

PUTTING EQUITY INTO PRACTICE:

Open Pedagogy

**EQUITY-MINDED
DIGITAL LEARNING**
Strategy Guide
Series

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the **Dream**

Kinnison, S., Keith, H.R., Garth-McCullough, R. & Hampton, M. (2023, July)
Putting Equity into Practice: Open Pedagogy; Equity-Minded Digital Learning Strategy Guide Series. Every Learner Everywhere.

PUTTING EQUITY INTO PRACTICE: OPEN PEDAGOGY

Open pedagogy is an instructional approach that views learning as a participatory process that builds and refines as students and faculty actively engage in understanding the discipline. Faculty and learners move beyond a content-centered approach (Cronin, 2017) and engage in the creation and sharing of learning content. Rather than the familiar process of broadcasting information to students who then complete quizzes or papers to demonstrate understanding, with open pedagogy, students interact with the content, faculty, outside experts, and each other; relate learning to their lives; and place lessons within a wider social context to create artifacts of value beyond the classroom.

The student-centered focus and flexibility of Open Pedagogy makes it easy to approach it with an intentional focus on cultural responsiveness, supporting equitable student experiences and outcomes. Learners bring their whole selves to the learning environment (Pascivicius & Irvine, 2019) and Black, Latinx, Indigenous, and first-generation students bring their cultural identities and lived experiences with them into the context of the course, rather than leaving their authentic selves “at the door” as is the case with status-quo teaching methodologies. Being able to choose course design, content, assignments, assessments, and instructional approaches based on the context of the learners and the current events of the times allows students to relate all areas of the course to their lives and equitizes their experiences and outcomes.

This guide is designed to support faculty with operationalizing open pedagogy through a culturally responsive lens. The three main strategies presented are:

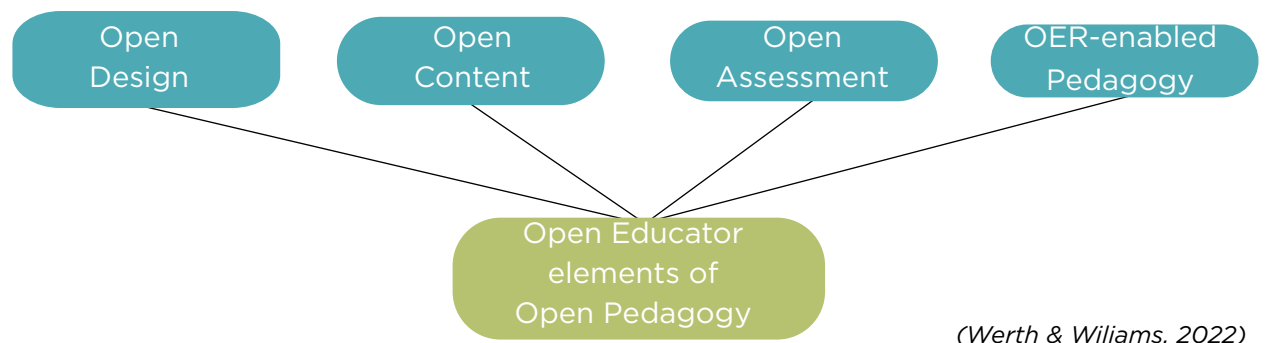
- Renewable assignments
- Co-created and student-generated content
- Open assessments

Renewable assignments, as opposed to disposable assignments, are defined as tasks where students compile and openly publish their work so that the assignment outcome is inherently meaningful to them and valuable to the community (Chen, 2018; Wiley & Hilton, 2018). For example, with student-driven e-portfolios built in a site like [squarespace.com](https://www.squarespace.com), students can research personally and culturally meaningful topics that relate to their lives as an assignment for various units of study across all disciplines.

Student-generated content encourages students to immerse themselves in relevant research and consider how make strong connections while gaining a deeper understanding of course concepts. (Harla, 2019).

Open assessment, also known as self or peer assessment, allows students to assess their own work or the work of their peers through a more transparent, engaging, scaffolder inclusive, and collaborative approach.

Visualizing teacher-centric elements of open pedagogy



How Open Educational Resources Support Open Pedagogy

Practitioners of open pedagogy can use open educational resources to create and share learning in novel ways. Open pedagogy is strongly supported by maximizing the use of open educational resources (OER), defined by any learning materials that are free and have been licensed to allow for editing and reuse, usually with a Creative Commons license. The OER movement has played a critical role in making college materials accessible and affordable through many repository sites including [MIT Open Courseware](#), [UBC OER Collection](#), and [OpenStax](#). In addition, original OER can be created and published, allowing for new information to be included in courses, and existing OER can be freely reused, repurposed, altered and edited, allowing for engaging projects with diverse interpretations, perspectives, ideas, and analysis to surface from existing materials. Using OER is a flexible and accessible way to provide relevant and current materials, and engaging assignments. When used alongside open and culturally responsive practices, OER can both support faculty and benefit students, particularly around culturally responsive, affirming, and sustaining teaching.

“Openness” allows for timely design of course content and delivery that connects students’ learning to their background knowledge, cultural identities, and lived experiences. The ability to edit, reuse, and access a wide range of materials curated by diverse authors makes OER a useful tool for open and culturally responsive pedagogical practices. For example, the Creative Commons licensing allows history instructors to utilize any parts of a syllabus such [Contemporary Movements for Justice](#) to center African American contributions while students can remix, transform

and build upon it to include various social justice oriented activities, readings or assignments. To center Indigenous scientists in courses that typically exclude Indigenous voices, faculty can include resources such as [Indigenous Voices: A sense of Place Speaker Series](#) and articles about engineers that are open for educational use such as NASA's [Aaron Yazzie](#) and an Economics course can compile resources to center Indigenous leaders in the field like [Winona Laduke](#). According to surveys and focus groups from the OER at Scale study that reported the impact of Achieving the Dream's OER Degree Initiative (Griffiths et al., 2020), students benefitted from unrestricted access to course content and improved course experiences, in addition to saving money that could be used towards other educational or personal expenses, and most students reported positive experiences in OER courses, and found OER materials accessible and well-aligned to learning objectives. Faculty reported that OER impacted the ways they presented and used materials in class, increased the relevance of those materials, and influenced their overall pedagogical beliefs. Students also reported that the quality of course information is actionable rather than stagnant. Using OER, faculty stated they were able to approach their course objectives and discipline standards with respect to students' values, traditions, and ways of being. Faculty and students stated they could maximize their engagement with and understanding of the subject matter while making connections to their lived experiences and career goals.

