Mapping How Teachers Become Culturally Responsive

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Abstract

Research on how teachers become culturally responsive tends to focus on preservice teachers or on the professional development activities that are associated with change for inservice teachers. Little is known about how the various elements of culturally responsive teaching—including knowledge, skills, and fundamental orientations—interact with one another as teachers change. This case study followed 19 educators across four schools and over 2 years as they conducted action research to enhance their cultural responsiveness. We found four zones of development that characterized the teachers' change: consciousness-raising, consciousness- and relationship-building, knowledge- and practice-building, and practice-refining. Within each zone, two or three elements of culturally responsive teaching appeared to change most dramatically and to mutually reinforce one another as teachers developed. Professional development experiences should attend to these different zones and to the gradual nature of this process.

Keywords

equity, inservice education, multicultural teacher education, professional development, qualitative research

Despite decades of educational justice efforts, schools around the world continue to systemically disadvantage students from non-dominant cultural groups (Choi & Mao, 2021). Evidence-based approaches for mitigating this inequity already exist in the form of culturally responsive and relevant education (Cabrera et al., 2014; Dee & Penner, 2017). Unfortunately, these approaches are infrequently implemented in schools (Neri et al., 2019). Culturally responsive teaching is generally characterized as encompassing specific knowledge, skills, and fundamental orientations, which we detail in the next section (Villegas & Lucas, 2002). Although a sizable amount of research has investigated how teachers, especially preservice, develop foundations for culturally responsive teaching (e.g., critical consciousness and an asset-based versus deficit view of students), few studies have examined how inservice teachers develop skills in this approach. Research on professional development (PD) in this area tends to identify the learning activities associated with changes to teacher practice without examining how the latter relates to changing knowledge and dispositions (Parkhouse et al., 2019).

This study explores teachers' experiences during a PD on culturally responsive teaching to more deeply understand the *specific* changes to teachers' orientations, knowledge, and skills that occurred, and how changes in each of those three domains related to one another. We were particularly interested in inservice teachers because the literature has focused largely on preservice candidates, yet culturally responsive teaching requires ongoing learning (Sleeter & Owuor, 2011). We designed and implemented a 2-year, action research-focused PD program with 36 educators from four schools and two school districts. The purpose of this study was not to assess the impacts of the PD on participants, as many other studies have done, but rather to map interactions between changes in the three domains of culturally responsive teaching.

Over the course of the program, we met regularly with the participants individually and as a group, forming a deep understanding of their goals, pedagogies, challenges, and successes. We collected multiple forms of qualitative and quantitative data, but here we draw primarily on data from in-depth interviews with each educator at three time points, triangulating with group meeting conversations, our own participant observations, and artifacts such as action research plans and presentations. Using within-case and cross-case analysis of these data, we sought to answer the following research questions:

Research Question 1 (RQ1): When teachers become more culturally responsive, what specific changes take

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place across the domains of orientations, knowledge, and skills?

Research Question 2 (RQ2): How do these changes in the three domains interact with one another?

Research Question 3 (RQ3): What internal and external factors appear to influence the development of culturally responsive teaching?

Theoretical Grounding and Literature Review

Our theoretical framework brings together insights from scholarship on teacher learning in general (e.g., Desimone, 2009; Opfer & Pedder, 2011) with literature on culturally responsive teacher development specifically (e.g., Gay, 2015; McAllister & Irvine, 2000) to better understand how teachers adopt new culturally responsive practices. Although numerous scholars have conceptualized and studied how teachers develop sociopolitical consciousness, affirming views of students, and the like (Jupp et al., 2016; McManimon & Casey, 2018; Philip, 2011), we could find no models of how teachers enact new culturally responsive skills in concert with these orientations. This study serves as a first step toward developing such a model.

Culturally Responsive Teaching

Many pedagogical theories have been developed to address educational inequities and affirm the identities of students from historically marginalized groups, such as culturally relevant pedagogy (Ladson-Billings, 2021), culturally sustaining pedagogy (Paris & Alim, 2017), and culturally responsive teaching (Gay, 2002; Hammond, 2015; Villegas & Lucas, 2002), among others. Although our research and PD model drew on pedagogies and resources from scholars listed above and more, we chose to use the term *culturally responsive teaching* with participants because this was the framework that our two partner school districts were using.

Culturally responsive teaching has been described as consisting of multiple elements within the broader domains of dispositions, knowledge, and skills (Villegas & Lucas, 2002). Regarding the first, culturally responsive teachers display the following fundamental orientations: (a) sociocultural consciousness, (b) affirming (vs. deficit) perspectives of students from marginalized backgrounds, and (c) a belief teachers can be agents of change (Villegas & Lucas, 2002). Following Ladson-Billings, (2021), we use sociopolitical consciousness to encompass both the sociocultural consciousness Villegas and Lucas referred to, as well as the deep understanding of systems of power and social structures, along with their historical roots, necessary for challenging injustices. Culturally responsive teachers recognize that schools reflect and reproduce the dominant culture and, as a result, systemically devalue the cultural assets of students from historically marginalized communities. Affirming students' diverse ways of knowing requires challenging negative stereotypes and the cultural norms, ideologies, and institutions that sustain inequity. For this reason, culturally responsive teachers are not only sociopolitically conscious themselves, but also cultivate students' sociopolitical consciousness (Ladson-Billings, 2021).

Beyond these orientations, two types of *knowledge* are necessary for culturally responsive teaching. The first is deep knowledge of one's students and the funds of knowledge they bring from their homes and communities (Moll et al., 1992; Villegas & Lucas, 2002). Absent this, teachers are limited in their ability to leverage these funds of knowledge for academic learning. The second type of knowledge is disciplinary. Without a deep understanding of history, physics, or mathematics, for example, teachers may not easily identify connections they can make between their curriculum and students' interests or experiences (Marshall et al., 2012).

Regarding the third and final domain, *practices*, culturally responsive teachers: (a) build on students' interests, prior knowledge, and cultural and linguistic resources; (b) use relevant examples and learning activities for deeper learning; (c) consider cultural variations in interaction styles when responding to student behaviors and leading activities; (d) design assessments that allow for various modes of demonstrating learning; (e) create a sense of belonging in the classroom; and (f) affirm students' experiences, communities, and cultures (Delpit, 2006; Gay, 2002; Villegas & Lucas, 2002). There is general agreement on these constituent elements of each domain of culturally responsive teaching, but the field lacks depictions of how these elements interact as each develops. We now turn to the literature on teacher learning to shed light on this question.

