect. Teachers debated the relative positive and negative connotations of “squabble” vs. “tussle,” or “brawl” vs. “wreck,” and argued for their rankings by expanding on both concrete and abstract associations with each term. For example, one teacher said, “This one [the word ‘disagree’] sounds calm and civilized. So, it’s not as ‘down.’” Ultimately, teachers created an order for the words based on valence of the connotations (Figure 2). Their synonym rankings are shown on the left, and the call-out boxes on the right describe their justifications.

Figure 2. Teachers’ valenced ranking of synonyms



The PD instructors then pointed out that in applying affective evaluation, teachers had moved from denotative to connotative sense making. In other words, the PD facilitators “made visible” the everyday interpretive practices upon which teachers had drawn when constructing connotations for each word. Subsequently, teachers practiced using and teaching affective evaluation with other cultural data sets, such as Beyoncé performing at the Super Bowl, a Black Lives Matter protest, political TV ads, poems, and finally, a short story.

5.4 Principle: Attend to Rules of Notice

Literary theorists such as Rabinowitz (1987) and Culler (2002) argue that authors—purposefully or not—use a set of common literary moves, such as figurative language, juxtapositions, or sudden shifts in time, to draw readers’ attention to language, characters, and events. Rabinowitz calls such moves “rules of notice.” Related concepts include “foregrounding” (Mukarovsky, 1964; Miall & Kuiken, 1994) or “special topoi” (Fahnestock & Secor, 1991). For example, experienced literary readers are likely to pay special attention to an unusual name or recurring pattern of color imagery, because they disrupt expectations or call attention to themselves by repetition. A few studies of classroom instruction have found that helping students explicitly attend to rules of notice helps them make both literal and interpretive sense of a story (e.g. Sosa, Hall, Goldman, & Lee, 2016; Wilhelm, 1992).

While many teachers help students identify rules of notice (for example, an assignment asking students to identify metaphors in a poem), such identification on its own is not particularly generative of meaning-making (Lee, 2011). Teachers need to couple identification of authorial moves with their potential relationships to conceptual, political, or emotional impacts on the individual student or a larger audience. Teachers also need to help students experience the pleasure of their personal engagement with a text (Rosenblatt, 1982).

Activity: Reading with TRICEPS and up/down/both/why. We revisited teachers’ task analyses of the excerpt from *Prisoner’s Dilemma* to make explicit that teachers had attended to rules of notice during their reading. For example, several teachers noted the story’s repeated images of cold and dark, thus “following” the rule of notice of patterns in a text.

We also introduced the acronym “TRICEPS” as a memory tool for attending to common rules of notice (Levine, Hall, Goldman, & Lee, 2018):

- Tensions
- Ruptures (unusual images and other moves that disrupt genre norms)
- Imagery
- Characterization
- Endings
- Patterns
- Symbols

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Teachers suggested additional authorial moves that might fit within the acronym (e.g. **Syntax** and **Setting**). We also pointed teachers to other lists that can support students in literary interpretation (e.g. Beers & Probst, 2012). We then emphasized the danger of reducing literary reading to a search for literary devices. Such an approach, we said, could diminish students' lifelong relationship with literary reading.

Teachers then engaged in a new activity where they combined TRICEPS and affective evaluation (here, "up/down/both/why") to build textual interpretations. We taped large copies of the excerpt from *Prisoner's Dilemma* to the walls of our classroom, and above each copy wrote the name of one rule of notice (e.g. "Tensions" over one copy, and "Ruptures" over another). Teachers then engaged in a "gallery walk" activity, moving from copy to copy, attending first to a particular rule of notice and then using up/down/both/why to build their personal interpretation of its effects.

Finally, the teachers used a set of affect-based sentence stems to help them articulate their ideas by combining identification of authorial moves with affective evaluation. For example:

RUPTURE: The author made an unusual move by _____. This choice creates [positive/negative/both] effects _____, because _____.

IMAGERY: The imagery of _____ contributes to a feeling of [positive/negative/both descriptor] _____.

5.5 Principle: Pay Attention to Curiosity

A fundamental aspect of literary epistemology is an assumption of ambiguity and multiple meanings (Levine, Hall, Goldman, & Lee, 2018). Literary texts by their nature may help readers tolerate ambiguity (Djikic, Oatley, & Moldoveanu, 2013) and entertain new perspectives (Zunshine, 2006). However, even though many teachers have embraced the goals of multidimensional readings and student-centered literary discussion, they may still default to asking "known-answer" questions (Alvermann, O'Brien, & Dillon, 1990; Nystrand, Wu, Gamoran, Zeiser, & Long, 2003). These are questions whose answers will not alter the teacher's pre-planned trajectory of a class discussion, and which teachers might pronounce as correct or incorrect, such as "What literary device does the author use?" or "What is the [one] theme of the story?" (Holt McDougal, 2011). The persistence of this kind of question likely derives in part from entrenched school-based discourses, which continue to position teachers as the final interpretive authority (Gee, 2008; Gutiérrez, Morales, & Martinez, 2009; Schleppegrell, 2004).