Because OER can be freely edited, remixed, and updated, OER can empower instructors and students to work together to customize learning materials to suit specific courses and objectives. It's the way that the learning materials evolve in response to learners and teachers that makes OER exciting; For faculty with an interest in educational transformation, OER allows many possibilities for pedagogical change and implementation of open and culturally responsive teaching and learning practices. (DeRosa & Robison, 2017)

Open Educational Resources are teaching and learning materials that you may freely use and reuse, without charge. OER often have a Creative Commons or GNU license [General Public License] that states specifically how the material may be used, reused, adapted, and shared.

OER Commons

Within the bounds of Creative Commons licensing, there are five key activities that open education enables. (Note that there are exceptions. For example, a CC-BY-ND license does not allow revising.) The 5 Rs were originally coined by Wiley in 2007. Through an equity minded approach assignments enabled by the 5R's can be implemented in ways that intentionally embrace, affirm and validate the cultures, lives experiences, and diverse perspectives and backgrounds of students that have been historically marginalized through the practices of higher education.

1. **Retain:** Copies of content can be retained for personal archives or reference. The user has the right to make, own, and control copies of the content (for example, download, duplicate, store, and manage).
2. **Reuse:** Content can be reused in its unaltered original format. The user has the right to use the content in a wide range of ways (for example, in a class, in a study group, on a website, or in a video).
3. **Revise:** Content can be modified or altered to suit specific needs. The user has the right to adapt, adjust, modify, or alter the content itself (for example, translate the content into another language).
4. **Remix:** Content can be adapted with other similar content to create something new. The user has the right to combine the original or revised content with other material to create something new (for example, incorporate the content into a mashup).
5. **Redistribute:** Content can be shared with anyone in its original or altered format. The user has the right to share copies of the original content, revisions, or remixes with others (for example, give a copy of the content to a friend).

The 5R Permissions of OER

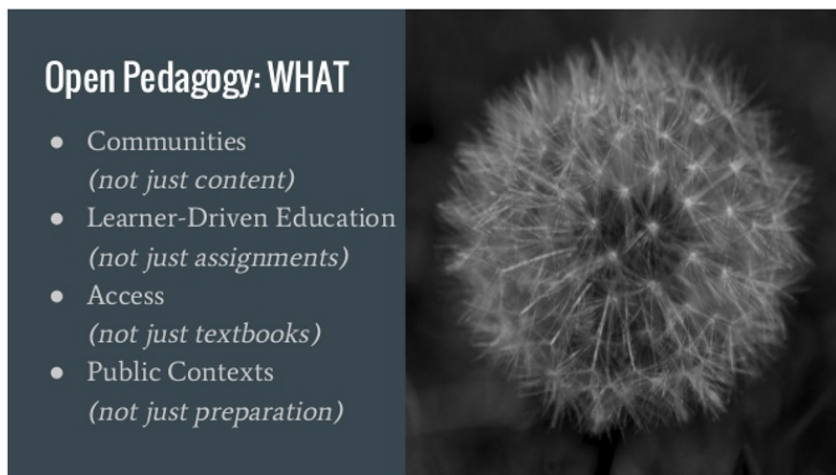
RETAIN	Make and own copies
REUSE	Use in a wide range of ways
REVISE	Adapt, modify, and improve
REMIX	Combine two or more
REDISTRIBUTE	Share with others

Lumen Learning. [5 G Graphic. https://creativecommons.org/licenses/by/4.0/](https://creativecommons.org/licenses/by/4.0/)

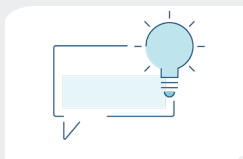
By using open pedagogical practices, faculty have greater flexibility with design, content, assessment, and pedagogy (Werth & Williams, 2022). These course features can be structured in ways that are more relevant to students and can be adjusted to meet students where they are and with direct relevance to their lives, learning, and career goals.

There are many ways for faculty to build open pedagogy into learning environments across college disciplines. For example, with faculty guidance, students can create a set of exercises for a specific chapter in an open textbook or incorporate student assignments into a collection of OER that could be submitted as part of an open textbook or used in conjunction with an existing resource. Instead of assignments

that offer limited value to students or faculty, students can build a resource designed to improve the learning space for future students of the discipline who are within or beyond the institution. For example, students in Professor Jhangiani's Open Intro to Psychology course created an online test bank with student-created test questions as a study guide for current and future psychology students. Similarly, at Southwest Tennessee Community College, rather than giving students prefabricated vocabulary lists for their Spanish course, faculty assigned them to build their own relevant vocabulary lists and add them to an OER repository accessible to the entire class and future students (Jhangiani, 2017). In her course at Cuny College, [Engaging First-year students in Global Issues](#), Sada Jaman engages Education students in active project-based learning based on studying Pakistani activist Malala Yousafzai and considering their own journeys (example below).



From "Free + Freedom: The Role of Open Pedagogy in the Open Education Movement" by Rajiv Jhangiani and Robin DeRosa



After reflecting on their own educational journeys and reading about the journey of Nobel Laureate Malala Yousafzai, students were asked to identify action steps needed to create an accessible and inclusive approach to education. They were tasked with developing a project (options included fundraising, digital marketing, and creating videos), to advocate for quality education. [Connected] workshops helped students design elements and communicate key points for their digital flyers and PowerPoint presentations as part of their digital assignment.

Sada Jaman, professor of Business and Technology at City University of New York (Jaman, 2022)

OER facilitates opportunities for critical pedagogical approaches such as culturally responsive teaching and learning and social justice education. For example, an introductory STEM course that is missing the voices of BILPOC leaders can readily include TedEd talks that center female and BILPOC perspectives from leaders in the field like [Neil Degrasse Tyson](#) and [Ellen Ochoa](#) and countless others whose voices are critical to science. Faculty teaching a U.S. history course can add chapters to an OER textbook to bring in perspectives including, for example, [narratives of revolts from enslaved people](#), [Indigenous Native American perspectives](#) and other historical truths that have been misrepresented. The flexible nature of OER expands the ways faculty can interact with resources and fosters inclusion of a range of current and relevant discipline-based materials that may be found on repository sites such as [OER Commons](#), [Smithsonian Learning Lab](#), and [Ted Talks](#). Faculty can capitalize on the flexible nature of OER to support instruction that engages students by allowing them to intertwine their own ideas and considerations, include current and culturally relevant events in the lessons, and relate what they are studying to their lives. OER textbooks do not have the limitations of time and space of published textbooks.

