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Linking Document: Critical and Culturally Responsive Teacher Preparation, Development, and
Intervention to Meet the Needs of All Learners

Teaching is an act of social justice. I come to this work with fourteen years of special education experience – fourteen years of insisting to general education teachers that I and my students *are* coming in, accepting nothing less than inclusion and belonging. Couched in transformative worldview paradigm in which collaborative and emancipatory research, education, and teacher preparation excavate systems of power and our own positionality within them, my service to individuals with disabilities seeks to transform opportunities for students multiply marginalized by White supremacist notions of normalcy. Disability Critical Race Theory, or DisCrit (Annamma, 2016) theorizes this intersectional minoritization within historical and current policies and practices in education and proposes a way forward that embraces teaching as an act of social justice. Culturally responsive pedagogy paves that path, but only if researchers, teachers, and teacher educators fully commit to confronting issues of racism, ableism, classism, and other systems of oppression by making explicit connections between broad cultural and sociopolitical context and daily experiences of students.

Paper One

The first paper of my three-manuscript dissertation is conceptual replication of Trent, Kea, and Oh's (2008) literature review, which examined research on incorporation of multicultural education in preservice general and special education teacher preparation programs from 1997 to 2006. While the 1997-2006 literature review analyzed both general *and* special education teacher education programs (TEPs), development of substantial literature base on culturally relevant pedagogy for students in general education, and relative lack of growth in the literature base on CRP (Culturally Responsive Practices) for students in special education, warranted a closer examination of where special education TEPs are operating in relation to culturally relevant and responsive teaching.

For analysis, I used Gorski's typologies of multicultural teacher education (MTE) to highlight "patterns of thought and meaning" (Gorski, 2008) in the 14 included articles, as well as Bal & Trainor's rubric for culturally responsive research (CRR) to frame the discussion about the ways in which researchers plan, conduct, and report studies (Bal & Trainor, 2016). One of the most salient findings from the conceptually replicated literature review was the cruciality, difficulty, and scarcity of explicitly connecting (for pre-service special educators) the issues of inequities that CLD (Culturally and Linguistically Diverse) students with disabilities (SWDs) face in school and the larger socio-political oppression outside of school. For example, one included study that matched Gorski's typology of "Teaching as Resistance and Counter-Hegemonic Practice," did not ask its PSTs (Preservice Teachers) to drive 136 miles from campus to their student teaching placements without critically examining the distance between and disparities of one location to the other. Such issues were explicitly called out and leveraged to teach dominant narratives and systems of power.

Paper Two

In addition to using DisCrit to conceptualize why CLD SWDs are left out of research, the CRR (Bal & Trainor, 2016) and another 2016 framework (Rivera et al., 2016) aimed at improving the outcomes for CLD students with ID, buttress my explanatory sequential mixed methods study. Mixed methods can be appropriately applied to the issues specific to special education research, empowers researchers to focus on the intersectional and exceptional needs of CLD SWDs, and examines research inquiries that can have the most significant impact on educational pedagogy and practice (Corr et al., 2021). In addition to underpinning the mixed methods research study with conceptual frameworks, the study is modeled after a similar 2011 study in which the author examined research questions about preservice teachers' culturally responsive teacher self-efficacy (CRTSE) through an explanatory mixed methods research design. Whereas

the CRTSE targeted preservice teachers' self-perceived effectiveness regarding their abilities to teach CLD students, the survey in the current mixed methods research study, examines specific behaviors associated with incorporating culture into instruction for intersectionally marginalized students. Since special education research on academic interventions for students with ID largely exclude implications of researcher, teacher, and student culture, it is appropriate to extend and apply these practices to instruction for students whose intersectional identity creates complex instructional contexts.

The time one spends engaged in an activity can indicate the level of motivation around a particular topic, skill, or goal. While a self-reporting survey of time spent, for example, "outside of school learning about the cultures and languages of [my] students" cannot provide the whole answer for the research question, it can provide a broad brushstroke of general behavior. From this, open ended and semi-structured interview questions revealed more detail about how special educators enact culturally responsive practices for CLD students with who take alternate assessments. Initial IRB approval was received on September 30, 2021. Rigorous distribution strategies from October 2021 to March 2022 included professional organizations, researching contact information and reaching out to state and district level special education directors and coordinators across the US, and posting widely on social media through specialized interest groups of educators who teach students on alternate assessments. Distribution yielded 29 survey respondents. The full survey is available as an appendix to paper 2, and asks about math, science, literacy, and social studies instruction, as well as how often the special educator considers the cultural implications of classroom displays, materials, and curriculum in their planning and instruction for the CLD students who take the alternate assessment.

The findings from phase one were regarding only the behaviors of special educators who teach CLD students who take the alternate assessment ($n=16$). First, survey respondents reported

relatively high levels of encouraging English Language Learner families to speak to their children in their first language, but low levels of learning and using greetings and phrases to praise students in their first language in the context of the classroom. Second, apropos to the limited research supporting culturally responsive content instruction for students who take alternate assessments, self-reports of engagement in culturally responsive content instruction, particularly math and science were among the lowest raw scores on matrix one. Third, survey respondents that indicated high levels of engagement in, for example, spending time outside of school learning about their students' language and culture, also tended to indicate high levels of planning instruction using examples that are taken from students' everyday lives in and out of school. The findings from the survey seemed to align with the gap in literature, and the purpose of phase two became understanding what teachers are doing, if anything, to embed culturally responsive teaching into evidence-based content instruction. If they are not engaging in this integrative teaching behavior, then what are they doing for content area instruction?

Paper Three

Initial IRB approval (9/30/22) was based on the following questions and prompts: Tell me about you: geography, education, experience, philosophy on teaching students who take the alternate assessment; Tell me about your district; Your school; Your classroom (the curriculum, the displays, the books, the teachers); Tell me about your students who are culturally and/or linguistically diverse; How have you gotten to know them? What are their programs like? Do you have support (professional learning community, professional development, e.g.) that incorporates culturally responsive pedagogy with the unique needs of your students on the alternate assessment? Tell me about your relationships with students' families; Where do you learn greetings and phrases in students' native languages? How do you choose which events and people to teach to your CLD SWDs who take the alternate assessment? How do you familiarize

yourself with a students' cultural background? Lastly, how do you include it in your teaching?

Full interview protocol appears as an appendix to paper three.

Interview transcripts were analyzed through the lens of a 2016 framework aimed to understand and improve educational outcomes for students with moderate to severe ID (Rivera et al., 2016), because to date it has not been used to examine culturally responsive content instruction for students with ID who take alternate assessments, who are also marginalized by race, culture, ethnicity, indigeneity, and/or socioeconomics. The findings of phase two updated the initial framework's eight components and operationalized them in more detail, expanded, and then collapsed down to seven components. Interpreting interview data through the updated culturally responsive framework, provided a more detailed picture (than the survey alone) of how participants enact each component: technology, self-determination, multiple opportunities to respond, safe learning environments, systematic and explicit instruction, primary language support, and integrating cultural information.

Quantitatively interpreted, participants reported engaging in moderate rates of behavior to promote self-determination and a safe learning environment, and low rates of primary language support. However, both phase two participants reference the framework construct of *integrating cultural information* at very high rates - more than any of the other constructs. Within the three supporting constructs (positionality, cultural information gathering, and cultural integration in the classroom) one teacher who had received professional development in culturally responsive teaching referenced engaging in cultural information gathering at a higher rate than the teacher that did not have access to culturally responsive training. Whereas the teacher who had not received professional development on culturally responsive teaching indicated higher rates of positionality. Both teachers, however, referenced low rates of specific instances of integrating cultural information into the classroom. Survey data from phase one and qualitative interview

data from phase two indicate low levels of teacher engagement in culturally responsive practices during content instruction. Teachers are tasked with delivering evidence-based instruction, so when their support for this is available in a context that treats instruction as culture neutral, then that is what we are likely to see occurring in the classroom. This is evident from responses to the survey to which respondents reported the least amount of culturally responsive teaching behaviors in math and science. If increased outcomes are the goal, teachers must be supported with evidence-based, culturally responsive practices to get there.

Future Directions

From the following literature review and mixed methods research manuscripts, there are two paths to pursue in future work. First, is to engage in teacher education, including preservice preparation and in-service professional development. Teachers make an estimated 1500 decisions per day, and it is imperative that special educators make these decisions with their eyes wide open to the systems within which they work, and full understanding of socio-cultural implications of our students' intersectional experiences. Teaching *is* an act of social justice, and we are either reifying dominant narratives or challenging the hegemonic practices that exclude children and diminish their opportunity to thrive based on socially constructed definitions of ability and worth. While research indicates an increase in culturally responsive practices embedded in teacher education programs, this is occurring at varying depths of criticality and depth. "Teaching as counter hegemonic practices" requires diligent, intentional, and continuous excavation of systems of power. To correct the tendency of special education studies on academic interventions for students with intellectual disabilities who take alternate assessments, to treat research and teaching as culture-free, the second path forward is to replicate evidence-based practices and embed culturally responsive instruction. These include but are not limited to

individualized cultural contributions to content areas that are then reflected in the materials, events, concepts, assessment, and validity of academic skills.

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**Preparing Preservice Special Educators
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A Review of Literature from 2005-2020**

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Abstract

This current literature review examines research from 2005 to 2021 on preparing special education teachers to be culturally responsive. A total of 14 studies from 11 journals on special education teacher preparation met criteria for inclusion in this literature review. Analysis against a Multicultural Teacher Education (MTE) framework highlights two studies that make an explicit connection between larger social and educational inequities for culturally and linguistically diverse exceptional (CLDE) learners. Additional findings revealed that while many things have not changed, such as a singular faculty often responsible for multicultural teacher education and treatment of culturally responsive research as culture-free, research trends indicate a shift in the critical manner in which culturally responsive practices are taught and measured in preservice special educators.

**Preparing Preservice Special Educators
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Ongoing, disproportionate outcomes for students with disabilities (SWD) by race indicate that, among other factors, special education teacher preparation programs (TPPs) are perhaps not preparing teachers to equitably meet the instructional needs of culturally and linguistically diverse (CLD) SWDs. As just one example, the overall graduation rate for US high schoolers in 2019 was 88%, but among students served under IDEA during the 2018-2019 school year, 72% graduated. While White and Asian students did slightly better than the national average for SWD among whom 76% and 78%, respectively, graduated from high school, only 69% of Hispanic SWD and 65% of Black SWD graduated that same year (Husser et al., 2020).

K12 US classrooms are becoming increasingly diverse, while teachers are not. According to a 2020 report, the years between 2009 and 2020 reflected a decrease in the number of White students enrolled in k12 public schools (from 54-46%), a smaller decrease in the number of Black students enrolled (from 17-15%), and an increase in Hispanic students (from 22-28%), resulting in 54% of k12 students enrolled in public schools being non-White (NCES, 2020). Meanwhile the teacher workforce in 2020 was 79% White, 7% Black, 9% Hispanic, 2% Asian, 1% Indigenous American/Alaska Native, and 2% identified as two or more races (NCES, 2020). In addition to graduation rates, several reports regarding disproportionate school discipline (U.S. Department of Education, Office of Civil Rights, 2019), over- and under-identification of disabilities requiring special education (NCLD, 2020), and exclusion rates from the general education classrooms (NCLD, 2020), indicate that this disparate representation of White teachers to the population of non-White students is problematic.

Decades of theorizing about teaching (the act of instruction) and pedagogy (methods of instruction) have contributed to several frameworks to support educators in service of the increasing diversity in student population given the predominance of White teachers. Culturally Responsive Teaching, Culturally Relevant Teaching, Culturally Inclusive Teaching, Antiracist Pedagogy, and Multicultural Teacher Education are just a few examples of equity-seeking instruction and methods offering solutions to the disparate representation of teachers and students and the problems it creates. However, frequently omitted from these frameworks is the critical perspective on the ways in which ability has been used in conjunction with racism to narrowly define intelligence to conflate it with Whiteness. While support for *general* educators to create equitable educational spaces for racially, culturally, linguistically, socioeconomically, ethnically, or otherwise marginalized students abounds, there is significantly less research to support *special* educator teacher preparation.

Built upon other theories of culture and liberatory education such as Freire, authors of Culturally Responsive Pedagogy recommended several practices for educators and researchers, including incorporating culture, recruiting and promoting members of the community as educators and leaders, and training “Anglo” teachers through experiential and formal training (Cazden, C.B., & Leggett, E.L., 1976). Two decades later, Culturally Relevant Teaching was conceptualized to affirm cultural identity through relevant academic rigor and critical sociopolitical awareness (Ladson-Billings, 1995). Rather than problematizing student socioeconomic status or family structure, for example, Culturally Relevant Pedagogues problematize the education system. Culturally Responsive Teaching was revisited in 2002 to further operationalize the preparation of teachers to correct the view of cultural and learning differences through a deficit lens (Gay, 2002). In this new application of the Culturally Responsive Teaching, equitable opportunity in education was operationalized as both culturally responsive

and developmentally appropriate. Drawing from the ecological model of disability and work on disproportionate representation of racially, culturally, and linguistically diverse students in special education, the revised Culturally Responsive Framework addressed the reality that educator perceptions of ability were undoubtedly related to lack of culturally “misunderstood incongruencies” (Gay, 2001. P. 616), thereby conflating culturally diverse ways of knowing with disability.

Culturally Sustaining Teaching was offered as, “A term that supports value of our multiethnic and multilingual present and future.” (Paris, 2012). This framework requires educators to go beyond instruction that is relevant or responsive, but to support multiculturalism and multilingualism through resourcing student culture. Antiracist Pedagogy was framed within Critical Theory to push back on the impact of racism in the classroom (Blakeney, 2005). Also framed by Critical Theory, Multicultural Teacher Education (Sleeter, 1996; Neito, 2004; Banks, 2004a; Grant & Sleeter, 2006; Gorski, 2006; Gorski 2008) developed a framework to examine how TPPs are developing preservice teachers' (PSTs') critical consciousness and empowering their commitment to equity.

Building upon multicultural typologies advanced by Banks (1993), McLaren (1995), Jenks et al., (2001), and Grant & Sleeter (2006), Gorski developed a distinct and more critically focused framework through which TPPs can evaluate their courses. Through a syllabus analysis of multicultural teacher education (MTE) courses, five typologies emerged. The theoretical framework aimed to highlight evidence that indicated “patterns of thought and meaning” through which TPPs are arranging information about multiculturalism for their PSTs (Gorski, 2009). MTE typologies sort the ways in which PSTs are engaged in this work and how non-White students are framed within these courses as: (1) Teaching the “Other,” which studies cultures and worldviews of individual identity groups with the purpose of assimilation; (2) Teaching with

Tolerance and Cultural Sensitivity, which promulgates tolerance and sensitivity through personal reflection on biases; (3) Teaching with Multicultural Competence, which prepares teachers to meet diverse student needs in the classroom; (4) Teaching in Sociopolitical Context, which engages PSTs in critical pedagogy through studies of power and oppression; and (5) Teaching as Resistance and Counter-Hegemonic Practice, which prepares teachers with strategies to engage in social activism.

While differing in many ways, these teaching and pedagogical frameworks illustrate a broader movement towards creating equitable and inclusive educational spaces. This literature review is not intended to evaluate the differences between them, but collectively acknowledge them and likely others as seeking equitable opportunity and outcomes for marginalized students. The purpose of this literature review, rather, is to examine the critical depth of what TPPs are doing to prepare the (still) overwhelmingly White teacher workforce (NCES, 2020) to create equitable opportunity for racially, culturally, socioeconomically, and linguistically minoritized students. For general education, the answer is some, but for students marginalized by these identities and ability in special education, the answer is far less.

Literature reviews offer teacher educators information to identify and evaluate PST (Preservice Teachers) preparation interventions (King et al., 2020). Regarding special educator preparation for cultural and linguistic diversity, in 1998 authors concluded that the extant research on preparing teachers to be culturally responsive was focused mostly on characteristics of teacher candidates and teacher educators, content and methods of the course or program, and the impact of the program on preservice teacher attitudes and perceptions. Researchers recommended that future research (a) include additional dependent variables; (b) move beyond surveys and questionnaires; (c) incorporate more qualitative methods to identify process variables and teacher learning over time; (d) elucidate contextual factors within the TEP

(Teacher Education Programs); and (e) minimize the perpetuation of stereotypes by focusing more on intergroup versus intragroup comparison designs (Webb-Johnson et al., 1998).

A decade later, Trent, Kea, & Oh (2008) again reviewed the research on integration of multicultural education in preservice general and special education TPPs from 1997 to 2006. The literature review aimed to answer the question of *how far* TPPs had come in preparing preservice educators for cultural diversity since the previous review of literature from 1982 and 1997 by Webb-Johnson et al. (1998). The authors examined the following questions: 1. To what extent has research on TEPs focused on multicultural issues in general and special education? 2. What journals published the studies? 3. Who authored the studies? 4. What are the characteristics of participants? 5. What topics/themes were explored? 6. What similarities and differences exist between general education and special education studies? 7. What are the changes in the type of research conducted? 8. What are the gaps in the research?

Trent et al. examined the research and practices in multicultural education in special education TPPs (SETPPs) for the contextual influences in MTE through Cultural Historical Activity Theory (CHAT). One central “tenet of CHAT is that inter- and intra-individual tensions, conflicts, and contradictions will occur within the activity setting and that these internalizations must be made transparent in ways that promote authentic participation and minimize the sustainment of hierarchies of power” (p342). Trent et al., also used a multicultural teacher education (MTE) framework, that identified a typology of multicultural education approaches which,

included: (a) contributions (accomplishments and achievements of historically marginalized groups); (b) additive (added content that does not challenge a Eurocentric perspective); (c) transformation (presentation of multiple perspectives that are integrated

and not just added to the curriculum); and (d) social justice approaches (decision making and social action) (Banks, 1993).

Findings and recommendations echoed decades of scholars' similar findings, indicating TPPs had not come far at all. TPPs were still not offering enough theory, content, and experience in culturally responsive practices nor going deep enough into issues of social justice to fully prepare preservice general and special education teachers for the students who will likely be in their classrooms (Trent et al., 2008). As had the former literature review (Webb-Johnson, 1998), the literature review by Trent et al., (2008) called for substantive changes in TPPs regarding: (a) increasing the diversity among TPP (Teacher Preparation Program) faculty, (b) recruit more CLD students into TPPs, and (c) prepare White teachers to provide culturally responsive instruction for all learners. Authors speculated that one reason for this sustained marginalization is cultural-historical factors that are rarely addressed when discussions about multicultural education in TPPs take place.

