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Check yourself! Exploring current culturally responsive teaching assessment measures

Tamara K. Lawson[1] (ID) | **Jerica Knox[2]** | **Emily Romero[3]** |
Andrea Molina Palacios[3] (ID) | **Lindsay M. Fallon[3]**

[1]Department of Disability and Psychoeducational Studies, University of Arizona, Tucson, Arizona, USA

[2]School of Medicine, National Center for School Mental Health, University of Maryland, Baltimore, Maryland, USA

[3]Department of Counseling and School Psychology, University of Massachusetts Boston, Boston, Massachusetts, USA

Correspondence
Tamara K. Lawson, Department of Disability and Psychoeducational Studies, University of Arizona, Tucson, AZ 85721, USA.
Email: lawsont@arizona.edu

Abstract

Culturally responsive teaching (CRT) was introduced over 30 years ago and remains an educational framework used to guide instruction today. Although research has evidenced its utility and positive impact, little is known about available tools to guide practitioners in assessing and monitoring their implementation of CRT practices. This systematic review aimed to identify and describe available assessment tools that incorporate dimensions of CRT. Systematic search procedures produced 18 tools educators can access and use to assess the implementation of CRT in the classroom. All 18 instruments are self-reported, and a few include alternate forms of evaluation, such as an observational section. All tools located encompass aspects of the CRT framework, including self-efficacy, cultural competence, belonging, and relationship building. Results indicated that nearly half of the tools reviewed (44%) focus on educator self-efficacy of CRT (i.e., I know I can do X), several (28%) focus on educators' action or implementation of CRT (i.e., I do X), and many (28%) focus on educators' cultural humility or competence (i.e., I understand how to support X). Limitations and implications for research and practice are discussed.

KEYWORDS
culturally responsive teaching, professional development, systematic review

> **Practitioner Points**
> - Teachers must have adequate assessment tools that assess their culturally responsive teaching (CRT).
> - Current CRT assessment tools range in their operationalization of CRT, evidence for validity and reliability, and type of assessment (i.e., self-report, observational, etc.).
> - When picking a CRT assessment tool, teachers should consider the validity of the measure, their self-efficacy, and the goal for how CRT practice strategies might be implemented in their school community.

1 | INTRODUCTION

Scholars and practitioners have made substantial strides in the attention to and advancement of culturally responsive teaching (CRT; Gay, 2018). These strides are evidenced by the influx of research in the past few years (e.g., Abdulrahim & Orosco, 2020; Cruz et al., 2020; Gaias et al., 2019) and the promotion of CRT by educational and psychological professional associations (e.g., National Association of School Psychologists [NASP], 2022). CRT is a framework that urges pre- and in-service teachers to engage in instruction that disrupts white-dominant school norms (Kumar et al., 2018) so that racially and linguistically minoritized students may connect to and learn from their teachers (Ladson-Billings, 1995). Although a teacher's approach to CRT may vary by classroom, CRT includes spending time learning about students' cultures and languages or incorporating students' preferences into classroom lessons and activities (Rhodes, 2017). These efforts support student engagement, which can lead to student achievement—a form of resistance to the structural racism embedded within US school systems (Carter, 2008).

Researchers indicate an uptick in the implementation of CRT in schools, yet also argue that some practitioners may be oversimplifying CRT in a way that does not center culture in instruction and rather tokenizes minoritized youth (Debnam et al., 2023; Sleeter, 2012). Oversimplification of CRT may cause harm to racially and linguistically minoritized students (Sleeter, 2012). Thus, successful implementation of CRT should encompass comprehensive training and professional development (Cruz et al., 2020). In addition, ongoing assessment of CRT practices may be critical to ensure teachers are implementing CRT in a way that entirely meets the needs of racially and linguistically minoritized students (Ciampa et al., 2022; Kayser et al., 2021). While some measures exist to examine teachers' CRT, no study to date has comprehensively reviewed such assessments. Researchers in the current study sought to explore and present an exhaustive list of available CRT assessment tools via a systematic literature review. We focused on the psychometric quality and cataloged domains and subdomains of each assessment tool. In doing so, we aim to provide researchers and practitioners with a resource for current tools as well as areas for growth in CRT assessment.

1.2 | Culturally responsive teaching

Since the ruling against *Plessy v. Ferguson (1896)*, transformative research has occurred encouraging educators to implement practices that include Black, Indigenous, and People of Color (BIPOC) students' experiences in the classroom curriculum and lessons, consider cultural matching between teachers and the students, and foster teacher–student relationships with BIPOC students (Darling-Hammond & Banks, 1993; Gay, 2010; Harmon, 2012;

Irvine & Armento, 2001; Ladson-Billings, 2009). Much of this scholarship stemmed from approaches to position critical race theory within education (Ladson-Billings & Tate, 1995; Sleeter, 2012), called "culturally responsive instruction" by Powell et al. (2016). This includes references to culturally responsive pedagogy (Ladson-Billings, 1995), CRT (Gay, 2002), and culturally sustaining pedagogy (Paris, 2012), among other theories. We use the term culturally responsive teaching as our primary "umbrella" term as it emphasizes the need for educators to be (a) validating of students' cultures, (b) comprehensive in their instructional approach to meet the needs of the whole child, (c) multidimensional and incorporating diverse perspectives and experiences, (d) transformative and challenging of traditional educational practices, as well as (e) emancipatory in that students' voice are critical to determining what constitutes "truth" (Gay, 2002; Powell et al., 2016). These elements are critical to examining the resources and tools available to gauge teachers' use of CRT in the classroom.

