

Interrupting the Pattern: *Knowing Why and Respecting Who We Teach*

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Although research has identified culturally responsive pedagogy (CRP) as vitally important for educators in today's increasingly diverse classrooms, few studies exist to explore the development of both pre- and in-service teachers' knowledge about and self-efficacy for CRP. This mixed methods study examined pre- and in-service teachers' perceptions of CRP as well as their CRP self-efficacy. Both pre-service and in-service teachers participated in professional development aimed at improved knowledge and self-efficacy for CRP. Dependent-samples t-tests revealed positive and statistically significant changes in participants' CRP self-efficacy. Qualitative analyses demonstrated participants worked to better understand their core values (know why they teach), identified a need to better understand their students (respect who they teach), and recognized high expectations for all students as a core principle of CRP.

Introduction

There is a nationally-recognized need for the predominantly White teacher workforce to be prepared to work with culturally and linguistically diverse students (Taie & Goldring, 2017; U.S. Department of Education, 2016). That pressing need has taken on increased urgency close to home. In northwest Ohio, our university teacher preparation program and local partner districts have identified the need to increase our capacity to provide culturally responsive pedagogy (CRP) for our K-12 students. This will require us to better prepare pre-service and in-service teachers to approach their teaching practice through this lens.

Making strides in cultural responsiveness is a daunting and often emotional task. Particularly for White teachers and teacher candidates in the U.S., who may hold previously unchallenged belief systems, these learning experiences can range from uncomfortable to unbearable, as demonstrated in Matias' (2013) recounting:

One White teacher candidate professed many times in the social foundations course that race was not an issue. This candidate claimed not to see race and viewed everyone the same. However, upon learning more about whiteness, racism, and emotionality, the candidate became so agitated, and at one point screamed, "But we have Kobe Bryant, Oprah, and Obama!" a comment that inherently refuted the initial claim about not "seeing" race. Upon this outburst, the candidate began crying and the other White teacher candidates came to the rescue assuring this candidate that "it is not about race." (Matias, 2013)

This example illustrates how, particularly for White teachers and teacher candidates in the U.S., the development of cultural responsiveness often requires the upheaval of deeply rooted conceptualizations of the social world and their place within it. Important components of developing culturally responsive pedagogy (CRP) include recognizing the significance of Whiteness as situated within White supremacy, and critically examining the prevalent “rhetoric of ‘giving back’” often used to describe teachers’ motivation to work in diverse urban districts (Matias & Aldern, 2019, p. 39). Teachers and teacher candidates of color—of whom there are too few—must endure the “colorblind” pronouncements and emotional outbursts of their peers (Matias, 2013). Thus, helping educators to become more culturally responsive in their practice is both contentious and crucial; there is an urgent need for pathways past these obstacles.

As part of the larger project team’s work to develop our own culturally responsive competencies as teacher educators, the authors of this paper have engaged in critical reflection on the role our identities and experiences play in our teaching. We recognize our positions as White females who look like the majority of the preservice teachers we work with influence both the implicit and explicit messages we deliver as well as how they are received.

To contribute to knowledge about the process of CRP learning, the current study follows a group of preservice and in-service teachers in northwest Ohio as they engage in a professional development experience focused on CRP. This work is part of Project Improving Motivation, Pedagogy, Assessment and Collaboration of Teachers (IMPACT), a grant-funded initiative allowing our university to work in partnership with four local school districts with the aim of supporting the development of well-prepared educators in difficult-to-staff positions. In our first year, we set out to provide professional development to a group of preservice and in-service teachers who were interested in learning more about CRP. This decision stemmed from the fact that all four of our district partners identified CRP as a top priority when we met to outline our project goals for professional development. The professional development aimed to engage participants in reflection and discussion around: (a) their core values as individual educators, (b) thinking about why they want to teach, and how this maps onto their core values, (c) who their students are, (d) how to identify and address their own implicit biases, and (e) and how to connect with culturally diverse learners.

Theoretical Perspectives

Three foundational concepts frame this work: our understandings of the knowledge educators must possess for fostering the achievement of culturally and linguistically diverse students (CLD), the importance of educators’ beliefs about their capacity to enact these practices, and the necessity for meaningful professional learning experiences to develop both knowledge and beliefs.

Culturally Relevant, Responsive, and Sustaining Pedagogies

Culturally Relevant Pedagogy is a pedagogical stance developed to empower students and further their learning through emphasis of three components: academic success, cultural competence, and sociopolitical consciousness (Ladson-Billings, 1995; 2014). Other related concepts include Gay’s (2000) Culturally Responsive Teaching which places greater emphasis

on using the cultural knowledge of ethnically diverse students to make instruction more relevant and Paris's (2012) Culturally Sustaining Pedagogy which suggests the importance of shifting to a perspective centered on fostering cultural and linguistic pluralism. Hammond (2015) worked to integrate these concepts with established neuroscience research into a framework operationalized for educators as Culturally Responsive Teaching. While each of these adds meaningful nuances to understanding education that intentionally accounts for students' cultural assets, we chose to use the term "Culturally Responsive Pedagogy" for two main reasons: First, it was the term most frequently used by our partner districts. Second, the materials prepared by the professional development consultant drew from multiple scholars, but most often used this term. Our analysis uses the three tenets of Ladson-Billings' work because these concepts most closely align with the professional development (PD) content. Our choice to use the term "Culturally Responsive Pedagogy" reflects a desire for consistency rather than rejection of the other scholars' contributions to this body of work.

More than twenty years of research on CRP and these closely related concepts across content areas have demonstrated positive outcomes for student achievement, motivation, empowerment, and agency (see Aronson & Laughter, 2016 for a review). Despite this body of work, teachers' deficit-beliefs about CLD students continue to obstruct access to equitable education (Nelson & Guerra, 2014). There remains a need to develop educators' understanding of what CRP means and what it looks like in the classroom (Sleeter, 2012). Specifically, Milner (2010) argued that to advance culturally responsive practices, educators must critically reflect on the following concepts in relation to the students they teach: color-blindness, cultural conflict, myth of meritocracy, deficit conceptions, and disrupting low expectations. Centered on specific needs of our partner districts, our focus on CRP as essential for both pre- and in-service teacher development is in response to local contexts.