Students may therefore have learned "to offer flat, reductive readings that torture the 'one true' answer [that] literature might confess" (Chick et al., 2009, p. 400). Empirical work shows that in school settings, students may focus on literal meanings and surface features of texts (e.g., Janssen, Braaksma, Rijlaarsdam, & van den Bergh,

2012; Watanabe, 2008), or reduce texts to a single theme or meaning, even when reading texts that seem to offer a range of judgments and interpretations (Levine et al., 2018; Olson & Land, 2007),

In contrast, questions that arise from genuine curiosity (e.g. about a line, a whole text, or someone else's response to that text) invite multiple and contrasting responses and could reroute the trajectory of a discussion. Critically, when teachers or students ask authentic questions, students are more likely to engage in interpretive or analytic thinking, as opposed to recitation or literal sense-making only (Applebee, Langer, Nystrand, & Gamoran, 2003; Nystrand & Gamoran, 1991). Thus, Language Arts teachers must learn how to disrupt the conventions of their own classrooms, using literature as a way of exploring ambiguity and "reading for complexity" (Chick et al., 2009). To help students achieve rich transactions with texts, teachers need to learn to ask "authentic questions"—that is, questions born of curiosity, "for which the answers are not presupposed by the teacher" (Kelly et al., 2018).

Activity: Affect-based "They say/I say." We supported teachers' authentic questioning in two ways. First, we introduced Graff and Birkenstein's (2014) "They Say/I Say" approaches to writing, where students frame their discussions about a text by stepping into a potential ongoing argument about that text. For example, instead of writing that "Okonkwo [the protagonist of Chinua Achebe's *Things Fall Apart*] is a tragic hero," Graff and Birkenstein suggest a template that could be completed as follows: "Several members of our class have argued that Okonkwo...is a hateful villain. My own view, however...is that he is a tragic hero...." (p. 184). This process is demanding for students. To engage "They Say/I Say," students must identify ongoing areas of uncertainty about a chosen text, discover what others might be saying about it, and then respond. In our PD, we emphasized the value of the "They Say/I Say" structure as a heuristic for teachers to check their own questioning: If teachers could create a "They Say/I Say" question, then they were less likely to be asking "known answer" questions, and more likely to be inviting a range of interpretations.

We then offered examples of sentence stems that were affect-based adaptations of the "They Say/I Say" templates. For example: "Many texts suggest a pessimistic view about _____. However, this text seems more optimistic about _____."

Second, we simply encouraged teachers to consider questions they truly did not know the answers to, or that they thought their students might find "interesting, curious, or confusing" (Commeyras & Summer, 1998). We called them "honest-to-God questions."

However, the way we introduced this concept alienated some of our teachers. We cautioned against framing thematic interpretation as a reductive search for one teacher-approved meaning. In attempting to drive the point home, we used overly negative language, warning this could be "disastrous" for students' lifelong relationship with literary reading. Some of our teachers felt we were accusing them of doing a bad job in their classrooms. Further, teachers still struggled in their attempts to "come up with" authentic questions.

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5.6 Final Activity: Teacher Rehearsal of Lesson Using Affective Evaluation

As their culminating activity for the week, teachers prepared for and participated in a rehearsal of a literary discussion. Each teacher designed an activity meant to help students enact the learning principles we had explored over the course of the week. In groups of five or six teachers, along with a coach, each teacher chose a short text and then launched an activity that taught students to engage in up/down/both/why, either alone or combined with TRICEPS. Each teacher taught their “students” for about ten minutes, and then took ten minutes to discuss and debrief.

6. ANALYSIS OF THE FIRST ITERATION

6.1 Methodology

This study most closely follows a developmental, or design-based, research model (Plomp & Nieveen, 2013; Reinking & Watkins, 1998). In these models, researchers describe an intervention and its outcomes with an eye toward refining both (a) teaching theories and practices in general, and (b) the particular intervention itself. In doing so, the researchers respond to participants’ emergent contributions and concerns. Many design-based studies focus on the day-to-day or in-the-moment changes that intervention designers make to address “emergent features of the setting” (Design-Based Research Collective, 2003, p. 6). In the current study, we focus on structural design changes we made as we developed new principles for professional development in response to the first iteration of the PD.

Design-based research in education is useful for this study because the model embraces the situated nature of teaching and learning—what is often called the “messiness” of classrooms. Design-based research cannot necessarily make the same claims as a lab-based psychological experiment, but in its attempts to put “reflection in action” (Reinking & Watkins, 1998) it allows for analysis of teaching and learning experiences, exploratory claims, and theory-building.

To explore teachers’ experiences of learning activities during the summer sessions and their subsequent uptake of teaching strategies during the school year, we analyzed many data sets: “exit tickets” after each day of the summer session, teacher artifacts (e.g. questions they prepared for the rehearsals of their lessons), transcripts of teachers’ lesson rehearsals, mid-year teacher surveys, and end-of-year student surveys.

6.1.1 Daily exit tickets

Teachers submitted online, anonymous reflections at the end of each day of the summer session, responding to the following:

- 1) What questions do you have from today?
- 2) What worked for you today?
- 3) What would you like to see more of tomorrow?

The two authors, along with two graduate student research assistants not involved in the PD, analyzed these tickets. We used emergent coding (Charmaz & Belgrave, 2012) and collaborative coding (Smagorinsky, 2008) to analyze Cohort One's exit ticket comments (n = 205). That is, pairs of researchers collaboratively developed coding categories as we read and re-read the teachers' comments.

We sorted the comments along two axes. On one dimension, teachers expressed satisfaction (usually prompted by the second question) or dissatisfaction (usually prompted by the third question). On the other dimension, teachers most commonly reacted to three issues: first, the substantive strategies we were training teachers to use (most commonly affective evaluation and rules of notice); second, the culture within the training cohort (most commonly trust and equity of voice); and third, allocation of scarce time during the sessions. The exit tickets prompted many other types of comments, which might be used for further redesign of the PD, but they are beyond the scope of this study.

Table 4 summarizes, along these two axes, our coding of teacher comments on exit tickets.