The 6 R's of Indigenous OER

At the 2021 Indigenous Knowledges and Open Education symposium at the University of British Columbia Okanagan, Kayla Lar-Son shared the 6 R's of Indigenous OER to provide a framework for authors incorporating Indigenous knowledges into their openly-licensed teaching and learning materials. The R's are influenced by the FAIR Guiding Principles for scientific data management and stewardship and CARE Principles for Indigenous Data Sovereignty, as well as adapted from the 4 R's of First Nations and Higher Education (Kirkness & Barnhardt) and the UBC Longhouse Teachings.

1. **RESPECT** - For Indigenous cultural identity, communities, and topics
2. **RELATIONSHIPS** - Connects to the concept of all of our relations and building relations with communities
3. **RESPONSIBILITY** - Responsibility to share only when we are allowed, and to publish in an ethical way while considering ownerships, protocols and community practices
4. **REVERENCE** - Respect for the sacred
5. **RELEVANCE** - Legitimize and incorporate Indigenous Knowledges into curriculum when it makes sense
6. **RECIPROCITY** - Both receiving and giving with communities

These 6 R's provide a framework for considering how we can work ethically to incorporate Indigenous knowledges in open educational resources.

With open pedagogy, students are immersed in projects where their voices, lived experiences and cultures are shared in ways that are meaningful to their educational experiences. For example, students at the University of Texas at Austin share their stories of immigration in [Eleven American Immigration Stories Told by Students](#), an article shared on the school website that includes stories of resilience and creativity by students who immigrated to the U.S. The project motivated the participating students to engage in literary techniques to help them weave their experiences into cohesive, artful narratives. Similar techniques can be used in courses across disciplines and the assignment can be reused, revised, or remixed in courses within their institution or elsewhere if faculty and students choose open licensing.

In addition to student-faculty and peer-to-peer collaboration, open pedagogy is often interdisciplinary, and includes faculty working together to lead projects and community-based experts who are project collaborators. This diversity of participants in the teaching and learning initiative reflects the diversity in college courses and in society. The collaborative process reframes the creation and analysis of knowledge as a community activity that brings in a multitude of voices. This contrasts the traditional approach that amplifies dominant voices and silences marginalized voices in ways that uphold dominant perspectives.

Copyright laws prohibit people from engaging in broad categories of learning and teaching activities (for example, making copies or creating derivative works) without permission from the copyright holder. Students “learn by doing,” and copyright often restricts engaging in certain kinds of doing without a license. Therefore, copyright laws can limit the ways students can learn. The permission to engage in the 5R activities lifts these restrictions (Wiley & Hilton, 2018). Sites for OER materials include [OER Commons](#), [Native Knowledge 360](#), and [Wikipedia](#). Sites for openly licensed images include [OpenVerse](#), [unsplash](#), and [Google](#) (Creative Commons licensing tool option). These sites allow student and faculty researchers to explore all varieties of OER that allow for the 5R activities. Consequently, when using OER as opposed to traditionally copyrighted resources, students can engage in a broader range of learning activities and, therefore, learn in a broader range of ways.

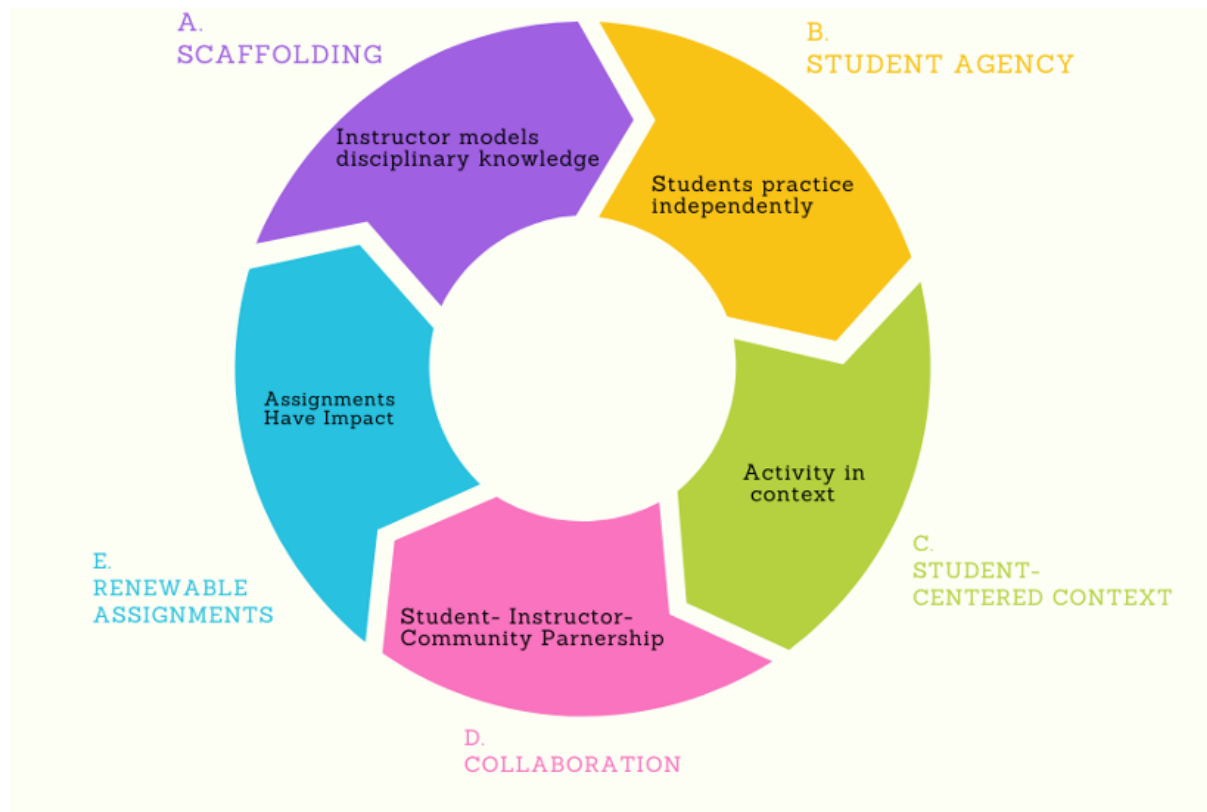


Cause to Wonder: Pause and Reflect

Have you used open educational resources in your courses? If so, were you intentional about the ways they can increase accessibility and relevance for students?