Teachers' Self-Efficacy Beliefs

As important as teachers' beliefs about their students are, a substantial barrier to teachers developing facility with culturally relevant teaching methods is their own sense of self-efficacy for working with CLD students. Bandura (1977) theorized that teacher efficacy, or beliefs about one's ability to teach effectively, develops from four sources: mastery experiences, vicarious experiences, social persuasion, and affective or psychological states. Teachers with well-developed self-efficacy beliefs demonstrate willingness to persist with challenges and a more inclusive, responsive approach to students (Woolfolk Hoy, Hoy, & Davis, 2009). As teacher efficacy beliefs are both domain and context-specific (Tschannen-Moran, Hoy, & Hoy, 1998), it is important to understand how preservice teachers form beliefs about CLD students through their preparation programs and field experiences as well as how in-service teachers develop these beliefs in their teaching contexts. The decision to evaluate our participants' CRP self-efficacy was made so that we may begin to understand how the opportunity for CRP-focused in-person PD might influence educators' perceptions of themselves as culturally responsive professionals. At the outset, based on both literature and our own experience with educator preparation, the project team understood that engaging in professional learning activities that call for critical reflection on one's own CRP competencies and beliefs might likely be important for participants' knowledge of *and* self-efficacy for CRP.

Teacher Development

Evidence on effective professional development for teachers calls for job-embedded, content-focused, ongoing learning opportunities coupled with frequent feedback and time for collaboration (Darling-Hammond, Hyster, & Gardner, 2017). Theories of adult learning highlight the fact that adults learn best when they have autonomy over their learning opportunities, see the relevance of the content for their work and/or personal goals, and engage in learning that respects – and builds on – their prior experiences (Knowles, 2015; Merriam, Caffarella, & Baumgartner, 2007). Taken together, these bodies of knowledge provide a map for planning professional development that capitalizes on the learner’s prior experience, provides content seen as helpful in working toward a goal specified by the learner, and invites collaboration and communication around progress toward learning objectives. Specifically, evidence on professional learning for teachers indicates teachers need content that is relevant to their work with students, makes use of their prior experience as teachers, and is designed to help them gain new perspectives (Mezirow, 1991).

Review of Relevant Literature

Preservice Teachers’ Learning about CRP

Many teacher preparation programs include coursework in multicultural education or diversity in education. These courses are typically intended to provide preservice teachers with an understanding of the diversity that they will experience in the classroom as well as opportunities to examine the impact their own social and cultural backgrounds will have on their practice. Dyce and Owusu-Ansah (2016) found that coupling critical reflective practices with foundational theories about diversity promoted both a significant increase in preservice teachers’ knowledge about diversity and a sense of teaching identity that includes agency for enacting change. This work serves as an important precursor for highlighting the importance of preservice teachers’ knowledge, attitudes, and beliefs about issues related to diversity.

Like other types of self-efficacy, Culturally Responsive Teaching Self Efficacy (CRTSE) is primarily developed through mastery and vicarious experiences often situated in field experience contexts (Siwatu, 2007). Preservice teachers tend to report greater self-efficacy in general practices such as building relationships with students and lower self-efficacy in tasks dependent on having specific cultural knowledge of students (Siwatu, 2007; 2011; 2016). Through deliberate focus on culturally responsive teaching practices and culturally-oriented reflection, teacher education programs can affect preservice teachers’ confidence and motivation to teach CLD students (Fitchett, Starker, & Salyers, 2012; Whitaker & Valtierra, 2018). Preservice teachers’ understanding of school contexts (urban, suburban, or rural) may also play a role in their sense of preparedness for this work (Knoblauch & Woolfolk, 2008; Siwatu, 2011).

In-Service Teachers’ Professional Development on CRP

In-service teachers often need support in developing their knowledge and beliefs about CLD students as well. Following a systematic review of the literature through 2014, Bottiani, Larson, Debnam, Bischoff, and Bradshaw (2018) concluded that there was limited empirical research on CRP professional development outcomes for in-service teachers. Despite this, there is reason to

believe that extended engagement with explicit professional development can begin to disrupt teachers' deficit beliefs (García & Guerra, 2004). More recently, several promising studies have found that multi-day professional development experiences have led to shifts in teachers' beliefs and practices. Mellom, Straubhaar, Balderas, Arail, and Portes' (2018) work with Instructional Conversation pedagogy challenged teachers' negative attitudes about English Learners and increased their efforts to get to know students. Brown, Boda, Lemmi, and Monroe's (2019) professional development on the Cognitive Apprenticeship model moved teachers' knowledge of CRP from theoretical to practical through planning and implementing STEM lessons using examples and problems with relevance to their students' cultures.

Malo-Juvera, Correll, and Cantrell (2018) found that practicing teachers, prior to professional development about CRP, reported low self-efficacy in three patterns: centering students' culture in instruction, working with English Learners and their families, and identifying cultural bias in standardized tests and curricula. Recognizing the similarity in belief patterns between these veteran teachers and Siwatu's (2007; 2011; 2016) findings with preservice teachers suggests there may be a reason to address professional learning experiences towards both groups.

Bersh (2018) engaged a small group of preservice and in-service teachers enrolled in a writing course together in composing autobiographies as a method of promoting reflection on connections between their personal histories and cultural backgrounds. Sharing selections of their writing allowed the teachers to better understand their beliefs and biases, a practice they valued (Bersh, 2018). To our knowledge, this is one example of the limited research that has explored the developing knowledge and beliefs of preservice and in-service teachers together. Collaborative learning experience between undergraduate student teachers and their practicing classroom mentor teachers is the focus the current study.

Recent research suggests that the design of effective professional development is: content focused; incorporates active learning; supports collaboration; uses models of effective practice; provides coaching and expert support; offers feedback and reflection; and is of sustained duration (Darling-Hammond et al., 2017; Hill, Beisiegel, & Jacob, 2013). In their review of educator professional learning opportunities, Darling-Hammond et al. (2017) noted that effective PD opportunities include most of the features outlined above and that, in addition to high-quality learning opportunities, effective PD is situated within a systems (e.g., district or building level) context that is supportive of PD aims. Moreover, effective PD is respectful of participants' needs and specific work contexts. While the professional development session that serves as the focus for the study does not meet all of Darling-Hammond et al.'s criteria, it was specially designed to fit the needs and specifications of teaching professionals in our four partner districts.

Current Study

In the current study, we have investigated the impact that a day-long professional development event had on preservice and in-service teachers. Specifically, we asked the following research questions:

1. Is participation in a day-long professional development session focused on CRP associated with a change in self-reported CRP self-efficacy?
2. What are participants' perceptions of CRP?

3. What aspects of the professional development content did participants plan to enact?

Methods

Context

The study presented here is part of Project IMPACT and focused on our unique university-school district partnership. The Project IMPACT Advisory Board, made up of administrators and staff from our four partner districts, actively engaged with the leadership team to develop our project PD foci. The four partner district profiles are dissimilar: one magnet school for the arts, one large urban, and two suburban districts (one economically and racially diverse; one primarily upper-middle class and predominantly White). Each of the partners made a commitment to participate in project initiatives to increase the numbers of teachers entering the workforce in high-need content areas (math, science, special education and work force development). This group was also focused on determining high-leverage practices to support new teachers in their respective districts.

