Question:

How are states implementing open educational resource (OER) initiatives in K–12 settings, including platforms, accessibility, and standards or criteria for content inclusion?

Response:

Thank you for your request to our REL Reference Desk regarding evidence-based information about the implementation of open educational resource (OER) initiatives at the state level. Ask A REL is a collaborative reference desk service provided by the 10 Regional Educational Laboratories (RELs) that, by design, functions much in the same way as a technical reference library. Ask A REL provides references, referrals, and brief responses in the form of citations in response to questions about available education research.

Following an established REL Appalachia research protocol, we searched for peer-reviewed articles and other research reports on states’ implementation of OER initiatives. We focused on identifying resources that specifically addressed state policies, programs, and initiatives regarding OER at the K–12 level. The sources included ERIC and other federally funded databases and organizations, research institutions, academic research databases, and general Internet search engines. For more details, please see the methods section at the end of this document.

The research team did not evaluate the quality of the resources provided in this response; we offer them only for your reference. Also, the search included the most commonly used research databases and search engines to produce the references presented here, but the references are not necessarily comprehensive, and other relevant references and resources may exist. References are listed in alphabetical order, not necessarily in order of relevance.

References

From the introduction: “Today, states are collaborating in more ways than ever on the goals of college and career readiness building on the Common Core State Standards (CCSS). This guide is meant to help educational institutions and state governments understand the benefits of fostering deeper learning and personalized learning through open educational resources (OER). Open educational resources (OER) are learning materials licensed in such a way as to freely permit educators to share, access, and collaborate in order to customize and personalize content and instruction. By sharing publicly funded learning materials as OER, we can move away from ‘re-creating the wheel’ in all 50 states and territories, enabling sharing and collaboration with learning materials, resources, and professional development. Maximizing state, district and school resources in sustaining an environment of sharing and collaboration, this guide is meant to share bellwether state examples and recommendations as a guide for policy makers.”


From the introduction: “A growing number of states are using legislation as a means of enabling the use of electronic or open source textbooks. For example: Arizona, Iowa and Tennessee expanded their definitions of textbooks to include digital content; Virginia has its first open source textbook posted for public review; West Virginia took it a step further and required textbook publishers to provide an interactive version; and Texas and California both have digital textbooks available to their public school students as well as pilot projects in place to test the effectiveness of technology on learning. On September 1, 2009, the National Association of State Boards of Education announced a $75,000 grant from the William and Flora Hewlett Foundation to revise instructional materials policies to better accommodate open educational resources.”


From the introduction: “The implementation of the Common Core State Standards (CCSS) will create new opportunities for states to collaborate and leverage investments of public funds around materials, resources, and professional development related to digital content that can be more freely accessed, used and shared across states. Several states expressed an interest to the Council of Chief State School Officers (CCSSO) in exploring the development and dissemination of this digital content in the form of open educational resources (OER), which are teaching materials licensed for free use and repurposing. In response to that interest, CCSSO conducted a survey of states in May 2014 to collect information about the current ‘state of the states’ as it relates to OER. This report highlights those results and provides examples of ongoing work related to OER. This report also strives to inform and connect those chiefs and senior level state education agency (SEA) staff...
interested in OER to encourage cross-state understanding and collaboration with the potential to both share content and resources in this space.”


From the introduction: “Technological innovation is driving fundamental changes in all aspects of our lives. This is especially true of digital content, as our use of e-books, downloadable music, streaming television and movies, and online social networks has exploded. However, the explosive growth in our use of digital content seems so far to have eluded many of the 50 million students enrolled in public K–12 education. In spite of the fact that states and districts spend $5.5 billion a year in core instructional content, many students are still using textbooks made up of content that is 7 to 10 years old. In 2012, it is still the exception—not the norm—that schools choose to use digital content, which could be updated much more frequently, or opt to use the multitude of high-quality online resources available as a primary source for teaching and learning. The reasons are many, but the result is this: Too few schools are exploiting digital instructional content for all of its benefits. While many in education continue to perpetuate the decades-old textbook-centric approach to providing students and teachers with instructional materials, the gap is widening between what technology allows us to do in our lives—how we communicate, work, learn, and play—and how we’re educating our kids. The primary benefit of digital content may be its flexibility. Crucial to realizing the flexibility benefit are open educational resources (OER), resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others in perpetuity. States are the key to driving instructional materials innovation. With primary responsibility for determining the process and funding models for instructional materials acquisition in their schools, states have started to implement significant policy changes—in some cases with the support of the federal government—that are giving powerful momentum to the shift from print to digital content. In total, 22 states have introduced either definitional or funding flexibility, launched a digital textbook initiative, and/or launched an OER initiative. Common to virtually all of these efforts are strong state leadership, a culture of innovation, a belief in increased local flexibility in spending and content choice, and strong implementation plans. Given current trends and building upon the real-world experiences of states and leading districts, the State Educational Technology Directors Association (SETDA) offers recommendations for K–12 policymakers, school leaders, and publishers searching for ways to collaborate and to reimagine the future of the K–12 textbook.”

From the introduction: “Based on presentations and rich dialogue at the NASBE forum, this brief outlines the major components of state textbook adoption policies, as well as principles for 21st century instructional materials (with an emphasis on the potential role for open educational resources), and offers state policy recommendations for updating adoption policies to effectively manage the ongoing shift to a hybrid—print and digital—instructional materials model. In addition, a number of innovative state examples are highlighted.”


