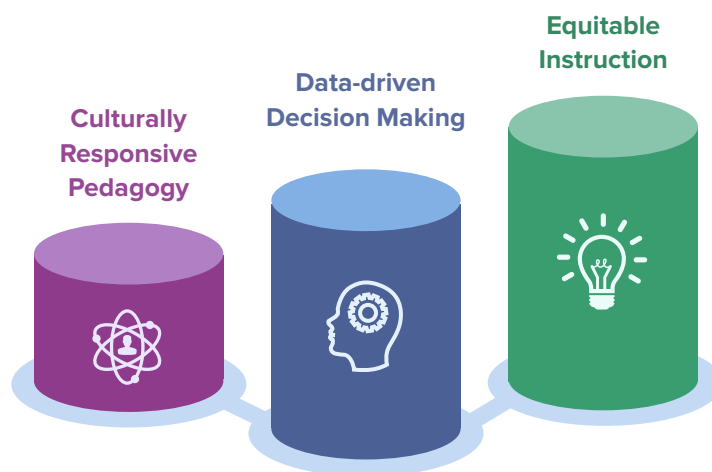


Culturally Responsive Data Literacy

In education, when we hear the word “data,” our minds often wander to a score that represents how a student performs in Math or English Language Arts. What gets less attention when thinking about data use in the classroom are practices that acknowledge and embrace students as culturally rich learners who bring with them each day funds of knowledge that can be leveraged to support learning—also known as culturally responsive practices (CRP).

Effective teachers are not simply relying on student data that lives in assessments, grades, and attendance; they understand the importance of students’ cultural identities and how they show up in their learning. In that way, CRP involves qualitative data collection. The concept of culturally responsive data literacy (CRDL) is a way to better leverage the knowledge, skills, and abilities (KSAs) associated with two distinct areas of educator practice—data literacy and culturally responsive teaching. CRDL brings together the theoretical foundations and associated KSAs of data literacy and culturally responsive teaching.

Pillars of Culturally Responsive Data Literacy



Data literacy for teaching

Data literacy for teaching is the ability to transform information into actionable instructional knowledge and practices by collecting, analyzing, and interpreting all types of data (assessment, school climate, behavioral, snapshot, longitudinal, moment-to-moment, etc.) to help determine instructional steps. It combines an understanding of data with standards, disciplinary knowledge and practices, curricular knowledge, pedagogical content knowledge, and an understanding of how children learn.¹

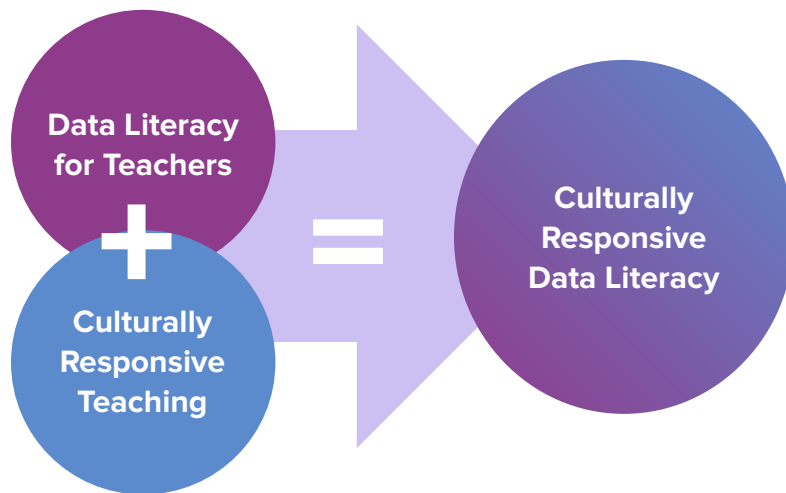
Culturally responsive teaching

Culturally responsive teaching is informed by the foundational work of scholars such as Gloria Ladson Billings² and Geneva Gay³, and

more contemporary scholarship from Ghodly Muhammad⁴, Django Paris, and H. Samy Alim⁵. They agree that a few core elements of culturally responsive teaching are that teachers have:

- high expectations of their students, combined with high levels of support;
- cultural competence (the ability to develop deep knowledge of one’s own culture and history, as well as the culture and history of other cultural groups); and,
- critical sociopolitical consciousness (critical meta-awareness—an awareness of issues of injustice in schooling in society and their historical and racial roots, as well as a commitment to interrupting injustice and fostering justice).

A Formula for Success in Data Literacy



Culturally responsive teaching demands a proactive positioning of teachers, so that they plan to teach for justice instead of taking reactive approaches to address issues of harm and injustice after the fact or after they take place. Culturally responsive teachers also build inclusive learning communities that acknowledge and challenge white middle-class norms in favor of exploring, critically problematizing, honoring, and extending the histories, legacies, and practices of Black, Indigenous, and people of color (BIPOC).

In order for teachers to practice CRDL they must have a culturally responsive data inquiry orientation.

This entails:

- seeking a broad range of data sources about students as learners in schools, as humans with personal histories, and as children with unique experiences and identities; and
- identifying and interrogating bias in analysis and interpretation of the information they collect and using those understandings about students to design learning experiences, choose instructional materials, and implement appropriate interventions as necessary to support student learning.