Professional Development

As part of meeting the needs of the consortium of partner districts and the teacher education program at a public Midwestern university, representatives from each partner were asked to rank order the most important needs for PD. Each of the district partners identified CRP as a critically important area for both new and experienced teachers in their districts. Next, the group determined how as a group we would define CRP and the initial focus for the professional development. Several of the partners had engaged in some district-specific PD focused on Ladson-Billings' work, thus it made sense to continue with this conceptualization of CRP. After this was determined, we discussed who might be the best consultant to lead us in this work. As a group, we determined that for this first PD it was important to have an external consultant with a strong background in CRP strategies for PK-12 schools. The consultant we hired was a university professor, known by a member of our team from previous collaboration. She identified as a Black woman and developed this session from her own experiences as a teacher educator working with predominately White female preservice teachers.

The PD included one day (9am – 3pm) of face-to-face learning about CRP. While understanding that a single workshop would not be sufficient, the project leadership recognized the importance of being able to engage teachers in this familiar format while continuing to make plans to continue the work throughout the duration of the project (5 years). The session included focus on articulating core values, implicit bias, equity and racial equity, identifying cultural filters, and the importance of being a leader. Prior to diving into the learning objectives for the day, participants worked to co-construct group norms. PD activities included presentation, personal reflection, examination of videos, and small and large group discussions.

Research Design

We used a concurrent mixed methods design, giving equal status to qualitative and quantitative data for the purposes of triangulation and enhancement (see Creamer, 2017). Collecting both

qualitative and quantitative data strengthened our ability to understand teachers’ developing knowledge and self-efficacy beliefs (Siwatu, 2016; Wyatt, 2015). Quantitative data allowed us to look for pre- and post- workshop differences in self-efficacy, and qualitative data gave us insights into participants’ developing understandings of and perspectives on culturally responsive pedagogy. We collected qualitative and quantitative data simultaneously via a pencil-and-paper questionnaire with both closed-ended and open-ended components. Our analyses were concurrent as well. Figure 1 depicts the research process.

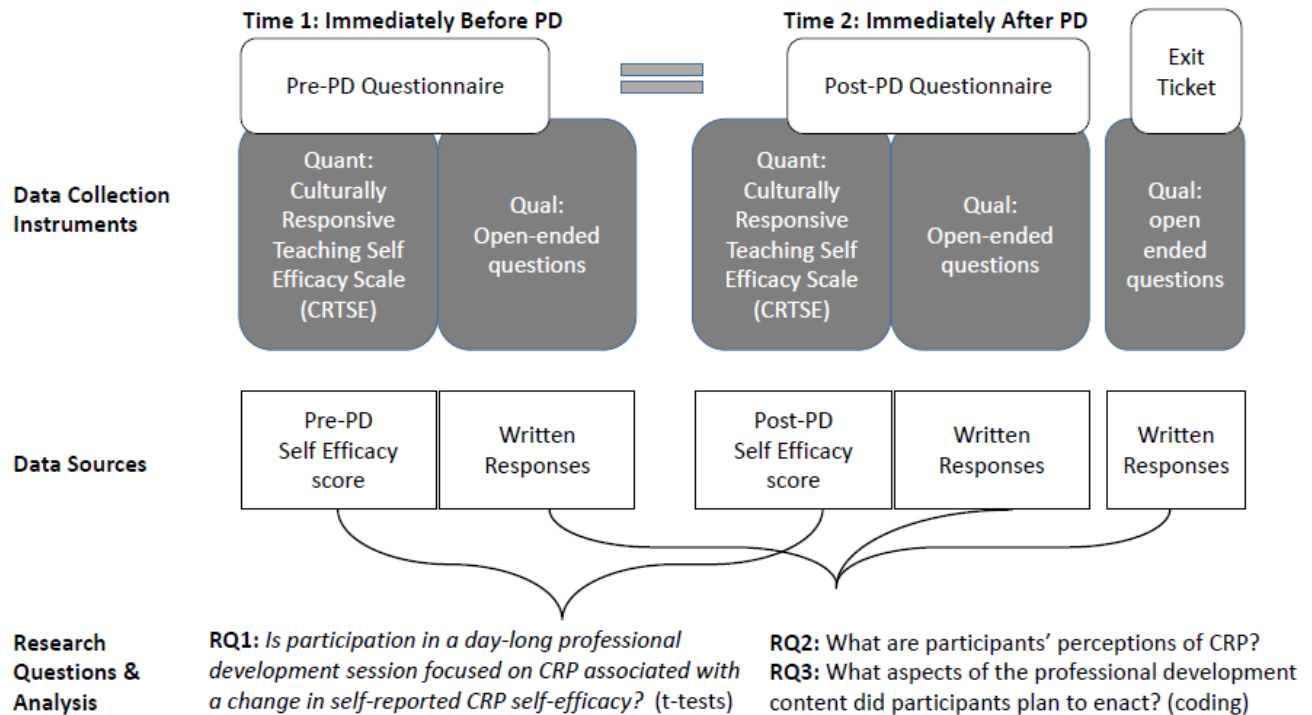


Figure 1. Research process.

Participants

The session included preservice teachers (n = 26) who were completing their final university semester by student teaching full-time in one of the partner districts; in-service teachers (n = 21) who served as their cooperating mentor teachers; several school counselors and district administrators (n=6) from the four northwest Ohio school districts; and university personnel associated with the project. Data are presented here for our preservice and in-service teacher and administrator participants, who were predominantly White females, a reflection of the demographic constitution of both local and national teaching forces.

Data Sources

The data source for the current study came from pre- and post-Culturally Responsive Teaching PD questionnaires. There were both open-ended questions and a rating scale.

Open-ended items. The research team developed questions designed to capture participants' perceptions of (a) the importance of CRP (b) their familiarity with CRP and (c) their definition of CRP prior to the PD. The same questions appeared on the pre- and post- PD questionnaire. In addition, the "exit ticket" form included the following prompts: *One thing I'm excited about after today's session is...*; *One thing I've learned that I'm going to put into practice is...*; and *One lingering question I have is...* Most participants responded to the prompts with a single sentence.

