

University of Northern Colorado

Scholarship & Creative Works @ Digital UNC

Other OER Resources

Open Educational Resources @ UNC

2022

Tools to Promote Open Pedagogy in the Classroom

Michael D. Aldridge

Follow this and additional works at: https://digscholarship.unco.edu/oer_resources

Recommended Citation

Aldridge, Michael D., "Tools to Promote Open Pedagogy in the Classroom" (2022). *Other OER Resources*.

1.

https://digscholarship.unco.edu/oer_resources/1

This Other is brought to you for free and open access by the Open Educational Resources @ UNC at Scholarship & Creative Works @ Digital UNC. It has been accepted for inclusion in Other OER Resources by an authorized administrator of Scholarship & Creative Works @ Digital UNC. For more information, please contact Nicole.Webber@unco.edu.



Tools to Promote Open Pedagogy in the Classroom

Prepared by Dr. Michael D. Aldridge, PhD, RN, CNE
Associate Professor
School of Nursing
University of Northern Colorado

Attributions

Funding for this project was supported by the University of Northern Colorado Open Educational Resources Committee

This text was created through remixing other Open Educational Resources under the Creative Commons License.

This text is licensed under a Creative Commons Attribution 4.0 International license:



Please follow this link to understand what this license means and what you can do with this material:

<https://creativecommons.org/licenses/by/4.0/>

Table of Contents

<i>Attributions</i>	2
<i>Purpose of this Guide and Tips for Success</i>	4
<i>What is Open Pedagogy?</i>	5
<i>Students' Views of Open Pedagogy</i>	6
<i>Method 1: Have Students Write Questions for OER Materials</i>	7
<i>Method 2: Teach Students How to Edit Wikipedia Articles</i>	9
<i>Method 3: Allow Students to Create Work Outside the LMS System</i>	12
<i>Method 4: Ask Students to Share Knowledge with the Community</i>	13
<i>Method 5: Engage Students in Social Media Platforms</i>	14
<i>Method 6: Build the Course Collaboratively with Students</i>	15
<i>Method 7: Let Students Curate the Course Content</i>	16
<i>Method 8: Have Students Co-Create the Course Syllabus</i>	17
<i>Method 9: Have Students Create Open Websites with Course Topics</i>	18
<i>Method 10: Have Students Co-Create an Annotated Bibliography</i>	20
<i>Method 11: The Importance of Empathy in Open Pedagogy</i>	21
<i>Method 12: Work in Faculty Teams to Create Open Pedagogy Assignments</i>	22
<i>Method 13: Students Gather Information from a Website to Create Learning for the Class</i>	23
<i>Method 14: Students Create an Open "Textbook" for the Course</i>	24
<i>Method 15: Students Annotate Notes in an Open Access Resource</i>	26
<i>Method 16: Introducing Doctoral Students to OER Resources & Open Pedagogy</i>	27
<i>Additional Resources about Open Pedagogy</i>	28
<i>Next Steps: Developing An Open Pedagogy Teaching Philosophy</i>	29

Purpose of this Guide and Tips for Success

After deciding to adopt Open Educational Resources (OER), many faculty then ask, “What do I do next?” This guide serves as ideas for the next steps in using OER and, more broadly – open pedagogy - in your teaching.

Using OER effectively is more than just making an OER textbook available to students. There are many open resources available to faculty beyond traditional textbooks. In 2007 the Cape Town Open Declaration¹ stated:

Open education is not limited to just open educational resources. It also draws upon open technologies that facilitate collaborative, flexible learning and the open sharing of teaching practices that empower educators to benefit from the best ideas of their colleagues. (p. 4)

Open pedagogy simply means that as teachers we engage with students to *create* information rather than having students be *passive consumers* of information.

In this guide, you will find many methods for using open pedagogy. These methods have been gathered from the literature, open pedagogy websites, blogs, and other sources. Hopefully this guide will give you ideas you can use in your own teaching.

Tips for Success:

1. Some of these methods are easier to implement than others. As you consider what might work in your classroom, for your students, go for the “low hanging fruit” first. Trying one or two of these methods each semester is wise so as not to overwhelm you or your students.
2. Be transparent with your students when you are trying something new. This approach allows for more grace from students if things don’t work well.
3. When trying a new method, solicit feedback from your students before the end of the semester. It is better to know what works well and what doesn’t before you are at the end of the course.
4. Many of these methods will be new to your students, so be sure you over-communicate your instructions and be available for questions as needed.