Ladson-Billings and Tate (1995) asserted that critical race theory legal arguments could also be used to deconstruct school practices that perpetuated racist and discriminative practices and ideologies (Kohli et al., 2017). Since this formative work, many scholars have pushed the needle toward a critically conscious frame of thinking in K-12 schools. For example, Banks (1999) urged teachers to engage in social justice teaching by developing and implementing a culturally responsive curriculum. Through this teaching pedagogy, teachers move through various elements of social justice education (e.g., engaging in lessons that encourage social activism and critical consideration of others; Picower, 2012).

Additionally, Irvine and Armento (2001) asserted that the lack of cultural synchronization in the classroom impacted student academic achievement, and thus, by implementing CRT in the classroom, teachers are centering students, transforming curriculum, supporting students' critical thinking, and fostering relationships between student families and respective community (Irvine, 2002). For example, by promoting cultural synchronization, Boykin et al. (2005) affirm that Black students' cultural behaviors would not be viewed through a deficit lens, but through a CRT frame of thinking that values students' learning styles and needs. The influential work described above unveiled racial inequalities within education and employed CRT to combat these inequitable practices occurring in schools and teacher training programs.

Considering the varying components of CRT (and other culturally conscious frameworks), CRT must be defined. Six dimensions of CRT are based on the work of Gay (2018) and colleagues to include (a) delivering content that will empower students, (b) finding ways to engage students by learning about students' culture and experiences, (c) validating every student's culture by linking their home experiences to school, (d) developing critical consciousness and awareness, (e) utilizing students' knowledge to promote classroom practices, and (f) eradicating educational practices and frameworks that enforce authoritative concepts that lead to oppression and harm. In sum, educators using CRT implement practices that nourish students' academic and personal development, resulting in positive student–teacher and peer relationships (Choi & Lee, 2020; Cruz et al., 2020), increased student engagement (Bottiani et al., 2020), and decreased behavioral misconduct (Comstock et al., 2023).

Drawing from several scholars, teachers engage in CRT by (a) acknowledging and attending to students' cultural backgrounds (Gay, 2010; Ladson-Billings, 2009; Spanierman et al., 2011), (b) demonstrating self-efficacy funds of knowledge through instruction and classroom management (Guyton & Wesche, 2005; Siwatu, 2007), (c) possessing cultural competence when engaging with students (Cormier, 2021), (d) providing various opportunities for students to demonstrate what they have learned (Aguirre & del Rosario Zavala, 2013), (e) ensuring that students can maintain their cultural identity in the classroom setting (Collins, 2020; Nieto et al., 2008), and (f) using cultural materials and resources to bridge students cultural knowledge to school knowledge (Fallon et al., 2023; Gay, 2015). These scholars vary in their conceptualization of CRT, with some emphasizing individual achievement and sustainment of culture (Ladson-Billings, 1995) while others emphasize the power of classroom community (Gay, 2013). Paris (2012) expanded on this work by suggesting the need for sustaining language and cultural pluralism within schooling.

Outside of these groundbreaking frameworks, researchers have also considered teachers' beliefs and cultural awareness as part of CRT. For example, Siwatu (2007) examined a mechanism for carrying out effective

CRT—self-efficacy—and suggested that it be just as important to CRT as the CRT practices themselves. Similarly, Gay (2002) notes the importance of cultural awareness (i.e., the knowledge of one's culture in relation to others) as part of cultural responsiveness. While different in their conceptualizations, a common theme amongst scholars is a transformation of the education experience to promote academic achievement in racially and linguistically minoritized students (Williams et al., 2019). In the current paper, we draw from numerous schools of thought on CRT as researchers may do so in developing current CRT assessment tools.

1.3 | Assessment of CRT

Assessment of CRT is crucial for examining current practices and quality improvement. This is due to the potential harm of oversimplifying CRT practices despite teachers' good intentions. For example, Evans et al. (2020) described examples of teachers "hoodwinking students" by using students' cultural interests as a way to get them to engage in the standard, nonculturally responsive curriculum and instruction (p. 57). This is problematic in that this misappropriation of culture is often used to cater to the expectations of the educational system rather than inquiring about the students' cultural interests to benefit the students (Evans et al., 2020). Sleeter (2012) notes that educators may reduce CRT to a simple list of steps to follow, which is antithetical to the purpose of cultural responsiveness (e.g., understanding students' identities and dismantling oppressive and racist practices) and does not promote student learning. Furthermore, Ladson-Billings (1998) indicates that researchers, assessment developers, and teacher educators must rethink how cultural competencies are assessed. Ladson-Billings notes that this can be done by including situated pedagogies (i.e., understanding your settings determines your pedagogy), teachings of cases and dilemmas to analyze teacher practice, and reflective practices that allow preservice (and in-service) teachers to reflect on their teaching practices, even outside of professional development opportunities.