Teacher Learning and PD

To understand how inservice teachers develop cultural responsiveness, two bodies of literature are informative: (a) studies examining PD activities associated with growth and (b) studies examining the process of development, which typically employ identity development models (McAllister & Irvine, 2000). Researchers examining PD for cultural responsiveness have found that certain structures such as group accountability (e.g., McManimon & Casey, 2018) and activities such as cultural immersion (e.g., Aujla-Bhullar, 2011; Colombo, 2007) were associated with desired changes to dispositions and practices. Literature on preservice teachers further supports that activities such as immersion and autobiographical reflection help participants recognize their own socialization and shift from blaming students and families for educational outcomes to a critical awareness of systems of power (e.g., Gere et al., 2009; Sleeter & Owuor, 2011; Villegas & Lucas, 2002). While these studies are helpful for identifying the types of learning activities that might promote dispositional change, they do not illuminate how this change occurs.

Recognizing this gap in the literature, McAllister and Irvine (2000) called for studies to take process-oriented approaches, such as Helms' (1990) model of racial identity development, to better understand teacher growth. Since then, an extensive body of research has further illuminated identity and consciousness development, particularly with White teachers (Jupp et al., 2016). Another approach has been to examine teachers' conceptual change as they transform their ways of thinking to be more consistent with their stated social justice commitments, through combining sociological with cognitive (teacher-as-learner) perspectives on teacher change (Philip, 2011). While all of these studies have focused primarily on changes to beliefs and attitudes, our study's aim was to map these alongside changes to culturally responsive practices. Prior research has established that critical consciousness alone may not be sufficient for implementing culturally responsive practices (Marshall et al., 2012; Philip & Zavala, 2016). Therefore, it is important to better understand how skills evolve in concert with belief change.

Some path models posit that changes to teachers' knowledge or attitudes are what lead to improvement in teacher practices (e.g., Desimone, 2009). Alternatively, the theory of learning embedded in action research—which is the structure of the PD forming the backdrop of this study-is that theory and practice are intricately intertwined and so knowledge comes from doing (Kemmis et al., 2013). We also attended to calls by McAllister and Irvine (2000), Gay (2015) and others for research on the context-dependent nature of cultural responsiveness. Some scholars have applied complexity theory to examine teacher learning as a complex system embedded within nested layers of other systems such as departments, schools, and districts (Opfer & Pedder, 2011). Investigation of each of these systems and their interdependencies is beyond the scope of this study, though we are currently exploring them in a separate article. Important for this study is recognizing that, while teacher learning is interdependent with these nested systems, there are identifiable patterns in teacher learning that can be observed across contexts (Opfer & Pedder, 2011). With these various models of teacher learning in mind, we set out to map the relationships among knowledge, practice, and orientation for culturally responsive teaching specifically.

Method

We used a longitudinal, collective case study design (Stake, 2013) in which each teacher represented a case instrumental to understanding the issue of interest: becoming culturally responsive. Treating each teacher as a case allowed us to maintain focus on the uniqueness and complexities of each case while also looking for correspondence across cases (Bartlett & Vavrus, 2016). Because the issue of interest is complex and context-dependent, a case study design was ideal for capturing the richness of each case and its inseparability from relevant contexts (e.g., school, PD, community,

and cohort). In addition, we were interested in the *process* through which teachers become culturally responsive, and "case study is a particularly suitable design if you are interested in process" (Merriam, 1998, p. 33).

School and District Contexts

The study occurred from 2019 to 2021 and was part of a research-practice partnership (Coburn et al., 2013) in a southern state in the United States. We partnered with two middle and two high schools across two suburban school districts undergoing rapid demographic shifts. Both districts were initiating new programming and structures to promote diversity awareness and educational equity. In terms of school demographics, one was almost entirely Black and Latine, and the other three had small-to-moderate White majorities with the remaining students representing several ethnic racial categories. The percentage of students designated economically disadvantaged ranged from 34 to 66 and English learners eight to 33 across the four schools. Under an agreement with our district partners to protect anonymity, we are unable to provide more specific details about the schools or districts.

Participants

All educators (including librarians, counselors, deans of students, etc.) from the four schools were invited to participate in a 2-year action research PD program to develop their culturally responsive teaching knowledge and skills. We accepted all applicants with complete applications for a total of 36 educators over time with attrition and replacements. This study focuses on 19 with the most complete interview and artifact data. Of these, one identified as Latina, one as biracial (Filipina/White), and the rest as White. To protect the anonymity of the teachers, we use pseudonyms and avoid details like the school and subject area where possible.

PD Context

The 2-year PD program began with a 3-day summer institute in 2019 that introduced the frameworks of culturally responsive teaching and teacher action research. Participants then carried out four cycles of action research each year based on their self-selected aims and research questions. Cycles consisted of planning, implementing an action (e.g., pedagogical or relationship-building strategy), analyzing the effects of the action, and reflecting (Kemmis et al., 2013). Two example project titles are *Discussing Culturally Relevant Mathematical Role Models in Order to Increase Students' Connectedness with the Field of Mathematics* and *Fostering a Sense of Belonging and Creating Critically Conscious Students in the Honors English Classroom*.

The four school-based cohorts met (in part virtually due to COVID-19) at least 4 times each year, as well as 5 times in the second summer, to discuss their action research findings and receive feedback from their peers and the university-based researchers. The latter also met individually with the teacher researchers to provide guidance, most often related to their research design. Participants also viewed videos and read texts on funds of knowledge, culturally relevant pedagogy, ethnic racial identity, and other topics between meetings. During cross-school meetings, participants worked in discipline-specific groups to share ideas and experiences for their specific curriculum.

Data Sources

The primary sources of data for this study are a series of three in-depth interviews with each of the 19 focal teachers, conducted in late fall 2019, summer 2020, and summer 2021. Authors one, two, three, and five conducted most of the interviews. The questions focused on participants' experiences with the PD, conceptualizations of culturally responsive teaching, changes in beliefs and/or practices, and recommendations based on their experiences. The interviews lasted between 41 and 127 min and were audio-recorded and transcribed. Additional data used for triangulation included the educators' action research plans and presentations, cycle meeting audio, and field notes. Due to COVID-19, plans to collect pre/postsurvey data, student focus group data, and video recordings of classroom instruction were disrupted.