¹Cape Town Open Education Declaration. (2007). Cape Town open education declaration: Unlocking the promise of open educational resources. Retrieved from <http://www.capetowndeclaration.org/read-the-declaration>

What is Open Pedagogy?

Definitions of *open pedagogy* continue to evolve. The concept of *open pedagogy* initially emerged in the first wave of open education in the 1960s and 1970s, reflecting the educational mind-set and wider political movements of that time. The concept has re-emerged in the context of the current open education movement.

There are several definitions of open pedagogy in the literature.

Weller (2014) defined open pedagogy as making use of open content, but with an emphasis on the network and learners' connections within and across networks.

Hegarty (2015) described open pedagogy as a combination of three main practices: using participatory technologies; developing open, collaborative and networked practices; and facilitating learners' contributions to OER.

More recently, DeRosa and Robison (2017) have defined open pedagogy as “[using] OER as a jumping-off point for remaking our courses so that they become not just repositories for content, but platforms for learning, collaboration and engagement with the world outside the classroom” (p. 118).

Open Pedagogy may be seen as a movement away from “[disposable assignments](#),” the dreaded term paper “that students complain about doing and faculty complain about grading.” Partially borrowed from [constructivist](#) and other strategies, is the radical idea of recognizing students as knowledge creators, and encouraging a more participatory stake in the educational process.

For a deeper discussion of open pedagogy, please see:

<https://openpedagogy.org/open-pedagogy/>

Source: Cronin, C., & MacLarin, I. (2018). Conceptualising OEP: A review of theoretical and empirical literature in Open Educational Practices. *Open Praxis*, 10(2), 127-143.

DOI: <https://doi.org/10.5944/openpraxis.10.2.825>

Students' Views of Open Pedagogy

Open pedagogy is a philosophical shift for both faculty and students. Any time we branch off from traditional methods of teaching and learning, students may feel some discomfort.

Here are some thoughts and advice from students who have been through several open pedagogy courses, offered to other students:

-Keep an Open Mind: We are used to slides and lecturing, so when this stops there is a fear that no learning will happen. Be open to new ways of teaching and learning.

-Be Accountable: With open pedagogy students have more control about topics, how research is done, and how knowledge is shared with other students and even the community. This means you have a voice in what you learn, so give consideration and then do the work.

-Your Professors are Still Learning Too: Any teacher using open pedagogy was likely not taught in this way, so they are learning about these methods too. Have grace when things don't work the way they had hoped and offer constructive feedback about how to make things better.

-Trust the System: You will likely learn more and may even have things you create that can be shared with others or be part of a portfolio for work or graduate school.

- Your Work is Never Finished: Open pedagogy has taught me that knowledge is constantly changing, and what I created can be changed and updated by future students.

Source: <https://openpedagogy.org/program-level/what-open-education-taught-me/>

Method 1: Have Students Write Questions for OER Materials

Many OER materials – whether they are open textbooks, websites, videos, or other resources – lack the traditional test bank that comes with published textbooks.

The simple act of adding multiple choice questions, problem sets, or discussion questions to an existing OERs will help contribute to knowledge, to the quality of available OERs, and to your students' sense of doing work that matters.

There are many ways to do this. Here is one approach where students wrote multiple choice questions for a psychology course:

1. The students were asked to write 4 questions each week, 2 factual (e.g., a definition or evidence-based prediction) and 2 applied (e.g., scenario-type).
2. For the first two weeks they wrote just one plausible distractor (I provided the question stem, the correct answer, and 2 plausible distractors). They also peer reviewed questions written by 3 of their (randomly assigned) peers. This entire procedure was double blind and performed using Google forms for the submission and Google sheets for the peer review.
3. For the next two weeks they wrote two plausible distractors (the rest of the procedure was the same).
4. For the next two weeks they wrote all 3 plausible distractors (the rest of the procedure was the same).
5. For the remainder of the semester, they wrote the stem, the correct answer, and all the distractors.

Using this process, the class of 35 students wrote 1,400 questions over a span of 10 weeks. While the professor acknowledges that this was not initially a polished test bank, the questions were improved over time by other students. The end result was a comprehensive test bank that accompanied the open textbook.

