TEACHING & LEARNING

Open-Sourcing Education to Bolster Engagement and Educator Collaboration

By Lisa Petrides, Ph.D.

Research indicates that open educational resources (OER) can change how teachers work and lead to deeper learning and more dynamic, shared learning experiences. The term online resources might bring to mind an image of students staring at computers and struggling to learn in isolation. In reality, open-sourcing education is helping teachers create dynamic shared learning experiences, which is changing what teaching and learning looks like in their schools.

The study of open education practice has shown how open educational resources (OER)— freely available materials that can be downloaded, distributed, adapted, and openly shared to better serve all students (see box)—accelerates systemic change in curriculum and instruction, as well as enhanced learning for students by embedding participatory processes of content collaboration and sharing into the evaluation and use of these resources.

What Is OER?

Often seen simplistically as "supplemental learning material," open educational resources (OER)— freely available materials that can be downloaded, distributed, adapted, and openly shared to better serve all students—include a broad range of high-quality learning materials, resources, and lesson plans that deepen the learning program. They are freely available and openly licensed curricula and course guidelines that states and districts can use to ensure that teachers have the best tools available to improve their instruction at scale.

Many pre-K-12 resources have been vetted and aligned with standards, and because they are designed to be revised and reshared, OER can give states and districts more local control of content and curriculum. And the use of OER frees up financial resources that could be reallocated to allow states and districts to support teachers in new ways.

Research conducted by the Institute for the Study of Knowledge Management in Education (ISKME), as well as by other researchers in the field, has revealed that enhancing peer collaboration on the creation and use of OER advances educator practice, confidence, creativity, and innovation (Petrides et al. 2008;[1] Petrides et al., 2011;[1a]). Through our professional development initiatives, we have found that networks of K-12 teachers who work together to develop OER gain

understanding and confidence in the implementation of student-centered instructional practices, and are more likely to engage in team-based teaching and other forms of collaboration in their schools.

We also found benefits to student learning. For example, a study[2] conducted by ISKME about faculty use of open textbooks provides evidence that the use of OER also encourages greater engagement among students and promotes self-directed learning (Petrides et al., 2011). In the study, students and faculty in classes where open textbook were used reported new learning behaviors, wherein students independently explored supplemental content about highly relevant issues tied to course learning objectives. Furthermore, numerous other studies indicate that students in OER-based courses perform as well as or better than students in traditional classrooms, and that both faculty and students perceive OER to be as good or better than proprietary textbooks. (de los Arcos et al. 2015;[3] Cooney 2016;[3a] Wiley et al. 2016;[3b])

As such, we have seen that the use of OER encourages:

- **Teacher sharing of best pedagogical approaches and curricular resources** across schools, districts and states.
- **Customization of content** for students to promote greater relevance. In order to scale personalized learning, teachers need to see successful implementation through the use of student work samples, videos, and teacher accounts. They also need to have the ability to modify existing resources in response to the unique needs of their own students.
- **Content matching,** wherein learning materials are aligned to what a student needs at a given moment, whether through videos and visuals, group activities, or opportunities to explore source documents, listen to lectures, or watch demonstrations.
- **Cross-disciplinary learning** to expose students to how problems to be studied can be explored in multiple, interconnected ways, which is at the core of work and learning in the real world.
- **Student ownership of concepts and content** as they apply different tools and methods to master complex concepts and ideas that they can "own."

While the "digital divide" is still very real, in many places the bigger issue is that the technology is available—but there's little support to help educators access and use digital resources, including OER. Not every teacher will be a curator or editor of content and not all districts will encourage teachers to be curriculum curators or adaptors, but those who take leadership in this area have proven to be tremendous assets to their schools and districts. Teachers need training to learn how to confidently select relevant and high quality materials, adapt them to meet their students' learning levels, add examples specific to the context of what they are teaching, or share materials that they or others have been developing but would benefit from feedback from their peers.

To advance the use of OER and provide quality and relevant materials for educators in K-20 education in the United States and abroad, our organization developed OER Common, the nation's first digital public library of these resources. On the site, we have rubrics and frameworks that teachers use to strengthen open educational practice and to support educators in accessing, curating, evaluating, and adapting OER in response to learners' particular needs, interests, and contexts.

Today, OER Commons contains over 100,000 free and readily accessible resources from more than 350 content providers across virtually every subject area. Having served more than five million users, OER Commons is curated by full-time librarians and features tools for evaluation, quality review and improvement of resources. OER Commons enables educators worldwide to discover, evaluate, and use resources and attain advanced instructional and digital skills. This work has the potential to fundamentally alter the role of educators by encouraging them to become collaborative contributors to a larger, dynamic, and shared knowledge base. A growing number of states are working with ISKME to create hubs of OER resources that are aligned to their standards and available to all teachers to download, revise, and use.

Tapping into OER provides an alternative to scripted curricula that ties teachers too closely to textbooks and learning materials. Instead, in our work, ISKME is seeing many district leaders begin to think about how to integrate quality OER with past investments in proprietary resources. District leaders are thinking through how they can enhance their current curriculum with OER that is more engaging. As a starting point, these leaders should begin with student learning goals and select the best mix of materials to meet those goals. Rather than tell the teacher, "here's a textbook that we've selected for you," they can find the best mix of materials to promote deeper, engaged learning and then give teachers the autonomy, knowledge, and skills to make it happen.

Citations

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http://www.advanc-ed.org/source/open-sourcing-education-bolster-engagement-and-educator-collaboration