The design of our daily exit tickets was qualitative (three open-ended questions) and not quantitative (such as "rank this from one to five"). A disadvantage of this approach is that we could only code teachers' opinions in a binary "satisfied-dissatisfied" manner, which lost potential nuance. However, we found it more important to invite teachers to respond in their own voices, untethered from our assumptions about what feedback would be relevant.

6.1.2 *Teacher artifacts and transcripts*

We were especially interested in exploring teachers' understanding of authentic questions. We looked at all teachers' "They Say/I Say" launching questions for their discussion rehearsals, e.g. "Some parents say that *We The Animals* by Justin Torres is too upsetting for high school students, but other parents say that their teens should be reading about this kind of thing in high school. What do you think?" While it is difficult to evaluate such questions as "authentic" or "inauthentic" without knowing the teacher's mind or the context for which teachers developed their questions, we were interested in the general nature of the questions and the degree to which they seemed to invite multiple perspectives or affective responses.

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Table 4. Codes for teacher responses in exit tickets

Code	Description	Example of satisfied comment	Example of dissatisfied comment
Strategies	Comments regarding affective evaluation and/or rules of notice	"In the past, I've always taught tone as the final piece of the puzzle. The up/down/why method uses tone as an entry point into the text which I think will actually aid all levels of kids to making a complex interpretation of the text."	"This skill (affective evaluation) was hard for me to grapple with. I need help with this still, as the connection to up/down/why to TRICEPS was only briefly explained."
Cohort culture	Comments regarding community and/or equity of voice among the cohort	"It was great that we got to work through the text together and that almost everyone's voices were heard."	"I would like to be able to choose my group...at this point, there is no room for voice and choice. I feel like I am being stuck with people I don't learn best with."
Use of time	Comments regarding amount of time for practice, collaboration, or individual planning	"Thank you for giving us time to work on our materials and rehearsals!"	"We need more time to work with texts that we will actually be teaching versus time spent on the texts you have given us."

Second, we recorded and transcribed 50% of discussion rehearsals and debriefs (22 rehearsals), looking specifically at all comments that referenced authentic questions (n = 19). Because the number of comments was relatively small, we ultimately divided comments into those expressing confusion or concern and those expressing understanding or pride. Most comments fell in the confusion category, as in: "I just can't tell if what I'm asking is authentic." The latter category included comments such as: "That [question] really worked. It made much more sense than the first one I had."

6.1.3 Mid-school year teacher surveys

To capture information about uptake of PD principles and activities, we used Qualtrics software to create mid-school year teacher surveys, covering the period from September to December. Among other things, the retrospective surveys asked teachers to report the frequency that they taught students to use affective evaluation or rules of notice during class discussions: 0 times, 1-2 times, 3-5 times, or more than 5 times.

6.1.4 *End-of-school year student surveys*

Although teachers' self-reports have been found to be reliable (Desimone, 2009), we also triangulated teachers' reports with an end-of-year student survey. Teachers administered a Qualtrics survey to the students in their target classrooms (see Appendix). The survey asked about students' general experiences in class, including these two open-ended questions:

- Write about or explain a strategy you learned that really helped you understand how to read literature. If there isn't one, you can say so.
- This year, what was one of the things you did in class that helped you learn the most? Explain how it helped you learn.

We reasoned that if a student referenced and explained their use of either "up/down/both/why" or TRICEPS in response to non-leading survey questions, we could be reasonably sure that their teacher had implemented that teaching approach.

We downloaded all student responses into an Excel spreadsheet. Using the "search" function, we looked for all mentions of "up/down/both/why," "positive/negative/why," TRICEPS, and other variants on names for the PD approaches to literary interpretation. Sample student responses included:

"Up down both and why ... gave me an open view and see from different perspectives because it really could be positive or negative depending. It helps you see what pops out and how you interpret it."

"One strategy that has helped me a lot this year is TRICEPSS because it makes me think about the different parts of the text and how meaningful they all are as a whole. I would say I am able to comprehend the text better and think about it more in depth."

7. ITERATION ONE FINDINGS

This study has two key objectives: first, to make visible the decisions involved in designing two iterations of a professional development program based on learning and design principles; second, to compare the two cohorts' degrees of satisfaction about and subsequent uptake of the PD practices from one cohort to the next, and explore PD design features that may account for such changes.

In this section, we explore these objectives by analyzing the exit tickets, mid-year teacher surveys, and end-of-year student surveys from the first iteration of our PD. Then, in the sections that follow, we describe Iteration Two, in which we revised and expanded our learning principles and intervention design, based on the findings from Iteration One.

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7.1 Teacher Experience in Iteration One

Table 5 shows the percentage of total exit ticket comments that referred, positively or negatively, to our largest coding categories: strategy instruction, cohort culture, and session time. For example, out of the 205 comments in the teachers' exit tickets, 21 of those comments (10%) referred positively to cohort culture. Note that some comments did not refer to any of the coding categories, and some comments addressed more than one category, so percentages will not sum to 100.

Table 5. Percentage of total comments ($n = 205$) referring to strategies, culture, or time

Category	Satisfied %	Dissatisfied %
Strategies	81	5
Cohort culture	10	16
Amount of time	11	29

A large majority (81%) of Cohort One's total comments expressed satisfaction with the training on teaching strategies about affective evaluation and rules of notice. These comments typically were prompted by the exit ticket question: "What worked for you today?" These comments often focused on the flexibility and accessibility of those strategies. The comments also reflected the value of the cultural modeling principles and task analysis activities we implemented. As one teacher wrote, "I hadn't realized that I relied so much on feeling when I read."