TIPS FOR SUCCESS: Students were given the following guidelines for writing multiple choice questions:

1. Write plausible distractors
Each of the incorrect response options should be plausible, at least on the surface. Selecting the correct response should require a clear (and ideally deep) understanding of the material.
2. Keep the length of the response options similar
The correct answer should not be the shortest or the longest response option.
3. Avoid overlapping response options
The response options should be mutually exclusive. It should not be the case that if one of the distractors is true, another distractor must be true as well.
4. Avoid grammatical and spelling errors
Carefully proof read your work and make the choices grammatically consistent with the stem.
5. Avoid using absolute terms such as “always,” “never,” “all,” or “none.”
Students recognize that few things are universally true so response options that include such terms are easily rejected.
6. Avoid the “all of the above” response option
Students only need to recognize two of the response options to get the answer correct.
7. Avoid the “none of the above” response option
This option does not test whether the student knows the correct answer, but only that he/she knows the distractors aren't correct.

Students were given the following guidelines for peer feedback:

1. Before you even make your first comment, read the question all the way through.
2. Point out the strengths as well as the weaknesses of the two distractors.
3. Offer suggestions, not commands.
4. Editorial comments should be appropriate and constructive. There is no need to be rude. Be respectful and considerate of the writer's feelings.
5. Be sure that your comments are clear and text-specific so that your peer will know what you are referring to (for example, terms such as "unclear" or "vague" are too general to be helpful).
6. Try not to overwhelm your peer with too much commentary. Use the guidelines for writing effective distractors for multiple-choice questions to guide your comments.
7. Reread your comments before submitting them. Make sure all your comments make sense and are easy to follow.

Source: <https://openpedagogy.org/assignment/why-have-students-answer-questions-when-they-can-write-them-by-rajiv-jhangiani/>

Method 2: Teach Students How to Edit Wikipedia Articles

Teach your students how to edit Wikipedia articles. By adding new content, revising existing content, adding citations, or adding images, students can (with the support of the [Wiki Education Foundation](#)^[20]) make direct contributions to one of the most popular public repositories for information. Indeed, more than 22,000 students already have, including [medical students at the University of California San Francisco](#).^[21] More than developing digital literacy and learning how to synthesize, articulate, and share information, students engage with and understand the politics of editing, including how “truth” is negotiated by those who have access to the tools that shape it.

In reality, many students (and, if we are honest, faculty too) use Wikipedia as a reference both in and out of the classroom. Students appreciate learning skills they can use in real life, and editing articles they use is one way to teach this skill.

Here are some details on the benefits of this method:

1. Students understand course concepts in a real-world context.

When students learn how to improve Wikipedia as a classroom assignment, they not only gain a deeper understanding of a resource they use all the time, but they must also delve deep into course concepts to be able to succinctly transmit them to a worldwide audience. Students are excited by the prospects that millions will have access to their work, motivating them to present high quality research and writing.

2. Students learn skills that will be relevant to their future careers.

For students, a Wikipedia assignment offers skills for articulating academic topics to a lay audience. Through this articulation process, the student must understand complex course concepts in order to translate them for a public audience.

3. Students come to understand larger structures of misinformation, and participate in correcting them.

For Dr. Kathleen Crowther's course *Women and Medicine*, a Wikipedia assignment offered students a chance to begin to correct systemic issues within STEM fields. Her students first identified where Wikipedia lacked biography articles about notable women scientists and then wrote them themselves. As Dr. Crowther [writes in a reflection](#) about the course, "How was it, they demanded, that these women, who had achieved so much, often against serious odds, did not already have articles on Wikipedia? It was a powerful lesson on bias in history, both on Wikipedia and in historical scholarship generally. But rather than just learning about that bias, they got to do something concrete to remedy it." (Read more about how students are closing the gender gap in STEM on Wikipedia [here](#).)

Students thus become involved in [correcting misinformation](#) (or correcting a lack of information) by contributing well-researched content to Wikipedia. And along the way, they gain critical informational literacy skills. Students understand how Wikipedia's information gets there and how to evaluate articles for accuracy. They become intimately familiar with Wikipedia's [high standards](#) for what a "good quality" source is. And they rise to meet those quality standards, often with enthusiasm.