It has been more than 15 years since the last systematic review of research on preparing preservice special education teachers to serve CLD SWDs. Per recommendations from the previous literature reviews, it is time to reassess what progress has been made on: (a) addressing the issue at the programmatic level; (b) increasing coursework; (c) measuring the longitudinal efficacy of programs with standalone courses, infusion, and integration of the two; (d) usage of theoretical frameworks to address issues related to privilege, oppression, and social justice (e.g., critical theory, critical race theory) versus a primary focus on student characteristics and single group studies; and (e) research to determine the impact of TPPs on the performance of CLD learners in P-12 schools.

Based on previous review of literature between 1997 and 2006, and a necessary shift in how we conceptualize education and teacher preparation, the current review aims to answer the

following questions: 1. What journals and authors are publishing studies on equity-intending teaching and pedagogy, such as Culturally Responsive Teaching in special education teacher preparation programs (SETPPs)? 2. What are the demographics of the participants and researchers in the studies 3. What research methods are researchers employing? 4. What do the interventions look like and how is growth evaluated? 5. How are the SETPPs conceptualizing their work through theoretical frameworks of teaching and pedagogy?

Methods

To capture all the studies that have contributed to the literature on preparing special education PSTs, initial inclusion criteria for selecting manuscripts to be reviewed, adapted from Trent et al., (2008), included: peer reviewed studies published between 2005 and 2020 whose participants were preservice special education teachers enrolled in a college or university teacher preparation program; qualitative, quantitative, and mixed methods study designs; and presence of an intervention in the form of a course, series of courses, program, field placement, service project, activity, or assignment.

Data Collection

Although Trent et al. (2008) included general and special education teacher preparation articles through 2006, the current literature review examines only special education teacher preparation studies published between 2005 and 2020. Overlap years were included to ensure all studies conducted since then would be collected for analysis, and any duplicates from the overlapping years were removed. The following online indexing services and databases were used to locate articles: Academic Search Complete, Education Full Text, Education Research Complete, ERIC, and Psychological and Behavioral Sciences Collection. The following search terms were included in the Boolean/phrase search mode with peer review and date limiters between 2005 and 2020: “culturally responsive” OR “culturally relevant” OR “restorative” OR

“culturally inclusive” OR “culturally sustaining” OR multicultural* OR antiracis*; AND “teacher prep*” OR “preservice”; AND “special educat*”. Initial search yielded 120 titles after duplicates were removed. Next, the first author screened all 120 titles and abstracts using the inclusion and exclude criteria detailed above. Using the same criteria, a second coder independently screened 20% (n=24). Interobserver agreement (IOA) of title/abstract screening was calculated by dividing the number of articles that both first author and second coder agreed met initial inclusion or exclusion criteria, by the total number of double screened titles (n=24). IOA percentage agreement on initial include/exclude screening criteria was 100%.

Fourteen articles remained after initial screening after which, the journals that published each of the included studies were hand searched, ancestral searches were conducted by analyzing each reference list in studies eligible for full coding, and then used google scholar to forward search studies that have cited any of the 14 included manuscripts. These follow up searches yielded no additional studies that met screening criteria for full coding.

Data Analysis

While Gorski’s (2009) framework was initially only applied to courses in Multicultural Education, application to all teacher preparation courses answers the call to infuse teacher education programs with critical consciousness and teaching as an act of social justice, not just in one course, but throughout and as a matter of process. Using the codebook found in the appendix, 20% of manuscripts included for full coding were independently double coded. IOA for double coding was calculated by dividing the number of agreements by the total number of articles coded and was 100%. Coded data were then entered into a spreadsheet and imported into SPSS (Statistical Package for Social Sciences) software. Descriptive statistics and frequencies were generated to compare occurrences of study features.

Results

For the years 2005-2020, 14 studies met inclusion criteria and were analyzed with full coding in this literature review. Two studies included were found in the overlapping years with the last literature review from 1997-2006 and were not reviewed in the last report. Three primary reasons for exclusion were: studies that examined in-service special education teachers as opposed to preservice teachers who were still in training programs; preservice teachers that were in programs to become something other than a special education teacher; and the absence of an intervention. Although several studies examined a heterogeneous group of preservice educators, including school psychologists and general education content teachers, at least one special education preservice teacher participant was required for inclusion.

Journals

The 14 total studies on the cultural preparation of preservice special education teachers, were published in 11 journals: *Journal of Curriculum and Teaching*, *Rural Special Education Quarterly*, *Multiple Voices for Ethnically Diverse Exceptional Learners*, *Teacher Education & Special Education*, *Educational Forum*, *Interdisciplinary Journal of Teaching and Learning*, *Teaching and Teacher Education*, *International Journal of Special Education*, *Multicultural Learning and Teaching*, *Journal for Multicultural Education*, and *Journal of Urban Learning, Teaching, and Research*. One journal (*Teacher Education and Special Education*) published an article in the 1997-2006 and 2005-2020 literature reviews. Five of the 11 journals (45%) with included articles in the current literature review printed their first publication since 2005. *Multicultural Learning and Teaching* and *Journal of Urban Learning, Teaching, and Research* began publishing in 2005/2006, *Interdisciplinary Journals of Teaching and Learning* started printing in 2011, *Journal of Curriculum and Teaching* began publishing in 2012, and *Journal for Multicultural Education* in 2014. Four out of the five journals that published included articles in

the 1997-2006 literature review, did not publish any studies that met criteria for full coding in the current literature review.

Participants and Researchers

In one study (7%), data on participants were absent altogether. Total participants were not reported, nor was there any breakdown of demographics. The remaining 13 studies had a range of two to 203 subjects with a total of 524 participants (mean=40). Nine studies (64%) included information beyond the total number of participants, such as age, teaching experience, and what year in the program participants were currently enrolled. Eight studies (57%) included gender information, and 81% of the participants in these studies were female. Seven studies (50%) reported racial data on 261 participants. Of them, 200 identified as White or European American (76%), 29 identified as Black or African American (11%), seven identified as Latino or Hispanic (3%), and one participant in one study identified as Native American (<1%).

Thirty-eight researchers were involved in the studies analyzed in this literature review and only one researcher's name (Peterson) appeared twice. Proportionately, the same number of researchers are authoring studies. The previous literature review found 17 authors published over a 10-year period (approximately 2 per year), and 38 authors published over the 16-year span of the current literature review (exactly two per year). Three studies (21%) provided information about the researchers, such as travel and cross-cultural experiences, professional statements, and positionality statements that disclose racial and socioeconomic demographics, as well as relevant experience. Not all three were qualitative studies, and not all qualitative studies included positionality statements.

Research Methodology

Due to the cultural norms of a participant community, one study did not follow any methodology, but was transparent about cultural reasons the study had to exist as a friendship,

rather than a researcher-participant relationship. Methods used in the other studies included quantitative, qualitative, and mixed methodology. Across all included studies, mixed methods and qualitative methodology were used most frequently (both $n=6$; 43%), followed by quantitative methodology ($n=2$; 15%). Qualitative data were collected through interviews and focus groups ($n=3$; 21%), written reflections prompted by open-ended questions ($n=6$; 43%), and evaluation/feedback ($n=2$; 14%). Quantitative data collection consisted of questionnaires and surveys ($n=6$; 43%), rubrics and checklists ($n=3$; 21%), and developed, evaluated, and validated measures ($n=3$; 21%). Tests used to analyze quantitative data included time-series analysis ($n=1$, 7%); regression ($n=1$, 7%); descriptive statistics ($n=3$; 21%), t-tests ($n=3$; 21%); and ANOVA ($n=2$; 14%). Reliability and validity of measurement tools were discussed in five studies ($n=5$; 36%), and two studies ($n=2$; 14%) reported the reliability coefficient.

Interventions

Among the articles included for full analysis in this literature review, none expressly replicated other studies. Some interventions reported however, are well supported as practices for preparing preservice teachers in culturally responsive pedagogy, such as cross-cultural experiences. Researchers indicated that preparation of the teacher workforce, who hail from predominantly White, middle-class neighborhoods and lack experiences outside of their own culture and require meaningful cross-cultural/community experiences. Interventions analyzed in this review consisted of course(s) (singular and programmatic strands), projects, advising, mentoring, field experiences, community partnerships, immersion and study abroad trips, and service-learning projects. 36% ($n=5$) reported the results of interventions centered around coursework, but most of the research ($n=9$; 64%) examined special education teacher preparation through an intervention that combined coursework and some level of experiential learning. Experiential learning ranged from participating in cross-cultural events and service-learning

projects in historically under resourced schools, to increasingly immersive experiences such as student teaching and studying abroad. In addition to experiential learning, one study (Peterson et al., 2020) highly valued heavily involved advising and mentorship as a key component of their intervention.

The interventions analyzed in this literature review were aimed at affective indicators and observable behaviors. While affective indicators such as attitudes, perceptions, concerns, and beliefs were measured most often ($n=7$, 50%), nearly half of the studies measured observable behaviors ($n=6$, 43%), and one study measured both the attitudes and beliefs of preservice special education teachers and observable behaviors during student teaching. Observations were conducted and measured by not just researchers and university supervisors, but in one study (Mustian et al., 2017), data were collected from k12 students, building administrators, and community members.

Special Education Teacher Preparation Programs

In addition to content analysis of research included in the present literature review, conceptualization of equitable pedagogy in SETPPs is central to the current review. When measured against Gorski's typologies of MTE, none of the studies examined in this literature review conceptualized teaching students from non-dominant culture as othering (Gorski, 2009). Although one study used the terminology of "other", it was put into quotes, and did not otherwise conceptualize or position students as "others." Three studies (21%) were coded as "teaching with cultural sensitivity and tolerance." A majority ($n=9$, 64%) of the studies were coded as the MTE typology of "teaching with multicultural competence." One study (7%) was coded as "teaching in sociopolitical context," and one study (7%) was coded as "teaching as resistance and counter hegemonic practice."

While one research group self-categorized their study as Gorski MTE typology of “teaching with multicultural competence,” most did not specifically reference Gorski or the MTE framework. Most studies anchored research in Culturally Responsive Pedagogy (n = 6; 43%) and an additional study created an urban specific model from the CRP framework. Four studies (29%) used the Developmental Model of Intercultural Sensitivity (DMIS), although one of them supplemented the framework with Nieto’s work on creating multicultural learning communities (Nieto, 1999). The remaining frameworks were only employed in one study each: Continuum of Family Involvement Training and Modules for Collaborative Training; Universal Design for Learning (UDL); and Global Citizenship.

Discussion and Implications

Limitations

There are three salient limitations that must be considered when interpreting the findings of the current literature review. First, is the author’s positionality. She is a late in life doctoral candidate; a White, cisgender Queer with extensive teaching and travel experience; grew up low income but has, as an adult, lived a middle-class existence in the Mid Atlantic South. Second, whereas Trent, et al., (2008) reviewed both general and special education, the current review focuses on special education. CLD SWDs bring a unique and intersectional experience to the classroom that necessitates TPPs prepare special educators to push beyond cultural competency, into explicit understanding and confrontation of the socio-cultural implications of ability and race. Narrowing focus in this way may miss connections between the research of equitable pedagogy in general and special education. Lastly, this review focused on preservice teachers, to the omission of professional development for in-service special educators who teach CLD SWDs.

Relevant Demographic Information

It is difficult to argue that racial information is irrelevant to a study on culturally responsive special education teacher preparation. The necessity for culturally responsive teaching is a direct byproduct of the fact that the teacher workforce is predominantly White and female with limited cross-cultural experiences. White teachers are susceptible to underestimating how much of their teaching is culturally mitigated (Muniz, 2019). Because teachers carry the same degree of biases as public at large (Starck, et al., 2020), without intentional deconstruction of individual and systemic privileges and oppressions that maintain biases, teachers will inadvertently (implicitly) or consciously (explicitly) perpetuate inequitable educational opportunities for CLD SWDs. Therefore, the role of race, culture, and language in preparing and researching special education PSTs to decenter their own culture, cannot be understated. The Culturally Responsive Rubric (CRR) recommends reporting participant information relevant to the study and research context to ensure rigor, transparency, generalizability, and replicability. (Bal & Trainor, 2016). To this end, all but one study reported the total number of participants, but further relevant information on PSTs was only reported in nine studies (64%) and was limited to gender and race. One-third of studies on culturally responsive preparation of special education teachers did not report any racial or relevant cultural information about participants. While what is considered relevant information is subject to debate, suggesting that race and culture are irrelevant to research on culturally responsive practices, is not.

Researchers are similarly susceptible to underestimating how much of their study is culturally influenced (Bal & Trainor, 2016). Authors of the CRR posit that researcher positionality is equally as relevant in quantitative work as it is in qualitative, and that from research questions to methodology, culture is relevant to every study stage of the process. Most studies included (79%) did not report any researcher information. Of the three that did (two qualitative, one mixed methods), one provided brief professional statements, a second provided

race (European-American), general SES information (middle class), and a statement regarding teaching experience in “an urban setting,” and the third cited travel and international experience. When evaluated against the CRR, only one study would potentially score well for addressing the “contextualized institutional dimensions and relational positions” of the researchers. Culturally responsive research is not possible without transparent reporting of relevant researcher positionality.

Faculty issues in TPPs go deeper than reporting positionality in research. Teacher educators are predominantly comprised of White faculty, a majority of whom are male. The few faculty members of color at institutes of higher education (IHE) are expected to bear the sole burden of MTE, to the detriment of their own research and promotion. White faculty, however, are less likely to center MTE due to their own lack of experience and well-intentioned fear of reifying stereotypes rather than dismantling them. As the previous literature review and the literature review before that have concluded, problematic and less effective is MTE that exist within the context of just one course and/or within the expertise of a single faculty member. This literature review again highlights the importance of programmatic and developmental preparation of special education teachers to fully confront systems of racism and ableism, rather than one off courses and highly specialized faculty who take MTE with them when they move on to other institutions.

Moving forward, research and pedagogues who aim to be culturally relevant, restorative, responsive, inclusive, and/or sustaining, necessitate critical examination and transparent reporting of their own and their PSTs’ relevant cultural, racial, and socioeconomic identities. Omission of racial, socioeconomic, gender, ethnicity, and other critically relevant details in research reporting and publishing is not neutral, but further marginalizes CLD SWDs and the research aimed to support them. Special education PST preparation in culturally responsive

pedagogy cannot fully confront issues of the intersectional experiences for CLD SWDs without acknowledging the relevance of the racial and cultural make-up of current teacher, teacher educator, and researcher workforce.

Making the Connection Explicit

Culturally responsive preservice special education teacher preparation requires an explicit connection between educational and broader sociopolitical inequities. Most of the studies included in the current literature review operated within Gorski's MTE typology of teaching with "cultural sensitivity and tolerance" and "teaching with multicultural competence" (n=12; 86%). However, teaching tolerance, cultural competencies, and strategies for a diverse classroom, even when special education PSTs are asked to examine their biases and interpersonal relationships, tends to problematize diversity, and does not connect the experiences of CLD SWDs in and out of school. Explicit connection between systemic oppression and inequitable educational opportunities and outcomes, prepares special education PSTs to meet the unique and intersectional needs of CLD SWDs. Two studies in the current literature review (Knotts & Keeseey, 2016; and Mustian et al., 2017) conceptualized teaching CLD SWDs "within sociopolitical contexts" and as "counter-hegemonic practice," and are central to advancing culturally responsive special education teacher preparation, specifically for the deliberate connection between educational and larger sociopolitical inequities.

One significant study (Mustian et al.,2017) aligned with Gorski's MTE typology of teaching as "resistance and counter-hegemonic practice" because of: the critical examination and subsequent shifting of power dynamics between the university and an urban district that hosted their preservice teachers; emphasis on social justice through substantive cross-community experiences and programmatic infusion of coursework on social issues around disability, race, and culture; and the explicit connection between educational inequities to larger social inequities.

Cross-community engagement occurred in urban areas that were undergoing community revitalization, experiencing gun violence and police abuse. Special Education PST did not just drive the 136 miles to participate in a service-learning project. The distance was leveraged to highlight the larger social inequities in opportunity and outcome. Visible disparities were not left unaddressed, but explicitly connected to educational inequities in school resources and qualified teachers.

Issues of culturally responsive special education teacher preparation are not relegated to urban areas. Although studied less frequently ($n=2$ in this review), rural schools are often under-resourced and face consistent shortages of special education teachers prepared to meet the increasingly diverse and unique needs of their CLD SWDs. Authors of another noteworthy study (Knotts & Keesey, 2016) partnered with a rural community to develop culturally responsive curriculum for their SWDs. The study aligned with Gorski's MTE typology of "teaching within the sociopolitical context" because of the explicit and developmental program aimed at preparing teachers to be responsive to the cultural, linguistic, racial, and socioeconomic diversity in rural settings. Prevalence of poverty in rural areas (four times that of metro areas) was explicitly connected to the lack of school resources, and the marginalization that this disparity creates for CLD SWDs. Issues of White dominance, marginalized populations, and deficit views were unambiguously connected to students' intersectional experience in and out of school.

Meaningful Cross-Community Experiences

Cross-cultural and -community experiences have shown efficacy for applying theory to practice (Cite). 64% of the included studies employed this feature in their SETPPs to varying degrees of immersion and feasibility. Mustian et al. (2017) reported on an urban SETPP (special education teacher preparation programs) that highly valued the opportunities afforded by cross-community experiences. Not only did special education PSTs engage in cross-community

experiences prior to student teaching, they physically resided in the communities in which they taught during student teaching. The cross-cultural experience was made meaningful by supporting special education PST cultural and racial identity development, critically examining educational and sociopolitical marginalization of CLD SWDs, and programmatic infusion of culturally responsive pedagogy. Cross-community experience in rural areas offers the same opportunities to apply theory and practice of teaching CLD SWDs. Through community partnerships and direct interaction, special education PSTs in Knotts & Keesey's (2016) study were exposed to an unfamiliar culture and required to decenter their own culture to meet the needs of CLD SWDs.