As CRT implementation continues to increase, it will be important for researchers and practitioners to have psychometrically sound measurement tools to assess such practices' effectiveness. Unfortunately, CRT measurement development and validation rates are far slower than they need to be. Ponterotto et al. (2003) examined the limitations of many assessment tools used to measure multicultural competencies in preservice teacher's readiness. These limitations included a lack of valid and reliable quantitative measures and valid qualitative measurement tools. This 2003 study also addressed the many assessment tools used to assess teacher competencies that were developed during dissertations, which may indicate a lack of reliability and validity of the measures used. Further, more recent studies have indicated that most assessment measures utilize a qualitative approach (Bonner et al., 2018; Bottiani et al., 2018; Cormier, 2021), relying more on self-report than observational approaches. This may lead to a lack of assessment tools that measure what diverse students are learning and their awareness and knowledge as it develops over time (Ponterotto et al., 2003). These findings support the conception that, to date, current tools vary in their dimensionality, making it challenging to conceptualize CRT dimensions and approaches of practice.

1.4 | Current study

While many studies have broadened the scope of research centering CRT measurement tools, there is still a need for more research examining how culturally responsive practices and teaching styles are being grounded in the framework and how the assessment tools are being used to assess and monitor implementation. The current systematic review sought to (1) identify existing CRT assessments for pre- and in-service teachers and (2) of the located assessments, to characterize their stated purpose, subscales, and dimensionality, as well as psychometric properties. This information will advance the implementation of CRT by providing researchers and practitioners with a comprehensive list of assessments that can be used for their specific needs.

2 | METHOD

2.1 | Search strategy and screening

A systematic review of the literature on CRT was conducted to provide a comprehensive list of current assessments inclusive of both qualitative and quantitative data. This review included a thorough scan of the literature, including journal articles and dissertation studies. We also opted to conduct an ancestral search (i.e., identifying more potential articles through reference lists) as adequate systematic searching of CRT literature in education and social science requires various search techniques (Papaioannou et al., 2010). The systematic search utilized four educational and social science databases: Academic Search Complete, ERIC, PsycINFO, and PsycARTICLES. Databases were searched with terms "Cultural* responsiv*" OR "cultural* sensitiv*" OR "cultural* aware*" OR "cultural* conscious*" OR "cultural* humility" OR "cultural* competenc*" OR "cultural* inclusiv*" OR "cultural* relevan*" "multicultural* aware*" AND "assess*" OR "evaluat*" OR "checklist" OR "examin*" OR "tool" OR "instrument" OR "rubric" OR "measure*" OR "scale" OR "Observ*" AND "Teach*" OR "educator" AND "pre-service" OR "in-service" OR "Classroom" OR "school" OR "preservice" OR "pre service" OR "inservice" OR "in service" AND "Self-report" OR "self-assess" OR "self-reflection" OR "self-efficacy OR "self report" OR "self assess" OR "self efficacy" OR "self reflection." This search produced 229 unduplicated results that were subsequently screened for inclusion in the current review. Articles screened in the initial search had to include the use or development of a CRT tool produced in the United States, and the tool and article had to be published in the English language.

This screening resulted in 62 studies (see Figure 1). An ancestral search of the 62 studies produced seven additional studies to code, resulting in 69 studies altogether and 18 CRT assessment tools. The 69 studies identified from both the database search (62 hits) and ancestral reference list review (seven hits) were examined for three criteria. To satisfy inclusion criteria, studies had to (a) include an assessment designed to measure the culturally responsive practice of PreK-12 pre- or in-service teachers, (b) incorporate two or more of the six dimensions of CRT (Gay, 2018) into the tool, and (c) be conducted in the United States. Of the 69 studies, 51 were excluded because they did not meet inclusion criteria (see Figure 1 for screening procedures). Studies were excluded if the measure was conducted with higher education participants, not in a teacher education training program, were solely qualitative studies with no psychometric properties included in the measure, and were developed for specific settings outside of schools (i.e., hospitals). Thus, 18 studies with 18 unique measures met criteria and were included in the current review.