4. Students gain a love for learning.

[Dr. Cathy Gabor](#), who has taught with Wikipedia in a number of her courses at the University of San Francisco, wrote about one student who helped create the Wikipedia article on the principle of [Eloquentia Perfecta](#): "By the end of the project, Chelsey realized that both Wikipedia and the principles of Eloquentia Perfecta had become 'integrated into her life,' including her part-time job and her other classes."

"I really took an interest in something that I wasn't interested in before," Chelsey says, "which was probably the greatest outcome for me — to see that I can be interested in random things. When you take the time to put your whole self into it and really learn it, it's cool how something can become really interesting and be integrated into your life. If I have time over the summer, I'll try to find a new topic and research, and then incorporate my knowledge into a Wikipedia page for other people to go learn from."

Instructors are drawn to the open educational practice of teaching with Wikipedia because of the opportunity to foster this sort of love for learning

and sharing knowledge that a student can bring forward with them into their future pursuits.

“Faculty across the disciplines could easily employ a Wikipedia editing project because Wikipedia supports entries in every field,” [Dr. Gabor writes](#).

And as one longtime instructor said, “A Wikipedia assignment fits well with John Dewey’s principles that school is not preparation for life, it is life.”

Sources: <https://openpedagogy.org/open-pedagogy/>

<https://openpedagogy.org/course-level/editing-wikipedia-in-the-classroom-individualized-open-pedagogy-at-scale/>

Method 3: Allow Students to Create Work Outside the LMS System

Facilitate student-created and student-controlled learning environments. The Learning Management System (Canvas, Moodle, Blackboard, etc.) generally locks students into closed environments that prevent sharing and collaboration outside of the class unit; it perpetuates a surveillance model of education in which the instructor is able to consider metrics that students are not given access to; and it presupposes that all student work is disposable (as all of it will be deleted when the new course shell is imported for the next semester). Initiatives such as [Domain of One's Own](#)^[22] enable students to build “[personal cyberinfrastructures](#)”^[23] where they can manage their own learning, control their own data, and design home ports that can serve as sites for collaboration and conversation about their work. Students can choose to openly license the work that they post on these sites, thereby contributing OERs to the commons; they can also choose not to openly license their work, which is an exercising of their rights and perfectly in keeping with the ethos of Open Pedagogy. If students create their own learning architectures, they can (and should) control how public or private they wish to be, how and when to share or license their work, and what kinds of design, tools, and plug-ins will enhance their learning. It is important to point out here that open is not the opposite of private.

Work that is shared publicly does not have to be “final” or “perfect.” Many of these are works in progress and can be expanded in the future.

Method 4: Ask Students to Share Knowledge with the Community

Encourage students to apply their expertise to serve their community. Demonstrate the value of both knowledge application and service by scaffolding their entry into public scholarship.

Example 1: Partner with nonprofit organizations to create [opportunities for students to apply their research or marketing skills](#).^[24]

Example 2: Students can also write letters to the editor to share evidence-based approaches to tackling a local social problem.

Example 3: Have students research a local, state, or Federal level Bill and take a position on whether they support the Bill or not. Then have them determine who their Representative or Senator is and email that person with a brief letter about why the student believes the Bill should be supported or not.

Example 4: Another example comes from students in an Obesity and Eating Disorders course. The students wanted to create an information guide on various weight-related challenges for the general public. The goals of this project were to meet the course (HLTH 4150 – Obesity and Eating Disorders) learning objective of understanding weight issues and to develop a product for the general public to use as a resource for these health conditions.

Students divided the chapters up based on the five levels of the Ecological Model as this public health issue is just not one person's individual responsibility. In addition to writing their individual chapter, each person also peer-reviewed all chapters and provided feedback which allowed for deeper understanding of weight issues. Editing duties were self-selected and completed during the last revisions of the book. The end of semester feedback from the students was overwhelmingly positive. To see this example please visit: <https://btugman.pressbooks.com/>

Source: <https://openpedagogy.org/open-pedagogy/>

Method 5: Engage Students in Social Media Platforms

Engage students in public chats with authors or experts. Platforms such as Twitter can help engage students in scholarly and professional conversations with practitioners in their fields. This is another way that students can contribute to—not just consume—knowledge, and it shifts learning into a dialogic experience. In addition, if students are sharing work publicly, they can also use social media channels to drive mentors, teachers, peers, critics, experts, friends, family, and the public to their work for comment. Opening conversations about academic and transdisciplinary work—both student work and the work of established scholars and practitioners—is, like contributing to OERs, a way to grow a thriving knowledge commons.