More Than Just Culturally Responsive

Preparing special education PSTs to resist dominant hegemonic practice, whether in rural, urban, or in between necessitates explicit instruction on the ways in which CLD SWDs are intersectionally discriminated against in educational systems and larger sociocultural systems. Using a framework such as Culturally Responsive Teaching does not guarantee a full confrontation of the issues of marginalization outside of White dominance, and specific issues around race, disability, and culture. Critical Disability Studies (DisCrit) however, offers a framework to examine and address the intersectional and multiplicative layers of discrimination that traumatize and stymie the trajectory of CLD SWDs (Annamma, et al., 2013). Exposure to issues such as dismal graduation rates for Black and Hispanic students with disabilities, disproportionate office referrals, educational exclusion, deficit framing of disability in IDEA and racist origins of IQ tests have the potential to reify White supremacy without the contextualization of those educational inequities within the larger issues of racism, ableism, classism, and nationalism. Silence on these issues must give way to explicit understanding of and resistance to the systems in which CLD SWDs exist.

Knotts & Keesey (2017) and Mustian et al., (2016) are only two of the studies that used CRP as a framework. Accounting for the difference between these two studies and the other four studies that used CRP but align with Gorski's MTE typology of teaching with "cultural sensitivity and tolerance" and "teaching with multicultural competence", is complicated. While the codable reasons are evident from the research report, there are also sociopolitical influences in operation. For example, analysis of the studies included in this literature review reveals a trend of increasingly critical conceptualization of culturally responsive pedagogy over time. Most of the studies that most closely aligned with Gorski MTE typology of "teaching with cultural sensitivity and tolerance" occurred before 2009, while the two studies that prepared special education PSTs to teach "within sociopolitical contexts" and "as resistance and counter-hegemonic practice" occurred since 2016. The findings of the previous literature review indicated that things had not changed all that much in the decades-long pursuit for programmatic objectives and intensive, developmental instruction on culture, cultural identity, and liberatory education rooted in social justice for preservice special education teachers. However, the current literature review findings indicate that there is positive movement towards deeply critical and culturally relevant pedagogy in the preparation of special educators.

With the introduction of Gorski's MTE typology in 2009 and CRR in 2016, it is inappropriate to hold previous studies to a standard not yet established. While measures such as Gorski's MTE typologies, indicate that preparation of special education teachers is increasingly more connected and grounded in social justice – schools, families, policy makers, and researchers need to also be asking if it is moving the needle for CLD SWDs. Further research should examine the evidence that preparation of special education teachers in critical and culturally responsive practices decreases disproportionate office referrals and disparity in graduation rates, for example.

Conclusions

In this literature review, analysis of studies using Gorski's MTE typology was conducted to provide a snapshot of how TPPs are preparing culturally responsive special educators, to assess progress since the previous literature review, and to propose recommendations for future research and counter-hegemonic preparation of special education PSTs. The findings of the last literature review (Trent et al., 2008) echoed a decades-long call for more programmatic coverage of culturally responsive pedagogy, including more coursework that is infused with critical study of systems of oppression and privilege. On one level, not much has changed. Despite increasing awareness and publishing capacity, the amount of published research on culturally responsive special education teacher preparation remains the same, as does the way participant and researcher demographics are reported. Cross cultural experiences and Culturally Responsive Teaching remain highly used, as do surveys.

However, on another level, research, and practice, show a liberating trend towards increased critical conceptualization of SETPP research, a shift in methodology, and an increased emphasis on the explicit connection between educational inequities and broader social inequities. One remarkable indication of progress since the last literature review is the increase in the number of journals, from five to 11. An increase in the journals publishing studies on preparing special education preservice teachers for CLD SWDs creates greater capacity for research volume. Unfortunately, this is not reflected in the rate of studies published in the last 15 years. Methodological trends have reversed, and now mixed and qualitative methods are used most frequently, whereas only one study used qualitative methodology in the previous literature review. Instrumentation has expanded from mostly surveys to a combination of attitudinal and behavioral measures, some of which are supported by validity and reliability indicators.

Maya Angelou is quoted as saying, “Do the best you can until you know better. Then when you know better, do better.” Theoretical frameworks such as the CRR, DisCrit, and Gorski’s MTE typology framework support collective “knowing better” and stand as a jumping off point toward standards that do not treat special education teacher preparation as culture-free. Culturally responsive practices in teaching and in research require more than merely adapting a new pedagogy but shifting the mindset to view all these practices as culturally mediated, and then refocusing through a lens of equity.

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**Culturally Integrative Academic Instruction
for Students on Alternate Assessments: Phase One of an Explanatory
Mixed Methods Study**

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**Culturally Integrative Academic Instruction
for Students on Alternate Assessments: Phase One of an Explanatory
Mixed Methods Study**

Abstract

Academic intervention research supporting evidence-based practices for students with moderate to severe intellectual disabilities largely omit implications of culture and intersectional marginalization, and extant research on culturally responsive teaching does not fully address the unique needs of culturally and linguistically diverse (CLD) students with intellectual disabilities (ID) that may qualify them for their states' alternate assessment. The purpose of this first phase of a larger sequential, explanatory mixed methods study is to explore the culturally responsive behaviors of special educators who instruct students who take alternate assessments. Sixteen respondents completed phase one survey comprised of two well-established, validated measures of culturally responsive teaching behaviors, and quantitative analysis included frequencies, ranges, and means. While respondents reported integrated engagement in first language support, for example, they indicated far less engagement in integrating culture into content instruction, especially math. Further research is necessary to understand self-reported survey behavior and to increase the use of culturally responsive practices embedded in evidence-based content instruction research for this population of students.

Culturally Integrative Academic Instruction
for Students on Alternate Assessments: Phase One of an Explanatory
Mixed Methods Study

After twenty years of “setting the stage” for special education to provide instruction that is both culturally responsive and developmentally appropriate (Gay, 2002), the gap in the literature to support culturally responsive content instruction for students who take alternate assessments persists. Despite comprising a majority (54%) of the student population, Culturally and Linguistically Diverse (CLD) Learners are a population of k12 students who are “diverse” from that of the predominantly White teacher workforce (U.S. Department of Education, 2017-2018). CLD students with disabilities (SWDs) are identified as having a disability that qualifies them for an Individualized Education Plan (IEP) or 504 Plan. While high incidence disabilities, such as learning disabilities are represented in the research on culturally responsive teaching for CLD SWDs, students with low incidence disabilities, such as moderate to severe intellectual disabilities (ID) are less researched in the context of culturally responsive instruction, leaving special educators who teach them with little resources to provide instruction that is culturally responsive and developmentally appropriate (Gay, 2002).

Culturally Responsive Teaching

Persistent inequitable outcomes for students along racial, socioeconomic, linguistic, and cultural lines have prompted decades of solution-oriented research. Standing on the shoulders of equity-seeking scholars such as Freire, Banks, Ladson-Billings, Delpit, and Cazden, Geneva Gay proposed a framework to address the incongruence and tensions between culture and opportunities for CLD students and school systems themselves (Gay, 2002; Brown-Jeffy & Cooper, 2011; Green & Stormont, 2018). In its initial framing, culturally responsive teaching was:

defined as using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively. It is based on the assumption that when academic knowledge and skills are situated within the lived experiences and frames of reference of students, they are more personally meaningful, have higher interest appeal, and are learned more easily and thoroughly (Gay, 2002, p.106)

To achieve greater efficacy in teaching CLD students, the framework recommended that culturally responsive educators engage in the development of their own cultural knowledge and then embed it in classroom procedures, expectations, communication, community creation, and throughout the curriculum. These constructs have been applied, examined, and expounded with varying degrees of focus and within continuously evolving frameworks that have been called by many names (Harmon, 2012; Gay 2021). Each iteration and application maintain student culture as the primary driver of curriculum and classroom expectations, community, and procedures.

Teachers' development of cultural knowledge has been examined in relation to their own cultural identity separate from and in the context of learning about the culture of the students in their classrooms. Whiteness studies in teacher education (Matias, 2013; Matias et al., 2014; Utt & Tochluk, 2020), as well as Multicultural Teacher Education research, offer frameworks to not just *know* one's own culture (especially if one is of the 80% of White teachers), and the culture of students, but prepare teachers to be agents of social justice and push against systems of discrimination that divest students from their culture (Sleeter, 1996; Nieto, 2004; Banks, 2004a; Grant & Sleeter, 2008; Gorski, 2006; Gorski, 2008).

While knowing one's own socialization, biases, and culture is requisite for teachers, knowing the student's culture is the goal (Mentor & Sealey-Ruiz, 2021). In this simultaneous pursuit, culturally *sustaining* pedagogy was proposed to create classroom expectations,

community, and procedures that resource student culture for its preservation as counter hegemonic practice to assimilation and the expectation that CLD students divest from their culture in the name of academic achievement. Culturally sustaining practices problematized educational systems rather than students, encouraged educators to push beyond what is relevant (Ladson-Billings, 1994) or responsive (Gay, 2000, 2002, & 2013), and to deeply mine student culture and language for teaching and pedagogical practices (Paris, 2012; Paris & Alim, 2014; Paris & Alim, 2017). Hammond (2014) connects brain-based learning to culturally responsive teaching, asserting that culture is one way the brain makes sense of our environments (Hammond, 2014). This iteration of the culturally responsive framework echoes similar themes regarding pursuit of learning tasks, cultural awareness, learning partnerships, information processing, and community building.

Culturally responsive practices have not only had potential to better engage and instruct students in general education, but students in special education as well. The extant research in this area has explored the impact of culturally responsive practices as an antidote to overrepresentation in special education (Klinger et al., 2005; Othman, 2018), to prepare culturally responsive preservice special educators (Chu & Garcia, 2021; Cyr et al., 2012; Kulkarni et al., 2020; Kea & Trent, 2013; Lavin et al., 2022), to develop skills to work with culturally and linguistically diverse families (Rossetti et al., 2017; Buren et al., 2022), as well as low income, immigrant families of students with disabilities (Yuan & Jiang, 2019). To support the *academic* needs of CLD SWDs, extant research examines a book club for Black girls with disabilities (Whitney, 2022) and graphic novels for African American Boys with reading disabilities (Robinson, 2020), culturally responsive lesson plans for engagement (Green & Stormont, 2018), culturally responsive academic support for English Language Learners

(McGraw, 2021) CLD, students with learning disabilities (Utley, et al., 2011), as well as communication needs for CLD students with extensive support needs (Walker et al., 2022).

To meet the academic needs of k12 students who exist at the intersection of disability and other marginalized “CLD” identities (e.g., race, ethnicity, poverty, English Language Learning) requires an integrated understanding of disabilities *and* cultural-historical context. A framework was proposed for improving the outcomes for CLD students with moderate to severe ID, by weaving culturally responsive practices into evidence-based instruction for this population of students (Rivera, et al., 2016). The eight components of the framework were built off extant theories and research regarding best practices for students with moderate to severe intellectual disabilities (ID) and infused with culturally responsive practices; they include multiple opportunities to learn, support in the student’s primary language, assistive technology, self-determination, instruction using systematic/explicit instruction, Universal Design for Learning, creating a safe learning environment, and integrating cultural information into instruction.

Based on extant research and synthesized by the framework, the following eight components are constructed in the following ways. *Universal Design for Learning* describes planning and offering instruction in ways that are accessible for students and accommodate for different learning needs by providing multiple modalities to engage with learning and to demonstrating knowledge (Meyer & Rose, 2000; Courey et al., 2013; Spooner et al., 2007; Coyne et al., 2012; Lopes-Murphy, 2012). A *safe learning environment* protects student dignity, teaches, and honors self-advocacy, and practices inclusion (Pennington et al., 2016; Cline & Necochea, 2003; Callicott, 2003). *Systematic and explicit instruction* consists of frequent instructional trials of evidence-based practices connected to multiple examples (Cartledge & Kourea, 2008; Browder et al., 2014; Spooner et al., 2009; Banks et al., 2013; Haager & Klinger, 2005; Klingner & Vaughn, 2000; Cooper et al., 2005; Greer et al., 2005; Restrepo et al., 2013;

Hicks et al., 2011). *Primary language support* resources first language skills to create opportunities for new learning (Cline & Necochea, 2003; Klingner & Vaughn, 2000; Sanford et al., 2023; Freeman & Freeman, 2000; Good et al., 2010; Klingner et al., 2012). *Multiple opportunities to respond* includes instruction that accommodates student response modes and allows multiple means of engagement (Cline & Necochea, 2003; Browder et al., 2014; Skibo et al., 2011). The use of *technology* can be beneficial as an instructional tool and as a speech generating device (Silverman & Hines, 2009; Rivera et al., 2012; Rivera et al., 2014; Kagohara et al., 2013; Cooke et al., 2009; Mayer, 2005; Rivera et al., 2012; 2014; Spooner et al., 2015; Chung & Carter, 2013; Knight et al., 2013). Factoring culture is an important aspect of *self-determination* for CLD students with moderate to severe ID (Wehmeyer et al., 2000, 2012; Agran et al., 2006; Shogren et al., 2012; Trainor et al., 2008) and according to the framework, *integrating cultural information* into instruction requires special educators to identify and unlearn biases, take “time to understand a student’s cultural heritage/socio-cultural background,” (Rivera et al., 2016, p 31.), acknowledge student “funds of knowledge” (Moll et al., 1992; Rivera et al., 2016), “tap into a student’s prior experiences” (Krashen, 1982; Rivera et al., 2016), and select “cultural and contextual books” (Spooner et al, 2009; Rivera et al., 2016).

A handful of studies have used Rivera’s 2016 culturally responsive framework to understand the needs of English Language Learners (ELLs) (Rivera et al., 2019; Karvonen, et al., 2021), refugees with PTSD (Mohamed, 2021), young children (Rivera et al., 2022) positive student feedback (Pennington et al., 2022), and collaboratively designed IEPs (Individualized Education Programs) (Jimenez et al., 2022). One study applied the 2016 framework to advocate for families of color and their children with disabilities (Bold, 2018). The author outlined the historic and contemporary landscape of experiences for students of color with a disability within

the school system but did not include the unique experiences of CLD learners who have lower incidence disabilities that qualify them for their state's alternate assessment.

To support application of culturally responsive practices in all classrooms and prepare culturally responsive general and special education teachers, culturally responsive teaching measures have been developed to draw upon culturally responsive frameworks and measure attitudinal indicators, self-efficacy, and teaching instruction and pedagogy. These measures represented three categories: teacher attitudes, beliefs, and dispositions; confidence and self-efficacy; and teacher knowledge, practices, and skills (Chang & Cochran-Smith, 2022). Teacher attitudes, beliefs, and dispositions were measured through constructs of beliefs about CLD young children (Flores et al., 2011; Henry, 1986), multiculturalism, and diversity (Jensen, 2018; Jibaja-Rusth, et al., 1994; Johnson & Johnson, 1996; Marshall, 1996; Pettus & Allain, 1999; Pohan & Aguilar, 2001; Rhodes, 2017; Schulte et al., 2008; Stanley, 1997; and Thompson, 2009), and social justice (Ludlow et al., 2008; and Whitaker & Valtierra, 2018). Teacher confidence and self-efficacy were examined through measures of teachers' opinions of their teaching ability to enact culturally responsive instruction (Guyton & Wesche, 2005; Hsiao, 2015; Siwatu, 2007; Siwatu et al., 2017). Measures to examine teacher knowledge, practices, and skills target constructs of cultural competency in an out of the classroom, lesson planning, and performance observations (Chang et al., 2019; D'Andrea et al., 2003; Dickson et al., 2016; Kea & Trent, 2013; Salazar, 2018; Spanierman et al., 2011; Swartz & Bakari, 2005; and Yang et al., 2020)

Developed from Culturally Responsive Teaching Competencies scale (Siwatu, 2007) and Bandura's self-efficacy constructs (1977), the Culturally Responsive Teacher Self-Efficacy Scale (CRTSE) and Culturally Responsive Teaching Outcome Expectancy (CRTOE) Scale, for example, are (respectively) 40- and 26-item Likert scale surveys on which teacher participants indicate self confidence in culturally responsive behaviors (Siwatu, 2007). Intended to measure

the use of culturally responsive teaching practices in English as a Second Language classrooms, Culturally Responsive Teaching Survey (CRTS) (Rhodes, 2017) examines the frequency of teacher engagement in 17 specific culturally responsive behaviors.

Content Instruction for Students Who Take Alternate Assessments

For most CLD SWDs, their academic plan includes participation in state level assessments (Common Core, for example), with or without accommodations. While disability alone does not determine state assessments, SWDs who take the same state assessment as their peers without disabilities are more likely to have high incidence disabilities, such as a learning disability. Because *alternate* assessments are only offered to approximately 1% of students with disabilities (US DOE, 2016), the students who take these assessments are more likely to have low incidence disabilities, such as significant cognitive or intellectual disability. The alternate assessments are based on alternate academic achievement standards aligned with grade level state learning standards (Kearns, et al., 2011).

Teaching content area skills to students who take alternate assessments necessitates evidence-based practices (Courtade et al., 2015). Evidence-based practices such as graphic organizers for students with autism and developmental disability (Zakas, et al., 2013) and self-questioning strategy for students with moderate intellectual disabilities (Wood et al., 2015), have been used to teach social studies skills. The Early Literacy Skill Builder (Browder et al., 2008, 2012) improved literacy skills for students with severe developmental disabilities, and has been replicated numerous times, including a conceptually replicated randomized control trial conducted in the general education classroom setting to teach reading skills (Hunt et al., 2019). Schema-based instruction with manipulatives was used to teach math word problem solving skills to students with autism and moderate intellectual disabilities (Root et al., 2017). Embedded computer assisted explicit instruction (Smith et al., 2013), systematic instruction and graphic

organizers (Knight et al., 2013), and scripted lessons plus guided notes (Jimenez et al., 2014), have all been researched in teaching science skills to students with autism and intellectual disabilities. While there are entry points to culturally responsive practices in academic intervention research, extant studies that put the evidence into evidence-based practices largely exclude implications of culture.

Purpose

Given the gap in literature between culturally responsive practices and content area interventions, the current study seeks to explore the culturally inclusive instructional behaviors of special educators who teach students who take the alternate assessment. In an attempt to understand how special educators cull information, plan, and integrate children's cultures into instruction for students who take the alternate assessment, the current study seeks to examine the following question: are special educators engaging in culturally responsive practices, specifically integrating cultural information into academic instruction for students who take their state's alternate assessment?