Educators and policymakers who apply CRDL approach their practice with a culturally responsive data inquiry orientation, seeking a broad range of data sources about students as:

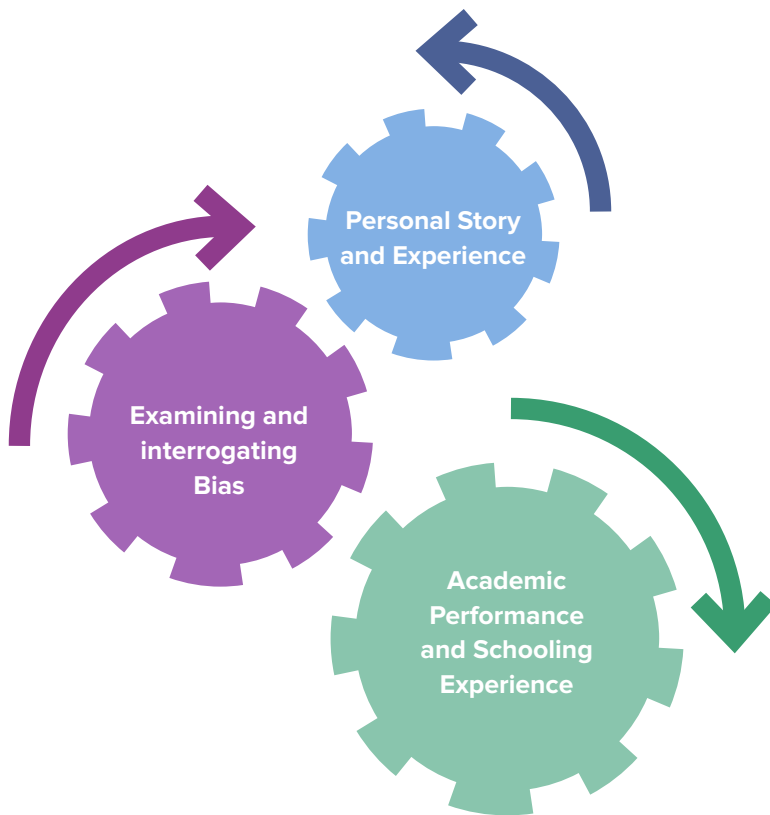
- learners in schools;
- humans with personal histories; and,
- as children with unique experiences and identities.

More specifically, they transform information into actional knowledge and practices by collecting, analyzing, and interpreting all types of data (student performance, socio-emotional, motivation, home context, health, justice, interests, etc.) to help determine effective policies and practices and inform other educational decisions, while taking particular note of the context, background, interests, strengths, and surrounding information of students that may affect their performance and behavior.

CRDL differs from data literacy for teachers because of its explicit focus on both centering culture and equity, emphasizing specific data skills and dispositions that are needed to implement an inclusive and asset-based approach to data interpretation and use.

This includes:

- believing that all students can learn;
- developing race-conscious pedagogies that acknowledge the relevance of race in schools and society and how those factors influence instructional decision-making.
- being inquiry oriented, identifying biases and challenging assumptions and preconceptions educators may have about students to make sound inferences;
- knowing how to identify and use diverse data sources; and,
- collaborating with other educators to seek effective and actionable strategies.



Developing a culturally responsive inquiry orientation on the path to developing CRDL centers around how teachers engage with information (or data) in three domains:

1. Academic Performance and Schooling Experiences

Examples include information about students from formative and summative assessments, observations of performance in classrooms and schools, documented and informal records of student interactions with peers and adults in school, and student testimonies and perceptions.

2. Personal Story and Experiences

Examples include information about students' life outside of school, living conditions, access to healthcare, food, and transportation, traumatic experiences, and their identities (e.g., race, culture, ability, sexual orientation).

3. Examining and Interrogating Bias

The focus in this domain is on the adult with decision-making power and the continuous interrogation of their beliefs and practices; how they see students; biases that influence their choices; what data to collect; and how they interpret those data, including the instructional materials and activities that teachers implement.

As teachers collect data on students (e.g., information about their academic performance, schooling experiences, and information about their lives and experiences outside of school), they are implementing a culturally responsive inquiry orientation to make sense of those data—examining biases that influence understanding and subsequent decisions about policies, procedures, and practices.

Endnotes

- 1 Mandinach, E. B., & Gummer, E. S. (2016a). *Data literacy for educators: Making it count in teacher preparation and practice*. New York, NY: Teachers College Press.
- 2 Ladson-Billings, G. (1995). *Toward a theory of culturally relevant pedagogy*. *American Educational Research Journal*, 32(3), 465–491.
- 3 Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice*. New York, NY: Teachers College Press.
- 4 Muhammad, Ghodly. (2019). *Cultivating genius: An equity framework for culturally and historically responsive literacy*. Scholastic.
- 5 Paris, D. & Alim, H. S. (Eds.) (2017). *Culturally Sustaining Pedagogies: Teaching and Learning for Justice in a Changing World*. New York: Teachers College Press.

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