Method 6: Build the Course Collaboratively with Students

Build course policies, outcomes, assignments, rubrics, and schedules of work collaboratively with students. Once we involve students in creating or revising OERs or in shaping learning architectures, we can begin to see the syllabus as more of a collaborative document, co-generated at least in part with our students. Can students help craft course policies that would support their learning, that they feel more ownership over? Can they add or revise course learning outcomes in order to ensure the relevancy of the course to their future paths? Can they develop assignments for themselves and/or their classmates, and craft rubrics to accompany them to guide an evaluative process? Can they shape the course schedule according to rhythms that will help maximize their efforts and success?

Method 7: Let Students Curate the Course Content

Let students curate course content. Your course is likely split into a predictable number of units (fourteen, for example) to conform to the academic calendar of the institution within which the course is offered. We would probably all agree that such segmenting of our fields is somewhat arbitrary; there is nothing ontological about Introduction to Psychology being fourteen weeks long (or spanning twenty-eight textbook chapters, etc.). And when we select a novel for a course on postcolonial literature or a lab exercise for Anatomy and Physiology, we are aware that there are a multitude of other good options for each that we could have chosen. We can involve students in the process of curating content for courses, either by offering them limited choices between different texts or by offering them solid time to curate a future unit more or less on their own (or in a group) as a research project. The content of a course may be somewhat prescribed by accreditation or field standards, but within those confines, we can involve students in the curation process, increasing the level of investment they have with the content while helping them acquire a key twenty-first century skill.

Method 8: Have Students Co-Create the Course Syllabus

This method is similar to Method 7. However, this approach expands the co-creation of the course by giving students input into aspects of the course beyond the content and schedule.

In this method students also have input into expectations (of each other and the instructor), assignments, and assessment of assignments.

The faculty first presents a “draft” version of the syllabus to the students, and portions of it (such as the course description, broad content, and objectives) cannot be changed, per the usual policy of Universities. However, the course schedule, detailed content, and assignments used to meet those course objectives are up for discussion.

The faculty and students work together over the first few class meetings to finalize the syllabus, which then becomes the contract for learning.

Some faculty like to work with students to create learning outcomes for the course or for specific units. For details on how that works, please see:

<https://www.hastac.org/blogs/ckatopodis/2019/02/19/writing-learning-outcomes-your-students>

For a detailed description and example of how the overall process of syllabus creation worked in a course about Contemporary Russia please see:

<https://openpedagogy.org/course-level/collaborative-syllabus-design-students-at-the-center/>

Method 9: Have Students Create Open Websites with Course Topics

Students (or groups of students) can create websites on topics they themselves have deemed important to society. The websites are designed to take the place of a course textbook, and are completely written, designed, and edited by students. In the spirit of Open Pedagogy, the websites are renewable, with a new cohort of students adding and editing to the current websites each semester.

The goal of this project was to give students agency in their own learning – being able to choose topics they are interested in learning about.

Here are some tips for how one professor has used this method in a science course:

(Source: <https://openpedagogy.org/course-level/non-majors-science-students-as-content-creators/>)

At the beginning of the semester, we start by talking about the privacy issues and risks associated with posting materials online – this is especially important because some of our topics can be conceived as controversial by some people in the public sphere, like climate change and evolution. Students choose topics based on their interests using a Google Forms [survey](#). After they chosen a topic, we spend a class [reviewing](#) the website in its current form – evaluating its coherence, organization, design, etc.. Students then develop a [plan](#) for proposed changes to the website. Some groups decide to add whole new subsections of content. For example, the current DNA page has three well organized subsections covering CRISPR, DNA fingerprinting and analysis, and Cloning, each created by three different cohorts (semesters) of students. Other groups choose to enhance existing sections and add new sub-pages.