Data Analysis and Measures to Address Credibility

For data analysis, we used a group iterative phronetic approach, which contrasts with grounded theory approaches in its more active use of past literatures to focus the data analysis process (Tracy, 2018). Specifically, our process used insights from research on cultural responsiveness development in preservice teachers (e.g., Delpit, 2006; Gay, 2002; Villegas & Lucas, 2002), as well as the small amount of literature on inservice teachers (e.g., Aujla-Bhullar, 2011; Colombo, 2007; Marshall et al., 2012; Philip, 2011) as "sensitizing concepts" (Tracy, 2018, p. 62) to help develop codes. To remain open to the possibility of divergences from prior scholarship, we "held loosely" to those prior insights and privileged emic readings of the data (Tracy, 2018).

For example, we began codebook creation by reading interview transcripts with sensitizing concepts such as funds of knowledge (Moll et al., 1992), affirmation of students (Hammond, 2015; Villegas & Lucas, 2002), and sociopolitical awareness (Ladson-Billings, 2021; Villegas & Lucas, 2002). We also identified inductive codes including *desire to improve* and *effecting school-level change* (see codebook excerpt in Supplemental Appendix). The research team met regularly to refine the codebook as each researcher analyzed different interview transcripts with an eye toward adding, clarifying, combining, elaborating on or cutting codes (Saldaña, 2014). At each meeting, we also discussed case/ participant memos and cross-case memos to track tensions, emerging themes, and questions. Once the codebook was finalized, a set of eight transcripts was double coded in ATLAS.ti with each pair of coders meeting regularly to discuss discrepant codings and achieve consensus. The remaining transcripts were then individually coded.

We initially examined each case memo for evidence of a trajectory of change (Molle, 2021); however, we noticed more contrast across cases than between the early and later interviews for each teacher, even though each teacher did evidence change. Teacher change tended to occur primarily within two or three elements, rather than as an accumulation of new elements, leading us to find zones to be a more apt metaphor than trajectories (detailed further in the next section). We labeled these zones: consciousness-raising, consciousness- and relationship-building, knowledge- and practice-building, and practice-refining. Once we identified these zones, pairs of team members compared which zone they perceived as best characterizing each of the 19 cases. We talked through divergences and ultimately agreed on the zone categorizations of cases presented here. We then revisited coding patterns and used member checking to confirm categorizations. For example, we used the *code-document* analysis tool in ATLAS.ti to confirm that transcripts of teachers in the *practice-refining* zone had codes of *student* sociopolitical consciousness and effecting school-level change applied more often than did teachers in other zones. We also asked participants where they would place themselves in the model at the beginning and end of the PD, and they generally identified the same focal elements that we thought best characterized their change. Finally, to identify patterns in how internal and external factors influenced teacher change, we recursively analyzed data segments to which the following parents codes had been applied: participants' identities & experiences and contexts (e.g., col*leagues* and *district-level*).

Researchers' Positionalities

The study was co-led by three multidisciplinary faculty one biracial (Black and Latina) woman and a White woman and man—and several graduate students of diverse ethnoracial and cultural backgrounds including Black, biracial (Black and Latina), Asian, and White. Guided by Milner's (2007) framework of researcher racial and cultural positionality, our research team collectively decided that interviews with participants of color would be conducted by team members of color to build a space for vulnerability and sharing of lived experiences. Data collection and analysis occurred between 2019 and 2022, a time that has become known as a racial awakening and racial reckoning in the United States following the murders of Ahmaud Arbery, Breonna Taylor, and George Floyd. This time was further marked by local and national protests to support Black lives, the insurrection at the U.S. capitol, bans on critical race theory in educational settings, and the recognition of the disproportionate impact of COVID-19 on communities of color. The research team took time during weekly meetings to reflect on these events and the burden that they posed to the people of color on both the research team and among the participants. These sociohistorical conversations were complemented by other ongoing discussions of the personal and professional impacts of being socialized in a White-dominant culture. This consistent reflection on racial positionality by each of the research team members has undoubtedly shaped our understanding of our participants' development of cultural responsiveness, given that these educators were asked to reflect on issues of race during while the national conversation on race took center-stage.

To minimize the potential for cognitive and identity-based biases to affect interpretation, we used a group analysis process to hold multiple viewpoints "in dynamic tension" (Wasser & Bresler, 1996, p. 6). We recognize that, as designers of the PD, some of us likely had a bias toward viewing its effects positively. However, authors three and four were not involved in the PD design and interpreted the data consistently with the co-designers. We also took measures throughout the design and implementation of the project to ensure the diversity represented in the research team (with regard not only to race and gender but also age, religion, teaching background, and political orientation) advanced our thinking, through for example encouraging dissent and pushback. Disagreement advanced our collective sensemaking and mitigated potential groupthink. This does not mean that we have definitively and conclusively answered the question of how teachers become culturally responsive. However, we believe that, through these measures, we have arrived at a model for this process that will resonate widely and prove useful to others.

Findings

We began the study expecting to map teachers' learning trajectories, but we found it difficult to conceptualize their change as a line, even a winding one. Although all participants described themselves as having grown through this process, there were no clear starting and ending points or easily identifiable inflection points along the way. Teachers were simultaneously changing practices, knowledge, and beliefs about themselves and their students, and these changes clearly interacted with one another. Rather than a trajectory, the pattern that emerged was a web of connections across the elements, where certain elements seemed to reciprocally reinforce others.

We found the relationships among the three domains (orientations, knowledge, and skills) were consistent across participants (see Figure 1). The three elements in the center circle (orientations) were necessary for the knowledge and practices of culturally responsive teaching to develop. As described below, however, we also found that these fundamental orientations do not have to be maximally developed before other elements of culturally responsive teaching can begin to emerge. The middle circle (knowledge) represents the deep knowledge of one's students and broad knowledge of one's content areas needed to identify links between the curriculum and students' funds of knowledge. With this knowledge, teachers could then layer on powerful culturally responsive practices. For this reason, practices are depicted as the outermost circle.

Beneath the concentric circles are sets of factors that appeared to be internal and external drivers of teacher change across all participants. All participants in this study shared an ability to critically self-reflect and change, a desire to use more equitable practices, and some degree of self-efficacy in believing they could effectively use culturally responsive practices. Self-efficacy was both preexisting and grew over time. As detailed in the sections below, these internal characteristics remained evident throughout the PD and appeared to be important motivators. Our model depicts these as internal drivers of change and aligns with literature suggesting these conditions may be necessary for the development of culturally responsive practices (Colombo, 2007; Neri et al., 2019). In terms of external (program) drivers of change, participants most often cited critical colleagueship, protected time for reflection, assigned readings and videos (as well as readings they were inspired to undertake on their own), and feedback from their students.