Methods

The current study is the first quantitative phase of a larger explanatory sequential mixed methods project. Unlike quantitative or qualitative methodology alone, mixed methods research is appropriate for inquiries on complex topics in special education (Klingner & Boardman, 2011) such as culturally responsive practices within the unique educational experiences of CLD SWDs. Especially, in special education, mixed methods research "allows scholars to address the needs of culturally and linguistically diverse populations, situate research within complex realities and contexts, and foreground the questions worth asking" (Corr et al., 2020; 2021, p. 317), and is touted as a positive future direction for the field (Newman & Houchins, 2018).

In addition to the general alignment of the research question of the current study to mixed methodology, mixed methods research can be beneficial for addressing gaps in research, such as the gap previously outlined in the review of the literature. Specific reasons relevant to the current study include understanding the landscape and stakeholders, (i.e., special educators) and informing future research and practice (Creswell & Plano Clark, 2011; Klingner & Boardman, 2011). While the first, quantitative phase alone does not fully answer the research question, it can offer general information about the how special educators see themselves engaging in culturally responsive practices with their students who take alternate assessments and offers an entry point for follow-up interviews in the second phase of this mixed methods study.

Survey Development

The survey was constructed from two instruments that measure attitudinal and affective concepts. The Culturally Responsive Teacher Self-Efficacy Scale (CRTSE) examines teachers' self-efficacy and expected outcomes related to culturally responsive teaching (Siwatu, 2007). Twelve items from the CRTSE were selected to examine behaviors related to incorporating student culture into instruction and the classroom environment. Two additional items were selected from the Culturally Responsive Teaching Survey (CRTS), which examines culturally responsive behaviors that English as a Second Language teachers engage in outside of the classroom that add to their knowledge about students' cultures and languages (Rhodes, 2017). Collection of selected items were sent to an expert reviewer with decades of experience in mixed methodology and survey creation. Revisions were made based on feedback, and then all 14 items plus demographic inquiries were entered into a Qualtrics survey. The final survey took about 12 minutes to complete.

The survey consisted of consent, researcher contact, and Institutional Review Board (IRB) approval information; questions about who they are, as well as who and where participants

teach; and two matrices containing a series of scales on which special educators self-report the extent to which they engage in behaviors indicative of incorporating culture into instruction. The first part of the survey requested information about the teacher, their students, and their district. After initiating a filter question about whether special educators are currently teaching students who take the alternate assessment, the survey inquires about Least Restrictive Environment (LRE) and historically marginalized identities such as race and socioeconomic status among their students. These survey items were followed by questions about participant district (region and urbanicity), education, certification, years of experience, and what grade levels they teach, in addition to gender and racial information.

The bulk of the survey content was organized into two matrices that incorporated items measuring how much time, thought, and effort special educators put into planning instruction that is both culturally responsive and developmentally appropriate, including language, cultural contributions, and content instruction. Self-reported culturally integrative behaviors included spending time outside of school learning about the culture and languages of students, learning to greet and praise students in their first language, and using students' cultural background to help make learning meaningful. To examine how these behaviors translate into classroom practice, the survey inquired about designing a classroom environment using displays that reflect a variety of cultures, critically examining the curriculum to determine whether it reinforces negative cultural or racial stereotypes, revising instructional material to include a more diverse cultural and racial representation, and planning instruction using examples taken from students' everyday lives in and out of school. The full survey can be found in the Appendix.

Survey Distribution and Data Collection

After IRB approval of the survey items, consent process, and procedures, a national sample of special educators who instruct students on the alternate assessment were surveyed. To

participate, special educators must have taught at least one student who, due to the nature of their disability, participated in the state alternate assessment. To find these teachers, each state department of education website was mined for special education directors, special program directors, and coordinators of low incidence disability, alternate assessment, and testing. IRB approved emails were sent to these state level administrators and, when available, district level special education administrators. Six state and local administrators replied, half of whom declined to forward the research participation request to their teachers. Several state and local administrators, however, approved either reaching out to their teachers directly, or forwarding the request for research participation to them. Additional teachers were sought through social media groups and professional organizations for special educators who instruct students who were likely to be eligible to take the alternate assessment. The Qualtrics survey remained open for four months (November 2021 – February 2022).

Data Analysis

A total of 29 surveys were completed but skip logic did not present the two matrices indicating culturally responsive behavior for CLD students who take alternate assessments for teacher respondents who indicated that they do not teach students who would be identified as CLD ($n=13$). Due to the small sample size, analysis entailed frequencies and descriptive statistics (ranges and means) about the special educators who participated, their districts, students, and for participants who indicated that they do teach CLD students who take alternate assessments ($n=16$), behaviors indicative of integrating cultural information into instruction. The first set of survey items were arranged in a matrix that asked special educators to indicate the number (0-10 [or more]) of their students (who take the alternate assessments), that are placed in six categories of least restrictive environment: full inclusion; partial inclusion/modified self-contained; self-contained with special classes (PE, art, etc.), lunch, and recess with general education peers;

separate classroom from general education peers for 100% of the school day, but still in the same school building; separate day school; or other.

The second portion of the information gathering section of the survey was a similar matrix in which special educators indicated the number (0-10 [or more]) of their students (who take the alternate assessments) who are: Asian or Asian American; Black or African American; English Language Learner; Hispanic or Latinx; Indigenous American or Native Alaskan; Pacific Islander; White or European American; or living in poverty. The third and fourth questions were coded as nominal variables one through six, and one through three, respectively, to indicate region of the US (Pacific, Rocky Mountain, Midwest, Southwest, Southeast, or Northeast) and urbanicity of survey participants' district (urban, suburban, or rural). Survey items six and seven were similarly coded one through six, and one through four, respectively, to indicate the number of years participating educators have been teaching and what level of degree they have earned. Since questions five and eight allowed respondents to indicate more than one answer, these survey item responses were dummy coded to indicate the grade levels that they teach, and areas in which they are licensed and/or endorsed. The final two items on the first section of the survey asked survey respondents to indicate their own gender and race/ethnicity, and data were coded as nominal variables one through five, and one through nine, respectively. These data were analyzed for descriptive statistics about survey participants.

The last and most relevant section of the survey was organized into two matrices. The first matrix was a series of six items to which participating special educators indicated, on a scale of zero (never crosses my mind) to 100 (all day, every day), how much time/thought/effort they put into: greeting students in their native language; using cultural background to make learning meaningful; cultural contributions to content areas; praising students in their native language; encouraging families to speak to children in their native language; and self-study outside of

school learning about the cultures and languages of students. These items were all coded the same way. Indicators of zero were coded as having meaning (never crosses their mind to do this), and each response number was sorted into 0, 1-10, 11-20, 21-30, 31-40, 41-50, 51-60, 61-70, 71-80, 81-90, or 91-100; and then dummy coded. Analysis of the first matrix included calculating frequencies for each dummy code, ranges and means for raw score responses for each of the nine items, as well as the ranges and means for overall self-reported scores of culturally responsive behaviors (out of 900). To understand how often these behaviors are being enacted in the classroom, the second matrix in the last section of the survey detailed four behaviors in which respondents spend engaged (an hour per day, week, month, marking period, or school year, or not at all). These variables were coded five to zero, respectively. Analysis of the second matrix included calculating frequencies and range and means for overall raw scores. To examine any potential relationships between survey items, additional analyses included comparisons of overall scores to item level responses.

Results

Forty-five respondents initiated the survey, and 29 participants from all six regions of the US completed it. As shown in Figures 1 and 2, of the 29 survey completers, nearly 90% ($n=26$) self-identified as White or European American, 7% ($n=2$) as ethnically Latinx or Hispanic, and 3% ($n=1$) as two or more races. Most of the respondents were female (86%, $n=25$), 10% male, $n=3$; and one survey participant indicated that they prefer not to designate gender. As is illustrated in Table 1, participants were fully licensed (93%, $n=26$) in: early childhood education (4%, $n=1$), early childhood special education (18%, $n=5$), elementary general education (32%, $n=9$), elementary special education (71%, $n=20$), secondary general education (11%, $n=3$), and secondary special education (70%, $n=19$). As is shown in Figures 3 and 4 most of the survey participants had earned a master's degree (62%, $n=18$; 24%, $n=7$ a bachelor's degree; 14%, $n=4$

a specialist's degree), and had between 16 and 20 years of experience (24%, $n=7$). Ten percent of respondents reported having between zero and two years of experience ($n=3$), 14% between three and five ($n=4$), 10% between six and 10 ($n=3$), 21% between 11 and 15, and 21 or more years of experience (both $n=6$).

As Figures 5 and 6 illustrate, special educator respondents reported mostly from suburban (45%, $n=13$) and rural districts (45%, $n=13$) with 10% from urban districts, predominantly in the Southeast region (48%, $n=14$) of the US, followed by the Northeast (24%, $n=7$), Southwest (14%, $n=4$), Midwest (7%, $n=2$), Rocky Mountain, and Pacific (both 3%, $n=1$) regions. Because the population of students taking the alternate assessment is small, special educators instruct students across multiple grades and levels (elementary and secondary, for example). As can be seen in Table 2, participating special educators reported teaching: Early childhood/prekindergarten (7%, $n=2$), early elementary (48%, $n=14$), upper elementary (66%, $n=19$), middle school (24%, $n=7$), high school (35%, $n=10$), and transition-age students (28%, $n=8$).

Figures 1 and 2

Gender, Race, and Ethnicity of Participants

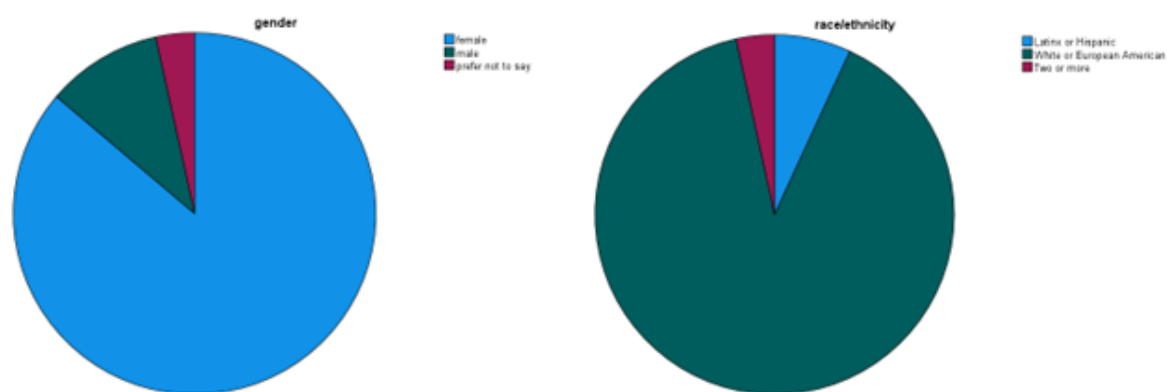


Table 1

*Certification and Endorsement Areas of Participants**

<i>Certifications and Endorsements</i>	<i>n</i>
Early childhood education	1
Early childhood special education	5
Elementary general education	9
Elementary special education	20
Secondary general education	3
Secondary special education	19
My license is provisional	2

*Survey respondents were able to enter more than one response for this item

Figures 3 and 4

Participants' level of education and experience

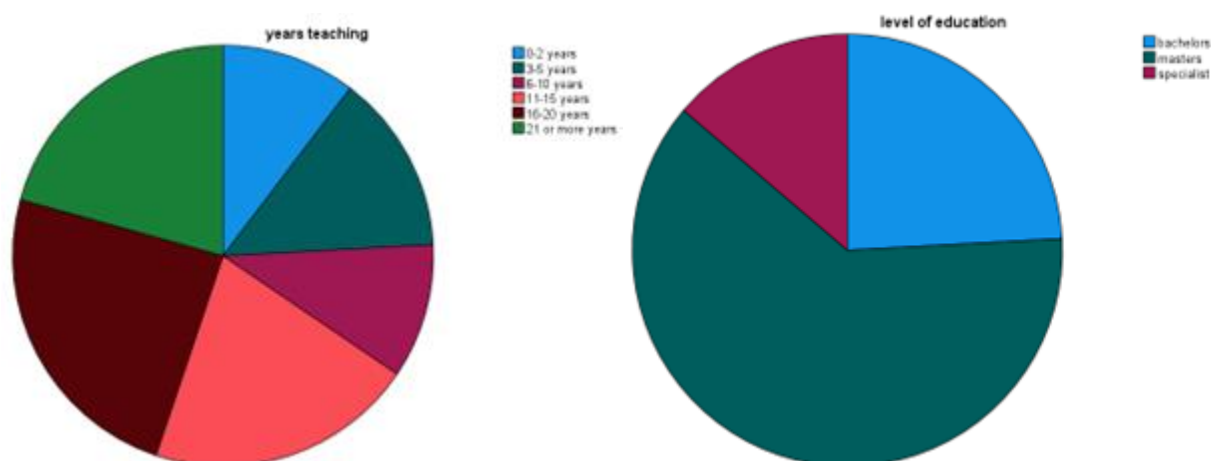


Table 2

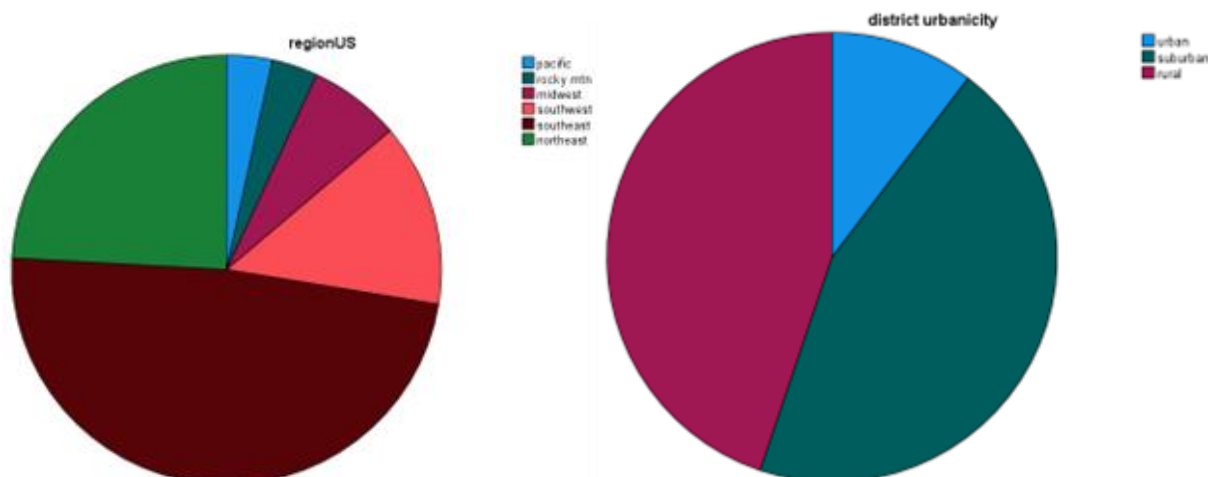
*Grade Levels Served by Participants**

<i>Grade level(s) served</i>	<i>n</i>
Early Childhood (preschool)	2
Early Elementary (K-2)	14
Upper Elementary (3-5)	19
Middle School (6-8)	7
High School (9-12)	10
Transition (through age 21)	8

*Survey respondents were able to enter more than one response for this item

Figures 5 and 6

Region and urbanicity of district



Most respondents self-reported that they instruct students on the alternate assessment who would be also identified as CLD (70%, $n=19$) and among these teachers 16 indicated (on a scale of 0 to 100) how often and the intensity with which they engaged in a series of behaviors. Analysis of this first behavior matrix included means for each item, as well as ranges and means for total scores in the first matrix. Analysis yielded the following totals and means per behavior ($n=16$): encouraging families to speak to children in their native language (total = 1124; mean = 70); using cultural background to make learning meaningful (total = 952; mean = 60); self-study outside of school learning about the cultures and languages of students (total = 818; mean = 51); praising students in their native language (total = 755; mean = 47); greeting students in their native language (total = 685; mean = 43); and cultural contributions to content areas (social studies/civics/history total = 747 and mean = 47; literacy and literature total = 719 and mean = 45; science total = 617 and mean = 39; and math total = 498 and mean = 31). Out of 900 possible on all nine behaviors in the first matrix, total self-reported scores ranged from 38 to 775 with a mean of 432 ($n=16$).

Table 3

Self-reported culturally integrative behaviors

	0	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
I greet English Language Learners with (a) phrase(s) in their native language	5	1	1	0	0	2	2	0	1	2	2
I use my students' cultural background to help make learning meaningful	1	0	2	2	1	1	1	1	1	2	4
I teach students about their cultures' contributions and uses of science	5	1	0	1	1	3	1	0	1	2	1
I teach students about their cultures' contributions and uses of math	7	0	0	2	1	2	1	0	1	1	1
I teach students about their cultures' contributions and uses of social studies/civics/history	5	0	0	0	1	3	2	0	1	2	2
I teach students about their cultures' contributions and uses of literature and literacy	6	0	0	1	1	2	0	0	1	2	3
I praise English Language Learners using (a) phrase(s) in their native language	4	1	0	1	1	1	2	1	2	0	3
I encourage families to speak their native language with students	2	0	0	0	0	2	2	1	0	2	7
I spend time outside of school learning about the cultures and languages of my students	5	0	0	1	0	1	2	0	3	1	3

Table 4 represents four behaviors regarding the cultural responsiveness of classroom displays, materials, curriculum, and instruction, wherein teachers indicated whether they engaged in each one, one hour per day, week, month, marking period, school year, or not at all. The most responses indicated that special educators who teach students on the alternate assessment spend at least one hour per week ($n=12$) planning instruction using examples from students' everyday lives in and out of school. Seven respondents indicated that they spend at least one hour per

month revising instructional material to include a better cultural and racial representation. Seven teachers also indicated spending at least one hour per week critically examining the curriculum to determine whether it reinforces negative cultural or racial stereotypes. Interestingly, the same number of teachers ($n=8$) indicated that they spend no time designing their classroom environment with displays that reflect a variety of cultures, as those who spend at least one hour per month.

Table 4

Frequency of classroom and instructional behaviors

	I do not spend any time doing this	at least 1 hour per school year	at least 1 hour per marking period	at least 1 hour per month	at least 1 hour per week	at least 1 hour per day
designing a classroom environment using displays that reflect a variety of cultures	4	0	1	5	3	3
critically examine the curriculum to determine whether it reinforces negative cultural or racial stereotypes	1	1	3	3	6	2
revise instructional material to include a better cultural and racial representation	1	1	3	5	4	2
plan instruction using examples that are taken from students' everyday lives in and out of school	1	0	3	2	8	2

Comparison analysis of variables such as region, years of experience, and urbanicity of teacher respondents' districts, did not reveal any relationships to self-reports of culturally responsive behavior, overall or at any one item level. Not surprisingly, however, there were positive relationships between teachers' overall self-reported culturally responsive behaviors in

matrix one and individual items in matrix one, especially items whose means were low such as cultural integration into math instruction.