Once the plan is developed, students work collaboratively using Google Docs to create rough drafts of the new sections, or they take a current section that needs major edits and begin to add edits using the suggesting tool. These drafts are then shared with other students in the class, who are given commenting (not editing) privileges to peer review the sections that are being added. From there, the students then take the content from Google Docs and transfer it to their websites using Google Sites, incorporating openly licensed images and media.

A challenge I encountered in the early semesters of this project was recognizing that students have very little knowledge of copyright and even less knowledge of Creative Commons. As a result, I have worked closely with our scholarly communications librarian on campus to create lessons and workshops that we integrate into the course to help students develop these skills. The first lesson is a typical information literacy course that focuses on information retrieval (database searching), evaluation, and citations. The second [lesson](#) focuses on intellectual property rights, including copyright and Creative Commons licenses. We also incorporate a small lesson on accessibility in this session, teaching the students why and how to add alternative text descriptions on the images they use. The librarian also comes into the classroom during the in-class working sessions to wander around and help students that need additional assistance finding open images or incorporating citations and attributions. The addition of these lessons and the assistance to the class has been invaluable in terms of advancing student knowledge of intellectual property rights and helping them to realize their roles in contributing to the scholarly conversation.

The project wraps up with a poster-style session in a unique space that we have on campus that houses large touch-screen monitors. Students from previous semesters and select faculty and staff on campus are also invited to come and see the presentations. The students organically move from website to website, alternating presenting and being engaged audience members. This style allows for more two-way communication between the students, and usually results in them realizing by the end of the session that all of their projects relate to each other in some way.

Assessment of these projects (and in the course as a whole) is done using an ungraded approach. A separate presentation is scheduled with only me and the individual groups, where they present their contributions to their topic website, and we then have a conversation about the quality of the work. My students self-assess their work based on the plan developed at the beginning of the semester. We discuss the strengths and weaknesses of their contributions, and I ask them at the end of our meeting together what grade they would give themselves. For the most part, the grade they select is usually their final grade for the project.

Here is a link to the website for the example above:

<https://sites.google.com/g.rwu.edu/core-101-open-pedagogy-project>

Method 10: Have Students Co-Create an Annotated Bibliography

As students work on projects and writing assignments during the course, they locate resources that they might just cite in a paper, yet other students are not aware of these resources.

A model promoting open pedagogy is for students to share these resources with each other, making them available for all to learn from and use in their work.

Zotero is a free tool that helps to organize, collect, annotate, and share bibliographic resources.

Here is an example of how this was used in a literature course:

https://www.zotero.org/groups/2244541/itw101_immigration_and_refugee_crises_in_europe/library

You will see how the collection of resources can build from semester to semester, becoming more robust over time.

Source: <https://openpedagogy.org/assignment/students-creating-a-shared-annotated-bibliography/>

Method 11: The Importance of Empathy in Open Pedagogy

Part of co-creating learning with students is breaking down the traditional professor-student wall, since students are more likely to become invested in their learning when they feel like they can approach faculty with questions, issues, or concerns.

In many classrooms, students often feel the inherent power imbalance between professor and student. As a result, students feel intimidated and hesitant to ask questions for fear of being labeled as “stupid” or “someone who didn’t read the syllabus.”

If you want to read more about this idea, please see:

<https://www.jessestommel.com/dear-student/>

One quote from Stommel’s post that resonated:

On grandmothers. The statistics are compelling: “grandmothers are 20 times more likely to die before a final exam.” Here’s a better statistic: it is 100 times kinder to err on the side of giving students the benefit of the doubt when it comes to dead grandmothers. And we need to consider whether there is something about the educational system that has put students in the awkward and uncomfortable position of feeling like they have to lie to their teachers.

It becomes impossible to create a learning space where everyone – professor and students – learns together when there is a lack of empathy and trust.

We have to recognize that *school is not their everything*. Students have lives outside of school, are going through situations we may never know about, and deserve empathy and grace.

Source: <https://openpedagogy.org/assignment/a-little-empathy-goes-a-long-way/>

Method 12: Work in Faculty Teams to Create Open Pedagogy Assignments

All departments – and faculty – are in various stages of working with OER and open pedagogy. Most departments have courses that are taught in multiple sections by different faculty members.

It may be worth the effort for these faculty to work together to try to offer one or two assignments that are based on open pedagogy across these sections of the course.

This approach can be a useful way to infuse open pedagogy across the curriculum for faculty who are less familiar with the methods.