From the introduction: “The rising cost of higher education is about more than tuition—expensive textbooks and course materials remain a looming barrier to college affordability and access. Open educational resources (OER) are a solution to high-cost materials and state legislators are starting to take notice. Open Educational Resources (OER) are freely available materials that can be downloaded, edited and shared to better serve all students. OER include all kinds of content such as textbooks, lesson plans, assignments, games, and other educational materials, and can include printed materials, not just digital. Nearly half of all states have considered OER legislation in past years, and it has increasingly become a go-to strategy for legislators seeking to make college education more affordable and effective. States can catalyze and support action at institutions by providing resources, incentives, and policy frameworks. This playbook provides a set of ideas that state legislators can consider to harness the power of OER to reduce college costs for students. Recommendations can be combined or pursued independently, and while not every recommendation is right for every state, each one offers a potential pathway to benefit students.”


From the introduction: “As states and districts transition to college- and career-ready standards and aligned assessments, the need for high-quality instructional materials is clear. Open Educational Resources (OER) offer a low-cost solution with high potential to assist teachers nationwide in helping students meet the demands of higher standards. More and more developers are choosing to publish their instructional materials as OER as an alternative to publishing with a traditional, all rights reserved copyright. In addition to this advantage, OER support the ability of educators to share and modify instructional materials for classroom use. With the advent of common, college- and career-ready standards in the Common Core State Standards (CCSS), educators can seek out, customize or develop high-quality instructional materials and can share those materials with their peers across districts and state borders. The modern classroom incorporates modular instructional materials from myriad sources, and therefore instructional materials and the policies and practices related to those materials should support this new model. The model of one textbook per student in each subject is out of sync with a world where content is available digitally,
through an array of methods, to meet the needs of students and teachers in 21st-century classrooms. However, as with the rest of the marketplace, the demand for materials has led to a flood of new OER instructional materials. The large number of materials presents a daily challenge for educators who are trying to determine the quality and alignment of the materials. It also underscores the importance of policy leaders with shared standards having a shared understanding of what constitutes quality and standards alignment for OER instructional materials, across districts and across states. This brief sets forth state policy recommendations for providing educator access to college and career-ready OER.”

**Additional Organizations to Consult**

Achieve, Inc.: [https://www.achieve.org](https://www.achieve.org)

*From the website:* “Achieve is an independent, nonpartisan, nonprofit education reform organization dedicated to working with states to raise academic standards and graduation requirements, improve assessments, and strengthen accountability.”

- Achieve OER Institute: [https://www.achieve.org/our-initiatives/other-initiatives/open-educational-resources/oer-institute](https://www.achieve.org/our-initiatives/other-initiatives/open-educational-resources/oer-institute)

Council of Chief State School Officers (CCSSO): [https://ccsso.org/](https://ccsso.org/)

*From the website:* “The Council of Chief State School Officers (CCSSO) is a nonpartisan, nationwide, nonprofit organization of public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, the Bureau of Indian Education and the five U.S. extra-state jurisdictions.”

- OER Resources for Policy Makers: [https://ccsso.org/resource-library/oer-resources-policy-makers](https://ccsso.org/resource-library/oer-resources-policy-makers)

Scholarly Publishing and Academic Resources Coalition (SPARC): [https://sparcopen.org/](https://sparcopen.org/)

*From the website:* “SPARC is a global coalition committed to making Open the default for research and education. SPARC empowers people to solve big problems and make new discoveries through the adoption of policies and practices that advance Open Access, Open Data, and Open Education.”

**Methods**

**Keywords and Search Strings**

The following keywords and search strings were used to search the reference databases and other sources:

- “Open education* resources” AND (elementary OR secondary OR “K-12”) AND state*
- (“Open access” OR “no cost” OR “open source”) AND textbook) AND (elementary OR secondary OR “K-12”) AND state*
Databases and Resources

We searched ERIC, a free online library of more than 1.6 million citations of education research sponsored by the Institute of Education Sciences (IES), for relevant resources. Additionally, we searched the academic database ProQuest, Google Scholar, and the commercial search engine Google.

Reference Search and Selection Criteria

In reviewing resources, Reference Desk researchers consider—among other things—these four factors:

- **Date of the publication:** Searches cover information available within the last ten years, except in the case of nationally known seminal resources.
- **Reference sources:** IES, nationally funded, and certain other vetted sources known for strict attention to research protocols receive highest priority. Applicable resources must be publicly available online and in English.
- **Methodology:** The following methodological priorities/considerations guide the review and selection of the references: (a) study types—randomized controlled trials, quasi experiments, surveys, descriptive data analyses, literature reviews, policy briefs, etc., generally in this order; (b) target population, samples (representativeness of the target population, sample size, volunteered or randomly selected), study duration, etc.; (c) limitations, generalizability of the findings and conclusions, etc.
- **Existing knowledge base:** Vetted resources (e.g., peer-reviewed research journals) are the primary focus, but the research base is occasionally slim or nonexistent. In those cases, the best resources available may include, for example, reports, white papers, guides, reviews in non-peer-reviewed journals, newspaper articles, interviews with content specialists, and organization websites.

Resources included in this document were last accessed on April 4, 2019. URLs, descriptions, and content included here were current at that time.

This memorandum is one in a series of quick-turnaround responses to specific questions posed by education stakeholders in the Appalachia region (Kentucky, Tennessee, Virginia, and West Virginia), which is served by the Regional Educational Laboratory Appalachia (REL AP) at SRI International. This Ask A REL response was developed by REL AP under Contract ED-IES-17-C-0004 from the U.S. Department of Education, Institute of Education Sciences, administered by SRI International. The content does not necessarily reflect the views or policies of IES or the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.