2.2 | Coding

Researchers documented aspects of each assessment located through the search. The first author developed the coding manual (contact for a copy) to collect information about assessments in the articles reviewed. The finalized manual included items aligned with the research questions, including (a) the measure's focus or the overall construct assessed (e.g., culturally responsive math instruction), (b) the measure's subscales (e.g., domains of items within the instrument), (c) the number of items, (d) any stated reliability metrics (e.g., Cronbach's α, McDonald's Ω), and (e) and the purpose of the instrument's use (as stated by the authors). The measures focus was determined using six dimensions created for this review and were based on the CRT Framework (Gay, 2002; e.g., cultural engagement and utilization of students' knowledge to cultivate culturally responsive classroom practices). Once assessments met the criteria, researchers determined how the CRT dimensions included in the assessment were assessed using four additional dimensions (e.g., self-efficacy). Coders used these items to guide their review of studies screened in and assessments identified. Coders included two school psychology faculty members, a school psychology postdoctoral fellow, and two doctoral-level school psychology graduate students. The first author met with the coders to introduce the coding manual and increase familiarization with its categories. Each coder then practiced coding three articles. After practice was complete, answers were compared, and discrepancies in ratings were discussed with the first author until a consensus was reached. Edits to the coding manual were also made during this time.
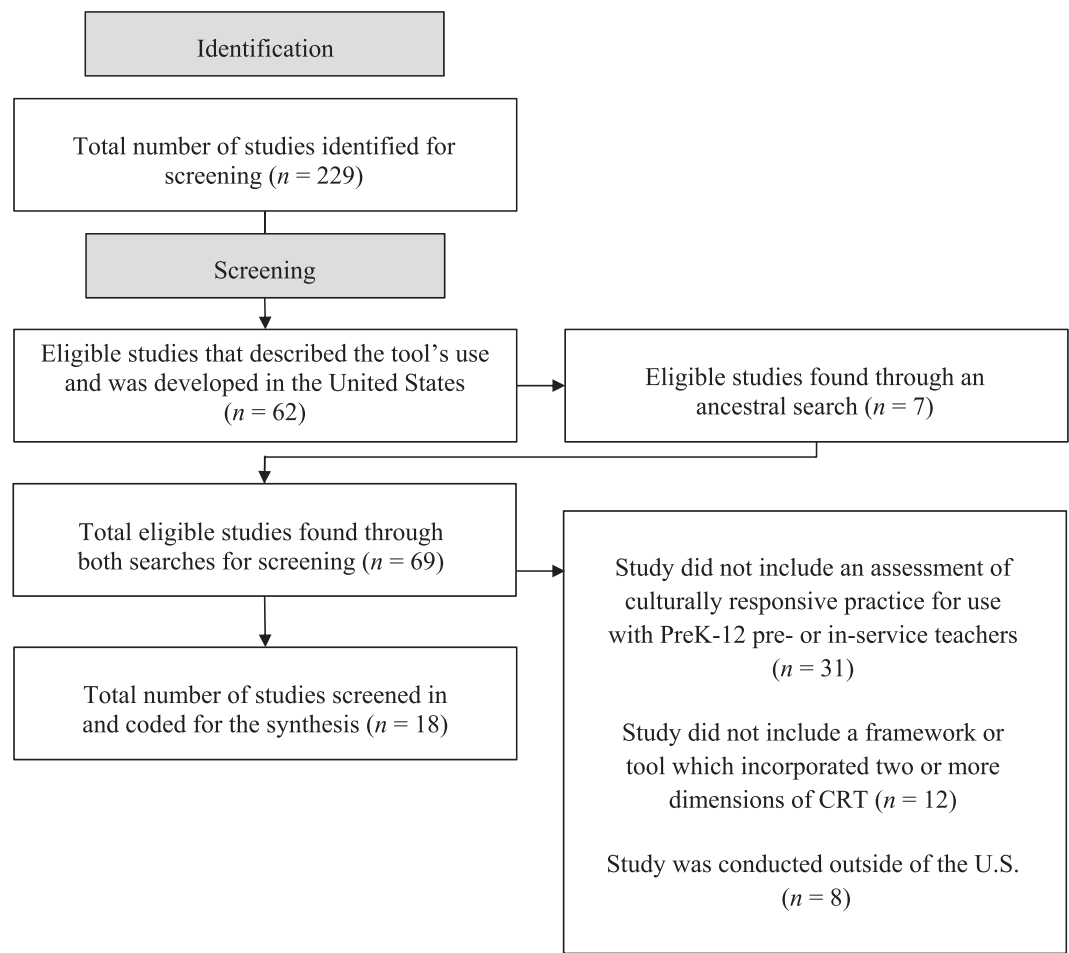
Identification and Screening Results

FIGURE 1 Identification and screening results. CRT, culturally responsive teaching.

After training, all coders independently coded articles using the manual. In addition, 33.3% of the studies screened into the review were randomly selected to be double-coded for the purpose of calculating inter-rater agreement (IRA). To calculate IRA, item-by-item agreement was used. That is, if the two raters coded an item in the manual in the same manner, it was counted as an agreement. Then, the total number of agreements was divided by the total number of possible agreements. Overall, IRA for the screening procedures was 97.8% for all coding. The research team reviewed and discussed any discrepancies between the two coders until a consensus was reached among all team members.

3 | RESULTS

The review process included 18 unique measures (Table 1) that focused on CRT practices in early-elementary through secondary education systems in the United States.

TABLE 1 Properties of culturally responsive teaching assessments.