Open educational resources allow faculty and students to work together by reusing, revising, remixing, adding, and subtracting parts as needed with flexible licensing and the ability to share and discuss publicly.

OPEN/OER Pedagogy-Enabled Exemplar



Faculty can pursue open education pedagogy in the following ways:

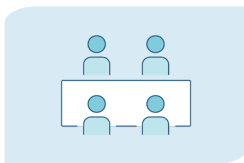
- Scaffold and structure lessons that guide the learning process.
- With adequate scaffolding, students take ownership of their learning, build their sense of agency, and strengthen their skills and competencies.
- When students are empowered to co-construct knowledge, the context becomes student-centered, strengthens students' connections to the subject matter, and increases their comprehension and retention. This also allows for culturally responsive instruction that resonates with students' identities and lived experiences.
- Faculty-student collaboration and partnerships increase student motivation and should result in authentic assets such as renewable assignments.
- Renewable assignments enhance understanding and may also add to the discipline as published open education resources.

“Open Pedagogy invites us to focus on how we can increase access to higher education and how we can increase access to knowledge — both its reception and its creation... Learners are empowered to shape the world as they encounter it.”

(Jhangiani & DeRosa, n.d.)

WHO BENEFITS?

Students



Open pedagogy helps dismantle barriers to accessing higher education opportunities that many students face. Not only does OER greatly diminish textbook costs, it also provides opportunities to create renewable assignments that reflect students’ identities and perspectives.

Faculty



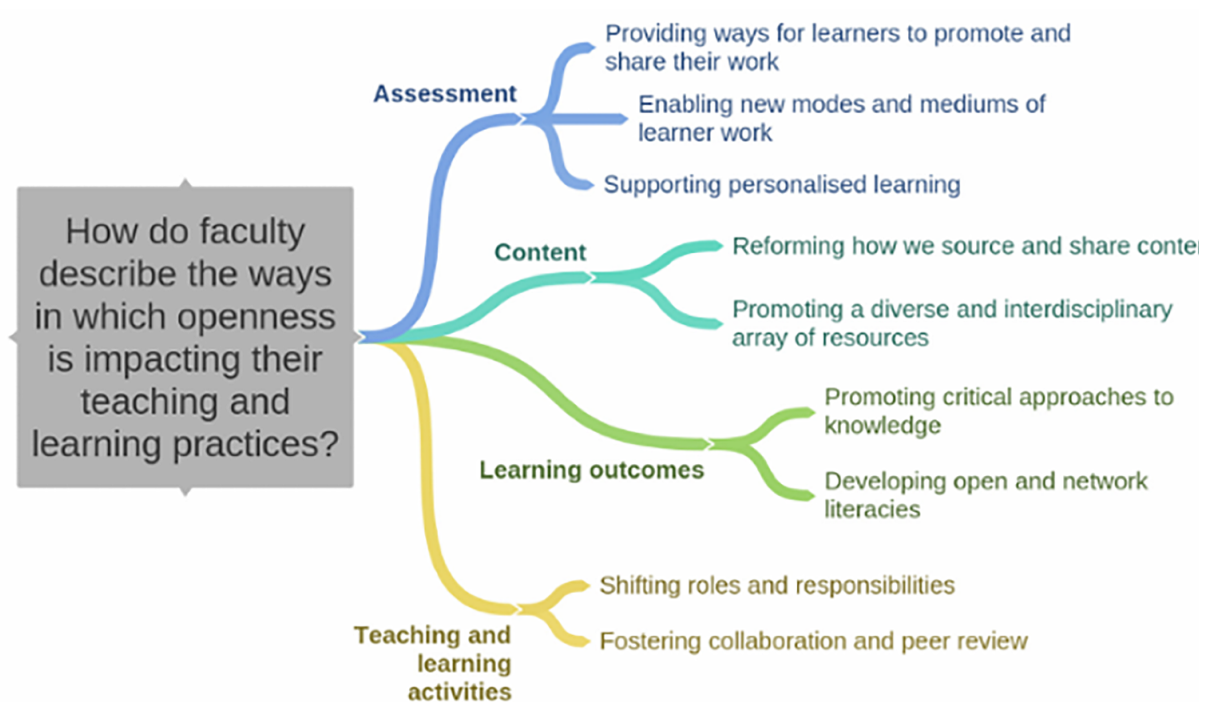
Open pedagogy and OER expands the number and types of resources available to faculty and the options for readings and activities they can assign. OER repositories can be useful for faculty seeking to center diverse perspectives.

“By its nature, Open Pedagogy allows faculty to design courses to be more equitable and inclusive. One of the central tenets of instructional inclusion is to consider the context of the learners in designing course materials. Open pedagogy allows greater freedom for faculty to curate materials with their own students’ context in mind.”

Catherine Cronin, Independent Scholar (2017)

A study of openness in higher education in Canada is referenced in the following figure. For this study, faculty who reported they had actively changed their pedagogical practices because of open pedagogy were interviewed to learn more about the changes they made. Faculty reported that an open approach allowed them to be more collaborative and inclusive with students across assessments, content, learning outcomes, and activities.

Open Education and Learning Design

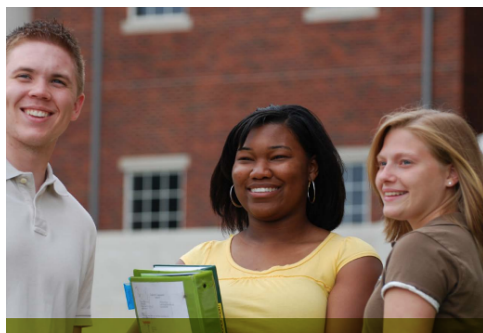


Paskevicius & Irvine, 2019

According to an open pedagogy research study by Clinton-Lisell (2021) at the University of North Dakota, institutions have improvements in overall student success rates when open educational resources are implemented in teaching and learning. These findings are based on:

- Financial savings allow more students to access materials and begin coursework at the beginning of a semester.
- Open pedagogy encourages faculty and students to reach out to and collaborate with community-based organizations and institutions, building interesting and beneficial local partnerships.

