# Synergies Between K–8 Open Educational Practices and Culturally Responsive and Sustaining Pedagogies

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# Synergies Between K–8 Open Educational Practices and Culturally Responsive and Sustaining Pedagogies

This brief looks at the intersection of open educational resources (OER), open educational practices (OEP), and culturally responsive and sustaining practices (CRSP) in four K–8 OER programs that provide full online courses that are freely accessible and adaptable. While the OER movement has long been animated by principles of equitable access to education and social justice (Bali et al., 2020; Geser, 2007), the OER field has evolved somewhat adjacent to that of work by scholars and activists who are squarely focused on culturally responsive teaching and anti-racist education. OER focus on the *materials* that are available to teachers and other educators, while OEP are the practices that contribute to empowering learners (Box 1). Advocates of OEP have explored how the *practices* align with concepts of social justice, including a shift from academic content to the learning process and from teacher-centric to student-centric pedagogies (Bali et al., 2020). While OEP is not inherently focused on centering diverse racial/ethnic and linguistic cultures, some scholars (e.g., Lambert, 2018) propose that OEP should be a space for "non-privileged learners who may be under-represented in education systems or marginalized in their global context" (p. 239).

> **Box 1. Key Terms**
>
> **OER materials** are teaching and learning resources that have an open intellectual property license that permits their free use and repurposing. OER can include everything from full courses, course materials, or modules, to textbooks, videos, tests, and assignments. Instructors may adapt, adopt, curate, or create OER materials to support the redesign of a course. (Griffiths et al., 2022).
>
> We define **OEP** as instructional practices that use the affordances of OER to empower learners as co-producers of knowledge and to value and incorporate diverse learners' backgrounds, needs, and voices in their learning. (Griffiths et al., 2022).
>
> Culturally responsive and sustaining practices (**CRSP**) include components that were originally conceptualized by Ladson-Billings as culturally relevant pedagogy (1995), including a focus on providing access to rigorous content, affirmation of students' social and cultural backgrounds and experiences, and development of sociopolitical consciousness. These ideas were further developed in culturally responsive pedagogy to recognize and leverage the assets that students of color bring to the classroom (Gay, 2018), culturally sustaining pedagogy that includes centering community knowledge and sustaining rather than erasing culture (Paris & Alim, 2017) and anti-racist, abolitionist teaching that is centered around Black joy and genius (Love, 2020).

Scholarship on both CRSP and OEP centers students and their cultural backgrounds and advocates drawing from students' cultural references to validate and affirm their linguistic and cultural heritage (Brown & Croft, 2020; Ehlers, 2011; Gay, 2002; Powell et al., 2016). Both bodies of literature emphasize the importance of building students' sense of belonging and are oriented toward social constructivist pedagogy. CRSP thinkers, however, place more emphasis on building students' identities as disciplinary scholars and on emancipatory stances (i.e., embracing an explicit social justice and activist stance) and collective empowerment (Ladson-

Billings, 1995a; Freire, 1973/1998). OEP researchers have described students as knowledge generators and contributors to the knowledge "commons" (DeRosa & Jhangiani, 2017), with more recent expansions into considering how OEP programs can more explicitly address and embed culturally responsive and anti-racist principles (Lambert, 2018; Bali et al., 2020).

The K–8 OER Evaluation sought to explore the connections between OEP and CRSP specifically in K–8 full-course, online, openly accessible curriculum programs (Box 2). Each of the four participating OER programs provide full course materials for either English language arts, mathematics, or science. With much of the OEP research done in post-secondary, this evaluation expanded the conversation to better understand OEP in the K–8 context. In our examination of the K–8 OER programs, we identified seven constructs that are components of both open educational practices and culturally relevant and sustaining practices (Exhibit 1).

**Exhibit 1.    Constructs Associated with Open Educational Practices and Culturally Relevant and Sustaining Practices\***

| Construct | Definition |
|---|---|
| **Classroom Culture of Care** | Class materials and activities provide opportunities and guidance to develop strong relationships (e.g., safe space, ethics of care, respect between students and instructor, inclusive environment) |
| **Critical Consciousness** | Class materials and activities provide teachers with (a) opportunities for self-reflection about their own biases and positionality and (b) guidance to develop students' critical consciousness and/or emancipation (e.g., decolonized curriculum, explicit considerations of social justice) |
| **Free & Open Access** | Students and teachers can freely access materials and modify or adapt them to fit their specific needs |
| **Generating New Knowledge** | Class materials and activities allow opportunities for students and teachers to apply, evaluate, or create new knowledge, and this knowledge can become part of the open access materials (e.g., renewable or generative assignments) |
| **High and Equitable Standards** | Class materials and activities provide pedagogical and content tools to provide students opportunities to increase their intellective capacity\*\* |
| **Inclusive Content** | Class materials and activities contain inclusive content (e.g., bring in diverse perspectives, provide teachers with tools to tailor content to students' backgrounds, needs or interests) |
| **Student Agency & Ownership** | Class materials and activities allow for student agency or ownership (e.g., student has voice, choice, or leadership over what they learn, how they learn it, and how they share their learning) |