Tool	Type of assessment	Who completes the tool(s)?	Targeted grade level	Subscales	Number of items	Reliability metrics	Purpose
Assessment of Culturally and Contextually Relevant Supports (Fallon et al., 2023)	Self-report	In-service teachers	K-12	Equitable Classroom Practice (ECP), Consideration of Culture and Context (CCC); Accessing Information and Support (AIS)	35	ECP (Ω = .77), AIS (Ω = .87), CCC (Ω = .83)	A "comprehensive instrument to gauge teachers' cultural responsiveness (aligned) with critical features of MTSS will promote efficiency in decision making regarding educator professional development" (p. 3).
Cultural Diversity Awareness Inventory (CDAI; Henry, 1986)	Self-report	"Any adults involved in or being trained for direct services to young special needs children of culturally diverse backgrounds" (p. 4).	NA	NA	28	NA	"To assist the user in looking at his/her own attitudes, beliefs and behavior towards young children of culturally diverse backgrounds" (p. 4).
Cultural Proficiency Continuum Q-Sort (CPCQ; Cormier, 2021)	Self-report and interview	Preservice teachers	Pre-K-12	Cultural Destructiveness, Cultural Incapacity, Cultural Blindness, Cultural Precompetence, Cultural Competence, and Cultural Proficiency	13	α = .48 to .78	"A tool that enables teacher educators to systematically examine preservice teachers' cultural competence concerning students who are minoritized, marginalized, and otherized within Pre-K-12 schools" (p. 17).

(Continues)

TABLE 1 (Continued)

Tool	Type of assessment	Who completes the tool(s)?	Targeted grade level	Subscales	Number of items	Reliability metrics	Purpose
Culturally Aware and Responsive Education (CARE; Spates, 2009)	Self-report	Preservice teachers	Pre-K-12	Culturally Responsive (CR) Policies, CR Practices, CR Learning Environments, CR Literacy Instruction, CR Social Development, CR Assessment, and CR Community Engagement	33	α = .928	"To measure teachers' perceptions regarding the level of cultural responsiveness of their school's policies and practices" (p. 7).
Culturally Responsive Classroom Management Self-Efficacy Scale (CRCMSE; Siwatu et al., 2017)	Self-report	Preservice and in-service teachers	K-12	NA	35	α = .97, Factor loadings ranging from .58 to .82	"To assess teachers' culturally responsive classroom management self-efficacy (CRCMSE) beliefs to identify the tasks that they feel most and least efficacious" (p. 864).
Culturally Responsive Teacher Preparedness Scale (CRTPS; Hsiao, 2015)	Self-report	Preservice teachers	Pre-K-5	Curriculum and Instruction, Relationship and Expectation Establishment, and Group Belonging Formation	18	α (CRTPS) = .95, α (Curriculum and Instruction Subscale) = .91, α (Relationship and Expectation Establishment Subscale) = .91, and α (Group Belonging Formation Subscale) = .88	"To develop a multidimensional scale to examine preservice teachers' sense of preparedness to execute the practices associated with culturally responsive teaching" (p. 242).

TABLE 1 (Continued)

Tool	Type of assessment	Who completes the tool(s)?	Targeted grade level	Subscales	Number of items	Reliability metrics	Purpose
(1) *Culturally Responsive Teaching Self-Efficacy Scale (CRTSE; Siwatu, 2007)* (2) *Culturally Responsive Teaching Outcome Expectancy Scale (CRTOE; Siawtu, 2007)*	Self-report	Preservice teachers	K-12	NA	(1) CRTSE: 40 (2) CRTOE: 26	(1) CRTSE: $\alpha = .96$ (2) CRTOE: $\alpha = .95$	(1) CRTSE: "Teachers' beliefs in their ability to execute specific teaching practices and tasks that are associated with teachers who are believed to be culturally responsive" (p. 1090). (2) CRTOE: "Teachers' beliefs that engaging in culturally responsive teaching practices will have positive classroom and student outcomes" (p. 1090).
Double Check Self-Assessment (Hershfeldt et al., 2009)	Self-report	In-service teachers	NA	Reflective Thinking About the Children and their "Group Membership", Efforts Made to Develop An Authentic Relationship, Effective Communication, Connection to Curriculum, and Sensitivity to Student's Cultural and Situational Messages	26	NA	"For teachers to assess their understanding of behavior with a greater sensitivity to culture—their own, their students, and the interactions among them in the classroom" (p. 4).

TABLE 1 (Continued)

Tool	Type of assessment	Who completes the tool(s)?	Targeted grade level	Subscales	Number of items	Reliability metrics	Purpose
Early Childhood Ecology Scale-Revised (ECES-R; Flores et al., 2011)	Self-report and observation	Preservice and in-service teachers	Preschool	Sociophysical Sociolinguistic Socioemotional Sociocognitive Sociocultural, and Sociocomfort	35[a]	Sociophysical (α = .760), Sociolinguistic (α = .869) Socioemotional (α = .586) Sociocognitive (α = .735) Sociocultural (α = .572) Sociocomfort (α = .620)	"To (a) examine the reliability of the ECES-R, (b) establish the test–retest reliability of the ECES-R, (c) determine the dimensions measured by the ECES-R, and (d) evaluate the construct and content validity of the ECES-R" (p. 268).
Mathematics Lesson Analysis Protocol (Aguirre & del Rosario Zavala, 2013)	Lesson analysis rubric (self-report)	In-service teachers	K-8	NA	8	NA	"To introduce a specific professional development tool designed to support teachers to assess and integrate multiple resources into their mathematics lessons to make them culturally responsive" (p. 164).
Multicultural Efficacy Scale (MES; Guyton & Wesche, 2005)	Self-report	Preservice teachers	NA	Experience, Attitude, and Efficacy	35	α (MES) = .89, α (Experience subscale) = .78, α (Attitude subscale) = .72, and α (Efficacy subscale) = .93.	The MES was developed as a tool for measuring (multicultural efficacy), along with the multicultural teacher education dimensions of intercultural experiences, minority group knowledge,