The model is positioned within several nested contexts: school (e.g., policies, procedures, and structures such as tracking), district and community (e.g., school board politics, parent perspectives, competing district initiatives), and state and national (e.g., high-stakes testing, systemic inequalities, and political polarization). The participants' reflections about their learning journeys often referenced one or more of these contexts as either supporting or hindering their responsiveness. The dotted line boundaries are meant to indicate that each construct is intertwined with the others. For example, school contexts are often heavily influenced by district and community contexts, which are also influenced by the broader sociopolitical context. Similarly, the three domains of culturally responsive teaching are interconnected, as we detail in the following sections.

Zones of Development

In the following sections, we describe how each of the four zones reflected interactions within sets of three or four particular elements. These zones serve as heuristics for a general understanding of cultural responsiveness development. They are not meant to capture every teacher or every context. Each zone is broad enough, however, that they generally characterized teachers' learning processes in our study over time and across varying contexts.

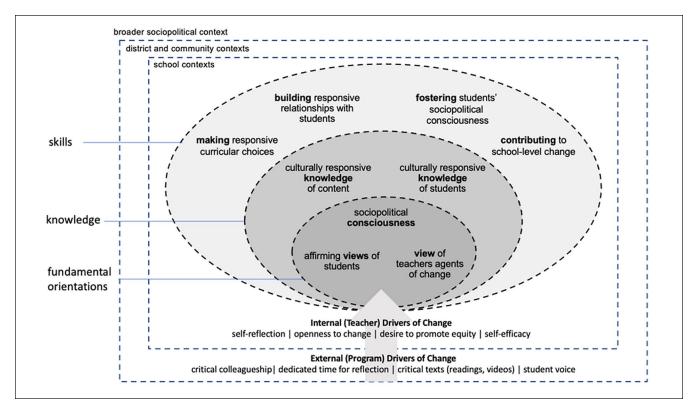


Figure 1. Mapping How Teachers Become Culturally Responsive.

Consciousness-Raising Zone. The greatest change observed with teachers in the *consciousness-raising zone* was a shift from deficit to affirming views of marginalized communities, which grew in a reciprocally reinforcing manner with developing knowledge of students (see Figure 2). Less dramatic, but still observable, were building relationships with students and some deepening of sociopolitical consciousness (also mutually reinforcing). The latter allowed participants to rethink beliefs about privilege, students' intersecting identities, and the degree to which school structures maintain social stratification. The dark oval in each zone figure indicates those elements in which change was most pronounced for these teachers. These were not the only elements that developed, but rather the elements that appeared to change the most.

Bobbie, a White teacher who had grown up in a politically conservative family and community, explained how she began to understand systemic racism through readings and conversations with cohort members, as well as pursuing knowledge on her own. In addition to materials provided through the program, Bobbie "watched a lot of things on TV: The Hate U Give, Thirteen, Where Are They Now, Just Mercy" and read Bettina Love's (2019) book, *We Want to Do More Than Survive: Abolitionist Teaching and the Pursuit of Educational Freedom*, which Bobbie misremembered as "We Want to Do More Than Survive: We're Not Quite Equal Yet" (T2). This mis-titling is far from Love's (2019) more radical argument that "dark people have never truly mattered in this country except as property and labor" (p. 9). In Bobbie's final interview, she similarly expressed a qualified acknowledgment of systemic racism:

I started reading The New Jim Crow, which was a slow-reading book, because it really made you think, but I think that was the one book that kind of made me realize that there is some systemic racism out there. Before that, I wasn't so sure. I probably would have agreed with a lot of my friends I had grown up with, I guess, whatever, that pull yourself up by your bootstraps . . . and if you're living in poverty that's because you're not working for it . . . we had one meeting while we were still in school last year, and we were talking about systemic racism in education. I said, "I don't understand. So you have a White student and a Black student, they go to the same elementary school, they go to the same middle school, they go to the same high school. How can you tell me their experiences are different?.".. After reading these books, I started to understand, okay, they have different experiences at home, and that different experiences at home impacts their experiences they have elsewhere. I had never really considered the impact of traditions, I guess $(T3^1)$.

Here, Bobbie expresses a burgeoning awareness that equalquality schools do not yield equal experiences but maintains a deficit-based explanation for this outcome as due to "differences" in "homes" and "traditions" versus larger social structures such as institutionalized oppression. Thus, the

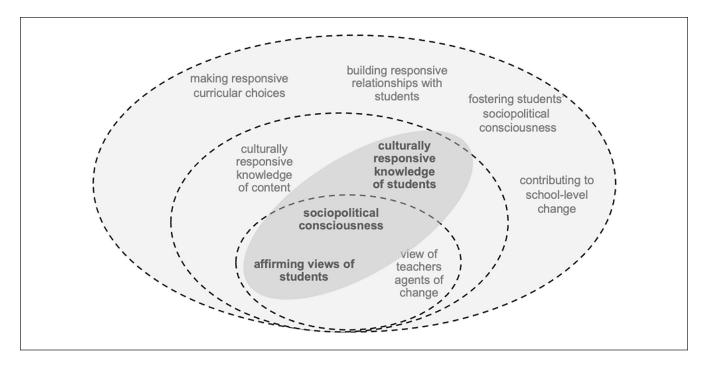


Figure 2. Consciousness-Raising Zone.

fundamental orientations for cultural responsiveness are only starting to develop in this zone, but for teachers with backgrounds like Bobbie's, this is nevertheless a significant shift from prior ways of thinking "anybody can get the American dream" (T2).

Terry, another White teacher with over 20 years in the profession, demonstrated a shift in recognition of racial injustices in society as well as within schools. At the beginning of the PD, he expressed some doubt about the degree to which Black students' reports of racism at the school were truly stemming from racial discrimination:

Terry: From my experience, the African-American population does feel that they are being discriminated in some way. But again, I'm not 100% sure where that's coming from.

Interviewer: You haven't seen evidence that they are?