\*Construct definitions and indicators were drawn from Bali (2020), Gay (2018), Bryan-Gooden et al. (2019), Derosa & Jhangiani (2017), Ehlers (2011), Ladson-Billings (1995), Love (2019), Paris & Alim (2017), Peoples et al. (2021), Powell et al. (2016), and Wiley (n.d.).

\*\*Intellective capacity is a term coined by Hammond (2015).

# Programs leverage openness during design rather than implementation

The K–8 OER programs in our study described using the affordances of OER more at the design phase than during implementation, focusing on licensing decisions and ensuring free access. While each program identified the importance of being an open educational *resource*, they rarely used the language of open educational *practices* to describe the affordances of their programs. Participants associated free and open access to materials, together with the adaptability of those materials, as being the constructs closely associated with their implementation of OER. Free and open access was most relevant at the design phase, as programs made licensing decisions, developed their business model, and defined the context for adaptability of materials (that is, who adapts and at what stage of design or implementation).

## Box 2. Evaluation Methods

To address questions of interest to stakeholders, the SRI evaluation team determined the evaluation questions and overall design in collaboration with liaisons from each OER program, as well as with a team of external equity experts. The resulting questions focused on how the programs were designed to include both OEP and CRSP, how implementation was envisioned by developers and how it has been implemented in practice, and how each program has thought about measuring the impacts of its program, including identifying relevant outcome measures.

Data collection included focus groups with curriculum developers as well as developers of professional development materials and user focus groups that included district administrators, teachers, and students, and informational interviews with program leaders. Team members identified multiple indicators for each construct and developed the *Culturally Responsive and Sustaining Practices in Open Educational Resources: A Materials Review Protocol.* They used the protocol to conduct an in-depth review of portions of the curriculum and professional learning materials from either fifth grade or eighth grade, examining how each program conceptualized each of the constructs, which constructs were essential to their theory of change, and how they described the connection between the construct and OEP and CRSP within their program. Thus, the findings that serve as the basis for this brief are based on a small slice of the K–8 OEP universe; that is, full course programs developed by independent organizations in upper elementary and middle school.

## While all programs retain free and open access, some have made licensing decisions that move toward more restrictive open licenses

Many programs made initial licensing decisions based on funding requirements; usually, the requirements were for the most open licensing (CC BY). Over time, some OER programs have shifted to more restrictive licenses to address issues of sustainability (see Box 3 for a description of the components of Creative Commons licenses). All programs remain committed to **free and open access** to their materials for non-commercial clients (such as school districts). Two programs described challenges with the CC BY license because they found that commercial partners became competitors, and they wanted to have more control over the adaptations made by their commercial partners. They have moved to CC BY-NC licenses to keep materials freely accessible to educators while protecting their intellectual property and avoiding competitive uses of their materials. A third program plans to continue using the CC BY 4.0 license, stating

that they believe that commercial partners will prefer to keep the program's name because it is associated with high quality, rather than produce white-label versions in competition with them.

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**Box 3. Open Licensing**

**Components of Open Licenses**

**Attribution (CC)** — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

**NonCommercial (NC)** — You may not use the material for commercial purposes.

**ShareAlike (SA)** — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.

**NoDerivatives (ND)**— If you remix, transform, or build upon the material, you may not distribute the modified material.

Adapted from https://creativecommons.org/licenses/ and https://sdccd.instructure.com/courses/2106437/pages/what-is-a-creative-commons-license

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## Programs used an inclusive design process but do not promote OEP-style 'knowledge generation' once materials are published

The four programs in this study tended to promote user contributions primarily during the initial development and revision of materials by having teachers and administrators join the curriculum development teams; they are less enthusiastic about having teachers and students modify materials once published. Program developers actively and explicitly seek out contributions from multiple stakeholders during the design and development phase of their materials. In one program, the design, piloting, and revision phase included the deliberate involvement of stakeholders from schools, districts, and states and also from different geographic areas. The changes resulting from the collaborative editorial process (for example, replacing a video that could be triggering around interactions with police) contributed specifically to making the content more inclusive. In general, the materials are not designed to invite students to **generate knowledge** that would become part of the curriculum, as is the case with some higher education OEP programs. Rather, students become agents of their own learning and generate knowledge that is new to them as part of their learning process. One program encourages students to think like scientists; another includes student creations (e.g., videos) as part of their learning.