Culturally Responsive Teaching Self-Efficacy Scale (CRTSE). We used a modified version of the CRTSE. The CRTSE scale was constructed using the Culturally Responsive Teaching Competencies (Siwatu, 2007) and Bandura's (1977) self-efficacy construct. The scale elicits information from teachers regarding their efficacy to execute specific teaching practices and tasks that are associated with teachers who have adopted a culturally responsive pedagogy. The original scale consists of 40 Likert-type items in which participants are asked to rate how confident they are in their ability to engage in specific culturally responsive teaching practices (e.g., "I am able to identify the diverse needs of my students") by indicating a degree of confidence ranging from 0 (no confidence at all) to 100 (completely confident). Participants' responses to each of the 40 items are summed to generate a total score. Participants who have higher scores on the culturally responsive teaching self-efficacy scale are more confident in their ability compared to those who were less confident in their abilities. We kept the content of the items from the original scale and added one question "I am able to teach students about their cultures' contributions to society" (item 41 in our scale). We also modified the response categories to a simpler scale with response options ranging from 1 *No Confidence* to 9 *Completely Confident*. Although Siwatu (2007) asserts that the response options ranging from 0 to 100 are psychometrically stronger, we find no psychometric evidence cited to support this claim as it pertains to the CRTSE. According to Siwatu (2007) the CRTSE has good internal consistency, with a Cronbach's alpha coefficient reported of .96. With our sample, Cronbach's alpha coefficients were .97 for both pre- and post-test CRTSE.

Data Analysis

Quantitative analyses. Our analytic sample for CRTSE analyses included only those participants with complete CRTSE data. Quantitative analyses were straightforward, and involved calculating means, standard deviations, and t tests for related samples to examine changes in CRTSE scores from pre- to post-test ($n = 32$). We also used independent samples t tests to explore differences between in-service ($n = 15$) and preservice ($n = 17$) teachers' CRTSE results.

Qualitative analyses. We analyzed the participants' responses to the pre- and post-workshop open-ended questions using qualitative strategies to answer our second and third research questions. Forty-one participants responded to some or all items on the pre- and post-questionnaires: seventeen teacher candidates, eighteen in-service teachers, three in-service administrators, and three school counselors (two in-service, one in-training). We coded the participants' written responses through a process that involved both inductive and deductive coding (Patton, 2002). One member of the research team read the corpus of data and generated initial open codes. Then, three members coded the data in two additional cycles. In the first

cycle, we used the three tenets of Ladson-Billings’ definition of CRP (1995; 2014): academic success, cultural competence, and sociocultural consciousness as a priori codes for the pre- and post- workshop definitions participants generated. These codes did not sufficiently capture all the ideas that participants had written about, so we generated additional codes for those definitions that did not express the tenets. We then reviewed the post-workshop responses using the initial codes and developed additional codes from the data. From this we generated a code book including examples of all codes, expanding and collapsing codes as needed. Using this tool (see excerpt, Appendix A), each of the three researchers independently recoded the data from all participants. Finally, we met and discussed each code until we reached agreement developing themes from the data (see Appendix B for numerical trends in qualitative data). Through this process some data were rejected when we could not determine what the participant intended.

Findings

To understand our first research question, *Is participation in a day-long professional development session focused on CRP associated with a change in self-reported CRP self-efficacy?* a paired-samples *t* test was conducted (Table 1). There was a statistically significant increase in CRTSE scores from pre- ($M = 259.84, SD = 49.93$) to post-workshop ($M = 395.13, SD = 46.28$), $t(31) = 5.61, p < .000$ (two-tailed). The mean increase in CRTSE scores was 35.29 with a 95% confidence interval ranging from 22.45 to 48.11. The eta squared statistic (.50) indicated a large effect size. Independent samples *t* tests to explore differences between pre-service and in-service teachers revealed no statistically significant between-group differences in their CRTSE change from pre- to post-workshop.

Table 1
Results of t-test and Descriptive Statistics for CRTSE Pre- and Post-test

CRTSE	Pretest		Posttest		95% CI for Mean Difference	R	t	df
	M	SD	M	SD				
	259.84	49.93	295.13	46.28	22.45, 48.11	.73	5.61*	31

Note. N = 32

*p < .000 (two-tailed)

In order to investigate whether, and where, preservice and in-service teachers’ change in CRTSE scores may differ, we also conducted item-level analyses. Table 2 shows means and standard deviations for pre-to-post change on each CRTSE item, disaggregated for the two groups (i.e., pre- and in-service teachers). Items in bold are those items where pre- and in-service teachers’ changes were statistically significantly different (Items 5, 11, 13, 23, and 28).

Table 2

Item-level pre- to post-test CRTSE Change for Preservice and In-service Teachers

	In-service Teachers <i>n</i> = 17	Preservice Teachers <i>n</i> = 15
Item	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
1. adapt instruction to meet the needs of my students.	.59 (1.00)	1.27 (1.44)
2. obtain information about my students' academic strengths.	.59 (1.28)	.80 (1.86)
3. determine whether my students like to work alone or in a group.	.059 (1.48)	1.00 (1.89)
4. determine whether my students feel comfortable competing with other students.	-.178 (1.59)	.53 (2.42)
5. identify ways that the school culture (e.g., values, norms, and practices) is different from my students' home culture.	-.35 (1.69)	.87 (1.73)
6. implement strategies to minimize the effects of the mismatch between my students' home culture and the school culture.	-.58 (2.24)	.67 (2.06)
7. assess student learning using various types of assessments.	-.23 (1.79)	.87 (1.92)
8. obtain information about my students' home life.	.06 (1.52)	.20 (1.78)
9. build a sense of trust in my students.	.94(1.19)	1.60 (1.72)
10. establish positive home-school relations.	.59(1.33)	-.27 (2.28)
11. use a variety of teaching methods.	.42 (.80)	1.27 (1.34)
12. develop a community of learners when my class consists of students from diverse backgrounds.	.65 (1.11)	.6000 (1.64)
13. use my students' cultural background to help make learning meaningful.	-.24 (1.68)	.93 (1.58)
14. use my students' prior knowledge to help them make sense of new information.	.12 (1.37)	.87 (1.55)
15. identify how students communicate at home may differ from the school norms.	-.17 (1.47)	.13 (1.99)
16. obtain information about my students' cultural background.	-.24 (1.68)	.40 (1.96)
17. teach students about their culture's contributions to science.	-1.53(2.30)	-.53 (2.29)
18. greet English Language Learners with a phrase in their native language.	-2.17 (2.68)	-1.67 (2.58)
19. design a classroom environment using displays that reflects a variety of cultures.	-.65 (2.12)	.07 (1.75)
20. develop a personal relationship with my students.	1.12 (1.11)	1.60 (1.88)
21. obtain information about my students' academic weaknesses.	.24 (1.03)	1.27 (1.87)
22. praise English Language Learners for their accomplishments using a phrase in their native language.	-2.41 (3.26)	-1.07 (2.79)
23. identify ways that standardized tests may be biased towards linguistically diverse students.	-1.82 (2.65)	.47 (2.13)