When limitations are considered, the data can be interpreted as a starting point for understanding how special educators who teach students on the alternate assessment enact culturally responsive practices within their highly individualized programs. First is common understanding of cultural and linguistic diversity. Individual definitions of culture, language, and diversity likely differ widely as individual concepts and as a conceptualization of the target population of students and their teachers. Despite attempts to define these complex terms within an intentionally brief survey, there are likely disparities in how the researcher and survey respondents understand culture, language, diversity, and culturally and linguistic diversity. Second and third limitations relate to the sample. While 79.3% of the teacher workforce is White nationally, 90% of the survey respondents identified as White or European American. Similarly non-representative is the 7% Hispanic and Latinx, 3% two or more races, and zero Black/African American survey respondents compared to 9.3%, 1.8% and 6.7% (respectively) nationally represented in the teacher workforce (US DOE, NCES, 17-18).

On one level, this lack of a representative sample is problematic because the data do not include the behaviors of Black and African American teachers, for example. Although teachers who are culturally and linguistically diverse themselves may report different rates of culturally inclusive behaviors, Geneva Gay's 2002 framing of culturally responsive teaching insists that, "these mandates to know self and others apply to teachers of color as well as European-Americans" (Gay, 2002, p 619). It is also important to consider that the special educator teacher workforce, and even more specifically the special educator teacher workforce who work in classrooms that teach adapted curriculum and alternate assessments, may not mirror the national teacher workforce. A recent analysis suggests that special educators are 71% White, 12%

Hispanic or Latinx, and 9% Black or African American. There is no readily available data on the demographic profile of special education teachers of students who take the alternate assessment.

Discussion

Considering the limitations, the following discussion is regarding only the behavioral findings of special educators who teach CLD students who take the alternate assessment ($n=16$). First, survey respondents reported relatively high levels of encouraging families of English Language Learners to speak to their children in their first language, but low levels of learning and using greetings and phrases to praise students in their first language in the context of the classroom. Second, apropos to the limited research supporting culturally responsive content instruction for students who take alternate assessments, self-reports of engagement in culturally responsive content instruction, particularly math and science were among the lowest raw scores on matrix one. Third, survey respondents that indicated high levels of engagement in self-study, for example, spending time outside of school learning about their students' language and culture, also tended to indicate high levels of planning instruction using examples taken from students' everyday lives in and out of school.

English Language Learners

Respondents reported high levels of advising families to speak to their children in their native languages; however, in contrast, they reported low levels of learning phrases in students' languages to greet and praise their CLD students. Encouraging primary language use among families is recommended, but some studies support the use of primary language in the classroom for students with ID, from small supports such as visuals, greetings, and praises, to more complex integrations into instruction of skills and concepts by connecting new learning to previous knowledge and experience (Sanford et al., 2012; Rivera et al., 2016). The distinct division of language use has the potential to be problematic for students, as it illustrates through

unspoken pedagogical practice that we use one language at home and English at school. While culturally responsive practices call for general education teachers to engage in pedagogy that does not require students to divest from their culture (Paris, 2009; Paris & Alim, 2013), why would this not also be true for students who take alternate assessments? Language is an inextricable aspect of cultural identity, and students should not be asked to leave that part of themselves at home, just because their disability more significantly impacts them. Further research is needed on how to support teacher use of English Language Learners primary language in the classroom, both to create community and share joy *and* in the context of content instruction. Additionally, further research is needed on how teachers can learn new phrases and greetings and translate materials to create culturally responsive instruction.

Content Instruction

While there is a growing body of research on the educational needs of ELLs with disabilities, even those with significant disabilities, there is still little that connects academic instruction with culturally responsive practices. It is, therefore, not entirely surprising that special educators self-reported higher rates of incorporating native languages for ELLs than connecting content instruction to culturally relevant people, events, and contexts. Even amongst the special educators with the highest rates of integrating cultural information, many never considered culturally relevant content instruction in math, literature, and literacy, or social studies/civics/history. Given the gap in the literature that does not connect evidence-based practices with culturally responsive teaching, the low rates of integrating culture into content instruction tracks. Based on low self-reported levels of engagement in culturally responsive content instruction, especially math, and science, special educators who teach students who take alternate assessments need to be better supported by increasing the representation of low incidence disabilities in culturally responsive teaching research and culturally responsive

practices incorporated into academic intervention research for students who take alternate assessments. There were a few teachers that self-reported high levels (91-100 on the scale of 0 to 100) of engagement in culturally integrative instruction in literacy (n=3), social studies/history (n=2), science (n=1), and math (n=1). Future research should examine the practice of special educators who teach students who take alternate assessments and deliver high rates of culturally responsive, evidence-based instruction.

Self-Study

Cultural knowledge was emphasized in the initial framing of culturally responsive teaching and has been consistently centered in iterations since (Ladson-Billings, 1995; Gay, 2000; 2002; Paris, 2012). In Ladson-Billing's seminal work on the pedagogical practices of eight culturally responsive teachers, participants demonstrated consistent and intentional commitment to “conceptions of self and others” and indicated that culturally responsive educators “must be passionate about knowledge and learning” (Ladson-Billings, 1995, p. 481) for themselves as well as their students. Critical cultural consciousness (Gay, 2002) further operationalizes the conceptions of self and others beyond the context of the immediate community to include larger sociopolitical influences of racial and gender biases, for example. Within culturally sustaining pedagogy, teachers are called upon to acquire and use cultural knowledge to sustain culture over expectations of cultural divestment and assimilation (Paris, 2012). This depth and breadth of cultural knowledge required of culturally responsive teachers necessitates education in cultures outside of one’s own, including White teachers who experience dominant culture and teachers of minoritized races who do not (Gay, 2002).

For the purposes of this study, self-study is a broad reference to the time and energy that teachers spend outside of school hours engaged in acquiring cultural knowledge by learning about their students’ languages, culture, cultural contributions, and historic and current contexts,

as well as reflections on their positionality. Cultural knowledge and critical cultural consciousness represent substantial self-education to understand the historical and contemporary sociopolitical contexts for culturally and linguistically diverse students. The items in the survey used in the current study that indicated engagement in self-education to acquire cultural knowledge asked specifically about time spent outside of school learning about the languages and cultures of the students in participants' classrooms, as well as inquiries about praising and greeting in students' native languages, and teaching about students' cultural contributions – all of which potentially require a teacher to engage in self-study. The call for special educators to gather and integrate cultural information into content instruction requires more than the skills to ask and observe students' families but understanding the value of spending time outside of school engaged in self-education to learn about the cultures and languages of students *to* present culturally relevant books, materials, and curriculum that, when needed, also supports students' primary language.

Survey respondents reported relatively high levels of using examples from students' daily lives, which is a staple in the promise of functional skills. The depth of special educators' cultural knowledge is evident when considering the perspective, *functional for whom?* When examples are pulled from, for example, grocery shopping, is the experience framed from the teacher's (80% likely White) perspective and experience moving through that space, or is the students' CLD experience driving instruction? Teachers' cultural knowledge of what students experience when they walk into the grocery store must include understanding of the disproportionate criminalization in retail spaces of minoritized racial identities, for example. Without additional guidance on how educators can cultivate meaningful knowledge on students' lived experiences outside of school on a micro level and broader sociocultural level, special educators aiming to teach functional skills may not be creating the functionality they think they are.

Conclusion

When limitations are considered, three major findings from this study can be expounded in future research. First, more research is needed to support culturally responsive, evidence-based content instruction for students with ID who might also take alternate assessments; second, integrating primary language support requires more than encouraging families to use their first language with students, but also includes teachers learning and using greetings and phrases in students' first language as well as provide curriculum and materials that connect first language skills to new learning; and third, teachers likely need more support wrestling with their own cultural identity as they are gathering and using cultural and linguistic information in the classroom. In addition to the small, possibly non-representative sample size, which limits validity, reliability, and generalizability, it is important to consider the dubious reliability of data collected through self-reporting surveys (Yu, 2010), and that the survey constructs were *not* validated (as a whole) as they were intended in their initial studies but sampled and analyzed at the item level.

Access to culturally responsive instruction is a matter of equity, and the dearth of research on academic interventions for students who take alternate assessments that combine evidence-based and culturally responsive practices shows up in the survey responses analyzed in this study. This is not a simple checklist, and educators who teach students who take alternate assessments need support to tackle the requisite task of cultural knowledge and self-identity, and then how to apply cultural information to instruction through a less biased lens. This includes guidance on self-study and learning about student culture without burdening the family as the sole information providers and looking toward socio-political systems in which families exist. While these may be the most complex aspects of developing cultural knowledge, it is skirted in much of the research.

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Appendix

Survey Consent

Electronic Informed Survey Consent Agreement

Study Title: Special Education Teachers' Conceptualization and Incorporation of Culturally Responsive Pedagogy for Students on the Alternate Assessment

Please read this consent agreement carefully before you decide to participate in the study.

Purpose of the research study: The purpose of the study is to examine how special educators who teach students on the alternate assessment think, plan, and enact culturally responsive instruction.

What you will do in the study: In this study, you will be asked to fill out a survey about program planning for your students who take the alternate assessment. Through a series of questions, this survey will ask about how you plan your instruction, what you teach, how often, and how you position students' learning in their home, school, and community settings.

Time required: The study will require about 15 minutes of your own, non-work time.

Risks: For some, questions about culture may cause discomfort. Otherwise, there are no foreseeable risks to participating in this study by completing the survey. You can skip any question that makes you uncomfortable.

Benefits: There are no direct benefits to you for participating in this research study. The study may help us understand how to support special educators who teach students on the alternate assessment.

Confidentiality: The information that you give on the survey will be anonymous. Your name and other information that could be used to identify you will not be collected or linked to the data.

Because of the nature of the data, it may be possible to deduce your identity; however, there will be no attempt to do so and your data will be reported in a way that will not identify you.

Voluntary participation: Your participation in the study is completely voluntary.

Right to withdraw from the study: You may decide at any time not to complete the survey, however, because the data are not connected to your identity, you cannot withdraw after you submit your data.

How to withdraw from the study: Exit from the survey without submitting it, and your data will be erased.

Payment: You will receive no payment for participating in the study.

Using data beyond this study: This data has the potential to provide insight into an understudied group of teachers and will be provided to other researchers upon request. Since the survey is anonymous, other researchers will not have access to your name, nor any other information that could potentially identify you, and there will be no attempt to identify you.

If you have questions about the study, contact:

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To obtain more information about the study, ask questions about the research procedures, express concerns about your participation, or report illness, injury or other problems, please contact:

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Website for Research Participants: <https://research.virginia.edu/research-participants>
UVAIRB-SBS # 4567

Electronic Signature Agreement:

Of your students who take the alternate assessment, how many are...?

	none	1 student	2 students	3 students	4 students	5 students	6 students	7 students	8 students	9 students	10 or more students
Asian, Asian American	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black, African American	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
English Language Learner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hispanic or Latinx	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	none	1 student	2 students	3 students	4 students	5 students	6 students	7 students	8 students	9 students	10 or more students
Indigenous American or Native Alaskan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Living in Poverty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pacific Islander	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
White or European American	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In which region of the US do you currently reside?

Pacific

Rocky Mountain

Mid-West

Southwest

Southeast

Northeast

Other

What best describes your district?

urban

suburban

rural

What grade level(s) do you currently serve? Check all that apply.

Early Childhood (preschool)

Early Elementary (K-2)

Upper Elementary (3-5)

Middle School (6-8)

High School (9-12)

Transition (through age 21)

How many total years have you been teaching?

0-2

3-5

6-10

11-15

16-20

21 or more

What is the highest level of education you have completed?

Bachelor's Degree

Master's Degree

Specialist's Degree

Ph.D./Ed.D.

Please indicate your licensure and endorsement areas (check all that apply)

Early childhood education

Early childhood special education

Elementary general education

Elementary special education

Secondary general education

Secondary special education

My license is provisional

I am fully licensed in my state

Other

With which gender do you most identify?

Female

Male

Non-binary

I prefer to self-describe

I prefer not to say

What is your race/ethnicity? Check all that apply.

American Indigenous, Alaska Native

Asian or Asian American

Black or African American

Latinx or Hispanic

Native Hawaiian or Pacific Islander

White or European American

Two or more

I prefer to self-describe

I prefer not to respond

In this next section, the survey will ask you to think about instruction for your students who are also English Language Learners, Black or African American, Latinx or Hispanic, Indigenous American or Native Alaskan, Asian or Asian American, Hawaiian or Pacific Islander.. Students who identify as having two or more of the aforementioned racial demographic descriptors, and have a disability are sometimes called culturally and linguistically diverse exceptional (CLDE) learners. Do you have any CLDE students who take the alternate assessment?

No, I only have White students who take the alternate assessment on my caseload

Yes, I have culturally and linguistically diverse students who take the alternate assessment on my caseload

I greet English Language Learners with (a) phrase(s) in their native language

0 10 20 30 40 50 60 70 80 90 100

never (0) to every time I see them (100)



I use my students' cultural background to help make learning meaningful.

0 10 20 30 40 50 60 70 80 90 100

Never crosses my mind (0), to yes, I use my students' cultural background to make all of their instruction meaningful (100)



I use my students' cultural background to help make learning meaningful.

0 10 20 30 40 50 60 70 80 90 100

Never crosses my mind (0), to yes, I use my students' cultural background to make all of their instruction meaningful (100)



I teach students about their cultures' contributions and uses of:

0 10 20 30 40 50 60 70 80 90 100

science



math



social studies, civics, history



literature and literacy



I praise English Language Learners using (a) phrase(s) in their native language

0 10 20 30 40 50 60 70 80 90 100

never (0) to every time I praise them (100)



That's the end of the survey! Thank you for participating. To help make sense of the information from this survey, an interview can go a long way to support our understanding of how you plan instruction for CLDE students on the alternate assessment. This last section, asks for your consent to talk with us as a follow up to the survey information you provided. Would you be willing to talk to us about your instruction and planning for students on the alternate assessment?

yes

no

Electronic Informed Interview Consent Agreement

Study Title: Special Education Teachers' Conceptualization and Incorporation of Culturally Responsive Pedagogy for Students on the Alternate Assessment

Please read this consent agreement carefully before you decide to participate in the study.

Purpose of the research study: The purpose of the study is to examine how special educators who teach students on the alternate assessment think, plan, and enact culturally responsive instruction.

What you will do in the study: In this study, you will potentially be asked to be interviewed as a follow-up to the survey on planning instruction for your students on the alternate assessment. If you consent to an interview, we will schedule a time to meet virtually, where you will be asked to elaborate on some of the survey questions about how you plan your instruction, what you teach, how often, and how you position student learning in their home, school, and community settings. The interview will be audio recorded and transcribed. Transcriptions will be stripped of identifying information, and the recording of the interview will be destroyed.

Time required: The study will require about 1 hour of your own, non-work time.

Risks: For some, questions about culture may cause discomfort. Otherwise, there are no foreseeable risks to participating in this study by completing the survey. You can skip any question that makes you uncomfortable.

Benefits: There are no direct benefits to you for participating in this research study. The study may help us understand how to support special educators who teach students on the alternate assessment.

Confidentiality: The information that you give in the study will be handled confidentially. Your information will be assigned a code number. The list connecting your name to this code will be kept in a locked file. When the study is completed and the data have been analyzed, this list will be destroyed. Your name will not be used in any report. Audio recordings of the interviews will be destroyed after transcriptions have been deidentified. The risk of loss of confidentiality is low but could be breached through unauthorized access of a computer or program which houses the data.

Voluntary participation: Your participation in the study is completely voluntary.

Right to withdraw from the study: You have the right to withdraw from the study at any time without penalty. Should you decide to withdraw, your interview recording, transcripts, as well as all of your information will be removed from the data.

How to withdraw from the study: If you want to withdraw from the study, tell the interviewer that you want to stop. There is no penalty for stopping the interview, and withdrawing from the study will not affect your employment.

Payment: You will receive no payment for participating in the study.

Using data beyond this study: This data has the potential to provide insight into an understudied group of teachers and will be provided to other researchers upon request. The researcher will remove any identifying information (name and contact information) connected to the information you provide. The researcher will share all of the information collected in this study (not just your individual file) with other researchers for future research studies, including interview data.

Researchers of future studies will not ask your permission for each new study. Other researchers

will not have access to your name nor any other information that could potentially identify you nor will they attempt to identify you.

If you have questions about the study, contact:

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To obtain more information about the study, ask questions about the research procedures, express concerns about your participation, or report illness, injury or other problems, please contact:

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**Culturally Integrative Academic Instruction
for Students on Alternate Assessments: Phase Two of an Explanatory
Mixed Methods Study**

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Culturally Integrative Academic Instruction
for Students on Alternate Assessments: Phase Two of a Sequential, Explanatory
Mixed Methods Study

Abstract

Academic intervention research supporting evidence-based practices for students with moderate to severe intellectual disabilities largely omit implications of culture and intersectional marginalization, and extant research on culturally responsive teaching does not fully address the unique needs of culturally and linguistically diverse (CLD) students with intellectual disabilities (ID) that may qualify them for their states' alternate assessment. The purpose of this sequential, explanatory mixed methods study is to explore, understand, and operationalize culturally responsive practices of special educators who instruct students who take alternate assessments. Sixteen respondents completed phase one survey and two respondents were included in three one-on-one virtual follow-up interviews, and a fourth focus group interview involving both participants. Responses were qualitatively analyzed, and data were quantified to identify trends in culturally responsive teaching behaviors. Findings indicate that special educators who teach CLD SWDs (students with disabilities) who take the alternate assessments can benefit from professional development in culturally responsive teaching practices, and that resourcing culturally responsive materials that are developmentally *and* age appropriate is a barrier to integrating culture into instruction. Study results have implications for 1) researchers to incorporate culture throughout the research and intervention process and to replicate evidence-based practices infused with culturally responsive strategies; 2) curriculum developers to ensure student facing products are culturally relevant *and* developmentally (age) appropriate; and 3)

special education teachers and administrators to support culturally responsive academic programming for CLD students who take alternate assessments.