Terry: Not in my room. Not in my experience in the hallways. Not in my experience in the clubs. Have I seen some of these students behave in other ways than you would like? Yes, I've seen that. So, I'm not 100% sure . . . Like I said, I'm not . . . They're perceiving it, so that's important. Okay? But I'm not 100% sure how big the problem is. Does that make sense? (T1)

By the end of the PD, Terry expressed awareness that racism still exists, not just "out in our world" but "right in the school":

In the beginning of the project, I was under the impression that people were equal, all cultures were equal in our country, everything was going fine . . . So I think I've grown in this program . . . To say that everybody's equal in my classroom is a goal, it's not necessarily the reality. I think that might be one of the more uncomfortable things that I've learned through the program . . . I thought racism was something of the past when I started the program, something that we need to learn about so we don't go back that way. Racism is still part of our country, it's still here. (T3)

Terry's racial consciousness developed from conversations with students and cohort members of color. For example, he cited as an impactful moment when a Black colleague told him that doctors treat her differently when her White husband is also present.

Knowledge of students and culturally responsive relationships were starting to develop in a mutually reinforcing way with growing sociopolitical awareness. For instance, readings changed the way Bobbie thought about students while attempting to consider how lived experiences might shape a reaction or other behavior:

I think [understanding oppression and privilege] is going to make me a much better teacher . . . Kids will be roaming the halls. And you'll ask them where they're going, and they're like, "Why are you stopping me?" Now I kind of [think], "Okay, if they're used to being stopped or they're used to being around their parents who are being stopped all the time by police, maybe that's their reference." (T2)

Here, Bobbie is still thinking about the individual and their potential past experiences with individual discrimination rather than a *system* of racism positioning Bobbie in a different power status than the students, beyond the teacher–student differential.

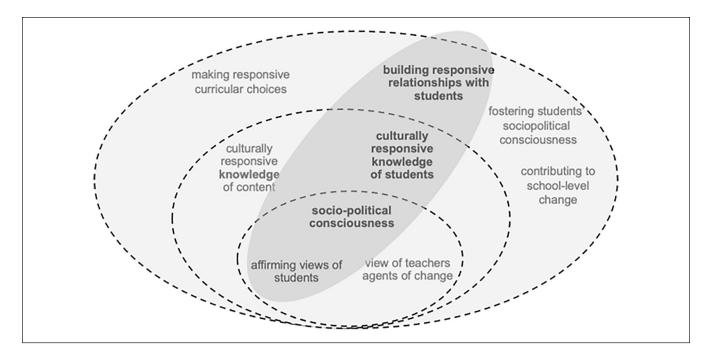


Figure 3. Consciousness- and Relationship-Building Zone.

At the same time, her growing understanding of culturally responsive teaching led to a newfound awareness of her own prior deficit-oriented interpretations of students' behaviors.

Teachers in the consciousness-raising zone demonstrated a tendency to reassess their prior reactions to student behaviors, though their sociopolitical awareness and affirming perspectives of students were still developing. Although these teachers' action research projects focused on building relationships, they did not report relationships as close with their students as other teachers did. Bobbie shared, "I didn't see as much of the impact on the students as I had hoped" (T3) and "I at least got their feedback, and we went from there" (T2). Terry said, "I think we planted some really good seeds" (T3). Although teachers in this zone had extensive discipline-specific knowledge, they were not yet demonstrating an ability to link their curriculum to students' communities and homebased funds of knowledge.

Beyond relationship-building, teachers in this zone attempted a few new practices (e.g., suggesting a class handshake; teaching about how stereotype threat influences mathematics performance), but reported some pushback from students alongside positive student responses. The main benefits of the PD for teachers in this zone were a burgeoning realization of systemic oppression and privilege, a framework to begin to understand students' lived experiences, and a vocabulary to describe all of these.

Consciousness- and Relationship-Building Zone. Teachers within the consciousness- and relationship-building zone began the PD with a higher level of awareness of social injustices; however, they were still developing more nuanced and complex understandings of sociopolitical realities and their own positionality in relation to these (see Figure 3). The bolded text in the shaded region indicates the elements developing most dramatically, while the unbolded text within the shaded area indicates elements that were already present for these teachers.

These teachers were—often for the first time—reconsidering their perspectives on language use, school tracking, discipline policies and behavioral expectations, as well as other issues within and outside of education. Danielle (a White teacher in a predominantly White school) explained the project prompted her to reevaluate former experiences and concepts many believe to be race-neutral, such as grit:

I used to work at a big charter school network in New York City, and a lot of focus on discipline and having grit and persevering through struggle . . . But realizing now, that was probably detrimental to them, to the kids, because they're basically being told, oh, you're not good enough, so get better, assimilate to all of your White teachers. So I definitely have changed my mindset about that. (T3)

When reflecting on the PD, teachers in this zone often said it changed them both professionally and personally, for example, "The biggest thing about culturally responsive teaching is it's not just as a way of teaching, it's a way of life. It's who I am now, and I look at things way differently than I did before I started" (Kathy, T3). Kathy and Wynn each reported they could no longer stay quiet when they heard a racist or sexist comment:

When I hear stuff on media, or I see things on social media now, I react to it way differently than what I did before . . . truthfully, I come from a very, very White background, and my family members have not moved in this direction. And we have had discussions, and I am one to now stand up and say, "Nope." (Kathy, T3)

I gained a lot of confidence and standing up for what I believe where, like I said, you choose to be like, "Look, don't burn those bridges. It's family, it's friends, it's So-and-so." And now I look at it like, "If that's how you feel, I don't really care what you are to me. I'm going to say something, and hope that you'll hear me on it." (Wynn, T3)

This growing consciousness reinforced their desire to build relationships with students, which tended to be the focus of their action research projects, similar to the consciousness-raising teachers. Carrie (a White teacher of predominantly Black and Latine students) explained,

I guess it was hard for me to branch out too far from those elements of building the classroom or a nurturing environment. I felt like those were the most important things that I could do and they were the most within my grasp as far as who I am. (T3)

When teachers in this zone attempted culturally responsive activities and projects, they were often disappointed with the results. After having students make playlists of contemporary songs from their own collections to accompany *Beowulf*, Carrie said, "I wanted it to impact [the students] more. I was hoping that they would enjoy it more" (T2). She later called this attempt "surface-level" (T3). She explained that, in year two, she tried to be more "vulnerable" and asked a lot of open-ended questions

about what [students] thought of things, trying to get conversations started, how do they feel about the Black Lives Matter movement, how do they feel about immigration, the border, different issues that are going on, trying to just give them an outlet to talk about those things. Many of them had personal stories related to those things. (T3)

Carrie shared how one former student showed up during online study hall to

just chat about things and talk about what his plans for the summer were and what do you want to do after high school. And I feel like that wouldn't have happened necessarily if I hadn't been in this program (T3).