TABLE 1 (Continued)

Tool	Type of assessment	Who completes the tool(s)?	Targeted grade level	Subscales	Number of items	Reliability metrics	Purpose
							attitudes about diversity, and knowledge of teaching skills in multicultural settings.
Multicultural Teaching Competency Scale (MTCS; Spanierman et al., 2011)	Self-report	In-service teachers	Pre-K-12	Multicultural Skills and Multicultural Knowledge	16	α (MTCS) = .88, α (Multicultural Skills Subscale) = .83, and α (Multicultural Knowledge Subscale) = .80	"To inform the development of a multidimensional scale based on the tripartite model of multicultural competence to comprehensively assess multicultural teaching competence" (p. 443).
No Name (Liang & Zhang, 2009)	Self-report	Preservice teachers	NA	NA	17	α = .891	"Identifies and examines multiple indicators to evaluate cultural competence of preservice teachers in teacher education institutions" (p. 17).
Preevaluation and Postevaluation Self-assessment (Smith, 2010)	Self-report	In-service teachers	K-12	NA	13	NA	"To increase the use of teaching practices that reflect intercultural sensitivity by creating a professional development program to help teachers become aware of their

(Continues)

TABLE 1 (Continued)

Tool	Type of assessment	Who completes the tool(s)?	Targeted grade level	Subscales	Number of items	Reliability metrics	Purpose
							own level of intercultural sensitivity and to learn practices to promote intercultural sensitivity in the classroom" (p. 43).
Teacher Multicultural Attitude Survey (TMAS; Ponterotito et al., 1998)	Self-report	Preservice and in-service teachers	K-12	NA	20	$\alpha = .86$, θ coefficient ($r = .89$)	It measures the effectiveness of teachers' multicultural awareness and sensitivity.
(1) The Personal Beliefs About Diversity Scale (Pohan & Aguilar, 2001) (2) The Professional Beliefs About Diversity Scale (Pohan & Aguilar, 2001)	Self-report	Preservice and in-service teachers	NA	NA	(1) 15 (2) 25	(1) The Personal Beliefs About Diversity Scale: $r = .71$ to .81. (2) The Professional Beliefs About Diversity Scale: $r = .78$ and .90	"Our interest in considering a two-dimensional (personal and professional) approach to assessing beliefs was based on the notion that there might be a situation in which one's personal beliefs about a given issue could be in direct conflict with his/her beliefs in a professional context" (p. 160).

Abbreviations: MTSS, multitiered system of support; NA, not applicable.

[a]Early Childhood Ecology Scale-Revised (ECES-R; Flores et al., 2011) has 35 items (30 closed-ended items and five open-ended items).

3.1 | Type of assessment

All of the reviewed measures were self-report in nature, and ranged from 8 items to 40 items, with an average of 23.6 items. For the most part, measures utilized a Likert-type scale to rate different dimensions of CRT practices. Notably, three measures included alternative forms of self-assessments. The Cultural Proficiency Continuum Q-Sort (CPCQ; Cormier, 2021) prompted raters to explore their attitudes and progress using an interview guide with questions like: "How has the CPCQ affected your self-reflection personally and professionally regarding differences in race, culture, ethnicity, religion, language, and/or (dis)abilities?" (p. 28). On the other hand, the Early Childhood Ecology Scale-Revised (ECES-R; Flores, et al., 2011) also includes a section where teachers must observe and find specific CRT practices in their classrooms, such as classroom furnishings, wall displays, and play activities. Finally, Aguirre and del Rosario Zavala (2013) created the Mathematics Lesson Analysis Protocol, which involves guiding questions to prompt reflections such as "How does my lesson support students' use of mathematics to understand, critique, and change an important equity or social justice issue in their lives?" (p. 169).

3.2 | Type of rater

Out of the 18 measures reviewed, 39% of those were designed for preservice teachers (e.g., Culturally Aware and Responsive Education, CARE; Spates, 2009); 28% for in-service teachers (e.g., Assessment of Culturally and Contextually Relevant Supports, ACCReS; Fallon et al., 2023), 28% for both preservice teachers and in-service teachers (e.g., Teacher Multicultural Attitude Survey, TMAS; Ponterotito et al., 1998); and 5% for general school personnel (e.g., classroom aids, school psychologist, mental health professional, teachers, school safety monitors) providing direct services to culturally diverse students receiving special education services (e.g., Cultural Diversity Awareness Inventory, CDAI; Henry, 1986).