In general, student success increases based on faculty exposure to educationally sound and evidence-based teaching practices that engage students and include students as primary agents in their own learning.



Participant Experiences and Financial Impacts:
Findings from Year 2 of Achieving the Dream's
OER Degree Initiative

October 2018

SRI Education
A DIVISION OF SRI INTERNATIONAL

Achieving
the Dream

rpk GROUP
from mission to market

(Griffiths et al, 2020)

Clinton-Lisell's (2021) research shows that students generally perceived open pedagogy as positive and meaningful learning experiences in the following ways:

- Appreciation for developing artifacts that can be used by peers and faculty as instructional materials and tools
- Feelings of agency as scholars who contributed to a body of knowledge
- Development of critical thinking skills through researching, synthesizing, and evaluating sources

Students report having more pride and interest in their renewable assignments than with their traditional assignments (Al Abri & Dabbagh, 2019; Masterman, 2016).

Studies show that open pedagogy is not a common practice, even with faculty who adopt OER (Cronin, 2017; Nascimbeni & Burgos, 2019; Tillinghast, 2020). Practicing open pedagogy along with OER is an emerging practice in its early stages. The hope is that by highlighting examples in the field and promoting further evidence-based research, this promising practice will expand.

This guide describes three strategies to intentionally implement open pedagogy and culturally responsive teaching to impact student experiences and outcomes for Black, Latinx, Indigenous, poverty impacted and first-generation students.

“Using open resources has the power to literally transform teaching and learning in ways that improve both student and faculty engagement. Using open resources in instruction can create the customized and personalized learning that has the promise to open up our classrooms to those students who so need to be freed from its current construct...The introduction of OER offers new ways to think about ensuring preparedness for college-level courses. OER enables faculty to use a mix of learning resources that allow students to learn in ways — and at a time and place — that are best suited for their personal learning style.”



Dr. Karen A. Stout, President and CEO, Achieving the Dream

PEDAGOGICAL PRACTICE: OPEN PEDAGOGY INSTRUCTIONAL STRATEGIES

Strategy 1: Renewable Assignments

Strategy 2: Co-Constructed and Student-Generated Content

Strategy 3: Open Assessment

STRATEGY 1: RENEWABLE ASSIGNMENTS

Renewable Assignments is an instructional strategy enabled by the use of OER. These assignments allow students to thoughtfully compile and openly publish assignments that have inherent value to the field and remain relevant after the course has been completed. (Veletsianos, 2017). Students appreciate the real-world relatable application and the ability to participate in the larger academic conversation.

Open assignments add value to both the world and to students' academic development (Murphy, 2019). [Renewable assignments](#):

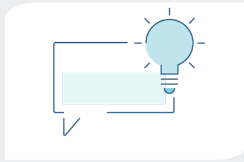
- Are related to real-world problems and issues
- Are project-based
- Offer utility and life after the course ends
- Empower students in their personal and academic lives
- Facilitate inquiry with visible impact and results

In an educational system traditionally built around dominant norms, renewable assignments are conducive to expanding disciplinary narratives to include historically marginalized voices and diverse identities and centering perspectives and voices from Black, Latinx, and Indigenous cultures. Inviting students to share their work more widely demonstrates that their work has inherent value beyond the course and can be an opportunity for them to engage directly with their community.

“These goals directly align to those of open pedagogy — to put students at the center of the learning process, to engage them with experiential learning (“learning by doing”), and to make contributions to a larger community (e.g., other students and educators).”

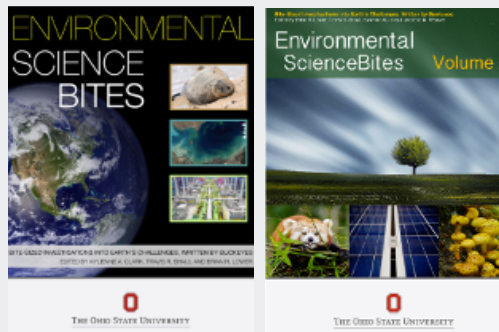
Grisset & Sheu, educators

Open access books that faculty and students collaboratively write, revise, and/or edit are one form of renewable assignment (Chen, 2018). Open access books can also lead to secondary learning resources designed to improve the understanding of current and/or future students within a class.



STUDENT-AUTHORED TEXTBOOK

Environmental Science Bites Volume 1 and Volume 2 (Clark et al., 2022) are great examples of open pedagogy in practice. These texts were written by undergraduate students at The Ohio State University who were enrolled in Introduction to Environmental Science. The chapters describe some of Earth's major environmental challenges and discuss ways humans use cutting-edge science and engineering to provide sustainable solutions to these problems.



Environmental Science Bites Volume 1 and Volume 2 are great examples of Open Pedagogy in practice.

Students have a greater investment in coursework when faculty assign renewable assignments (as opposed to disposable assignments) that are meaningful and poignant beyond the time and context of the course. In addition, student-produced artifacts that contribute to the existing canon in the field of study can help motivate students and yield an increase in “student excitement, engagement, productivity, and achievement.” (Seraphim et. al., 2019)



Cause to Wonder: Pause and Reflect

Renewable assignments may be a new concept to many students. How would you prepare students for a renewable assignment?

PUTTING IT INTO PRACTICE: HOW DO YOU DO IT?

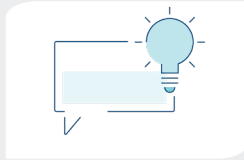
Provide opportunities for students to create renewable assignments.

- Ask students to create materials or revise/remix existing open educational resources to add to the existing knowledge base.
- Present student work on shareable platforms that have value beyond the classroom.
- Give students the choice to openly license their co-constructed or self-generated content.

What Does It Look Like?