Emily similarly reported an effect on two students who "started showing up more and more as we were working through this book, *I'm Not Your Perfect Mexican Daughter*. So I think it was really helpful for some students to really see themselves reflected in what we were reading" (T3). Teachers observed their students become more engaged as a result of their efforts to build relationships.

The main impacts of the PD for teachers in this zone were forging closer relationships with students while, in a mutually reinforcing way, deepening their sociopolitical awareness. They were similar to the consciousness-raising teachers but with a deeper understanding of systemic oppression and a concomitant ability to listen openly to students' perspectives and foster trusting relationships in the process.

Knowledge- and Practice-Building Zone. Teachers in the knowledge- and practice-building zone began with a relatively high level of sociopolitical consciousness, affirming views of students, and knowledge of their students (see Figure 4). They entered the PD already working toward bridging students' learning with the world and teaching in ways that legitimize and reflect the experiences of students.

Reese, a White teacher in a racially diverse school, began the program with self-awareness of how her whiteness affects interactions with students, saying, "I don't want to be another imperious White woman [addressing expectations about headphone use or other student behaviors] . . . I want to be uplifting, not suppressing or deflating" (T1). Reese nevertheless used the term "personal metamorphosis" to describe her expanding knowledge of students:

It's just been honestly kind of like a personal metamorphosis of sorts for me to help me understand the nuances of different people's lived experiences in a more authentic way than just reading about it online. Because these are kids that I teach . . . Listening to things that have happened to them, some of them are great and some of them are awful. It just helped me understand and kind of bring my perspective around to better understanding their reality.

Reese began the program determined to diversify the English literature curriculum and use it to honor literary contributions of people of color:

I'll be the first person to say my literature knowledge is very White, very male, very old and that's an inadequacy that I'm slowly working on addressing. But I think that it's important for students to see themselves reflected and others that are celebrated. Because for a long time I didn't think that was important just because that wasn't my experience. But then I started to see students really feel validated by that, and I was like, "Oh, that really does matter. I need to do that because that's important for them, and if I really love my kids, I'll do that for them." (T1)

Here, Reese recognizes the Eurocentric nature of the curriculum and takes responsibility for rectifying the limitations of her own literary knowledge. Both Reese and Parker (described next) underwent a shift from merely creating spaces for students to bring their cultures into the classroom to actively conducting research to bring in those connections *themselves*.

Parker, a White mathematics teacher in a racially diverse school, identified his action research goal thusly: "I wanted my students to see that people like them are important to the field of mathematics" (T2). Parker opened lessons having students figure out the mathematician being described, with

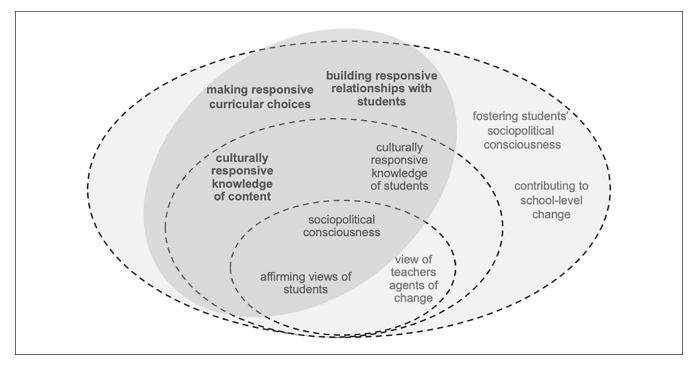


Figure 4. Knowledge- and Practice-Building Zone.

the answer being someone who was not an "old White" and male mathematician:

John Urschel, who's an NFL football player, plays for the Baltimore Ravens, and he actually retired from football at the age of 26 to become a mathematician. You know, some of my football players were like, "Wow, football players don't do math!" (T2)

While this required "a lot of work," equivalent to planning a whole lesson "just for a 15-minute warm-up" (T3), Parker was energized by witnessing the effects on students:

I had one student in particular, a freshman African American male, who called me out in the month of February because I hadn't been discussing African Americans during Black History Month. And he's like, "I thought you were doing all this cultural stuff and you haven't really." And so, from that day forward I started doing it every single class period and the smile that came across this kid's face was great, after, like, the third or fourth day. He then started to come in one of the first to my class. He was the first getting on his Chromebook, looking up "Who am I?" and trying to figure it out. It was really, really cool to see. But I needed him to call me out on it before I really got the kick in the butt to realize, "Oh, this is actually having an effect on kids." (T3).

Teachers in this zone were able to move beyond relationship-building to other culturally responsive practices by connecting the curriculum to students' background knowledge and interests. As a result, these teachers were also deepening knowledge of their content, for example, through researching mathematicians of color or, in another case, African American history to ensure U.S. history lessons went beyond "talking about dead, old White men" (Jackie, T1). Jackie explained the research she did to make her curriculum more responsive:

I took an African American course in college, and I pulled some stuff out of my textbooks, because I still have all my historical textbooks from college. The internet, I searched, as well. Different readings. Trying to find some information [was hard]. It's hidden because . . . I feel like people don't want us to talk about it. (T1)

Teachers in this zone were also more critical of the inequities in the U.S. education system and articulated how schools do not exist as sanctuaries from societal injustices. Speaking about the materials they read both within and outside of the program regarding "the structural racism in education," Parker said, "the underlying message is 'We need to change the entire system'" (T3).

These teachers were more likely than the teachers in the prior two zones to discuss sociopolitical issues with their classes, though generally during isolated conversations as opposed to designing instructional units around sociopolitical issues (a characteristic of the practice-refining zone). Parker used the analogy of saying "all cancer matters" in response to a breast cancer awareness T-shirt to facilitate a discussion in which students considered whether saying "all lives matter" is an appropriate response to "Black Lives

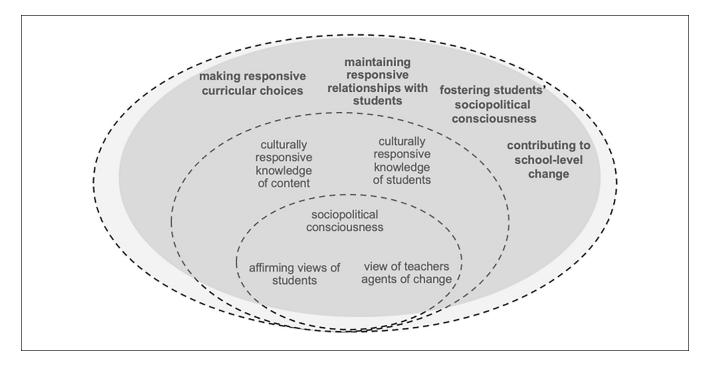


Figure 5. Practice-Refining Zone.