Culturally Integrative Academic Instruction
for Students on Alternate Assessments: Phase Two of a Sequential, Explanatory
Mixed Methods Study

Culturally responsive teaching is well supported by a substantial body of literature. Over recent decades, numerable researchers have found that culturally responsive practices applied across classroom procedures and enmeshed in content area instruction, resulted in greater academic success for culturally and linguistically diverse (CLD) learners (Bassey, 2016). In addition, culturally relevant teaching in content instruction, demonstrated increased interest, attitudes, and standardized test scores in an alternative math classroom (Hubert, 2013; Aaronson & Laughter, 2016), engagement, content knowledge, and academic language in science (Adams & Laughter, 2012; Aaronson & Laughter, 2016), and promoted engagement in social studies for newcomer English Language Learners (Aronson & Laughter, 2016; Choi, 2013). It has been noted and is worth repeating that disability is sparsely represented in studies on culturally responsive teaching (Connor, 2008; Annamma et al., 2013). Many studies on culturally responsive teaching and instruments to measure it omit disability and influences of ableism altogether. However, given the interdependent role of ableism *and* racism in educational systems and practices, one cannot be fully addressed without also confronting the other (Annamma, 2013).

Culturally Responsive Practices

Culturally responsive teaching is not a singular construct, but a framework of practices, attitudes, and skills that reflect decades of research into solutions to disparities in opportunity and achievement along racial, ethnic, cultural, linguistic, and socioeconomic lines, and aim to improve the k12 experience of CLD students. Building on theories of “cultural congruence” (Mohatt & Erickson, 1981) and “culturally relevant” (Ladson-Billings, 1995) teaching, culturally

responsive teaching and pedagogy were framed into five components. According to the framework, culturally responsive teachers: develop culturally diverse knowledge base; design culturally relevant curricula; demonstrate cultural affinity and build a learning community; employ communication skills that are culturally cognizant of what is said, and how; and embed culture into classroom instruction, environment, and procedures (Gay, 2000).

Culturally responsive teaching is defined as using the cultural characteristics, experiences, and perspectives of ethnically diverse students as conduits for teaching them more effectively. It is based on the assumption that when academic knowledge and skills are situated within the lived experiences and frames of reference of students, they are more personally meaningful, have higher interest appeal, and are learned more easily and thoroughly (Gay, 2000).

Within this culturally responsive teaching framework, developing a culturally diverse knowledge base was defined as teachers' pursuit and possession of deep understanding of cultural diversity in addition to content knowledge. Applying knowledge of students and their culture includes understanding motivation and valuation of collaborative versus independent problem solving, accepted practices of interaction outside of and within the classroom, and socialization of students into a particular role, gender (Gay, 2000) or otherwise. This deep cultural knowledge is foundational to the rest of the culturally responsive framework because educators cannot be held accountable for teaching what they do not know. Given the disparate demographics in the teacher workforce, which is 80% White, and the student population, which is predominantly (54%) non-White (National Center for Education Statistics, 2020), there is a long-standing gap in and relative inattention to cultural knowledge base in teacher preparation and professional development initiatives.

Designing culturally relevant curricula was framed within culturally responsive teaching practices as converting cultivated cultural knowledge into instructional content and classroom procedures. When considering culturally responsive curricula, the framework outlined three types of curricula – formal (policies and standards), symbolic (artifacts), and social (stereotypes and dominant narratives). The messages that are transmitted through, for example, standards that highlight only the most prominent cultural figures and avoid controversy, bulletin boards as valuable real estate to reify dominant narratives, and silence on media influences and stereotypes, are all powerful and potentially damaging to *all* students. Culturally responsive educators can do a great deal to counteract the influences of negative messages about groups of people as monoliths based on deficit narratives, however, it necessitates attending to all types of curricula. In this way, culturally responsive teachers confront controversy by contextualizing the curricula within larger social issues of race, socioeconomics, gender, ethnicity, and culture (Gay, 2000).

Demonstrating cultural affinity and building a learning community was framed within culturally responsive teaching as a partnership between teachers and students in pursuit of unwavering high expectations. The classroom climate must be founded on respect and “cultural scaffolding” (Gay, 2000) wherein teachers facilitate students using their own sociocultural position in and out of school, with an emphasis on *holistic and integrated learning*, to expand academic opportunity, engagement, and achievement. Culturally responsive teachers use this integration to support students’ understanding of the power of knowledge and education and the role they and their learning play in their communities and in society at large (Gay, 2000).

To understand what students know and can do, culturally responsive educators employ communication skills that are cognizant of what is said and how. Beginning with critical understanding of the cultural mitigators of thoughts and words, and the ways in which it

manifests in the classroom, culturally responsive teachers and teacher preparation programs understand and incorporate relationships between culture, language, and participation. This multicultural competency, specifically regarding competency in different expressive and receptive communication styles, fully confronts issues that arise as a matter of classroom discourse and procedure (Gay, 2000).

According to the culturally responsive teaching framework, embedding culture into classroom instruction, environment, and procedures is essentially *multiculturalizing* teaching to correct the incongruence between culture and classroom instruction. Culturally responsive teachers appreciate and account for culturally influenced learning styles through:

preferred content; ways of working through learning tasks; techniques for organizing and conveying ideas and thoughts; physical and social settings for task performance; structural arrangements of work, study, and performance space; perceptual stimulation for receiving, processing, and demonstrating comprehension and competence; motivations, incentives, and rewards for learning; and interpersonal interactional styles (Gay, 2000, p. 113).

In a later revision of the framework, culturally responsive teaching was conceptualized to be both culturally relevant and developmentally appropriate (Gay, 2002), acknowledging within the framework that the ways in which ability and perceived ability may have stymied the implementation of culturally responsive instruction. Going by many names, additional equity-seeking pedagogies have been theorized to provide deeper understanding of one of more of the components of culturally responsive teaching. Multicultural teacher education (MTE) research has produced deep, critical frameworks to prepare preservice and develop in-service educators to advance *multiculturalized* instructional practices that are anchored in equity and liberatory education (Sleeter, 1996; Neito, 2004; Banks, 2004a; Grant & Sleeter, 2006; Gorski, 2006;

Gorski, 2008). Culturally Sustaining Teaching challenges educators to dig deeper than that which is culturally relevant (Ladson-Billings, 1995) or responsive (Cazden & Leggett, 1981; Erickson & Mofatt, 1982; Gay, 2000) towards teaching and pedagogy that resources student culture (Paris, 2012) and leverages multiculturalism and multilingualism to *sustain* cultures.

Disability and Culture

Despite the well-documented intersection of race and disability status in the educational system (Artiles & Trent, 1994; Donovan & Cross, 2002; Skiba et al., 2008; Artiles et al., 2009; Blanchett et al., 2009; Artiles et al., 2010; Irvine, 2012; Marisco, 2021), there has been surprisingly little written about culturally responsive practices in the context of special education, especially for students with low incidence disabilities. Whereas students without disabilities, as well as most students with disabilities (SWDs), take state assessments, such as Common Core or Standards of Learning, alternate assessments are offered to 1% of SWDs. SWDs who take state alternate assessments are more likely to have a low incidence disability, such as significant cognitive or intellectual disability (ID). While the past decade of literature on academic interventions for students with intellectual and cognitive disabilities has established evidence-based practices for content area academic instruction, it has not provided special educators with a way to support the unique needs of CLD SWDs who require individualized instruction on alternate standards. Research studying math (Smith et al., 2013; Root et al., 2017), literacy (Browder et al., 2008; 2012; Hunt et al., 2019), science (Knight et al., 2013; Jimenez et al., 2014), and social studies (Zakas et al., 2013; Smith et al., 2013; and Wood et al., 2015) instruction offers special educators academic-focused, evidence-based content interventions but omit implications of culture, or the intersectional experiences of SWDs who are also racially, linguistically, culturally, socioeconomically, and/or otherwise marginalized.

Despite this historical lack of focus on culture within disability studies, the rise of critical studies of disability (DisCrit) provides a frame for integrating consideration of race and culture into research on and pedagogy for students with disabilities. DisCrit theorizes that, “Drawing on tools of scientific racism, including post-mortem studies of human brains, scientists have attempted to prove the inferiority and lower intelligence of African Americans in order to justify segregation and inequitable treatment within the United States and beyond,” (Annamma et al., 2016, p. 2). This plays out in several ways in K12 education that multiplicatively marginalize CLD SWDs. Factors such as disproportionate discipline (Smolkowski et al., 2016), greater exclusion from general education opportunities (IDEA Series, 2018), and lower rates of high school graduation (US DOE, 18-19) illustrate the issues theorized in DisCrit. In the face of disproportionate opportunities and outcomes for CLD SWDs, and persistent dearth of research on culturally responsive academic content instruction for students with ID, further extension of culturally responsive teaching to include the population of CLD students with low incidence disabilities is necessary to create greater inclusion, access, and belonging.

Measurement of Culturally Responsive Practices

Measurement of culturally responsive practices (CRP) requires assessment of the various components that comprise CRP. As noted earlier, this includes not only teacher practices, but also beliefs about CRP and about their own abilities to enact CRP. Numerous instruments have been developed and validated that measure educators’ culturally responsive practices, attitudes, and self-efficacy (Guyton & Wesche, 2005; Hsiao, 2015; Siwatu, 2007; Siwatu, 2017; Chang et al., 2019; D’Andrea et al., 2003; Dickson et al., 2016; Kea & Trent, 2013; Salazar, 2018; Spanierman et al., 2011; Swartz & Bakari, 2005; and Yang et al., 2020). The Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) is a 26-item survey designed to understand the nature of preservice teachers’ self-efficacy regarding culturally responsive teaching (Siwatu,

2011). An additional instrument, the Culturally Responsive Teaching Survey (CRTS) is a 17-item online instrument designed to measure culturally responsive teaching appropriate for English Language learners (Rhodes, 2017). Both surveys are highly utilized in practice and cited in research.

While research involving the practices, outcomes, and instruments to measure culturally responsive instruction that includes CLD SWD has increased, little of this research has extended to CLD SWDs with low incidence disabilities, such as an intellectual disability, who qualify for the alternate assessment. The absence of research examining the experiences of CLD SWDs in K12 education and larger society, further illustrates DisCrit's theorizing of exclusion and erasure, and highlights areas needing further inquiry. A survey of a small sample of special educators that focused on whether and how they incorporated student culture and CRP into their planning and instruction affirmed the need for further work on culturally responsive practices for CLD SWDs (Hughes, in preparation). Study participants from a small, non-representative national sample (n=16) reported that the culturally responsive practice they used most often was to encourage families to speak in their native language with their children, but that they are less inclined to learn and use greetings and phrases to praise students in their classrooms.

Additional findings suggested that only a few teachers even think about a student's cultural contributions and uses of literacy and history, but especially science and math. Considering the omission of cultural implications in academic intervention research, and addressing predominantly linguistic diversity in culturally responsive research for CLD SWDs, where would teachers go for support in creating culturally responsive academic programming for their students on the alternate assessments?

To bridge this gap, a culturally responsive framework was developed with the explicit aim of improving opportunities and achievement for CLD students with moderate or severe

intellectual disability. The framework sought, “to include sound instructional strategies that are based in behavioral, linguistic, and instructional theory, while also being culturally responsive to the diverse needs of CLD students with moderate or severe ID” (Rivera et al., 2016, p. 39). Extant research in each of the framework’s eight components – technology, self-determination, Universal Design for Learning, multiple opportunities to respond, safe learning environment, systematic and explicit instruction, integrating cultural information, and primary language support - are retheorized through a culturally responsive lens. A handful of researchers have used the framework to understand and support the unique intersectional needs of students with ID who are also English Language Learners (Karvonen, et al., 2021; Rivera, et al., 2021), Syrian refugees (Mohamed, 2021), and to support CLD families in the IEP (Individualized Education Plan) process (Jimenez & Doughty, 2022), and effective teacher feedback (Pennington, et al., 2022). However, none address culturally inclusive behaviors of special education teachers who teach students with ID who are likely to take alternate assessments, within the context of content instruction.

This Study

This study aims to explain and interpret survey results from phase one of the larger mixed methods study to understand how special educators bring together evidence-based content instruction and culturally responsive teaching practices to integrate culture into academic programming for CLD SWDs with intellectual or cognitive disabilities that qualify them for the alternate assessment.

Methods

This paper reports on the second, qualitative phase of a larger explanatory mixed methods study (Hughes, in preparation). Based on findings from the quantitative phase, a sub-sample of teachers were selected for a series of follow-up interviews. Interview questions expanded on the

findings from the survey and focused on better understanding of patterns identified in the survey data. Interview responses were interpreted through a culturally and linguistically responsive framework specifically aimed at improving outcomes for students with moderate or severe intellectual disability. All study procedures were approved by the University of Virginia IRB (protocol #4567: initial approval 9/30/2021; addendum to amend interview protocol based on phase one findings and indicate participant compensation approval 5/9/2022).

Participants

Participants in phase two were a small subset of individuals who completed phase one survey and were selected through a combined volunteer and purposive sampling procedure. At the end of the first phase survey, participants were asked for consent to be contacted for a follow-up interview. Of the 16 respondents to the survey, five consented to a follow-up interview; of the five that volunteered to be contacted for a follow-up interview, one was eliminated because they did not currently teach students who would identify as CLD. Of the four remaining, one was purposively selected based on having scored themselves below the mean overall and in eight out of the nine items on the first survey matrix inquiring about culturally responsive behaviors; and the second was chosen for having scored themselves above the mean overall and in eight out of nine items. None of the respondents scored themselves above or below the mean on all nine items.

Participants in phase two follow up interviews were two, White/European American, female-identifying special educators (gender neutral pseudonyms and pronouns are used throughout this manuscript), each with 11-15 years of experience, who teach students on their respective states' alternate assessment, one at the high school level and one at the elementary level. Although from different regions of the US, both educators describe their districts as suburban and report teaching students who are Black/African American, English Language

Learners, ethnically Latinx or Hispanic, and White/European American; as well as students living in poverty. Both interview participants are fully certified to teach the students currently enrolled in their classrooms, most of whom are served within the self-contained setting at least 80% of their school day. One participant received professional development and was certified in culturally responsive teaching, while the other teacher does not have access to culturally responsive training through their district but is working on their doctorate and has taken a university course that covered culturally responsive teaching.

Data Collection

Contact was initiated over email using the information participants included at the end of the phase one survey. Initial interviews were scheduled through email over the summer of 2022 but continued into the fall of the 2022/23 school year until they were concluded in October 2022. Both participants taught summer school, therefore interviews were offered at times and on days that were convenient for participants. Interviews were conducted via zoom and lasted no longer than one hour. After the first interview, the subsequent interviews were scheduled during the latter few minutes of zoom interviews or through email afterwards. Interviews were audio recorded only, and although transcripts were taken within the zoom platform, they were copied into a word document for cleaning. Participating special education teachers were compensated \$25 per interview.

The semi-structured interviews were conducted by the principal investigator on this study - a White, queer, cis-gender female from the Southeast region who grew up low income but, as a veteran special educator, lives a middle class existence in a mid-sized city, and espouses ideology that is highly critical of dominant hegemonic narratives that pervade education and special education about children from marginalized communities. The interview protocol included a combination of closed and open-ended questions. Beginning with inquiries about

district and school demographics, later interview questions were intended to prompt participants to think about and articulate teaching philosophies, to view themselves and their students as cultural beings, and their instruction as culturally mitigated. Candid responses were encouraged, and the primary researcher facilitated the conversation as an insider – a fellow, White/European American, female-identifying special educator with considerable experience teaching this population of students. In addition to inquiries into teaching philosophy and district and school descriptors, interview protocol asked teachers to describe the training that was offered to them regarding culturally responsive teaching and pedagogy (see Appendix for the interview protocol).

Each participant engaged in three, one-on-one, virtual interviews. Over the course of the first individual interviews, one participant reported having access to and being certified in culturally responsive practices in their district, the other expressed an earnest interest, but lack of access to resources and training in culturally responsive practices. Initial reflection of sentiments related to culturally responsive practices in the first two individual interviews indicated that participants may have had questions for each other and could reveal pedagogy rooted in or striving towards cultural responsiveness that the interviewer may not have conceptualized. In the third individual interviews, participants were asked for consent to engage one more time in an interview with the other participant and primary researcher. After completion of all three individual interviews, a fourth and final focus group interview was conducted with both participants.

Data Analysis

Fixed mixed methodology was used in this study to support inquiry into socially compounded questions (Creswell & Plano, 2018), as is appropriate to understand the complex special education experience (Klinger & Boardman, 2011; Onwuegbuzie & Corrigan, 2018) of

students who exist at the intersection of disability and other marginalized identities (Annamma, 2013), especially those most minoritized by moderate to severe ID (Rivera et al., 2016). Cleaned transcriptions of all seven interviews were verified for accuracy through repeated comparison of the audio recording and transcriptions. Both audio recordings and de-identified transcripts were then entered into Dedoose. A second coder was recruited to the research team for consensus and reliability coding and codebook revisions.

The second coder identifies as a white, cisgender female from a middle-class background. She taught elementary school as a general education teacher for six years with a Master of Arts in Teaching and a specialization in teaching English as a Second Language. Her experience teaching predominately students from low-income backgrounds and immigrant families from Mexico, El Salvador, and the Marshall Islands influences her understanding and interpretation of special education teachers' responses about cultural responsiveness for SWDs. The codebook was developed based on the Culturally and Linguistically Responsive Framework for Improving Academic Outcomes for Students with Moderate or Severe Intellectual Disabilities (Rivera et al., 2016). Although analysis started out only examining transcripts for indicators of one construct of interest to this study, *integrating cultural information*, through initial consensus coding, the overlap of framework constructs necessitated analysis within the context of the whole framework.

The first round of coding was conducted by each researcher separately. After meeting and discussing the framework, the author and second coder independently interpreted the data within the given framework for the first interview for both participants, creating memos about connections, specific words or phrases that carried meaning, and questions to pose for clarification during consensus meetings. After both coders had completed both participants' first interviews, researchers then met to operationalize terms, identify disagreements, and come to

consensus about which framework constructs were illustrated by each unit of meaning and why. Disagreements were primarily about discipline specific terminology and overlooking a teachers' reference to concepts in the framework. After clarification of these discipline-specific vocabulary, the coder with special education experience (author and principal investigator) was as likely to miscode or miss a unit of meaning as the second coder. Consensus conversations between coders were participatory and equitable. After 100% consensus was reached on the first interviews, researchers proceeded with the second interview for each participant, and so on for the third, and fourth (focus group) interviews. Researchers met after completion of each interview pair, addressing all disagreements until 100% consensus was reached on each unit of meaning. After the first round of consensus coding was finished, the framework was updated to reflect additional ways in which culturally responsive practices manifested in teacher behavior.