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24. communicate with parents regarding their child's educational progress.	.82 (1.07)	-.07 (2.31)
25. structure parent-teacher conferences so that the meeting is not intimidating for parents.	.352 (1.17)	.40 (2.20)
26. help students to develop positive relationships with their classmates.	.65 (1.32)	1.20 (1.67)
27. revise instructional material to include a better representation of cultural groups.	-.29 (2.28)	.53 (2.03)
28. critically examine the curriculum to determine whether it reinforces negative cultural stereotypes.	-.88 (2.23)	.93 (2.05)
29. design a lesson that shows how other cultural groups have made use of mathematics.	-1.41 (2.21)	-.80 (2.83)
30. model classroom tasks to enhance English Language Learner's understanding.	-1.80 (2.76)	-.33 (2.06)
31. communicate with the parents of English Language Learners regarding their child's achievement.	-1.65 (3.04)	-.67 (2.44)
32. help students feel like important members of the classroom.	.82 (1.19)	1.33 (1.88)
33. identify ways that standardized tests may be biased towards culturally diverse students.	-.71 (2.44)	.53 (2.53)
34. use a learning preference inventory to gather data about how my students like to learn.	.00 (1.70)	.80 (2.18)
35. use examples that are familiar to students from diverse cultural backgrounds.	-.12 (2.12)	1.00 (2.00)
36. explain new concepts using examples that are taken from my students' everyday lives.	.18 (1.42)	.93 (1.94)
37. obtain information regarding my students' academic interests.	.47 (1.07)	1.20 (1.97)
38. use the interests of my students to make learning meaningful for them.	.65 (1.22)	1.13 (1.85)
39. implement cooperative learning activities for those students who like to work in groups.	.47 (1.18)	1.00 (1.73)
40. design instruction that matches my students' developmental needs.	.65 (1.22)	.87 (1.77)
41. teach students about their cultures' contributions to society.	-.18 (2.30)	1.00 (2.14)

Note: Instructions for completion of this questionnaire: Rate how confident you are in your ability to successfully accomplish each of the tasks listed below. Each task is related to culturally responsive teaching. Response options were 1 (no confidence) through 9 (completely confident).

It is difficult to discern if there is a pattern in the five items where the change in self-efficacy beliefs was statistically significant between the two groups. Items related to critical examination of standardized tests (23) and curriculum (28) have been identified as challenges in previous preservice teacher research (Siwatu, 2016). Though not statistically significant, it is interesting that item-level analysis reflects the preservice professionals' positive change or increase in self-efficacy beliefs for the majority of items while the change in beliefs for in-service professionals is positive for half of the items and negative for the other half. With the exception of three items (10, 12, 24), the change in preservice teachers' beliefs was more positive (or less negative) than the change in beliefs for in-service teachers. Two of the three items for which in-service

teachers' change is more positive (10, 24) are related to working with students' families, practices that pre-service teachers have minimal opportunity to experience.

Perceptions of Culturally Responsive Pedagogy

To understand our second research question, *What are participants' perceptions of CRP?* we analyzed participants' definitions of CRP written prior to and following the PD. Across the preservice and in-service practitioners, we found several common trends in how participants were able to express their understanding of CRP at both opportunities (see Appendix B). Participants typically focused on one of the three tenets in Ladson-Billings's (1995; 2014) definition of CRP. Following the PD, more participants expanded their definitions of CRP to include a second tenet. Only one definition (post-workshop) effectively expressed all three tenets of CRP.

Enduring perceptions. Both before and after the workshop cultural competence was the most frequently expressed component of CRP. Prior to the workshop all participants either incorporated an accurate expression of cultural competence or attempted to express this value through a general statement about recognizing diversity or being inclusive. We distinguished between responses that indicated utilizing students' cultural backgrounds as a source of strength or connection to the curriculum such as "teaching students and supporting them through their cultural background, home life and prior knowledge" (Zoey, pre-service teacher; all names are pseudonyms) and those that suggested awareness of issues related to diversity with no clear indication of what actions the teacher might take. Nearly two-thirds of participants were able to adequately express an understanding of how teachers might enact cultural competence prior to the workshop. While this number was lower following the workshop, it was still the most consistently expressed component of CRP.

For the participants who attempted to describe cultural competence but fell short, we found three common patterns in responses. Participants who provided these more general responses focused on awareness of diversity, being inclusive or welcoming, or students' needs. Responses focused on awareness of diversity typically had a passive tone, suggesting that the teacher needed to be aware of diversity, but not necessarily take any action. One preservice teacher, Kira, expressed that CRP was "being able to recognize student's differences." Bella, a more veteran teacher, described CRP as "the educator making an effort to look at classroom practice through a lens of diversity." Responses such as these indicate that the teacher would be responsible for some sense of understanding but not necessarily taking any kind of action.

Participants who interpreted cultural competence as being inclusive tended to focus on creating a learning environment that was accepting of students' differences. Sage, a preservice teacher, described this as "a classroom environment that is welcoming and appropriate for students of all cultures." Kirstie, an in-service teacher, expressed a similar sentiment with emphasis on "creating an environment where all students feel safe, comfortable, and valued." While this type of environment is an important component of providing culturally competent instruction, the environment alone is insufficient to address students' cultural funds of knowledge or the role of culture in the curriculum.

Some statements that may have intended to express inclusiveness appeared to express a “colorblind” approach instead. Definitions such as “teaching the whole child, no matter their ethnic, cultural, or linguistic backgrounds” (Sasha, preservice teacher) and “To create a learning environment conducive to all of my students no matter their background” (Madison, in-service teacher) may reflect this. While these definitions may have been intended to be inclusive, the phrase “no matter” suggests that participants might be thinking that their pedagogy should be a certain way *regardless* of students’ backgrounds rather than carefully accounting for differences in backgrounds.

For a smaller group of participants, there was an emphasis on students’ “needs.” Sage (pre-service teacher) integrated the concept of differentiation in her definition stating CRP was “To differentiate lessons and instructions in order to fit the needs of all of the students in your classroom.” This may simply reflect her familiarity with the concept of differentiation from other parts of her preparation program and an understanding that it benefits all students. Francine, an in-service teacher, more directly referred to students’ needs as being related to their cultural backgrounds, defining CRP as “Adjusting your curriculum for audience’s cultural needs.” Without the context of discussion, we hesitate to read too much into these written responses; however, we feel it is important to be aware of the possibility that this reflects an understanding of students based in a cultural deficit model.