Matter. When Jackie's students asked why some of Dr. Seuss's books were being discontinued, she led a discussion about how some of the images reinforced harmful stereotypes.

For teachers in the knowledge- and practice-building zone, one of the most significant external drivers of change was the structured opportunity afforded by the PD to experiment and collect data from their students beyond decontextualized quantitative achievement data. Data included students' interests and opinions about the new curricular content and activities, which yielded the particular types of knowledge participants needed to make their curriculum more responsive. These participants also cited the critical texts and conversations with colleagues as advancing their thinking and generating ideas for future practices.

Practice-Refining Zone. Like teachers in the *knowledge- and practice-building zone*, teachers in the *practice-refining* zone began with sociopolitical consciousness, affirming views of students, and recognition of teachers as agents of change (see Figure 5). However, because of their preexisting knowledge of their students and content *in relation to social structures*, they had a greater awareness of the many ways in which power impacted their students' schooling experiences. While teachers in the *knowledge- and practice-building zone* learned how their Black and Latine students were systemically disadvantaged by school funding formulas, legacies of redlining, Eurocentric curriculum, a predominantly White teaching force, language discrimination, and so on, teachers in the practice-refining zone were already aware of this.

Andy, a White teacher of Latine students, said of the education system, "It's perfectly designed to keep [my students] where they are" (T1). These teachers were already acting as agents of change to address these inequities. In an interview just before starting the program, Sophia explained she joined their school's Positive Behavioral Interventions and Supports (PBIS) team precisely because she believed this behavior management method disadvantaged students of color. Sophia hoped that, by joining the team, she could "get in and work out some things" to help the school adopt a more racially just approach.

Teachers in the practice-refining zone were already integrating students' funds of knowledge in the curriculum and fostering sociopolitical consciousness. For example, Andy's students discussed connections between the Great Wall of China and the United States–Mexico border wall, as well as between contemporary racism and the Aryan creation of the caste system in India. The ability to promote students' sociopolitical consciousness required deep and integrated knowledge of students, self, content, and sociopolitical realities.

Jordan's action research plan in the second year emerged from her awareness of students' needs to "process everything that happened with George Floyd and around the nation with protests." As a result, Jordan, a White teacher in a racially diverse school, had students read *Dear Martin* and critically reflect on their positionality within systems of oppression. Jordan's students

literally put on various sunglasses as we tried to see the world through different perspectives of characters in the novel and then kind of shifting it towards — which lenses do we identify with and how might this inform or relate to our current situation and setting? (T3)

Sometimes the action research process led to another lesscommon culturally responsive practice: effecting schoollevel change (see also Parkhouse et al., 2021). Students of color in Sophia's class voiced to an administrator their concerns over equity posters that had been mounted in the school that they felt "put a spotlight on" them (T3). The administrator listened and removed several according to students' recommendations. Students in Andy's service-learning class felt that school lunches were not sensitive to the cultural heritage of a large proportion of the student population. His students conducted a survey of their peers' lunch preferences and calculated the revenue if more students were to purchase school lunches. They then presented their findings to the county food services and convinced the agency to begin offering more inclusive lunch options. Andy's students also organized and hosted events for Spanish-speaking families who did not readily have access to information about the college application process.

Although these teachers entered the program already demonstrating culturally responsive knowledge and skills, they joined because they saw themselves as lifelong learners of culturally responsive practices. They also recognized new insights could be gained from collaborating with colleagues, experimenting in the classroom, and embracing the rare opportunity to systematically analyze the data *they* collected to evaluate their practice. Jordan said that participation in the PD also encouraged her to take her practice to the next level:

I was bolder, kind of encouraging [students] to draw the connections. Rather than just planting seeds, there was watering and there was nurturing and there was equipping with vocabulary and there was giving them spaces to write and type and share and present (T3).

These teachers demonstrated how even teachers with relatively high cultural responsiveness nevertheless benefit from dedicated time for reflection, critical colleagueship, and gathering in-depth data from students (external drivers of change).

Contextual Interactions With the Four Zones

Due to space constraints and measures necessary to ensure partner districts' anonymity, we are unable to provide an indepth analysis of the varying influences of the school and district contexts on the teachers' development. However, we can report that we saw a range of zones represented within each school, and no zone had fewer than two schools represented, suggesting the zones could appropriately characterize how teachers develop in varying school and community contexts. In terms of how teachers' subject-area and grade level influenced development, we also found no patterns. Although teachers discussed how adjustments to the curriculum were easier in some subjects such as English, many of the math teachers nevertheless demonstrated the ability to make the curriculum culturally relevant and promote sociopolitical awareness. We also saw a range of zones represented within teachers who shared a content area.

The mid-point of the study coincided with the murder of George Floyd and the global demonstrations for racial justice that followed. Our data suggest these events accelerated sociopolitical consciousness development for many of the participants. Had this study occurred during a different time, we may have seen less change; however, our analysis suggests the zones (or interconnections between elements) would likely have held, particularly because these remained consistent between the first and second years of the study.

Discussion and Implications

We began this study by asking how teachers attempting to become more culturally responsive undergo changes in their orientations, knowledge, and practices, and how these dimensions of culturally responsive teaching relate to one another. As Villegas and Lucas (2002) argued, these three domains consist of "a series of strands that constantly intersect and that depend on one another to form a cohesive whole" (p. 26). We noticed that teacher change tended to be primarily within one set of connections across two or three elements, and we refer to this web of connections as a zone. Although teachers were often developing additional elements in less dramatic ways, just two or three elements consistently came to the fore in terms of the teacher's primary areas of change.