The updated framework offered additional illumination of the constructs: technology, self-determination, multiple opportunities to respond, safe learning environments, systematic and explicit instruction, primary language support, and integrating cultural information. The updated framework included issues that came up in references to Covid, for example, and theoretically anchored Universal Design for Learning to the construct of multiple opportunities to respond. Additionally, the parent code of *integrating cultural information*, a construct of particular interest to this study, was assigned three sub codes in Dedoose: positionality, cultural information gathering, and cultural integration into the classroom. The sub codes aimed to capture what teachers were presenting to students in the classroom, the ways in which they gather cultural information, as well as identifying the need for culturally responsive teaching, personal bias work, training, and reflection on themselves as cultural beings and their practice as culturally mitigated.

Researchers conducted the second round of data analysis using the updated codebook. In a similar cadence to the first round, researchers met after independently coding and creating memos for each unit of meaning in each interview pair. Before the meetings, data were copied from Dedoose into an excel spreadsheet to calculate agreement and organize consensus coding conversations around disagreements. Researchers discussed each disagreement until 100% consensus was reached on each unit of meaning. After completion of the second round of coding for all seven interviews, qualitative data were quantified by counting the frequency of references to behaviors occurring in each component of the framework and then were compared to survey responses overall (N=16) as well as to the specific responses of the follow-up interview participants (N=2). As is illustrated in Table 1, frequencies of references to behaviors in each component for all 1:1 interviews as well as the focus group interview were calculated for teacher two (Sam) and teacher three (Ty); and were then grouped into low (2-15), moderate (16-30), high (31-45), and very high (46-60) references to behaviors in each framework component.

Results

Although the original 2016 framework has been used to understand and improve educational outcomes for students with moderate to severe ID who are also English Language Learners (Rivera et al., 2016), to date it has not been used to examine culturally responsive content instruction for students with ID who take alternate assessments, who are also marginalized by race, culture, ethnicity, indigeneity, and/or socioeconomics. The initial framework's eight components were operationalized in more detail, expanded, and then collapsed into seven components. Interpreting interview data through the updated culturally responsive framework, provided a more detailed picture than the survey alone of how participants, Sam and Ty (pseudonyms) enact each component: technology, self-determination,

multiple opportunities to respond, safe learning environments, systematic and explicit instruction, primary language support, and integrating cultural information.

Technology

In the 2016 iteration of the framework, the use of technology was centered around student application of mobile devices as multimedia instructional formats, and speech generating devices. During the current analysis, across all seven interviews there was only one reference to a student using technology within the initial definition of technology as a speech generating device (an iPad) but multiple references to technology as an instructional tool. Current updates to the technology component of the framework include: 1) specific online tools, learning games, and packaged programs; 2) virtual IEP team meeting options; and 3) translation tools to facilitate communication between teachers and the student and/or the student's family. The expanded operationalizing of technology in the framework accounts for additional culturally responsive uses of technology.

Viewed through the updated framework, a significant way in which technology was used in classrooms of the two interview participants was in support of content instruction or as the vehicle for content instruction itself, as in the case of online programs, platforms, and tools such as Google slides, IXL, Unique Learning Systems, Max Scholar, Reading A to Z, Prodigy Math, BrainPOP, or Edmark. Both Sam and Ty referenced using technology in this way. Ty suggested several times that finding age-appropriate materials relied on technology tools such as Google slides to present adapted material, and BrainPOP, Reading A to Z, and Prodigy Math to engage students.

Use of technology in this way was demonstrated in statements such as from Ty in their first interview:

we did a community unit where I go to the grocery store and I interviewed families and interviewed the kids, oh you go to Kroger well there's three Krogers in town and I took pictures and asked the kid which one do you go to and so we built a little book on Google Slides so I put the links for stuff in there like Special Olympics.

In this instance, technology was used as instructional support to deliver the lesson. In other examples, technology platforms and programs were used as the instruction itself, such as reading instruction in Ty's classroom, "we do Edmark, they bought us Edmark online which the kids like a lot better than me sitting there with a book and pointing" and "[we also use] Orton-Gillingham but there's online website portions so they do some of the phonics stuff and also reading and comprehension and identifying main idea and topic and highlighting details and summarizing" and for math practice, "[we] play prodigy math game which they really liked and got super into fighting each other on it." While not outlined in the original framework with this level of detail, the use of technology to support and provide instruction represents a sizable portion of instruction in the participating teachers' classroom. Additionally, Ty expressed using technology in their search for age-appropriate materials.

Beyond the classroom and instruction, technology was used to engage families. Developed during Covid restrictions, zoom meetings have continued to be offered as an option for families to attend IEP meetings. Participants reported that families can participate more readily when zoom or other virtual meeting technology is offered. In their first interview, Ty reported that although covid meeting restrictions had been lifted, most parents opted to participate in their child's IEP meeting virtually over zoom rather than in person; and that this adaptation to the in-person model was in fact more equitable and had resulted in higher participation rates. Reference to technology used to offer virtual meeting engagement options include statements such as:

so Covid years all of the meetings were zoom and then this year we were allowed to offer in person but only I think only three out of our 17 parents wanted to do in person and even then it really was hybrid because related services and stuff from other schools wanted to be on zoom so we just did both and we actually I mean I've had more parent participation with zoom IEP meetings than I did before. IEP meetings over zoom most parents prefer anyway because they don't have to take off of work and drive there, they can hop on on their lunch break or whatever.

References to the value of technology used for translation support with families were indicated in sentiments such as, Sam from their first interview, "It's been interesting because mom only speaks Spanish so building a relationship and communicating with her [has taken place] mainly over the phone because it translates for me automatically." and from Ty's second interview:

it was hard to get in touch with his mom at first, so I ended up like calling grandma at work before I finally got a number but then they gave us talking points and that worked his mom texted me back within 10 minutes every time I messaged her on talking points so that worked well for her.

Self-Determination

Ty and Sam demonstrated significant commitment to self-determination for their students. The initial framework captured many of Sam and Ty's references to promoting student independence and classroom practices and procedures that facilitate independence and agency. These references were captured in statements from Sam's first interview such as, "I wanna get them [students] more involved in the IEP meetings and stuff but some of them you know when they're five that's hard to do when they're 5-6 it can be hard to do so I was like well at least maybe in the goal process goal setting process" to ensure that students, "have agency in their

own.” Ty expressed similar philosophical attention to self-determination in their first interview, “I want kids to be able to do as much as they can independently and so always letting them try something first instead of assuming that they can't do it.” Additional evidence of self-determination was illustrated in solicitation of student preferences and giving students grouping and task completion options with statements from Ty such as, “You guys want to do this by yourself, or do you want to do it together and they always want to do together.”

The updated framework component of self-determination added nuance to concepts such as independence, student involvement, and expectations. To provide more detail to self-directed learning, descriptors were added to the framework that included behaviors such as playing with and following the student’s lead, observing and honoring student interest outside of their culture or cultural norms, establishing routines and procedures that promote independence, soliciting and privileging student choice including when students express opinions, and the need to advocate on behalf of the student in pursuit of independence, student involvement, and expectations.

The additional indicators of self-determination were evident in statements from, for example, Sam’s first interview when students were learning how to problem solve their own behavior, specifically mad/frustrated:

how do we feel when I get mad I scrunch my hands you know like it's the whole process of course and we build that and we just continue building on that throughout the whole year we eventually take pictures of them doing different emotions so they see themselves and what they look like but that's them willing not like when they're actually having a fit or something that's going on.

Sam references other indicators of self-determination include following the student’s lead:

I like to play with my kids. I like to sit on the floor with them, or whatever their preference is, and just play. I feel like you learned so much. They are going to learn a lot from about (sic) me, and I am going to learn a lot about them just by sitting on the floor, and we will roll the ball back. I mean whatever they want to do, we will build something with Legos [just to give them agency.]

Instances of needing to advocate for student independence to the families are detailed in self-determination and evident in such statements as in Sam's second interview in which they reference advocating for, "autonomy for our students, because sometimes we have helicopter parents that may not even know that they're you know [impeding independence]." In addition to advocating self-determination to families, Sam conveyed advocacy with coworkers and administration for inclusion in interview one, "I'm not going to deny my students they're gen ed [general education] time, that's not going to happen" and "I wholeheartedly believe that our students are gen ed [general education] students first and that that should always be an option first and I'm going to do whatever it is that I need to do in order for them to be there." Ty referenced inclusive age-appropriate peer groups and school wide events such as Black Student Union, lunch buddies, and homecoming as opportunities for students to be included and use self-determination skills to make choices in social settings.

Multiple Opportunities to Respond

During initial consensus coding, there was high disagreement about two components within the first framework, multiple opportunities to respond and Universal Design for Learning (UDL) and teasing them apart did not seem to contribute to understanding culturally responsive content instruction from the data available in this study. Since presentation of learning tasks, and demonstration of learning is encompassed by the component of multiple opportunities to respond, the updated version of the framework subsumed the component of Universal Design for

Learning (UDL) into the construct of multiple opportunities to respond. The updated framework included additional ways in which teachers determine how to present a task so that the student can access it, accommodating individual learning needs, and ways of showing learning. In Sam's second interview they describe an example of how they might learn about a student's spelling skills while engaged in a preferred activity, "even if we end up watching a a video on YouTube kids or something like that. Then I can see what their preferences are. And can they type it in, can they type, so we're looking at spelling then." Accommodating individual learning needs was evident in statements such as from Ty's first interview, "everybody's on such like a different program because it's all different levels so we...run each kids individual program with their stuff in their crates so sight words journal whatever reading program they're on." Ty's description of student instruction illustrates a clear picture of individualized programs that are tailored to student modes of learning and responding, representing a level of familiarity with student education topology that comes from frequent formative assessment.

In addition to incorporating UDL into this component, the current iteration of the framework expanded the multiple opportunities to respond component to include presenting age-appropriate materials and curriculum (that is also culturally responsive) - something that Ty expressed was a significant barrier to incorporating culture into content instruction. Multiple opportunities to respond was expanded to account for the natural teaching moments that give teachers a glimpse into and academic skill through another (preferred) activity; or deliberately embedding a target skill into a fun, preferred activity.

Participants referenced engaging in these behaviors through statements like in Sam's third interview example describing multiple entry points into clock and calendar skills.

Everybody is doing something different in time, you know I have one student that's identifying a clock, you know. Where *is* the clock? Where you know when we find

[identify] the clock up to the students that are writing out our day to [the child who can] You know that can write nine, thirty. We're doing this [at] ten, thirty, we're doing, you know [and so on]...I have one whose job is to change the day and the date, and what tomorrow is going to be to you know all of that for the next day at the end of the day, and I have another student whose job is to um write the schedule for tomorrow. What are we gonna do tomorrow? If we did this today, then what we got tomorrow?

The scenario illustrates a classroom environment in which all students are engaged in learning with developmentally appropriate, planned expectations for how each student is going to respond. Because they teach high school age students, Ty reflects more heavily on the struggle to present content materials that are age and developmentally appropriate as well as culturally responsive. They express this friction in statements from the focus group such as, “What I ran into with books is that it's hard to find stuff that's age appropriate where my kids are,” and their first 1:1 interview:

you take an activity and even if you find stuff it's often elementary and so I try to find stuff that's not too like baby-ish because of my kids will call me out for it some of them don't care but it's like finding the balance between they can understand it and it doesn't treat them like they're five.

Safe Learning Environment

A safe learning environment was another framework component that was a cornerstone in Ty and Sam’s philosophy and practice. In the initial framework, there was a significant overlap between two components: self-determination, and safe learning environment. In the updated framework, additional details gleaned from participants more clearly operationalize safe learning environment and its distinction from self-determination. These additions include facilitating joy and fun, advocating on behalf of students’ language, culture, or students’ rights as a person with

a disability; not just offering but advocating for programs that are inclusive, as well as inclusion in general education classrooms; creating community and fostering relationships with other students in the classroom as well as the school; and fighting ableism in ways that students behave, communicate, and academically achieve.

Safe learning environment showed up in sentiments of advocacy for students to building and district coworkers such as Sam expressed in interview one, “you're just looking at the fact that they can't hold the pencil that's all you see” and

how I view behavior and trouble versus how they [general education teachers] view behavior and trouble because my perspective is very different on behavior and norms of course because mine looks completely different than theirs and so I'm always trying to bridge that gap between like it's not a big deal if they sit on the floor like that's OK that's the battle we don't have to fight right now you know and just learning to pick our battles.

Disability advocacy was a common and consistent theme throughout all seven interviews for both participating special educators. Regarding topics of disability within their culturally responsive training, Ty indicated:

they [culturally responsive trainers] also say that disability is not considered part of culture which I disagree with, because that's pretty much ableism, and I don't like that... but I am this year pushing back now that I am certified. So, I think, they want us next week to come with equity audit data for the PLC [professional learning community]. For the whole group, and we're going to look at attendance, and we're going to look at attendance by disability category, because most of the students on my case load are identified as multiple disabilities and have medical issues which require them to miss a lot of school. So, they miss more than students and other disability categories. So, [we are going to] look at that, and come up with a plan to try to communicate more with those

families, so we can make sure that their attendance is being marked correctly, and they're not getting dinged for it.

Safe learning environment also came up regarding classroom community – creating joy and having fun. Sam shared examples of having a dance party, wanting to make the classroom library welcoming, and learning yoga together (even though they're terrible at yoga themselves). Ty shared examples of having fun in the classroom by “messing with” a student by learning words and phrases in Spanish, encouraging them to compete with classmates using Prodigy Math, and create connections and community around school events such as homecoming.

Systematic And Explicit Instruction

Much of the conversation on systematic and explicit instruction is beyond this study's scope. “Explicit instruction is an evidence-based pedagogy in which the teacher explains, models, and demonstrates the content or skill to be learned; has a stated learning objective for each lesson; and uses clear and unambiguous language” (Buckingham, et al., 2019, p. 56). Whether or not Ty's and Sam's instruction is systematic and explicit is unascertainable from available data. For this study's purpose, behaviors were considered systematic and explicit if there was evidence that the teacher had created the opportunity for systematic and explicit instruction to occur.

Although there were not any changes to the core concepts presented in the initial framework, the updated operationalization of systematic and explicit instruction provided key phrases and references that would indicate teachers *could be* engaging in each behavior. These included remarks about taking data (baseline, collection), classroom systems that embed content instruction - math, reading/ELA, science, social studies/history, or specific skills such as: time, reading comprehension, sight words, or money, for example. Sam indicated systematic and explicit instruction opportunities in their classroom, “yeah so for their goals and objectives I

have in separate folders like I keep social studies and ELA and then I ended up just making Thursday data day.” In this reference, Sam is describing their data collection plan, which includes all content areas and referencing individual goals and objectives.

Primary Language Support

The initial framework addressed the ways in which teachers can plan for the utilization and leveraging of first language for instruction (Rivera et al., 2016), however it did not capture the ways in which this culturally responsive behavior occurs in the naturalistic, day-to-day interactions with students for Sam and Ty. Updated nuances in this framework component include integrating the child’s first language into the classroom through translanguaging, using words and phrases, presenting books, classroom curriculum and materials in the child’s first language. Ty indicated primary language support in this way with examples such as, “we ask him like how do you say this word in Spanish with his sight words ...we're like what's horse in Spanish what's car” and examples of translanguaging as in the example, “like backpack he says mochila almost all the time instead of backpack but like there's a couple words like that in his milk is leche.” These behaviors indicate broader embrace of first languages and demonstrate genuine belief in the benefit of including both/all into instruction. Ty aims to include students input by being transparent, “yeah because I was like is it gonna help with your site word recognition” and demonstrating flexibility around what the student wants and needs, “I can do them in Spanish I don't care” to ensure that students can access as much of the learning as possible through this type of primary language support.

Integrating Cultural Information

As the primary framework component of interest in this study, integrating cultural information was defined in the first iteration of the framework as understanding and drawing from student culture; presenting books, materials, and curriculum in the classroom that are

culturally relevant; and identifying and unlearning biases (Rivera, et al., 2016). As this was the a priori component of particular interest and remains the construct of focus, there were several additions to the framework that clarified how these behaviors are showing up contemporaneously. Since the first iteration of the framework was published, not only has Covid changed the landscape of teaching, but equally so has mainstream awareness of and resistance to racism, and the political backlash of anti-racism efforts. If it is to be maintained that cultural responsiveness, and (in this context) integrating cultural information includes the socio-political position and experiences of students in and out of school, then it is fitting that the framework used to serve students marginalized by racism and ableism be adapted to reflect the current sociopolitical climate.

Due to its importance as a construct, the parent code, integrating cultural information was assigned three sub-components: positionality, cultural information gathering, and cultural integration in the classroom. *Positionality* was recognized in the initial framework as identifying and unlearning biases. The updated framework adds desperately needed detail to illustrate the complexity of this sub-component and specific requisite sub skills such as identifying themselves as cultural beings and their practice as culturally mitigated. Indicators of positionality were evident in several ways. Additionally captured under this sub-component are references to culturally responsive professional development.

Due to their culturally responsive training which asked participants to understand themselves as cultural beings, Ty described their culture with ease, outlining their family roots, what it means, and how it shows up in their classroom. Ty's comfort with positionality was evident in statements from their second interview such as:

I was always taught that school is really important and that we should value what we have and with the Great Depression like don't be wasteful with stuff and so I kind of put

that on my kids too like hey we need to be really glad that we're at school today that we can be here and be with each other but I know that not all the kids have the same experience with school that I did and so I try to be mindful of that and with families too like when families don't participate in IEP is it is it because they don't have time or because they have their own school trauma that they are still dealing with that they can't come and just I try, I can hear myself turning into my mom when my kids say I want that and like "please" to use my prompting I sound just like my mom because that's what she did to me and my sister with me and her specially um so if you see my family popping up lots of different ways at school yeah.

Ty's ability to succinctly reflect on their positionality demonstrates a sustained and concerted effort to identify and unlearn biases.