A majority (13 of 19) comments about authentic questions expressed confusion or concern about developing such questions. We saw that concern expressed in casual comments made during the PD as well, with teachers asking some version of the following: "Is this an authentic question?"

Teachers expressed frustration with a mistrustful cohort culture. They did so most frequently in response to exit ticket questions, "What worked for you today?" and "What would you like to see more of tomorrow?" Over the course of the week, 16% of total exit comments referenced dissatisfaction with the state of community culture, as compared to 10% indicating satisfaction.

Teachers began to voice their anxiety after the first day of the PD, when we held our opening "Shakespeare vs. Sherman Alexie" debate. Comments suggested that our choice to pit the authors against one another had essentially forced teachers to commit to one side of a false binary. One teacher wrote that "the general atmosphere felt contentious at times, and now I'm nervous to speak because I'm afraid of other people's reactions."

A degree of mistrust lingered over the course of the weeklong PD, even though teachers continued to be enthusiastic about PD activities ("No one has ever taught me how to teach this before so it is amazing!"). For example, several days after the

debate, one teacher wrote, “We have discussed how creating a safe space for our students to voice their opinions is a form of equity, and I believe we now need to model that in our own ... discussions.” The tension constrained collaborative learning, as evidenced in this teacher’s comment: “In the group activity, my up/down/both notes were not similar to the viewpoints of others in my group, but I felt pressured to force mine to fit with everyone else’s.”

Some comments showed wariness toward the PD facilitators regarding our attitude toward conventional teaching of literary interpretation:

“I felt shut down ... and severely criticized after the discussion about [literary interpretation] because I find that that way works for me and my students as a starting point. I was disheartened to hear that this ... was viewed or portrayed as a very inhibiting thing for students (I think a stronger word was used, like ‘disastrous’?). Ultimately, I felt ashamed which wasn’t pleasant for me.”

Almost 30% of all teacher comments revealed dissatisfaction with how we allocated scarce time within the workshop, as compared to 11% of comments expressing satisfaction. Representative comments included:

“I would love to spend more time wrestling with all of the things I have learned. I feel like there is so much that has been thrown at us today and not enough think time and/or work time. I haven’t had any time to process all of the information and make cognitive sense of it all.”

“I am stuck on how I can really move forward. I have SO much going through my mind and how I should be creating my unit. Between TRICEPS, worldviews, Up/Down/Why, I feel like I have this HUGE BEAST that is trying to bring me down every time I try to bring myself back up! Help?”

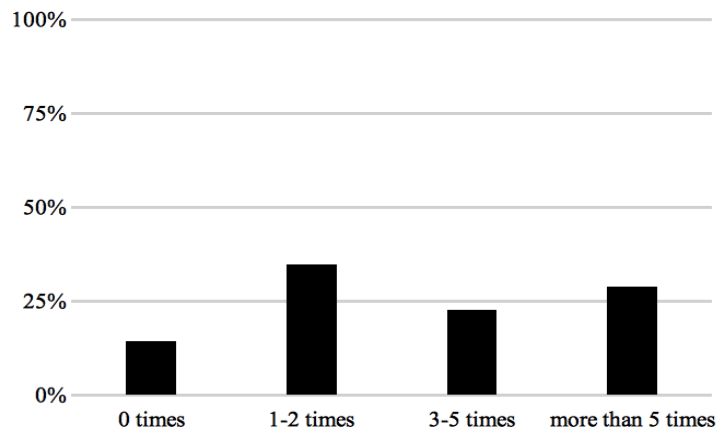
During this first iteration, we made small changes to our daily schedule to address teachers’ requests for more time to reflect. For example, we told teachers that we would set aside the last 30 minutes of each day’s workshop for reflection. However, we encroached on that reflection time with more instruction.

7.2 Uptake of learning principles and activities in Iteration One

In the mid-year survey, teachers reported the number of times they took up either up/down/both/why or rules of notice in their classrooms (Figure 3). Notably, 14% of the cohort reported that they did not take up either strategy at all.

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Figure 3. Percentage of Cohort One teachers reporting number of times they took up PD strategies in the classroom



In Cohort One, 55% of classrooms included one or more students who referenced and described up/down/both/why and/or TRICEPS in the end-of-year surveys. Their explanations generally indicated understanding of the strategies. One student wrote, for example, that up/down/both/why “helped me know the effects on myself or the author. I can know if it’s positive or negative.” Another wrote that the strategy “made me realize that many people see a topic differently if it is good or bad or maybe even both. By listening to their opinions, it helped me see the different point of view and made me write my essay in a much better understanding that everyone can relate.”

The year-end student surveys also indicated that teachers took up the PD methods in different ways. Some teachers asked students to focus on their own emotional responses, and others asked students to focus on authorial intent, as reflected in the two student comments below:

“Up down both why was helpful because it helped us explain why we feel a certain way about a certain topic. Like for example, if you pick down you have to explain why you feel that way and if you pick up you have to explain again.”

“I use up/down/both/why to try to deduce what the author could want to say and decide if it was positive or negative.”

8. DESIGNING THE SECOND ITERATION

Drawing on the premises of developmental research models, we redesigned the PD based on our understanding of teachers’ responses to the first iteration. Teachers’ responses to instruction in affective evaluation and rules of notice were largely positive, so we continued to focus on those principles and activities, with slight revisions.

We also continued to draw from cognitive apprenticeship and funds of knowledge models, as they served us well in our design.

However, Cohort One teachers expressed frustration with community culture and lack of time to reflect on instruction. Their negative experiences called for the explicit adoption of two additional learning principles: in a nutshell, *create trust and time for reflection*.