The least commonly mentioned tenet of CRP before and after the PD was sociopolitical consciousness. This tenet was only described in three definitions before the PD and two after. Though a small number, it is notable four of these five responses came from preservice teachers. Peter, a preservice teacher, demonstrated some understanding of this tenet prior to the PD, indicating that a component of CRP was “being able to relate your lesson to your context” and following the PD strengthened this stating that, in part, CRP was using students’ “cultural backgrounds to create informed and liberating lessons.” The only definition from an in-service teacher to indicate understanding of this third tenet demonstrated notable depth of knowledge about CRP prior to the workshop. In a thorough definition that named Gloria Ladson-Billings and discussed research on CRP, Penny concluded, “what research shows is that action and justice are crucial parts of CRP that are forgotten, but also crucial for success.” It appears that the participants who understood CRP to include sociopolitical consciousness came to this session with background knowledge in this area.

Changing perceptions. The biggest difference in definitions following the workshop was emphasis on the importance of students’ academic success. Prior to the PD, only two definitions mentioned academic success as a component of CRP. Following the PD, nearly half of the definitions indicated that students’ academic growth was key to CRP. The two definitions that referred to this tenet before the workshop came from Betty, a school counselor who saw CRP as something that, “allows all students to feel included and empowered in their learning” and Bianca, a district administrator who understood it as “An intentional approach to cultural learning... with the understanding that each student is culturally unique and deserves culturally competent instructor who recognizes differences and different learning needs of their students.” We felt it was important to note that both of these responses came from educators outside of classroom roles. This suggests that it may be helpful to have a more systemic perspective to recognize the way that cultural enrichment and academic growth work together. Alternately, it

could be that classroom teachers take it for granted that classroom practice should result in academic growth and therefore did not articulate this specifically.

Following the PD, preservice teachers began to note an understanding of the importance of academic success in CRP. Several indicated that this began with building on students' backgrounds and existing knowledge. Carolyn, a preservice teacher, specified the need for "building the learning capacity for all students." Kelly, an in-service teacher effectively described the need for a shift in beliefs about students needed to enact CRP practices, stating "Culturally responsive pedagogy is based on the belief that all students are capable of learning and want to learn. This belief leads to keeping high standards for all students and leading all students to experience great academic growth." Challenging students and maintaining high standards for academic achievement was a strong emphasis throughout the presentation. It is both logical and gratifying that this was consistently reflected in participants' responses.

Through analyzing participants' definitions of CRP before and after the one-day PD, we discovered what background knowledge existed about the topic as well as what new insights participants were able to gain from the day's activities. Throughout, preservice and in-service practitioners gave similar responses. While all participants seemed to have some understanding of cultural competence before the workshop, many developed a sense of the importance of students' academic success through the PD. Few participants articulated knowledge about the need for developing sociopolitical consciousness.

Enacting Professional Development Content

To gain a better understanding of our third research question, *What aspects of PD content did participants plan to enact?* we analyzed the post-PD questionnaire items addressing what participants were excited about, what they were planning to put into practice, and what questions remained. Considering these three questions together, we determined several themes about what participants viewed as next steps in using what they had learned about CRP. Through further analysis we have connected these intended actions to tenets of CRP.

General plans. Many participants indicated general responses to prompts for things from the workshop they were excited about or questions they had going forward. This was more than twice as common in preservice practitioners as it was with in-service practitioners. Zoey (preservice teacher) gave a fairly typical response that she was excited about "Taking what I have learned today and implementing the skills in my classroom and lesson planning." It may not be surprising that the preservice teachers did not always have clear or specific ideas about how to use the content they were learning. Most had approximately a month of student teaching remaining and were not yet sure where their next teaching position would be.

Both preservice and in-service teachers asked general questions about next steps, often referring to where they might find resources or how they could implement what they learned. Specifically, several in-service teachers like Beverly asked questions such as, "What are some ways that we can effectively implement with young children?" Participants may have felt unsure about how to adapt the presenter's examples with undergraduate students to their contexts in elementary schools. The considerable amount of general questions suggested that some

participants may need follow up support to know where to begin enacting culturally responsive practices.

Specific plans: Knowing why. During the professional development, participants were encouraged to explore and understand their personal value system and implicit and perhaps even explicit biases. The facilitator focused on the idea that understanding our personal “why” (why we think, make judgments, and have certain values) can help us understand our decisions. The focus on the “why” resonated with the participants as a potential way to continue discussions and work that is already happening within their district. “Refocusing on the “why”! I’m frustrated by trying to figure out how to move [CRP] work forward. I think this [why] helps” (Penny, in-service teacher). This emphasis appeared to resonate with practicing teachers more frequently than preservice teachers. For several participants the focus on the “why” was a concrete emphasis for continued reflection.

Participants also saw this “why” as a way to put into practice what they had learned with both students and professional colleagues. One of the main activities of the session was completing a values analysis in order to create a personal mission statement. For Maria (preservice teacher) this was a something she was excited to put into her professional practice, stating she would be “Developing my personal mission statement as a reminder of my “why.”

This focus on a specific commitment around the “why” or individual understanding of bias was one of the most common take-aways from this PD. There were several statements that included some implicit suggestion of leadership, but there were also statements that clearly promoted leadership from in-service educators who were ready to “lead with ‘why’” (Misty, Betty). Throughout these reflections, there was clear indication that many saw the “why” work as a specific way to lead change and support student learning.

Specific plans: Getting to know students. The second major emphasis throughout the training day involved asking participants to “get to know your students” and this is reflected in the teachers’ plans for the future. In order to support changes in teachers’ instructional practices, the PD focused on showing participants how critical it is to move beyond exploring their own beliefs and biases by taking action to get to know students and their cultural backgrounds. Caitlin, a preservice teacher stated that she would “be curious about students and their backgrounds. Listen carefully to what they say.” Randi, an in-service teacher embraced “the opportunity to learn from my students and then incorporate their experiences, backgrounds, thoughts into the lessons I design and implement” in order to enact culturally responsive practices. The importance of getting to know students stood out as a major goal for many teachers in the future.

Specific plans: Having high expectations. Given that students’ academic success is a core tenet of the CRP framework, it is not surprising that participants’ experiences in learning about CRP led to reflections that demonstrated a focus on high expectations for all students. About half of the participants noted specifically the importance of challenge and academics. Kenzie, an in-service teacher captured this idea, indicating plans to teach “all students no matter who they are at a high level. All students desire someone to challenge and support them.” As emphasized during the PD, many participants’ statements included some indication of holding all students to a high standard. A few comments more effectively integrated this concept with taking action on other tenets of CRP. For example, one participant stated she would “focus more on liberation

rather than on equity or equality and to tear down “walls” for students so that all students can reach the high standards set for them (academically)” (Kelly, in-service teacher). This statement displayed a strong commitment to reducing the barriers that some students experience in order to promote achievement for all students.