Whether or not teachers generate new knowledge and contribute to the curriculum materials also varied by program. In one program, developers theorize that teachers will take ownership of the curriculum and will adapt and update it over time, in alignment with the program's theoretical framework. Teachers currently using that program described their role differently, identifying a lack of autonomy and feeling obligated to follow the curriculum script rather than building on their own expertise and experience. It may be that teachers gain confidence over time and incorporate more adaptations, but to date, this evaluation did not observe such instances. In practice, the program materials are being adapted at the district and/or state level, and teachers are implementers of those adaptations rather than adapters themselves.

All of the programs described their commitments to continual revision of the materials to improve them and attributed their ability to respond rapidly to needed changes to being open resources, and thus more nimble in the revision process. Online materials can be updated frequently or adapted to specific state or district contexts without the cost of printing new textbooks. In addition, curriculum developers described having the freedom to produce high-quality evidence-based materials and not having to compromise to meet external publisher demands.

Across the four programs, program developers expressed some ambivalence about encouraging teachers to adapt the materials. Each program has developed a full course of materials based on specific educational theories, and they worry that teachers may pick and choose those parts of materials that are most familiar or comfortable to them, thereby removing key pedagogical shifts that are fundamental to each program. For example, one program's pedagogical framework includes shifting teacher identity from being the holder of all knowledge to being a facilitator of learning, which promotes student agency and autonomy. Teachers described this as a challenging shift in their identity and practice, and program developers worry that teacher-led adaptations might shift away from this essential pedagogical practice. Programs do provide forums for teachers to share directly with each other, often through Facebook groups. The degree to which teachers use those forums for adapting materials is an area for further exploration.

## Program participants associated constructs like student agency with their commitment to CRSP rather than as inherent to the program's open educational stance

The program participants in this study did not articulate connections between the open qualities of their programs and constructs associated with culturally responsive and sustaining pedagogies such as inclusive content, student agency, and classroom culture of care. Participants associated these constructs, all essential components of each program, with their framework of culturally responsive and sustaining practices rather than being fundamental to, or an outgrowth of, being OER. They see those constructs as part of their programmatic theory of change that exist outside of their being an OEP program.

**Student agency** and autonomy are fundamental to each program, as the programs seek to encourage students to be thinkers, mathematicians, and scientists. One professional learning developer noted that their program "[provides] support for teachers in listening to student expertise, including explicitly valuing experiences that have traditionally been written off as 'not [academic].'" Another program provides materials and teacher supports that encourage students to contribute to learning in their own words and take ownership of their learning. This includes having teachers collect and record the language and words students use to describe their observations of phenomenon.

Just as the programs value and encourage student agency, they also believe that creating a welcoming culture, a **classroom culture of care**, is key to promoting student engagement and learning. The teacher materials provide strategies to promote collaboration and to reflect on the importance of respectful student-to-student and student-to-teacher relationships. Students in classrooms taught by teachers using one of the programs described how the whole class participates and builds on each other's ideas. They shared that because of the way the class is designed, with group collaborative work, they have learned to listen to other people's ideas and take other people's perspectives into account. In another program, the materials provide

prompts that encourage a classroom culture of respect and inclusivity. Questions include "Who participated in class today? What assumptions are you making about those who did not participate? How can you leverage each of your student's ideas to support them in being seen and heard in tomorrow's class?" Each of the programs demonstrated the use of **inclusive content** in their materials. Examples range from the representation of diverse characters in literary texts to the inclusion of non-Western views of history or science.

In contrast to student agency, inclusive content, and a classroom culture of care, leaders from each program described their **high and equitable standards** in connection to *both* OEP and CRSP, not just CRSP. Because of not being connected to a commercial publisher, developers in one program described making decisions about content and practices using evidence-based principles, and not feeling pressured to water down content to meet commercial, rather than educational, priorities. Throughout those materials, teachers are provided with concrete strategies to maintain grade-level standards for all students, for example by providing universal design for learning suggestions for students with disabilities or strategies to encourage multilingual learners to use all their language skills to communicate their learning. Another program builds teachers' skills to use problem-based learning and routines and activities designed to engage students with diverse learning styles and needs. The high and equitable standards of each program were seen as fundamental to CRSP and enabled by OEP.