8.1 Principle: Create Trust

An unromantic definition of trust is “accepting ... closeness of those with power to harm us” because we have confidence “that they will not use this power” (Baier, 1986). Just as is true in K-12 classrooms, PD classrooms must be places of “interpersonal trust and mutual respect, in which people are comfortable being themselves” (Edmondson, 1999, p. 354). Establishing trust is especially important for in professional development settings, because teacher trainers occupy a position of power (Anagnostopoulos et al., 2007; Zeichner, Payne, & Brayko, 2015), and because teachers may feel “publicly threaten[ed]” as they are “asked to lay bare their assumptions, strengths, and weaknesses before their colleagues” (Servage, 2008, p. 72).

In the first iteration of our PD, we designed many collaborative activities in which teachers worked together to share experiences, engaged in task analyses, or built lessons; however, we undermined that collaboration by creating an atmosphere where teachers felt personally and professionally vulnerable.

In redesigning the PD, the instructional team made the creation of trust an explicit teaching principle, and enacted that principle in several ways. Before embarking on any activities, the instructional team spoke explicitly with teachers about the possible discomfort they might experience as they learned about different approaches to teaching—approaches that might clash with their current methods. We then invited the cohort to embrace this discomfort and to trust that others felt the same discomfort, including us. Also, we surfaced the fact that race, class, and gender suffused our interactions with our students and one another, and that openly talking about those constructs was part of our mission.

Finally, we explicitly and repeatedly recognized the rich resources that each teacher brought to the workshop. For example, we asked teachers to present successful interpretive teaching approaches to the larger cohort. We also implemented low-stakes community-building activities once and sometimes twice a day. One activity, for instance, prompted each teacher to write the title of a text they loved to teach, connect with another teacher interested in discussing that text, and take a “walk and talk” in the hallways to engage one another’s thoughts.

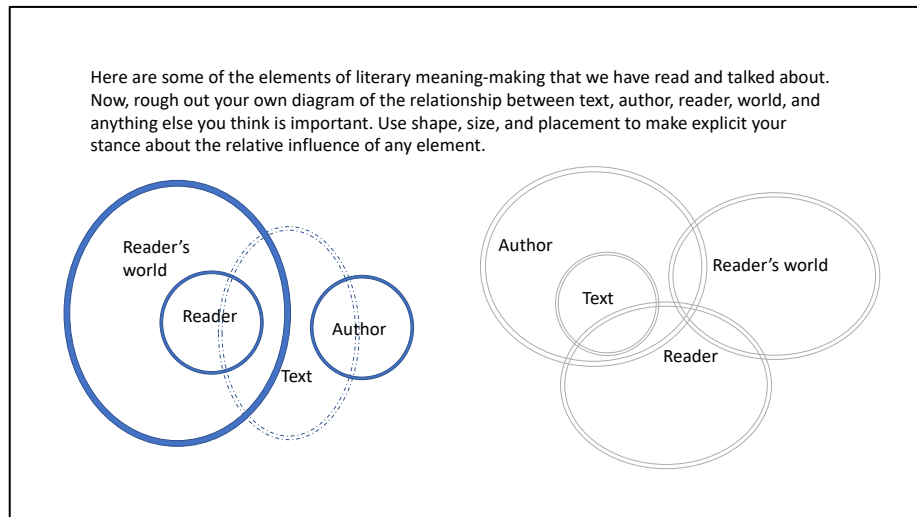
Revised activity: Draw your theory with contrasting cases. We looked for ways to encourage shared exploration and discussion while still providing contrasting cases that would help teachers surface their assumptions about literary reading. Teachers read “A Close Reading of Close Reading” (Catterson & Pearson, 2017), an article that explores the relationship between reader, text, activity, and context, and offers a

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visual representation of that relationship. We provided several other models of reader-text relationships and asked teachers to compare these models with their own potentially unarticulated models. Alone or in small groups, teachers drew representations of their reader-text relationship models (see Figure 4 for examples of teachers' models).

This activity successfully surfaced teachers' understandings of the role literature plays in students' lives. But unlike the "Shakespeare vs. Sherman Alexie" activity from the first iteration, it did not pit teachers against each other. It also allowed for some early work on the distinction between authorial and individual interpretations.

Figure 4. Copy of activity instructions and two examples of teachers' models of reader-text relationships



8.2 Principle: Create Time for Reflection

A PD's duration has a positive correlation with its success (Yoon et al., 2007). So time clearly matters in teacher training. Our program, with intensive workshops in the summer and sustained coaching over the course of the school year, offered long-lasting PD. However, our summer PD did not satisfy teachers' need for short and frequent opportunities to reflect on and integrate new concepts and practices into their existing conceptual frameworks.

Reflection has been defined as "intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciation" (Boud, Keogh, & Walker, 2013, p. 19). Dewey built theories of

learning on reflection, Kolb's cycle of learning includes reflection as one of four necessary elements, and studies in cognitive processing show the need for time for integration of challenging information (e.g. Sweller, 1994).

Design activity: Make time for reflection. During the design of our first iteration, we included very little reflection time, and we did not attend to Cohort One's requests for time at the end of each day to reflect. In fact, we worried that we would do a disservice to teachers by granting their requests; our feeling was that they could plan on their own, and that the workshop was for new instruction.

In our second iteration, we made several structural changes to our daily schedule to allow teachers ample time to discuss, reflect on, interrogate, and integrate PD principles into their own teaching.