The ideas participants expressed on questionnaires following the PD suggested how they might take what they had learned back to their schools. Though preservice teachers had more general ideas about this, many also emphasized the importance of getting to know students in order to build on their knowledge and set high expectations for their learning. In-service teachers also expressed these actions but placed a greater emphasis on exploring their own “why” and reflecting on their practices and decisions as well as collaborating with colleagues to advance the work of CRP in their schools.

Discussion

Culturally Responsive Pedagogy has been linked with evidence of positive affective outcomes for students such as interest in the content, motivation to learn, and confidence in approaching standardized tests (Huber, 2013). Though more difficult to establish on a large scale, there is emerging evidence of student achievement outcomes as well (e.g., Duncan-Andrade, 2007). One persistent obstacle to more widespread implementation is teachers’ lack of knowledge about CRP and limited sense of efficacy in being able to implement culturally responsive practices. For this reason, this study investigated the effects of professional development on preservice and in-service teachers’ knowledge and beliefs.

We understand that meaningful professional learning needs to be ongoing and embedded in authentic contexts. This is even more essential when addressing a topic with the complexity of culturally responsive pedagogy that may challenge personal beliefs. Further, to develop well-grounded self-efficacy beliefs, it is important, especially for preservice teachers, to have both mastery and vicarious experiences with enacting professional knowledge. Recognizing that a one-day workshop is not the ideal model, we wanted to understand the learning impact of this session, as a unique experience for preservice and in-service practitioners learning side-by-side. Particularly as our first PD offering in this partnership, we believed it was particularly important to hold a session that more educators could attend, in order to begin engaging people in this work and building structures for more prolonged, sustainable work together.

Examining and Developing Self-Efficacy Beliefs

Overall, the educators who participated in this PD reported higher self-efficacy beliefs about their abilities to enact culturally responsive practices following the session. To the extent that we observed in item-level responses, patterns in our participants’ beliefs were similar to those in existing research (Malo-Juvera et al., 2018; Siwatu 2007: 2011; 2016). While the change in beliefs between the preservice and in-service groups was not statistically significant, on the whole, the trend towards higher self-evaluation and greater increase in preservice teachers’ self-efficacy beliefs is worthy of discussion. Other studies comparing preservice and in-service teachers’ self-efficacy beliefs have suggested that higher self-efficacy beliefs are associated with more teaching experience (Putnam, 2012).

Though it was our hope that this professional learning experience would help participants feel more efficacious, we recognize the importance of interpreting this growth with care. With preservice teachers in particular, other studies have shown a tendency toward inflated self-efficacy beliefs (Haverback & Parault, 2011) and the potential for high self-efficacy to be linked with problematic practices (Hoy & Woolfolk, 1990; Rushton, 2000). Gradual growth in preservice teachers' self-efficacy beliefs over time may be more beneficial for practice (Haverback & McNary, 2015). It is valuable to see the potential for a professional development session such as this one to affect preservice teachers' beliefs about their abilities to enact culturally responsive practices; however, we acknowledge that preservice teachers with both high and low self-efficacy beliefs related to CRP may need additional support and professional development (Siwatu, 2016).

In-service teachers' beliefs may be less susceptible to change because they have more substantial grounding in their practice. The opportunity for novice educators to engage in this professional learning alongside their more veteran peers may have allowed them to share some of this contextual and practical knowledge throughout the discussions and reflective activities in the PD session. Spending time to examine their own perspectives and try to understand others' perspectives was a critical component of this event. As some of the participants' qualitative responses indicated the possible existence of colorblind and deficit-oriented beliefs, we see the need to interrogate these beliefs further in future professional learning experiences. Directly and systematically addressing color-blindness, cultural conflict, myth of meritocracy, deficit conceptions, and expectations (Milner, 2010) will be necessary to eliminate misconceptions and unacknowledged harmful beliefs. Professional learning that challenges participants' existing beliefs and assumptions that may be in conflict with culturally responsive practices will require individuals to resolve this conflict before putting new practices into action (García & Guerra, 2004).

Putting Knowledge into Practice

Both preservice and in-service practitioners gave similar definitions of CRP both before and after the PD with an increased emphasis on the importance of academic success following the professional development. Participants left this PD experience with some ideas about the importance of setting high academic expectations and getting to know students in order to build on their cultural and background knowledge; however, for some preservice teachers there was not a clear way to move forward. Putting this new knowledge into action may require teachers to have more understanding of the larger context of their schools and students' communities. Providing teacher candidates with exercises in perspective taking invites them to explore new knowledge of students and the sociocultural contexts where they may teach (Warren, 2018). Carefully designed field experiences including critical reflection opportunities may support preservice teachers' development of more practical knowledge for enacting CRP (Bennett, 2013). If successful, these may also serve as mastery experiences to support self-efficacy beliefs.

It is unsurprising that one day of PD did not reflect a pattern of participants' development of sociopolitical consciousness. Ladson-Billings (2014) has noted that in the more than twenty

years since originally publishing her ideas, “few have taken up the sociopolitical dimensions of the work, instead dulling its critical edge or omitting it altogether” (p.75). In order to foster this consciousness with K-12 students, teachers must first have an understanding of how sociopolitical factors have affected their own experiences. Villegas and Lucas (2002) suggested that future teachers must grapple with the discomfort inherent in recognizing “schools help to reproduce existing social inequalities while giving the illusion that such inequalities are natural and fair” (p. 23). Historically, White preservice teachers largely fail to recognize systems of oppression or inequity that may affect individuals (Chizak & Chizak, 2005). Optimistically, research into preservice teachers of this generation shows fewer themes of their reliance on stereotypes or deficit thinking as well as greater acceptance of diversity (Castro, 2010). This shift may serve as an opening for teacher preparation programs to provide explicit instruction to advance teachers’ understanding of how schools interact with other societal institutions.

Limitations

There is a constant tension in education between depth and breadth (Schwartz, Sadler, Sonnert, & Tai, 2008) and educator professional development is no exception. Restrictions on teachers’ availability outside their classrooms, preservice teachers’ demanding course requirements, and lack of available substitute teachers all limit opportunities for ideal professional development designs. The Project IMPACT team faced each of these limitations when working with our four partner districts to provide PD where our pre- and in-service teacher participants could learn together. All partners agreed to provide multiple CRP PD opportunities each project year, so that we may capture as many features of effective PD as possible (Darling-Hammond, et al., 2017) over time. This initial PD was designed to be responsive to participants’ availability while also including as many effective features as possible. It is also important to note that because our PD is designed in consultation with district partners for input on both content and format, we believe some of the special limitations associated with systems and supports are mitigated in our work.