While not certified in culturally responsive teaching, a university course taken before the study began introduced the idea of culturally responsive practices and piqued Sam's interest.

Sam shares:

one of the main things that I took away from the class that I took was asking yourself why, why do I need them to sit in the chair why do I not want them to be on the floor and just kind of reflecting on like yourself because it's you and because you're the one trying to get them to do whatever it is that you're trying to get them to do and why does it matter so much to you.

Sam reflected on their initial reaction to the course assignment of thinking about themselves and their culture in an objective way, "I had no idea because I really hadn't thought of it and what is my culture? I just kept going I have no idea what you're talking about." Despite this, Sam made many references to positionality, but in the context of just beginning the journey of unlearning biases and understanding themselves as a cultural being and their teaching as

culturally mitigated. This was evident in statements such as, “I'm still learning about it I'm still trying” and “as a white straight female I don't have the perspective that the majority of my [Hispanic] students” and “I wanna do it correctly in a way that is respectful” and, “I want them to be able to see themselves and their background and their culture and environment.” Sam continues to iterate:

I want to build that [culturally responsive] lens and I want to be able to look through that lens and I think that'll help me learn more too about being respectful and understanding and going oh OK now I see it and so being aware I can only learn more so that's always where I wanna go that's always my goal.

The sincere and humble aspiration to be more culturally responsive that Sam expressed many times, begins with understanding positionality.

The second sub-component of integrating cultural information, *cultural information gathering* was further operationalized in the updated framework to include not just funds of knowledge and understanding students' cultural heritage, socio-political position, and experiences in and out of school, but building community with and among families, celebrating cultural heritage, and creating opportunities to draw out cultural information. This sub-component was still defined as understanding students' socio-political position and cultural heritage but was updated to include the opportunities that teachers deliberately create to gather cultural information from families. Sam captures this work in her detailing of “dream team meetings.” When first talking about them in their second interview, Sam reported on dream team meetings as an opportunity to gather cultural information from families.

[I'm] so excited that we are doing this thing called uh dream team meetings. So instead of having parent teacher conferences, I hate those because I we just talk at parents, and I hate it, and that's not involvement. You know what I mean. That's talking at them like I

said, I hate that part so really excited to do this dream team meeting. We are going to have the parents in our classrooms, and I've been talking back and forth with them, and we're providing childcare for all their kids. We'll sit. We can have a real discussion; you know what I mean? So, I'm really excited about that.

Sam also expressed understanding of school and community (student experiences in and out of school), “we're the only elementary located in the low socioeconomic neighborhood...I think our population is like 90% Hispanic.”

Cultural integration into the classroom, the third sub-component of integrating cultural information was not redefined from the initial framework and was only updated to include additional ways in which this showed up in Sam's and Ty's classrooms. Still operationalized as presenting culturally relevant books, materials, curriculum, instruction, and classroom environment, the additional indicators recognize connecting classroom procedures and practices with home routines and culture. While subtle in variation, this sub-component was intended to capture what was presented to students in the classroom, rather than the other two sub-components of integrating cultural information which occur outside of instructional time. Examples of this sub-component are captured in Sam's statements about their elementary classroom such as, “we do our check-ins like how are we feeling today and our students that's happy is darker complected and I had one of my students whose lighter complected go that's not me I'm happy but that's not that doesn't look like me and I was like I know but you know,” and descriptions of biography activities in Ty's high school classroom about, “important people of the 20th century and so there is kind of a mix of Black and White like Martha Graham is on there and Henry Louis Gates is on there so that I tried to lean into that a little and I found videos of each person or like short little biography things.”

Quantifying the Qualitative Data

Quantitative analysis of qualitative data reveal patterns and trends individually as well as collectively across each component and offer indicators on content instruction and how culturally responsive training may positively impact teachers' ability to gather cultural information. Quantitatively interpreted, participants reported engaging in moderate rates of behavior to promote self-determination and a safe learning environment, and low rates of primary language support. Likely because of the nature of the interview questions, both phase two participants reference the framework construct of *integrating cultural information* at very high rates - more than any of the other constructs. However, within the three supporting constructs (positionality, cultural information gathering, and cultural integration in the classroom) the teacher who had received professional development in culturally responsive teaching referenced engaging in cultural information gathering at a higher rate than the teacher that did not have access to culturally responsive training. Whereas the teacher who had not received professional development on culturally responsive teaching indicated higher rates of positionality. Both teachers referenced low rates of specific instances of integrating cultural information into the classroom.

Across the entire framework, participants referred to themselves engaging in culturally integrative behavior most often (Sam: 52; Ty: 60). Within this construct, there are differences between the two. Whereas Sam referenced behaviors indicating positionality 24 times, cultural information gathering 23 times, and cultural integration into the classroom five times; Ty referenced cultural information gathering behaviors 33 times, positionality 19 times, and cultural integration into the classroom eight times. Primary Language Support behaviors were reflected the least in Sam and Ty's 1:1 and focus group interviews, with two and six instances of these behaviors, respectively. Over the three interviews and one focus group, participants referenced similar numbers of instances of systematic and explicit instruction (Sam: 14; Ty: 13) in their

classrooms. Both teachers report engaging in moderate levels of safe learning environment behaviors (Sam: 32; Ty: 24). Multiple opportunities to respond behaviors were referenced 15 (Sam) and 21 (Ty) times. The frequency of each participant's references to self-determination was high (20 and 27). The largest difference between Sam and Ty in any framework component is in the number of times each participant made references to the use of technology, seven times across all four interviews and 26 times, respectively. Sam made references to using technology in the context of translation to facilitate communication over a call or text message to families two times. Ty made references to using technology in the context of translation to facilitate communication over a call or text message to families five times, and with students one time. Technology as an instructional tool (four and 12 times, respectively) Sam made one reference to virtual meeting options, and Ty made four references to it.

Table 1

Quantified Interview Data by Framework Component

	ICI	pos	CIG	CIC	SLE	SD	MOR	Tech	SEI	PLS
Sam I 1	13	9	3	1	15	4	4	1	4	0
Sam I 2	7	1	6	0	5	7	4	1	4	0
Sam I 3	14	6	6	2	7	8	5	0	3	0
Sam FG	18	8	8	2	5	8	2	5	3	2
	52	24	23	5	32	27	15	7	14	2
Ty I 1	12	4	7	1	9	6	6	7	4	1
Ty I 2	27	7	16	4	9	5	9	10	4	3
Ty I 3	5	3	1	1	2	4	2	2	4	0
Ty FG	16	5	9	2	4	5	4	7	1	2
	60	19	33	8	24	20	21	26	13	6

Note: The framework components in Table 1 are abbreviated as follows: Integrating Cultural Information (ICI); Positionality (pos), Cultural Information Gathering (CIG), and Cultural Integration into the Classroom (CIC); Safe Learning Environment (SLE); Self-Determination

(SD); Multiple Opportunities to Learn (MOR); Technology (Tech); Systematic and Explicit Instruction (SEI); and Primary Language Support (PLS).

In all seven interviews, both participants reported behaviors coded as more than one framework component. Some of these co-occurrences may have been due to the way in which utterances were chunked for coding, but some of this may have been due to the overlapping concepts and practices that researchers identified when changing course from focusing on the one component of interest, *integrating cultural information*, to coding for all components of the original 2016 framework. To understand which components of the framework teachers are enacting together, an analysis was conducted on the units of meaning that were coded as illustrating more than one component (technology and systematic and explicit instruction, for example). Technology co-occurred most frequently with the integrating cultural information sub-component of cultural information gathering. The order of components from most frequently co-occurring with other components to co-occurring least often with other components, aligned with the final count of each component, except technology. it appeared less often than safe learning environment (co-occurred with other components 28 times) and self-determination (co-occurred with other components 27 times), for example. Table 2 delineates the most frequent co-occurring component combinations and Table 3 totals the singular components that co-occur with other components.

Table 2

Frequency of Co-occurring Framework Components by Combinations

Component 1	Component 2	Component 3	Component 4	freq
Tech	MOR	-	-	3
Tech	SD	MOR	SEI	2
Tech	SEI	-	-	3
Tech	ICI (CIG)	-	-	7
Tech	SD	ICI (pos, CIG)	-	2
SD	SLE	-	-	4

SD	MOR	SEI	-	3
SD	MOR	-	-	3
SD	SLE	ICI (CIG)	-	3
SD	SLE	ICI (pos)	-	2
SD	PLS	-	-	2
SD	MOR	SLE	-	2
SD	SEI	-	-	2
SD	ICI (pos)	-	-	4
MOR	SEI	-	-	2
MOR	SLE	-	-	3
MOR	SEI	ICI (CIC)	-	3
SLE	ICI (pos, CIG, CIC)	-	-	3
SLE	ICI (CIG)	-	-	4
SLE	ICI (pos)	-	-	2
SLE	ICI (pos, CIG)	-	-	3
SEI	ICI (CIG)	-	-	2

Note: The framework components in Table 2 are abbreviated as follows: Integrating Cultural Information (ICI): Positionality (pos), Cultural Information Gathering (CIG), and Cultural Integration into the Classroom (CIC); Safe Learning Environment (SLE); Self-Determination (SD); Multiple Opportunities to Learn (MOR); Technology (Tech); Systematic and Explicit Instruction (SEI); and Primary Language Support (PLS).

Table 3

Frequency of Co-occurrences by Framework Component

Integrating Cultural Information	Safe Learning Environment	Self Determination	Multiple Opportunities to Respond	Technology	Systematic and Explicit Instruction	Primary Language Support
35	28	27	19	17	15	2

Discussion

Both survey data from phase one and qualitative interview data from phase two illustrate the impact of the dearth of culturally responsive evidence-based academic instructional practices for students with low incidence disabilities such as an intellectual disability. Despite intention and effort, teachers indicated low levels of enactment of culturally responsive practices during content instruction. Teachers are tasked with delivering evidence-based instruction, so when

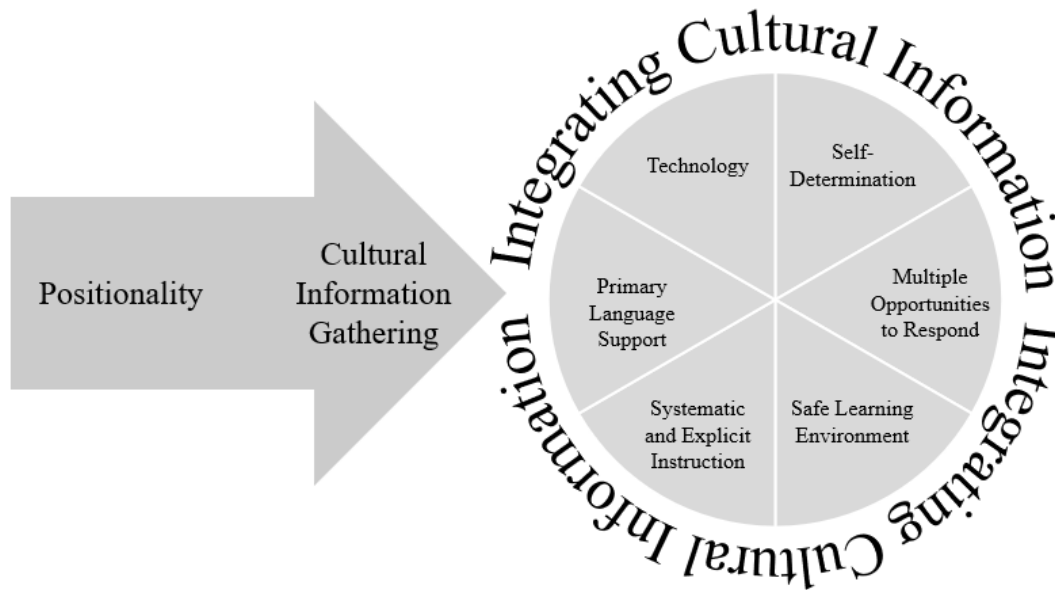
their support for this is available in a context that treats instruction as culture neutral, then that is what we are likely to see occurring in the classroom. This is evident from responses to the survey to which respondents reported the least amount of culturally responsive teaching behaviors in math and science. Since the goal of this study is to understand culturally responsive content instruction to inform future directions of academic programming for this population of students, it is important to examine what *is* occurring.

Positionality is not a cut and dry checklist. Rather, it is an iterative process that is developmental in nature, takes time and safe space that provides accountability for mistakes and support for personal growth. Teaching is culturally mitigated and should be treated as such in initial teacher preparation and throughout professional development. This undoubtedly includes understanding ourselves as cultural beings and the experiences of that position in the broader sociocultural context. The success of creating culturally responsive programs and improving outcomes for students who are intersectionally marginalized by ability and other minoritized identity hinge upon supporting teaching through the positionality process. Ty's qualitative data showed professional development in culturally responsive practices impacted how they reflect on their positionality. Positionality and cultural information gathering behaviors should work in tandem to then present culturally responsive, individualized education programming for students who take alternate assessments *integrated* across all components of the framework. In this classroom, a teacher would be demonstrating behaviors indicative of integrating cultural information in co-occurrence with all other components of the framework. For each occurrence of systematic and explicit instruction and multiple opportunities to respond, for example, there is a co-occurrence of cultural integration in the classroom. Research is obligated to provide the evidence base for teachers to enact these behaviors.

Additional information on content instruction through qualitative inquiry revealed that while teachers wish that they could make reading, social studies/history, science, and math more culturally responsive, it is either not feasible, as Ty expressed; or the path towards culturally responsive teaching is unclear, as Sam expressed. In both cases, teachers tended to rely on packaged programs such as Max Scholar, Unique Learning Systems, and Edmark, and what they can find online from Reading A to Z, BrainPOP, Prodigy, and Teachers Pay Teachers. In addition to the evidence-based practices curriculum packages may (or may not) use, there were indicators that teachers enacted instruction that was evidence-based practices to teach academic skills to their students. When analyzed through the framework, few of these instances of systematic and explicit instruction (including evidence-based practices) integrated cultural information into classroom instruction. More research is needed on how to translate cultural information into academic content instruction, and the degree to which programs and tools available to teachers are culturally responsive.

Figure 1

Updated Framework to Improve Outcomes for Culturally and Linguistically Diverse Learners with Intellectual Disabilities



An updated framework supports continued pursuit of culturally responsive opportunities for students with ID by maintaining relevancy to current socio-political circumstances, namely Covid and social justice reckoning with vast disparities along racial, cultural, linguistic, and socioeconomic lines. The updated framework also highlights the imperative nature of understanding positionality and creating opportunities to gather cultural information that is then integrated into all other facets of academic and non-academic student programming. The framework component of Integrating Cultural Information is integral to the others and is the linchpin in creating and enacting a culturally responsive educational plan. While no generalizations can be made about what culturally responsive training the two participants had or had not received and the frequency with which they referenced any of the three sub-components of integrating cultural information, there are some interesting points to consider. First is the difference in the amount of positionality behaviors each teacher referenced. Ty, certified in culturally responsive teaching, did not make as many references to positionality as Sam. When prompted however, Ty described their culture clearly and succinctly and identified how it shows up in the classroom. Sam, who had not received training but had been introduced to culturally

responsive teaching as a single topic in a broader university course, was bravely engaging in far more instances of positionality behavior. This teacher's reflections and references were earnest and eager, and their references to positionality were heart-felt, unsure, and self-reflective. The unique opportunity to compare the experiences of these two teachers, provided insight into the potential impact that culturally responsive training can have on competence and confidence to engage with CLD students and families, especially as it relates to self-examination of culture and positionality.

Conclusion

So here we are, 20+ years into "setting the stage" (Gay, 2002) and culturally responsive training, research, and classroom support has not reached content instruction for students who take alternate assessments. It is a matter of equity – access to culturally responsive instruction should not be stratified based on perceived ability and/or assignment to special education. Special educators who teach students who take the alternate assessment according to alternate standards have freedom to create highly individualized programming. They are not given, however, the time to produce nor access to materials that are culturally responsive, developmentally appropriate, *and* age appropriate. It is not the sole responsibility of teachers to piece this together. Special education researchers and teacher educators are responsible for supporting teachers' access to evidence-based practices that are also culturally responsive. Providers of prepackaged programs and resources need to be held accountable for employing culturally responsive practices, and special educators, like all educators, must be better supported when they invest the time and effort to acquire cultural knowledge.

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Appendix

Potential Interview Questions

Data Source: Interview

Study Title: Special Education Teachers Conceptualization and Incorporation of Culturally Responsive Pedagogy for Students on the Alternate Assessment

- Tell me about you: geography, education, experience, philosophy on teaching students who take the alternate assessment
- Tell me about your district; Your school; Your classroom (the curriculum, the displays, the books, the teachers)
- Tell me about your students who are culturally and/or linguistically diverse. How have you gotten to know them? What are their programs like? Do you have support (professional learning community, professional development, e.g.) that incorporates culturally responsive pedagogy with the unique needs of your students on the alternate assessment?
- Tell me about your relationships with students' families
- Where do you learn greetings and phrases in students' native languages?
- How do you choose which events and people to teach to your CLD students on the alternate assessment?
- How do you familiarize yourself with a students' cultural background? How do you include it in your teaching?

IRB Modification (approved 5/9/22):

In addition to the potential questions listed above that were proposed in the initial IRB, more sussed questions are proposed below to gather contextual information, elaborate on aggregated findings from phase 1, as well as specific survey responses.

- Does your state, district, or school offer you training on culturally responsive teaching? Did you receive training in your teacher preparation program? Do you know of any courses offered on culturally responsive teaching to further your own practice? If yes, ask for general reflection on the training, and further details, syllabi, materials, and/or work samples.
- Tell me a little bit about your state's alternate assessment. Are results generally valid? How do you prepare your students for them? Can you share what it looks like?
- Tell me about content instruction? I am particularly interested in how you make content (math, science, literacy, and social studies/civics/history) culturally relevant
- Tell me about your classroom library? What are some titles you love? How do you find books that are culturally relevant? How do you purchase/access books for your students?
- Tell me what you think about funds of knowledge. What does it mean to you and/or your school/district/state? How might you tap into a student's funds of knowledge?
- How do you define culture? How do you define it for yourself and/or for your students? What is the dominant culture in American society, and in American schools generally? What is the dominant culture in your school? In your district?
- Tell me about how you use a student's prior experiences to make instruction meaningful?

- Are you interested in learning more about culturally responsive teaching? What kinds of supports would be helpful to you in your practice? What are some barriers to engaging in more culturally responsive instruction?