First, at the end of every major activity or introduction of new material, we asked teachers to talk with a partner or a small group about what they had just done or learned. We provided this prompt: "Take time to process what we just did. What questions do you have? What seemed like it might work in your own context, and what would need tweaking?" We then addressed questions.

Second, we added 40 minutes of "sacred time" at the end of each workshop day to make room for teachers to discuss and consider applications of the PD principles and activities to their classrooms. In contrast to our previous iteration, we did not allow our instruction to encroach upon this time.

8.3 Principle: Pay Attention to Curiosity

We revisited our principles regarding questioning. The "They Say/I Say" questions were a useful guide, but teachers sometimes found themselves unable to generate both a "They say" and an "I say" perspective to frame a question, and they worried they would not be able to teach their students to create their own questions. We wanted to offer teachers another, non-binary way of joining a conversation about a text.

In addition, and perhaps more important, the construct of "authenticity" in questioning was not a sufficient guide for teachers, as evidenced by their uncertainty about whether they were in fact asking authentic questions. To better understand the nature of teachers' "authentic questions," the PD facilitators revisited teachers' task analyses of their reading of "Prisoner's Dilemma." There, teachers' questions were born of curiosity and uncertainty, and were not always thematic or argumentative in nature. Their questions were literal (e.g. "Is the dad dead?"), interpretive (e.g. "Is this supposed to be symbolic?") and critically-oriented questions, some of which had only one answer (e.g. "Is the author a white man?"). They did not ask themselves leading questions, and not one teacher asked, "What is the theme of this story?"

Scholars have argued that disciplinary expectations communicated through school-based practices have constrained both students' and teachers' understanding of the learning (Andringa, 1991; Gutiérrez et al., 2009; Schleppegrell, 2004). It

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seemed likely that, to some degree, when teachers were thinking about questions for the classroom, they were not drawing on their own, everyday questioning practices for literary reading. Perhaps the discourses of schooling had narrowed their visions of questions that were appropriate for the classroom, steering them away from their own genuine curiosity about a text or about others' responses to a text.

In our redesigned PD, we offered teachers another way of thinking about questioning by focusing on the idea of curiosity and uncertainty.

Revised activity: Reflecting on questions when acting as "teacher" and "student." In Iteration Two, after teachers had read and done a task analysis of "The Prisoner's Dilemma," we asked teachers to look at their questions about the text, and figure out how they "came up with" those questions. Teachers responded, "I just wanted to know," or "I wondered where the author was going." We contrasted the catalysts for those questions with questions that teachers might ask to test students' knowledge or lead them to a particular teacher-sponsored interpretation (e.g. "What is the theme of this story?").

To expand on the idea of questioning as an articulation of curiosity, we designed another simple activity. We provided teachers with four richly figurative and often puzzling poems, including "We Journey Towards a Home," by Mahmoud Darwish (2003), and "Facing It," by Yusef Komunyakaa (1988). We then took advantage of the practice-based nature of the PD, in which teachers rehearsed classroom discussions, with one teacher acting as "teacher," and a small group of fellow teachers acting as "students."

As they wrestled with the complexities of particular images, the questions that "students" asked were often specific, as opposed to thematic, and generative of in-depth debate and discussion. For example, the "students" reading the poem "Facing It" asked, "What is up with the [description of the] arm in this line?" and "Is he [the poem's speaker] angry?" As Nystrand and Gamoran (1991) and Nystrand et al. (2003) found in their research, such questions, born of genuine curiosity, are more likely to lead to wide-ranging explorations of moods, themes, contexts, and personal responses. Notably, the questions posed by the "teachers" in this exercise were less likely to generate discussion than the questions posed by the "students."

We then led a meta-cognitive analysis of the questions asked during these discussions, showing teachers the degree to which their questions, born of curiosity or uncertainty, led to rich literary exploration. Our goal in this iteration was to help teachers remember what it meant to ask questions as a reader, and not just a teacher. Later, if teachers asked whether their questions were "authentic," we could remind them of the kinds of questions they asked in their role as "student," and ask them to return to that stance.

9. COMPARATIVE FINDINGS FROM ITERATIONS ONE AND TWO

This study compared the design of two iterations of our PD, and the principles that informed our design. We focused on how we redesigned our PD for the second iteration based on what we learned from the first iteration. In this section, we now briefly present our preliminary experimental findings about how the two iterations yielded different levels of teacher satisfaction and methods uptake. In the next section, we discuss how the PD design changes may have contributed to these changes.

9.1 Exit surveys

Most notably, Cohort Two (n = 189) indicated greater satisfaction than Cohort One (n = 205) across the three coding categories derived from teacher exit tickets (Table 6).

Table 6. Percentage of teacher comments from exit tickets in each category

Category	Cohort One Satisfied %	Dissatisfied %	Cohort Two Satisfied %	Dissatisfied %
Strategies	81	5	93	0
Classroom culture	10	16	51	0
Amount of time	11	29	33	16

A large majority of the Cohort Two exit tickets (93%) reported satisfaction with the PD's teaching strategies. This was an improvement over Cohort One's exit tickets, where 81% reported satisfaction and 5% reported dissatisfaction.

As was mostly true for the first cohort, exit tickets for the second cohort indicated some conceptual shifts, such as, "I didn't really understand what it meant to teach literary interpretation before this," and "I think I finally get what the definition of literary interpretation is." Another teacher said that up/down/both/why was a strategy that "students can hold onto and use while making their own meaning out of a text."