3.3 | Grade range

Generally, the majority of measures found were intended for teachers of students in the PreK to 12th grade (45%); however, 11% were created for teachers of K-8 students, 5% for teachers of PreK to fifth grade, and 5% for teachers of prekindergarten students. It is important to note that 34% of the studies that were reviewed did not report the grade range.

3.4 | Reliability and validity

Four of the 18 measures did not report reliability statistics. Out of the 13 that included reliability data, 100% of them reported internal consistency using Cronbach's alpha. For eight of the measures, internal consistency was reported for each subscale of the measure. In this case, Cronbach's alpha ranged from .57 (Sociocultural subscale, ECES-R; Flores et al., 2011) to .93 (Efficacy scale, Multicultural Efficacy Scale, MES; Guyton & Wesche, 2005). For five of the measures, authors reported the internal consistency of the full measure, ranging from .86 (TMAS; Ponterotito et al., 1998) to .97 (Culturally Responsive Classroom Management Self-Efficacy Scale, CRCMSE; Siwatu, 2017).

Out of the 18 measures, only 15 included mention of validity data. Of those 15 measures, three of them mentioned validity data but did not include the coefficient data. For the 12 measures that did include coefficient data, the data ranged from .86 (The Professional Beliefs about Diversity Scale; Pohan & Aguilar, 2001) to .77 (CRTSE; Siwatu, 2007). Several researchers (Smith, 2010; Spates, 2009) mentioned that "good validity was

established", however, no coefficient data was presented in the study. An initial assessment of the validity of the preservice teacher measurement tool (Liang & Zhang, 2009) was conducted for three items that produced poor validity (i.e., −.077, −.066, and .0127). However, no additional testing was conducted to assess the validity of those items.

3.5 | Type of subscales

Most assessment tools ($n = 13$) identified were created to assess CRT broadly, such as educators' self-efficacy (CRCMSE, Siwatu et al., 2017; Culturally Aware and Responsive Education, Spates, 2009), cultural competence (CPCQ-Sort; Cormier, 2021) and knowledge, belonging, relationship building, and cultural consideration of students' cultural backgrounds (The Personal/Professional Beliefs About Diversity Scale; Pohan & Aguilar, 2001). For example, ECES-R (Flores et al., 2011) assesses teachers' ability to display evidence of their beliefs of culturally responsive ecology (e.g., students learning through the use of cultural, ethnic, and heritage resources) by including students' cultural artifacts within classroom activities (e.g., sociocultural subscale). Conversely, some assessment tool subscales are more concretely focused on a particular CRT dimension: teacher–student relationship (e.g., Efforts Made to Develop an Authentic Relationship subscale; Double Check Self-Assessment (Hershfeldt et al., 2009), Equitable Classroom Practices (ACCReS; Fallon et al., 2023); lesson planning strategies (Mathematics Lesson Analysis Protocol; Aguirre & del Rosario Zavala, 2013). By incorporating these critical aspects of CRT, researchers propose that such assessments may be critical toward dismantling oppressive and racist practices (Sleeter, 2001). For example, ECES-R (Flores et al., 2011) assessment of culturally responsive ecology combat oppressive and racist practices by assessing practical skills implemented in the classroom, such as natural language acquisition by allowing students to speak in their native language (e.g., sociolinguistic dimension), and not limiting students' cultural expression to artifacts, but instead providing limitless forms of cultural expressions ultimately distributing power and cultural freedom (e.g., sociocultural dimension).

3.6 | Focus of the assessment

A total of 44% of the measures focus on teachers' self-efficacy in implementing CRT (e.g., I know I can do X). For example, the CRTSE assessment (Siwatu, 2007) includes items such as, "I am able to use what I know about my students' cultural background to develop an effective learning environment" (p. 1090). Furthermore, 56% of measures found focus on teachers' action/implementation (e.g., I do X) such as, "I often use teaching techniques that attend to the learning styles of diverse students" (Multicultural Teaching Competency Scale; Spanierman et al., 2011). Furthermore, 28% of scales focused on teachers' cultural humility/competence, such as, "How does my lesson provide ESL scaffolding strategies to support academic language development for English Learners?" (p. 169) in Aguirre and del Rosario Zavala's (2013) Mathematics Lesson Analysis Protocol. No assessments found focused on evidence of implementation, which would require educators to report specific practices or evidence of CRT in the classroom.

4 | DISCUSSION

CRT implementation and evaluation are on the rise in schools, given CRT's association with positive outcomes for students and teachers (Brown et al., 2019; Min et al., 2022). As a result, researchers must create effective measurement tools for school personnel to monitor progress and reflect on their practices (Fallon et al., 2023). This paper aimed to identify and review measures of CRT to support school-based mental health practitioners (e.g.,

school psychologists) and school-staff (e.g., teachers and administrators) awareness of the types of assessments in the literature. Moreover, this study aims to support school personnel and school systems in understanding how assessments with practical skills and techniques can be used in the classroom, particularly where statewide bans and policies censor school-based discussions on racial identity.