Renewable assignments can be created in a range of disciplines. Using a variety of presentation modalities allows learners to choose the optimal way to share their knowledge. Examples include:

- Students edit or add to an open resource website.
- Students write a textbook chapter from a different perspective.
- Students create and post short openly-licensed videos to explain the connection of key discipline-based concepts to their everyday lives.
- Students contribute question prompts, answers, and distractor choices to a test question bank.
- Students write poetry or music about key concepts and experiments and are invited to post their creations with an open license.
- Students add assignments to a course.



Marginalized Voices Assignment

Marginalized Voices: Open for Antiracism (OFAR)

Student View (Opens in new window)

1 of 2 Next

Instructor Overview
This assignment is designed as a mini-research project with the purpose of having students engage with marginalized actors in history. The purpose is to help students find themselves in the archives by focusing on self-representation that is important to their own socio-economic and ethnic groups. By providing historical research in the form of primary and secondary documents on figures that have been historically "left out" of the historical narrative, the students will help fill the gaps in the archive, be active in the creation of new curriculum, and gain a better understanding of marginalization and power of historical memory in the process.

<https://www.oercommons.org/courseware/lesson/93626>

- Jeff Newby, World History Professor, Bakersfield College

When Do You Do It?

Faculty may use a renewable assignment for one specific course assignment or multiple assignments intermittently through out the term, or as the summative course project.

DIGITAL TOOLS USED TO SHARE OER

Some examples of current digital tools for sharing OER:

OER Repositories - [Directory of Open Access Books \(DOAB\)](#), [Multimedia Educational Resources for Learning and Online Teaching \(MERLOT\)](#), [OER Commons](#), [OpenStax](#)

OER Referatories - [McMaster University's OER by Discipline Guide](#), [Mason OER Metafinder \(MOM\)](#), [Openly Available Sources Integrated Search \(OASIS\)](#)

LMS features that support this approach:

[Learning Tools Interoperability](#) (LTI) allows for integration of content and applications inside of the LMS.

DIGITAL TOOLS FOR RENEWABLE ASSIGNMENTS

Examples of current digital tools for implementing renewable assignments:

Openly available digital stories:  VOICETHREAD  
websites, blogs, Google Docs, collaborative annotation:  hypothes.is 
video editing:  iMovie  LWKS  clipchamp  WIKIPEDIA

LMS features that support this approach:

Learning Tools Interoperability (LTI) that allow for integration of content and applications inside of the LMS.

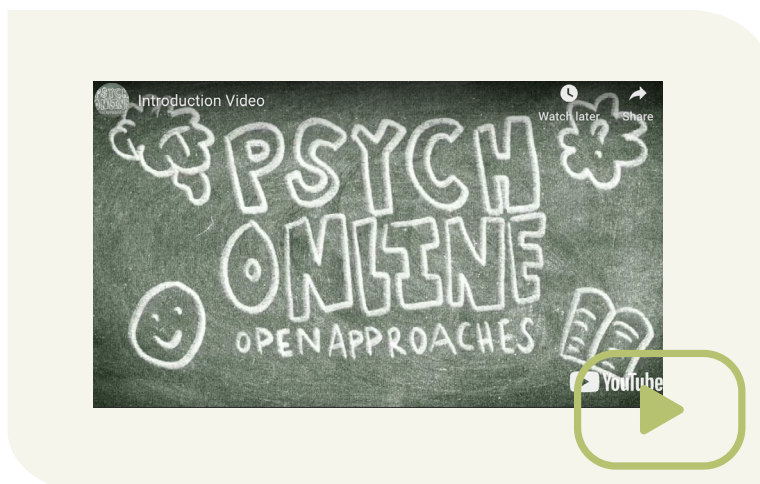
Pedagogical Resources

[Open Pedagogy Notebook](#)

[Evolving Into the Open: A Framework for Collaborative Design of Renewable Assignments](#)

[Structured Renewable Assignments](#)

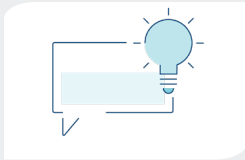
Renewable Assignment Design



Click on the Play button
To learn more about Renewable Assignment Design, you can view this webinar featuring Stacy Katz and Jennifer Van Allen, authors of *Evolving into the Open: A Framework for Collaborative Design of Renewable Assignments*.

STRATEGY 2: CO-CONSTRUCTED AND STUDENT-GENERATED COURSE MATERIALS

As disciplinary experts, faculty often find that pre-designed curricula and learning materials have gaps or miss opportunities to connect lessons in a culturally relevant way that uplifts students' knowledge, identities, and lived experiences. Open pedagogy allows faculty to involve students in content creation by designing opportunities for students to revise course materials to strengthen the relevancy of the content. For example, students can create culturally relevant assignment prompts, write multiple choice questions for quizzes, and add new perspectives to course readings and syllabi.



A political science text that describes events from a single perspective is a great opportunity to bring in multiple voices and develop students' critical consciousness.

This Open Educational Resource project can be a presentation, an oral interview (tied to your paper and reflection), a podcast, maps, etc. The goal of this project is for students to get involved in the process of developing teaching materials for the classroom that can be openly licensed through creative commons. We will create a Google Site for this class to host these materials for students who are willing to share their work. Students will work with the instructor to help develop materials for the course that will focus on teaching history and how to create a more equitable and anti-racist learning environment for all students. Think of this as a research project that you will co-develop with your instructor, to help create teaching materials that can be used to illustrate the significance of history and education for future students.

Omar Gonzalez, Princeton University

Sociocultural theories of learning argue that the potential conflict between the sociocultural context of disciplinary knowledge and the very different home contexts of students from diverse backgrounds should be acknowledged. One way to achieve this is to use student-generated content. This allows faculty to bring students' experiences and voices into teaching and learning while affirming students' academic strengths and abilities and acknowledges the importance of their prior experiences in knowledge production (Snowball & McKenna 2017). Prior knowledge facilitates comprehension (Hammond, 2014; Ozuru et al., 2009).

Peer-to-peer collaboration offers students opportunities to contribute to the learning of other students while also showcasing their own knowledge. This can be an impactful form of participation and fosters the engagement that helps students thrive. Providing opportunities for students to apply their experiential and discipline-based knowledge to create content benefits students, supports their fellow students who are likely to be motivated to study materials created by their peers and contemporaries, and provides access to unique materials for the instructor to add to the course.



Cause to Wonder: Pause and Reflect

Consider a course you are teaching. Where can you add opportunities for students to generate OER?