Significance and Implications

As teacher educators, we are interested in the implications of this study to understand what preservice teachers can learn in a single, intensive experience and what we need to do to support them more throughout their undergraduate careers. Specifically, the lack of recognizing the importance of sociopolitical consciousness to CRP was notable. Understanding this concept may require significant development of knowledge about systems of inequity that many of the typically White, middle-class preservice teachers have not personally experienced. Our continued work will involve examining multiple points in the curricula to infuse content that allows preservice teachers to reflect on topics that will deepen their sense of sociopolitical consciousness so that they may, in turn, support their K-12 students in this kind of learning.

It is evident from our findings that additional professional development may be necessary for in-service teachers as well. Through our university-district partnership, we have committed to maintaining a focus on CRP and providing additional, varied opportunities for professional learning. In the second year of the project, we have extended our offerings to include a series of two workshops, professional learning resources, and book study discussion groups. As we

continue to work together, we will continue to adjust the format and content of these professional learning experiences to best meet the audience's needs.

This study also provided insight into the importance of giving our preservice teachers a meaningful experience to learn alongside their in-service mentors in this project. We are currently in year one of this five-year partnership, and our work to provide professional learning experiences for pre- and in-service teachers on CRP will continue for the duration of this project. Ideally, our team will not only help our district partners meet their staffing needs, but also add to the knowledge base on professional development on CRP for improved student outcomes. We believe this work is important for our regional partners, the students they serve, and the broader PK-12 educational community. Specifically, we hope this work will provide both pre- and in-service teachers with additional knowledge and skills that might help them better meet the needs of diverse student populations. We find participants' positive change in self-efficacy encouraging and aim to move further with these results in future learning opportunities with participants.

Future Research

During the subsequent years of this project, we are interested in understanding educators' changes in self-efficacy as they relate to additional time both to reflect on learning and to apply what they are learning in their own classrooms. As we move to implementing multiple PD days throughout the academic year, we will examine how extended reflection time changes the self-efficacy of both preservice and in-service teachers. In addition, it would be beneficial to follow several teachers to collect deeper evidence about their beliefs through qualitative interviews and classroom observations to note the impact of the PD on practice.

Another area we hope to explore in future work is examining whether preservice teachers' self-efficacy beliefs vary depending on the setting (e.g., urbanicity) of their field experiences. With diverse contexts represented in our four partner districts, it is important to study if or how these placements impact preservice teachers' feelings of readiness to work with CLD youth. We also plan to incorporate measures of implicit bias in future studies, in the hopes that we can help participants better understand their own biases and engage in efforts to overcome them.

Finally, the unique focus of our PD to address both pre-service and in-service teachers learning side-by-side is worth additional study. Preservice and in-service teachers bring distinct perspectives to their learning and more can be done to intentionally leverage these strengths. As we go forward, we will study the ways that both work to implement the strategies that they learned about in their shared classrooms.

Conclusion

Our review of the literature suggests too little is known about how to best prepare teachers for working with diverse student populations. A focus on CRP is one way educator preparation programs and district leaders may work to improve teachers' beliefs, knowledge, and practices in support of CLD students. Deeply understanding how culture and bias impact our teaching requires time, deep discussion, and ongoing reflection. We are especially motivated to continue

these efforts given that each of our four partner districts, despite their demographic differences, expressed a strong need for improved culturally responsive competencies for both their new hires and current faculty. The fact that each of our partner districts identified CRP as a critical need suggests to us that many districts in our region may need innovative professional learning experiences to support teachers work with students from all backgrounds.

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Appendix A. Examples from Code Book of Refined Open Codes

Additional Definition Codes (open)	
Needs- Possible attempt at cultural competence, but focused on student <i>needs</i> generally	<p>“Meeting the needs of all your students” (3)</p> <p>“Adjusting your curriculum for audience's cultural needs” (40)</p>
Diversity- Possible attempt at cultural competence, but focused on <i>differences</i> generally	<p>“the educator making an effort to look at classroom practice through a lense of diversity” (23)</p> <p>“Having an awareness of culture differences” (37)</p>
Inclusion- Possible attempt at cultural competence, but focused on <i>being inclusive or welcoming all</i> students generally	<p>“Content that pertains to all students from all backgrounds/ socioeconomic/cultural” (11)</p> <p>“Adjusting lessons and classroom experience for all students in reference to all cultures, ethnicities, abilities, etc.” (40)</p>
Post-Workshop Open-Ended Questions Codes (open)	
High Expectations- High expectations are an important factor in CRP	<p>“Set high expectations of all my learners and to be mindful of others and their backgrounds” (34)</p> <p>“Making my students learning more challenging and appropriate to their learning level” (39)</p>
Getting to Know Students- the importance of getting to know your students to make CRP effective	<p>“Listening deeply” (3)</p> <p>“Bringing culture into the classroom and learning about students’ individual cultures/ interest to build into my instruction” (13)</p>
“WHY”- central focus of the PD , to include comments about examining or reflecting on self, own learning	<p>“An opportunity to understand what I bring to the table” (8)</p> <p>“The opportunity to reflect and think about my "why" and how it affects my classroom/ teaching / professionalism” (14)</p>
“How to” General- Next steps or questions that are very general in nature and could not be observed/follow through	<p>“Putting things into practice soon” (16)</p> <p>“Being able to gain takeaways that I can use in my classroom/school” (30)</p>

KNOWING WHY AND RESPECTING WHO WE TEACH

Appendix B. Application of Codes

Coding for CRP definitions

CODE	PRE-Workshop (/31)			POST-workshop (/36)		
	Preservice	In-service	Total	Preservice	In-service	Total
Academic Success (AS)	0	2	2	8	8	16
Cultural Competence (CC)	11	9	20	8	8	16
Sociopolitical consciousness (SC)	2	1	3	2	0	2
CC as Diversity	1	6	7	1	5	6
CC as Inclusion	2	5	7	6	5	11
CC as Needs	1	3	4	1	2	3

Coding for Post-Workshop Open-ended Questions

CODE	Preservice	In-service	Total (/41)
General statement or question about “How to” enact CRP	22	9	31
Specific statement or question about <u>having high expectations</u>	2	6	8
Specific statement or question about <u>getting to know students</u>	10	7	17
Specific statement or question about <u>exploring own “why”</u>	6	15	21
Specific statement or question about <u>collaborating with colleagues</u>	1	9	10
Specific statement or question not otherwise categorized	12	10	22