The biggest improvement was in cohort culture. For Cohort Two, 51% of the tickets expressed satisfaction in this category, and none expressed dissatisfaction. For Cohort One, more tickets expressed dissatisfaction (16%) compared to satisfaction (10%). These are examples of positive comments about cohort culture in the tickets from Cohort two:

"I am somebody who struggles with speaking up, but the classroom culture and equity of voice make me feel comfortable to learn and provide feedback to my peers. Thank you for the transparency and creating a space in which there is evidence of mutual respect."

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“Our group work was amazing. The group set the tone, and we allowed ourselves to be vulnerable. It felt super supportive.”

These comments sit in contrast to comments from Iteration One, when teachers felt “nervous to speak... afraid of other people’s reactions” and “pressured to force [my ideas] to fit with everyone else’s.”

Cohort Two was more satisfied with the amount of time we included for reflection and application. Specifically, the tickets for Cohort Two were two-to-one satisfied regarding reflection time (33% satisfied versus 16% dissatisfied), while the tickets from Cohort One were three-to-one dissatisfied in this regard (11% satisfied versus 29% dissatisfied). Teachers from Cohort Two specifically expressed appreciation for the frequent “turn and talks,” and “sacred time” at the end of each day of PD:

“The planning time and processing time during this week actually allowed me to start to integrate the new knowledge into my practice, so that I might really actually benefit from it when I go back to school.”

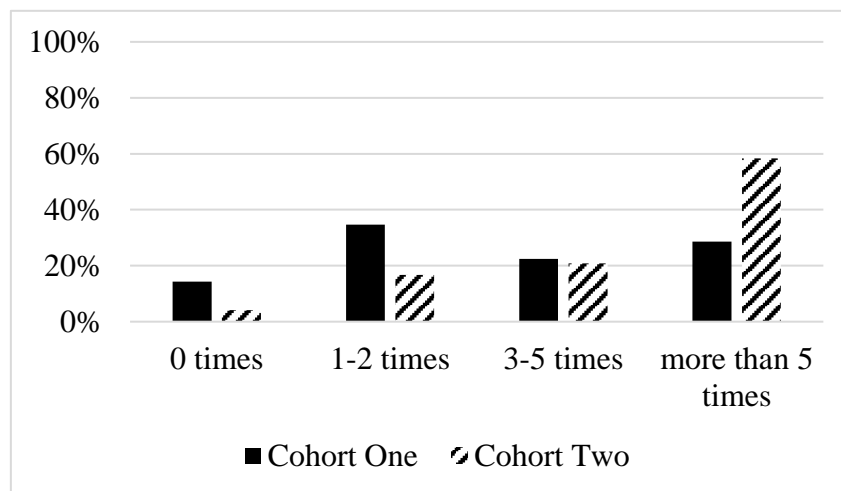
“Thank you for giving us time to work independently to think about how strategies will be incorporated into our own practice. I’m lucky to be here. I’m already planning for next year!”

Still, 11% of teachers’ total comments included requests for more time, which we ultimately felt we could not give. Further design will need to attend to this issue.

9.2 Teacher-reported uptake

In the mid-year survey, Cohort Two teachers self-reported higher rates of use of the interpretive strategies than did Cohort One teachers (Figure 5). For example, 59% of Cohort Two teachers reported using the PD methods more than five times, compared to 29% of Cohort One teachers. Likewise, every Cohort Two teacher but one reported using a PD method at least once, compared to 14% of Cohort One teachers who reported never using them.

Figure 5. Teachers' self-reported frequency of use of PD strategies



9.3 Student-reported uptake

Student reports corroborated Cohort Two's reports of greater uptake. While just over half (55%) of Cohort One classrooms included one or more students who referenced and described up/down/both/why or TRICEPS as a useful interpretive strategy, this student-report rate grew to 75% for Cohort Two.

Cohort Two's students' comments were similar in nature to those of Cohort One. For example, one student wrote: "Up/down/both/why ... helped me understand how I feel about things and why I do and also helped me gain input on why others think the way they do. Also, I was able to understand and connect with the literature I was reading."

10. DISCUSSION

10.1 Conclusions

We have offered our reflections on principles and designed activities (e.g. "authentic questions" and affective evaluation) as part of our description of Iterations One and Two of the PD under study. In this brief discussion section, we will focus on the particular roles of trust and time in this PD.

The prior section of this study presented quantitative and qualitative data indicating that the second iteration of our PD was more successful than the first iteration, with regard to teacher satisfaction and uptake of pedagogical approaches. We

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do not suppose that the improved outcomes (teacher satisfaction and methods uptake) result exclusively from the altered design factors (team trust and session time). But the data and design changes are robust enough to warrant discussion.

Looked at only from the level of activity, the changes from Iteration One to Two may appear relatively minor: We swapped out a debate for a drawing exercise. However, the difference in the quality of experiences of the two cohorts, and their subsequent PD uptake, suggests both the power of trust as a design principle, and the fragility of any educational venture that isn't supported by this principle.

Many education scholars have studied the importance of trust in learning environments (Anderson, 2008; Bryk & Schneider, 2002; Cranston, 2011; Freire, 2000; Louis, 2006). Thus, it is not surprising that a lack of trust may have limited the Cohort One teachers' intellectual or emotional capacity to learn. It seems likely that our opening "Shakespeare vs. Sherman Alexie" activity imposed particular identities on some teachers (e.g., more conservative or less "intellectual") that led them to feel unfairly labeled (Lin, 2008). In other words, teachers' fluid and nuanced ideas about the role of literature in students' lives were mediated through a false binary, which they then spent the rest of the PD defending against. Further, questions of race, class, and privilege were bound up in this discussion and the lingering tension.