DIGITAL TOOLS USED TO CREATE OER

Some examples of current digital tools to create OER:

Google Docs, Publishing platforms
(for example,  **PRESSBOOKS**  PubPub [OER Commons](#))

LMS features that support this approach:

- Learning Tools Interoperability (LTI) allow for integration of content and applications inside of the LMS

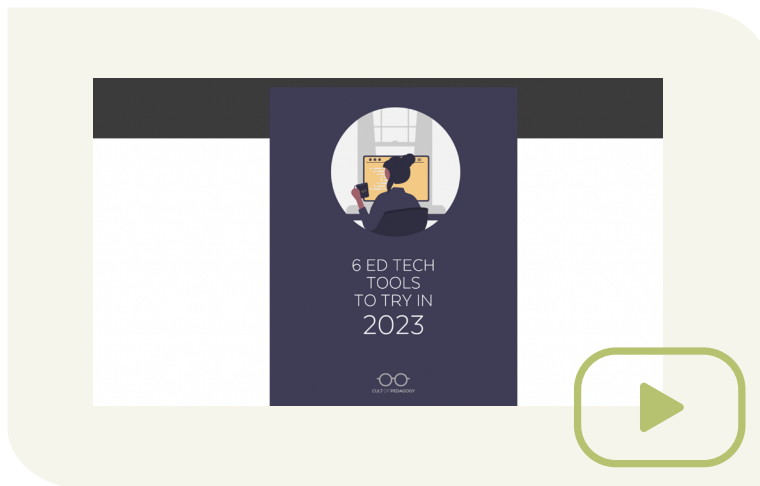
Pedagogical Resources

[Launching OER Degree Pathways: An Early Snapshot of Achieving the Dream's OER Degree Initiative and Emerging Lessons](#)

[What is Student-Generated Content? Four Examples to Unlock the Content Experts on Your Campus](#)

[5 Ways to Empower Students as Content Creators](#)

The Best Content Creator Apps for Students



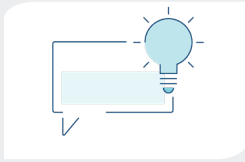
Visit this website
*to learn about six
ed tech tools to try.*

PUTTING IT INTO PRACTICE: HOW DO YOU DO IT?

1. Review your course design to identify assignments where students can apply their knowledge.
2. Provide opportunities for students to revise and remix existing course content and co-construct assignments.
3. Expose students to the disciplinary knowledge needed to lead student-generated assignments.
4. Develop formative assessments that require students to make meaningful connections between course content and diverse perspectives from a critical consciousness lens.
5. Gradually release responsibility so students move from recipients to active knowledge generators and contributors.

What does it look like?

- Discussion board posts and exchanges
- Reporting on a novel topic
- Co-development of an artifact or asset for a community organization
- Co-authoring of a document
- Co-authoring of a project report
- Adding a case study to an OER textbook
- Researching a topic and adding findings to a student website
- Writing and publishing an article for the college press and inviting peers to review and edit
- Adding ancillary text to a course textbook
- Writing a chapter in a course OER book



OPEN CASE STUDIES

This science-based project brings together faculty and students from across departments to co-create an interdisciplinary, open educational resource with case studies that can be used by anyone at the institution. Many of these case studies focus on sustainability topics but also include cases on other topics that benefit from an interdisciplinary approach. The cases on this site are open educational resources. They have an open license that allows for revision and reuse of the cases in other courses and contexts. (The cases are licensed CC BY 4.0.)



OPEN CASE STUDIES AT UBC

[The University of British Columbia. Open Case Studies](#)

WHEN DO YOU DO IT?

After identifying an assignment, topics, modules, or projects where students can lead the co-construction or development process, faculty may choose a course module where students can take an active leadership role. Ideally this takes place multiple times during a course.

DIGITAL TOOLS TO SUPPORT OPEN CONTENT

Examples of current digital tools used to choose a license for a work you have created (ex. Creative Commons License Chooser), or applying a correctly formatted attribution to an openly licensed work or works you are reusing.

[Creative Commons License Chooser](#)
[Open Attribution Builder](#)

OER Referatories: [McMaster University's OER by Discipline Guide](#), [Mason OER Metafinder \(MOM\)](#), [Openly Available Sources Integrated Search \(OASIS\)](#), [License Choosing Tools](#), [Github](#)

LMS features that support this approach:

Learning Tools Interoperability (LTI) allow for integration of content and applications inside of the LMS. LTI App in Canvas and Blackboard

Examples of current digital tools used to implement co-constructed and student-generated content include:

Downloadable shareable documents (for example, [OneDrive](#), [SharePoint](#), [OneNote](#)), online illustration (for example, [Adobe Illustrator](#), [Affinity Designer](#), [Corel Painter](#)), games (for example, Hot Potatoes, learning apps), online homework/assignments and study guides (for example, [Quizlet](#), [Kahoot!](#), [Quizizz](#)), OER textbooks

LMS Features that support this approach:

Blogs, journals, discussion boards, wikis

Pedagogical Resources

[How to Harness the Tremendous Potential of Open Education Resources](#)

[Digital Toolbox: Co-Constructing Knowledge With Your Students](#)

[Constructivism as a Theory for Teaching and Learning](#)

[Curricula That Account for All Students: A Look at Culturally Responsive Teaching in Higher Ed](#)

STRATEGY 3: OPEN ASSESSMENT

Open assessment, an open educational practice also known as self or peer assessment, is a method of evaluation where students can assess their own work or the work of their peers, with the guidance, scaffolding, support, and encouragement of faculty. Open assessment has the potential to improve the learning process by making assessment practices more transparent, inclusive, engaging, and collaborative. In reference to Open Assessment, Nascimbeni and Burgos (Nascimbeni & Burgos, 2019) emphasize the importance of peer-review as an assessment tool. This aligns with the definition developed by Chiappe (Chiappe, 2012) and emphasizes the importance of using open tools to facilitate collaborative and interactive learning environments. Open assessment provides a variety of ways for students to share their knowledge and expertise (University of Texas at Austin, 2022).

Open assessment can provide students with a clear understanding of how their work is evaluated and what is expected of them, leading to increased transparency and enhanced student engagement in the assessment process. For faculty, this collaborative feedback process ensures that students fully understand the context and intention of the assessment and that it connects to course outcomes.