We found that culturally responsive practices and orientations develop in tandem, though some degree of the latter is a necessary foundation for the former (see also Philip, 2011; Sacramento, 2019; Villegas & Lucas, 2002). Teachers were not able to integrate students' funds of knowledge into the curriculum or empower students to effect change without sociopolitical consciousness and an affirming view of students. As participants in the consciousness-raising zone began to see racism and other forms of oppression as systemic, rather than merely interpersonal, they began to listen to and believe students-and to understand the roots of their own difficulty in building relationships with them. Reciprocally, the practice of listening to students and building relationships further deepened teachers' sociopolitical consciousness. Therefore, the relationship between orientation and practice change appears not to be that the former leads to the latter but rather that the two are mutually reinforcing, together with changes in knowledge of students and content. In addition to establishing the mutually reinforcing nature of the three domains, this study also offers insights into how the specific elements within each domain interact.

We found that sociopolitically conscious teachers employed more culturally responsive practices as they gained more knowledge of their students and content. This claim is supported by Marshall and colleagues' (2012) finding that critically conscious teachers may fail to make the curriculum culturally relevant if they are underprepared in the content knowledge necessary to connect the state-mandated curriculum to students' lives. Thus, one important implication from this study is that PD should attend not only to consciousness or dispositions but also to knowledge of students and culturally rich knowledge of content. Given that it may be unrealistic to pursue all of these at once, PD should be scaffolded so that the latter elements can be gradually layered onto those necessary foundational elements. Culturally responsive content knowledge can be hard to find, as one history teacher in this study pointed out; therefore, layering on this element may require teacher research outside of traditional curricular materials.

Another important take-away from this study is that the layering on of elements takes years, even in the contexts of an intensive PD program with ample support from colleagues. Teaching practices and beliefs in general are slow to change, due to the habitual nature of teaching (Kennedy, 2019) and the persistent nature of beliefs (Levin, 2015), so we should not be surprised that participants remained largely in the same zone for 2 years. Changes, though dramatic, tended to be primarily within three or four elements (which combined to form zones), rather than all nine elements simultaneously. In retrospect, it now seems self-evident that teachers are unlikely to change in nine ways at once. However, prior research has tended to promote development of culturally responsive teaching as if it were one thing, rather than nine (or more) elements that might be better pursued through a more targeted approach. We hypothesize that PD aiming to transform all elements at once is less likely to be effective than PD tailored to those particular elements "within one's grasp" as Carrie phrased it (above). From this case study, action research appears to be well-suited for differentiating the PD in ways that allow all teachers to focus on those elements for which they are ready.

We do not think of the zones as stages on a spectrum, for example, from beginning to advanced, and we caution readers to avoid this inference as well. Doing so implies a hierarchy we want to avoid, especially because change in any area is important and commendable. In fact, we observed the greatest change in the teachers in the consciousness-raising zone. Thinking of the zones as a hierarchy might also lead teachers in the consciousness-raising zones to jump too quickly to practices for which they lack sufficient foundational orientations and knowledge. In addition, labels like beginning do not adequately reflect the difficulty for those in the consciousness-raising zones of working through cognitive dissonance and recognizing the harm that may have been caused by their prior mindsets and actions. This emotional work, as opposed to the more cognitive work of the other zones, needs to be supported especially thoughtfully; otherwise it can produce resistance or a backfire effect, in which the learner attempts to preserve their sense of self by rejecting new information (McAllister & Irvine, 2000; Neri et al., 2019).

We are aware that a growing number of school districts seek to evaluate teachers' cultural responsiveness, and we do not wish to oversimplify the process in such a way that might lend itself to the creation of an evaluation tool. Our model reflects the slow nature of the process and honors the work any committed teacher can do immediately, regardless of their current zone. We found all teachers were able to become more culturally responsive when entering with a desire to improve and when provided: (a) opportunities to learn about structural oppression and the socially reproductive nature of schooling; (b) a community of educators to mutually support and challenge one another; and (c) time to gather and analyze the viewpoints of their students, reflect on their pedagogical practices, and experiment with new ones. Schools and districts desiring more culturally responsive education should establish professional learning opportunities with those three components and a culture in which reflexivity, pedagogical experimentation, and critical colleagueship are encouraged.

Limitations and Directions for Future Research

The study initially included video-recorded classroom observations, but few were collected due to the COVID-19 pandemic. Observational data would allow us to study whether teachers may be enacting practices differently than their self-reports, or if they experienced what Kennedy (2016) called the problem of enactment: "a phenomenon in which teachers can learn and espouse one idea, yet continue enacting a different idea, out of habit, without even noticing the contradiction" (p. 947). We were able to address this limitation to some degree by confirming teachers' practices and impacts on students through evidence provided in their action research presentations. However, future research might use observational data to refine or revise our understanding of how teachers become culturally responsive.

This study demonstrated the slow process of becoming culturally responsive, even for those in an intensive PD. Future researchers should explore if movement across zones can occur when more time is provided and whether the zones differ for teachers in differing types of PD. Due to the COVID-19 pandemic, we were not able to collect the student survey and focus group data we had intended to gather to examine impacts on student social emotional and academic outcomes, including student perceptions of their teachers' practices. Future research should include these data and contribute to the small body of literature establishing a link between teacher participation in PD on cultural responsiveness and student outcomes (e.g., Johnson & Fargo, 2014; Powell et al., 2016; Sleeter, 2011). Given the slow nature of change to teaching practice, this research should collect student outcome data 1 year or more after the conclusion of the PD to capture any delayed effects that occur as teachers solidify knowledge, continue to experiment with new methods, and adapt those methods through reflection on their results (Kennedy, 2019). Research engaging more student perspectives is especially needed (Sleeter, 2011).

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Conclusion

Many studies have examined the effects of cultural responsiveness PD on inservice teachers or the ways in which preservice teachers develop critical consciousness or racial identity awareness. This is the first study of which we are aware that goes beyond identifying the learning experiences that seem to prompt change and analyzes how change in orientations, knowledge, and practices interact. We found that, although the educators each changed in unique ways, a pattern emerged of four general zones in which each change could be classified. The model we developed oversimplifies the process, but some degree of oversimplification is necessary to create a model that is not too complicated to be useful. We encourage PD designers and facilitators, as well as instructional leaders and teacher educators, to design learning experiences tailored to the zones in which their participants are generally situated. Action research appears to be a promising method for differentiation, as well as for carving out the time for individual and collective reflection essential for growth. Traditional PD rarely affords such time and opportunity to experiment and reflect, so we hope that this study serves as justification for greater investments in teachers, and in turn, their students, particularly those who are owed the greatest education debt (Ladson-Billings, 2006).

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Supplemental Material

Supplemental material for this article is available online.

Note

1. Citations indicate the time point of the interview (e.g., T3 indicates the third interview).

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