Method 13: Students Gather Information from a Website to Create Learning for the Class

Many websites are robust sources of information, but can be overwhelming in the amount of information found on them. One approach is to have students search out specific information from the website and summarize it, along with some questions for discussion. Each student then posts their summary and questions to a class page (such as on Google Docs, the LMS, or a Wiki page). Then the summaries and questions can be used in class for an in-class discussion of the material.

Here is an example of how this worked in a Genetics course:

-Students first look up a genetic condition in Genetics Home Reference (which is a public domain site maintained by the National Institute of Health).

-Then they give a description in the Google document of the condition and make a problem based on the condition for other students to solve.

The link to view the Google document is:

[Human Genetics Group Worksheet](#)

You can see the robust information that students have created here for each other.

Source: <https://openpedagogy.org/assignment/student-created-group-genetics-worksheet/>

Method 14: Students Create an Open “Textbook” for the Course

Robin DeRosa described a well-known example of working with her students to create an open “textbook” for her American Literature course, found here:

<https://openamlit.pressbooks.com/>

What started as an effort to save students money turned into a robust work that was built upon by many semesters of students and other faculty.

She realized that her students were spending \$85-90 for an anthology of literature that was mostly in the public domain. For a full description of the project please see her blog post at:

<http://robinderosa.net/uncategorized/my-open-textbook-pedagogy-and-practice/>

DeRosa argues that this approach can work for most any discipline, since most content in traditional textbooks is not proprietary. Here are some practical tips for this method:

- There is no rush; this is not a project that needs to be done in one semester. Build it in stages across multiple years and let different groups of students contribute.
- Our library staff can help with the technology aspects of the project to help you determine the best way to get the information accessible to students.
- Make sure you understand copyright issues so you can be sure that everything in your book is freely available to use. For example, you can't take existing chapters from copyrighted textbooks and put them into your own book.
- Be sure to understand which Creative Commons License you want to apply to what you and your students create:

<https://creativecommons.org/choose/>

DeRosa noted that in 16 years of teaching the course, no student had ever told her that they loved the traditional anthology text. However, once students became invested in creating the course open textbook, they became connected to the material and engaged with it. She summarizes this method as a transition from a banking model where the teacher “downloads the text into the students’ brains” to an inquiry-based model, where the students converse with the teacher and the text, which changes everyone’s thinking and creates learning.

Other Examples of This Method:

The adaptation of the open textbook [Project Management for Instructional Designers^{\[17\]}](#) by successive cohorts of graduate students at Brigham Young University provides an excellent example of this approach.

Here is an example of an open access textbook that students created for a Tropical Marine Biology course: <https://tropicalmarinebio.pressbooks.com/>

Source: <https://openpedagogy.org/course-level/student-created-open-textbooks-as-course-communities/>

Method 15: Students Annotate Notes in an Open Access Resource

As students learn new material, they often have questions about the meaning of new terms and concepts. When open resources are digital, students can annotate notes and “talk to each other” as they read the material. It is analogous to embedding a discussion board into the textbook and turns note-taking into a social process where students can help each other understand the material and the professor can see where students have questions about the content.

One platform that does this is called “Hypothesis,” which allows readers to take notes on the text digitally.

For details on how to integrate Hypothesis (which is free) into your course, please see:

<https://web.hypothes.is/about/>

Note that for students to be able to see and comment on each other’s notes that the Hypothesis setting must be set to “public.”

Here is an example of what Hypothesis looks like when integrated with an open literature textbook:

<https://via.hypothes.is/https://openamlit.pressbooks.com/chapter/annodom-1642/>

Source: <http://robinderosa.net/uncategorized/my-open-textbook-pedagogy-and-practice/>

Method 16: Introducing Doctoral Students to OER Resources & Open Pedagogy

Doctoral students used both open pedagogy and OER resources in a research methodology course where they co-created learning experiences with the faculty.

The course faculty partnered with a research librarian as instructional partners in the course.

Students worked in small groups to design a research guide that was specific to the type of research methodology they would use in their dissertation research. The authors note that this approach allowed students to focus on their chosen methodology and prevented the course from becoming a faculty-driven review of several research methods (which the students had already had in prior courses).