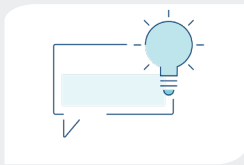
Open assessment is the process of learning verification and feedback that takes place collaboratively. It is mediated by free access tools with which faculty produce or adapt assessment resources and students adapt and reshape these resources to generate assessments that meet their personal needs, learning styles, and contexts.

Chiappe, 2012

When designed as culturally inclusive assessments, this approach has several benefits that make it an effective and inclusive learning strategy to implement in higher education classrooms. When implemented intentionally with students' cultural context in mind" after intentionally, open assessment can promote:

- **Active student engagement:** Open assessment encourages students to reflect on their own learning and to evaluate the work of their peers. This continuous reflection process allows students to consider progress toward their own learning goals, as well as how what they're learning affirms their culture. This type of engagement can increase student motivation and critical thinking skills and deepen understanding of the course material.

- Inclusion: Open assessments can be more inclusive than traditional methods because they allow students to take active roles in the assessment process and receive feedback from their peers, rather than only from faculty. This may help to reduce anxiety and stress and increase student confidence and sense of belonging in the classroom.
- Improved academic self-awareness: By evaluating their own work, the work of peers, or work from a broader online audience (Wikipedia, journals, articles, etc.), students can increase awareness of their strengths and areas for development. This in turn, can help students identify areas for development and set academic goals for future learning.



Faculty can assign research that asks students to contribute to a public platform such as Wikipedia. Faculty can also invite students to publish blogs or websites that apply their learning or offer a new perspective to a relevant community or issue.

- Diverse perspectives: Open assessment provides a platform for students to share and learn from diverse perspectives. This can be especially beneficial in culturally and academically diverse classrooms.
- Enhanced collaboration: By working together to evaluate the work of their peers, students can strengthen critical collaboration skills including communication, negotiation, and problem-solving.

Consider this [Wiki Education Program example grading unit \(Blumenthal, 2017\)](#).

In this [podcast](#), faculty discuss the use of Wikipedia assignments in their courses.

“Students are now able to do their work gradually rather than all at the end of the half-session in two longer essays; their work is more focussed as they cover each topic they are meant to, rather than writing too much for one part of an essay and not covering one of the assessment criteria.”

Rachel Shanks, Senior Lecturer, University of Aberdeen, n.d.

PUTTING IT INTO PRACTICE: HOW DO YOU DO IT?

- 1. Implement a peer assessment process.** To promote collaborative learning, design open assessments that provide opportunities for students to evaluate and provide feedback on each other’s work. To support this process, faculty should provide clear guidelines and criteria for evaluating work and incorporate self-reflection prompts.
- 2. Provide flexible assessment due dates.** One advantage of open assessments is that they allow for flexible due dates. Faculty can design assessments that are self-paced and allow students to submit work within a given timeframe. This approach can be particularly supportive for students who have commitments in or outside of school or need additional time to complete assignments.
- 3. Combine peer and faculty review.** Open assessment can be designed to balance the weight of peer review and faculty review in the overall assessment process. This allows for a mix of collaborative learning and expert feedback to support student learning outcomes.
- 4. Connect the assessment to the community.** Faculty can create opportunities for engaging the community through participatory assessment practices that align learning goals to community needs. These assessments should focus not only on individual achievement but also on restoring community health and well-being.

Remember, open assessments should help students demonstrate their understanding in meaningful and authentic ways. Therefore, faculty should allow new and innovative approaches and consider what is best for students and their learning.

What does it look like?

Ultimately, open assessment is focused on transparency and discussion. Faculty may contribute to feedback, but they are only one of several voices because students also share how the class content resonates with them and their own experiences. Through explaining content to others in blogs, wiki assignments, or other peer-reviewed writing, students develop a deeper understanding of the material. This can look like students:

- Creating blogs that reflect on class readings
- Creating blogs that seek to explain concepts to a new audience
- Editing Wikipedia articles to update information or add learned information that presents a different perspective
- Translating existing Wikipedia articles into the language they are studying or their native language
- Creating Wiki articles about topics studied in class
- Practicing peer review on existing articles and then discussing the process
- Commenting on classmate's blogs and Wiki articles
- Developing rubrics to be used for peer review
- Engaging the community through participatory assessment practices that align learning goals to community needs

When do you do it?

When to implement open assessment tools depends on several factors including course topic, academic learning goals, and faculty preferences. Open assessments can be leveraged at any point in the learning process to help monitor student progress and provide a constant feedback loop.

Following are some general guidelines for when open assessment tools might be used in the academic year.

Beginning of the course: Open assessment can be used to establish a supportive, collaborative, and inclusive learning environment. This can help to build trust, foster positive relationships among students, and encourage students to take an active role in their own learning.

Putting it into practice: Assign partners or peer groups at the beginning of the term so students can begin the feedback process early.

Mid-term: Open assessment can be used as a formative assessment tool to help students monitor their progress and identify areas for development. This can also be a valuable tool to promote collaboration and peer feedback.

Putting it into practice: Adjust peer groups based on formative assessment data to aid student learning.

End of the course: Open assessment can be used as a summative assessment tool to evaluate students' knowledge of course material. This type of assessment can help students to reflect on what they learned throughout the course and identify areas they should strengthen. This can be a useful tool to enhance projects when gathering student learning data.

Remember that open assessment should not be the only form of assessment used in the term. In order to provide a well-rounded picture of student learning and to support their growth and development, open assessment should be used in combination with other types of assessment including projects, research papers, and portfolios.

Open assessment can be used throughout the course. Rather than assigning a lengthy final paper, faculty may assign short blog posts throughout the semester. Students can review peer work as it is posted.

DIGITAL TOOLS FOR OPEN ASSESSMENT

Examples of current digital tools to implement this strategy include:

 FeedbackFruits  WIKIPEDIA

LMS features that support this approach:

Blogs, journals, peer review, discussion boards, wikis

Pedagogical Resources

Examples of open peer/public commentary platforms include:

[The Winnower, Copernicus Publications](#)

[Peer-To-Peer Recognition of Learning in Open Education](#)

[Using Blogs in the Classroom](#)

[Student Learning Outcomes with Wikipedia-Based Assignments](#)

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