The unfolding tension in Cohort One is an instructive example of "the often unconscious, multi-dimensional, and multi-level nature of teacher learning" (Korthagen, 2017, pp. 399–400). We also see that tension as an instructive example of a misalignment between design principle and activity. The debate activity was derived from the principle that teachers need to surface beliefs about the role of literature in their students' lives, since those beliefs will influence their teaching. However, the activity did not operationalize this principle. Ultimately, the teachers did not surface their own beliefs during the debate, but were forced toward reductive versions of their beliefs.

Regarding the need for more time, the design of the second iteration offered two significant changes: recurring five-minute reflection times, and 30-minute reflection times at the end of every day. We believe this design change contributed to the positive nature of teachers' experiences in the PD. Research shows that reflection and integration time is important for learning (Boud et al., 2013; Sweller, 1994; Tobin, 1987). Also, in our study, reflection time provided a peaceful time for teachers to unwind, and begin to situate the PD learning in the context of their own schools. One teacher wrote: "I am actually planning for the fall. Thank you for the work time!" Clearly, the addition of reflection time gave teachers a lot of satisfaction, perhaps in part because teachers' time is scarce.

Some research suggests that, among K-12 students, "turn and talks" tend to create only surface-level exchanges (Zwiers & Crawford, 2011). Nonetheless, our observations suggest that these brief time-outs for reflection were just as important as the longer time period built into the end of every day. We encourage future study of the potential learning impact of this very small move.

10.2 *Limitations and next steps*

The model of design-based research was developed to account for the “messiness” of teaching and learning in context, which by their nature are multi-layered and emergent. Even so, our descriptions of major principles and representative activities remain limited by the difficulty of reflecting the constellation of features that made up each PD. For example, although the setting, texts, general schedule, and discipline-specific professional development were very similar across iterations, and although both cohorts were mostly women and relatively young, the individual and group personalities and relationships were of course different. The demographics of Cohort Two differed in significant ways from that of Cohort One. Likewise, the PD facilitators began planning for Iteration One with a different set of concerns than they held for Iteration Two. Any and all of those features may have led to a different set of outcomes in either iteration. Also, as mentioned earlier, this study looks at only two iterations of a PD, and thus our findings are exploratory in nature, designed to contribute to a growing understanding of the characteristics of literature-focused PD, and an attempt to understand the learning and design principles that might help teachers support their students in literary reading and response.

More specifically, our study was somewhat constrained by the larger, cross-content nature of the PD program, which required some standardization in terms of survey data collection. For example, the mid-year teacher surveys were distributed to all teacher participants across content areas; with limited space, we were only able to add a few content-specific questions to that survey. Similarly, the end-of-year student surveys were designed to be very brief (10 minutes) so as not to take up too much class time or invite unreliable responses. Please note that for brevity, this study analyzed only two of the ten survey questions.

Further, while our choice to categorize teacher exit ticket responses as expressions of satisfaction or dissatisfaction was a useful starting point for revising our design, those categories may be less useful for explicating more nuanced analyses of teachers’ PD experiences. In future studies, we might wish to create more nuanced categories to reflect teachers’ varying responses.

Finally, this study is limited by the potential bias created by the authors’ participation in both the design and analysis of the PD. We have tried to mitigate such bias by analyzing our data along with two researchers who did not participate in the PD. In addition, we tried to adhere to the principles of design-based research, where the focus is not on proving a hypothesis or validating a pet intervention, but in a genuine exploration of local design and global principles.

For us, future work involves an exploration of the range of ways teachers enacted practices such as affective evaluation in their classrooms, and how students used those approaches, both in class discussion, writing, and other kinds of communication. We are also interested to see the degree to which teachers feel that PD approaches work with or against teachers’ responsibilities to prepare students for

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standardized tests in Language Arts. We hope that this work contributes to generalized design theory for teaching and learning of literary reading and response.

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APPENDIX: END-OF-YEAR STUDENT SURVEY

Dear Student,

Thank you for taking this 10-minute survey. Your teacher is part of a program at (University name) where they will study classroom teaching. Answering this survey will help make the program better for your teacher. Please answer as honestly as you can. All of your answers will remain anonymous, so no one will know who wrote them.

Thank you so much!

Q1: In English class this year, how often have you had class discussions that were meaningful to you?

- a) Hardly ever
- b) About once a month
- c) Two or three times a month
- d) Four or more times a month

Q2: Do you feel you are a good reader?

- a) Not at all
- b) Somewhat
- c) Pretty good
- d) Very good

Q3: How much do you like English class this year?

- a) Hardly at all
- b) Some
- c) Pretty well
- d) Very much

Q4: Based on what you learned in English class this year, how confident do you feel that you can make interpretations of literature?

- a) Not at all
- b) Somewhat
- c) Pretty confident
- d) Very confident

Q5: This year, how often have you enjoyed thinking and talking about what you read?

- a) Hardly ever
- b) About once a month
- c) Two or three times a month
- d) Four or more times a month

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Q6: This year, how often do the things you read or talk about in English class connect to your life outside of school?

- a) Hardly ever
- b) About once a month
- c) Two or three times a month
- d) Four or more times a month

Q7: Write about or explain a strategy you learned that really helped you understand how to read literature. If there isn't one, you can say so.

Q8: What was one of the things you enjoyed the most this year in English class? Explain why you enjoyed it.

Q9: This year, what was one of the things you did in class that helped you learn the most? Explain how it helped you learn.

Q10: This year, what was one of the things you disliked the most in English class? Explain why you disliked it.

Q11: In just a sentence or two, what do you think you might like to do after high school?