A total of 18 measures focusing on CRT practices in elementary and secondary schools were identified and examined in the current study. Fifty-one articles were excluded from this study following the initial screening process because they did not include assessment tools designed to measure the distinct dimensions of CRT practices, included less than two CRT dimensions, lacked evidence for reliability or validity, or were not conducted in the United States. This is not surprising, as CRT studies often focus on how teachers can bridge theory to practice rather than exploring how teachers can engage in ongoing reflection (Thomas & Berry, 2019). The dearth of literature focused on evaluating CRT practices may be due to the inconsistent interpretations of the CRT framework (Cervantes & Clark, 2020). There are numerous CRT-related theories to draw from, including culturally responsive pedagogy (Chang & Viesca, 2022), CRT (Tanase, 2022), and culturally relevant teaching (Byrd, 2016). A plethora of studies are being published simultaneously to unpack these theories and how they can best be represented in the classroom, which can cause misconstruals across theories. Our findings support this notion as the identified assessment tools in the current study varied in their conceptions and operationalization of CRT. Given that CRT was designed to let "students know that individually and collectively, their voices are heard, that they matter, and their presence and contributions are valued" (Brown-Jeffy & Cooper, 2011, p. 73), it is critical that researchers are clear on defining their specific framework and how they assess it. Additionally, CRT theories are not limited to classrooms. Culturally responsive pedagogy, for example, was theorized as a political endeavor to denounce white hegemonic school systems. Yet, none of the measurement tools examined in the current study assessed CRT from a systemic standpoint. This is unfortunate as CRT should be implemented and thus assessed at the classroom and system level to be most effective (Gaias et al., 2019).

Self-efficacy, teachers' actions/implementation of CRT, and teacher reflections on cultural competency emerged as core dimensions of CRT measurement tools. These dimensions indicate that the current state of CRT assessment literature is primarily focused on teachers' beliefs of their practices (e.g., I believe I am culturally aware; I believe I can implement culturally responsive practices) rather than assessing the implementation of teachers' CRT techniques and skills (Brown et al., 2019). Given that none of the tools found in the current study examined practical techniques used by teachers, it is imperative that future research examine the development and implementation of measures that require teachers (preservice and in-service) to demonstrate what actionable steps they employ to be culturally responsive and demonstrate readiness. Other studies have concluded that actionable steps are often missing from CRT conversation because teachers are often met with barriers (i.e., teaching resistance, lack of confidence, lack of knowledge, lack of skill, etc.) when attempting to accurately implement culturally responsive practices in the classroom (Aronson, 2020; Cruz et al., 2020; Flores et al., 2011; Powell et al., 2016).

Many of the studies reviewed did not mention which grade level the measurement tools were designed to measure and demonstrated an overreliance on teacher self-report. These findings are critical in that the CRT framework encompasses dimensions that allow for critical thinking and sociopolitical evaluation of practices to better help students formulate their identities and approaches to learning. From that perspective, attending to the cultural needs of preschoolers versus high schoolers maps differently on the CRT framework (Fox et al., 2021; Gunn et al., 2021; Heberle et al., 2020; Larson et al., 2020), with particular attention to their cultural background knowledge and awareness which influences their learning experiences (Ladson-Billings, 1998). Furthermore, having multi-informants, such as students or mental health practitioners, may eliminate bias (Gülsün et al., 2023) and provide a more accurate assessment of the implementation of culturally responsive practices in the classroom (i.e., CPCQ, ECES-R, Mathematics Lesson Analysis Protocol).

Overall, this review contributes to both future CRT research avenues and practice. There is a continued need for reliable and valid measurement of CRT with an emphasis on consistently and accurately leveraging CRT theories to build assessment tools. Researchers should also design and validate CRT assessments on systems-level practices

and policies. Transparency should be at the forefront of this research, as many of the studies examined in the current review lacked critical information on the development and conceptualization of measurement tools. Few multi-informant tools exist to allow school psychologists, for example, to provide a second opinion on teachers' CRT. Researchers should attend to this in the development of future tools as well.

5 | LIMITATIONS

It is important to acknowledge the current study's limitations. Our systematic review did not include studies that presented CRT qualitative-only measurement tools (Karatas, 2020) or studies that only included assignment-based activities gleaned from the individual responses of participants involved in the study (Jacobs, 2021). We sought studies that included assessment tools that could be reproduced or used to assess the effectiveness of the dimensions of CRT. Therefore, qualitative studies that conducted interviews after CRT professional training designed specifically for participants in that study were not included. Additionally, assignment-based activities designed for preservice teacher participants' program curriculum were not included in this study. To glean from CRT tools that teachers or practitioners can utilize, this current study sought only to include assessment tools that could be utilized across settings. Despite this limitation, the current study will positively contribute to CRT research. Furthermore, these tools will aid in supporting school psychologists and other practitioners working to support the professional development efforts of teachers and other school staff.

CONFLICT OF INTEREST STATEMENT
The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT
The authors declare that data availability is not applicable to this article as no new data were created or analyzed in this systematic review.

ETHICS STATEMENT
This study was a systematic review of measures assessing culturally responsive teaching practices and thus was exempt from institutional review board approval.

ORCID
Tamara K. Lawson http://orcid.org/0000-0003-1935-8451
Andrea Molina Palacios https://orcid.org/0000-0002-6727-145X

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