## All participants described critical consciousness as the most challenging aspect of CRSP to implement

In this study, we define **critical consciousness** as class materials and activities that provide teachers with (a) opportunities for self-reflection about their own biases and (b) guidance to develop students' critical consciousness and/or emancipation (e.g., decolonized curriculum, explicit considerations of social justice). Developers noted their concern that simply including language around critical consciousness in materials without providing teachers the opportunity to build their skills in addressing the concepts could leave teachers unequipped to address student questions or understand the diverse perspectives students could bring to an issue. To address this, one program has initiated a professional learning opportunity focused explicitly on equity, theorizing that interested teachers and districts will take advantage of it, while others can continue using the curriculum without the professional learning around equity. Another program has explicitly developed its content around social justice issues and has embraced the discomfort that teachers or others might feel as an important step in building critical consciousness. Teachers using a third program, when asked specifically about whether they address social justice in their teaching, said they do not, even though program developers described ongoing conversations about how to articulate social justice in the materials and professional learning.

## At the district and school levels, educators use the materials because of their perceived quality, with little awareness of their being OER, much less of their being part of an open education practice

District administrators and teachers described the high quality of the program they are using, identifying the way that the programs promote student agency, include inclusive content, and shift their pedagogical practices. However, they rarely talk about the value of the program being free, open and adaptable, or of being part of open educational practices that promote knowledge creation at all levels. This may be in part because curriculum decisions are made at the district

level, and thus teacher agency is simply less prominent in K–8 settings than in post-secondary settings. This may also be a gap between the theories of OEP and their practice.

### Differing theories on the role of teacher agency lead to different positions on adaptability of materials

While developers from each program described valuing the ability of teachers to adapt their materials, they expressed different levels of hesitancy about promoting adaptability among teachers. One program leader described envisioning teachers moving from passively receiving updated textbooks to engaging with and constantly revising materials. Another developer described a 2–3 year process for teachers to fully embrace their problem-based learning approach. They define a "Progression of Practice" which refers to instructional practices that teachers enact as they facilitate the lesson in the classroom. For both of these programs, teachers gradually become agents of change but must engage in a process of learning about and understanding each program's approach so that adaptations retain the core principles of each program. In a third program, developers also talked about the need for teachers to build expertise before adapting, and they envision teachers adapting materials for specific students (e.g., differentiating), but they prefer to promote adaptations at a systems level, whether district or state. For all programs, adaptability is more successful in theory than in practice, and developers worry that teachers will remove pedagogical practices key to their theories of change.

### The K–8 context may lead to different decisions about using affordances of OER

The four programs in this study share common characteristics of designing and implementing full courses aligned to their respective standards. In many cases, decisions about what K–8 materials to use are made at the state or district level, and this has an impact on how the affordances of OEP are understood and implemented. In cases where decisions about curriculum materials and associated professional learning are made at the district level, teachers may not have any sense that they are part of the OER, much less the OEP, world. When teachers are told what curriculum materials to use, they may have less confidence or feel less empowered in making adaptations themselves. Additionally, some teachers may want to adapt materials but do not have time; they welcome high-quality OER materials that allow them to focus on teaching.

At the same time, because the materials are open access, individual teachers can access them through online searches (and teachers do look online for materials). This runs the risk of teachers using only parts of the materials and missing key components of pedagogical processes, but as one program leader noted, it is better that they have access to the materials than that have them behind a firewall. Those teachers benefit from access to high-quality, free, and open materials.

## Conclusion

The current landscape of K–8 OER education, as evidenced in the four programs in this evaluation, provides affordable and high-quality curriculum options with explicit commitments to culturally responsive and sustaining practices but does not explicitly embrace OEP and only provides minimal resources for teacher and student exploration of critical consciousness—a necessary component of CRSP. Developers have a clear vision for how their programs take advantage of the affordances of OER—particularly free and open access and, to a lesser degree, the adaptability of materials. Each program had strengths in multiple constructs associated with

CRSP, particularly student agency, building a classroom culture of care, and promoting high and equitable standards. The developers rarely connected those constructs with OEP, however. They all identified similar challenges around embedding critical consciousness in teaching and learning, addressing the disconnect between statewide assessments and curriculum content, and promoting adaptability while maintaining fidelity to curriculum principles. They did not list among their challenges deepening an awareness and understanding of OEP.

Curriculum users (teachers and students) also describe the key constructs of both OEP and CRSP in the context of culturally responsive practices rather than OEP. Teachers focused more on the quality of the curriculum materials than on their characteristics of being an openly accessible and adaptable resource. Although users may be effectively implementing the changes in teacher practice envisioned by each program, they are not implementing a vision that includes promoting OER principles such as promoting teacher autonomy to adapt materials, nor are they engaging with the broader principles of open education. Rather, teachers valued the materials for being innovative and high quality and for providing students equitable access to rigorous learning opportunities. K–8 OER developers face the ongoing challenge of determining whether open educational principles are sufficiently embedded in teachers' understandings of their curriculum and culturally responsive and sustaining practices, or whether they need to more explicitly communicate to teachers how open educational principles can improve their practice. If the latter, the synergies and differences between OEP and CRSP need to be more clearly articulated than is currently the case.

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