Once completed, the faculty asked the students to submit the research guides to an OER platform (Creative Commons) so that future students could build off of the existing work. Faculty have used this approach for several semesters and the result is a rich collection of guides focusing on various research methods.

Source: Hare, S., Frye, J.M., & Samuelson, B.L. (2020). Open pedagogy as an approach to introducing doctoral students to open educational resources and information literacy concepts. *Library Trends*, 69(2), 435-468.

Additional Resources about Open Pedagogy

The following resources are helpful for those who wish to explore more information about using open pedagogy:

<https://iastate.pressbooks.pub/oerstarterkit/chapter/open-pedagogy/>

<https://www.utrgv.edu/textbook-affordability-project/resources-and-support/teaching-with-open-pedagogy/index.htm>

<https://www.colorado.edu/center/teaching-learning/teaching-resources/open-education/open-educational-practices-and-pedagogies>

Next Steps: Developing an Open Pedagogy Teaching Philosophy

There are many articles and papers about the *concept* of open pedagogy, but a theory-practice gap clearly remains for how to operationalize these ideas. The primary purpose of this guide was to cull various methods that use open pedagogy in the classroom and put them in one place for faculty to review and have resources to learn more details about each method.

Werth and Williams (2022) state that once a faculty member is interested in using open pedagogy, the next step is to align the instructor's values with the attributes of open pedagogy. This section will briefly outline that process; for full details the reader is referred to the article (available as an open-access article).

Figure 1 illustrates the four components of open pedagogy that are instructor-centric.

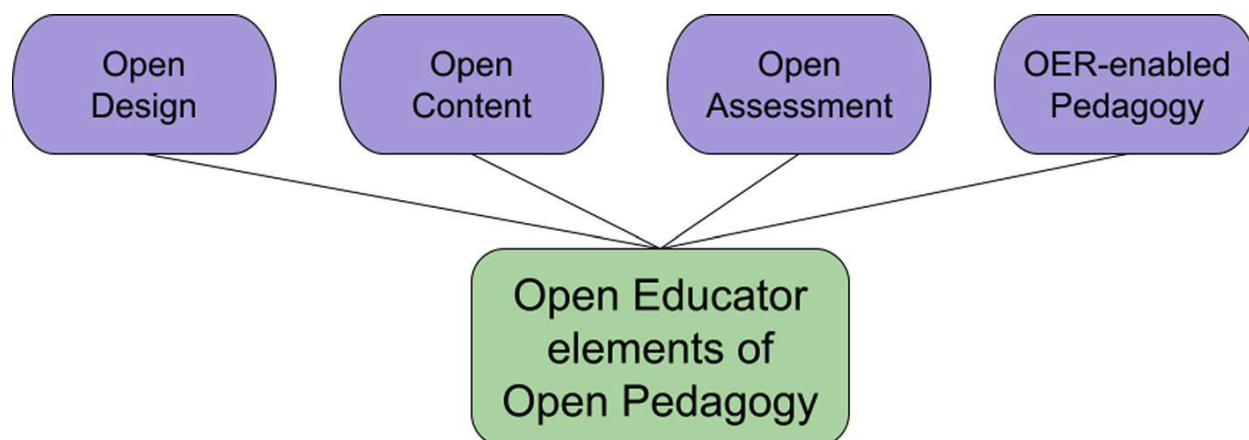


Figure 1. Visualizing teacher-centric elements of open pedagogy (Werth & Williams, 2022).

Faculty can consider how their teaching philosophy aligns with each of these four categories. The following table (summarized from Werth & Williams, 2022) provides some sample characteristics and techniques:

<u>Category</u>	<u>Sample Characteristics / Techniques</u>
Open design	Use of: <ul style="list-style-type: none"> -freely available software and materials -educational technology to increase access -encouraging others in developing learning outcomes, teaching and learning resources and activities, and student assessment/evaluation -Iterative approach to course design -Practices including the sharing, reuse, and remix of materials -Methods to be communicative with students and peers in the course design process
Open content	Open content that could be used by faculty include: <ul style="list-style-type: none"> -learning modules -courseware items -teacher resources (curricula, videos, images, syllabi, assignments) -Open textbooks
Open assessment	<ul style="list-style-type: none"> -Focus on the use of formative assessments -Collaborate with students in achieving learning goals -Develop assessment tools in collaboration with students -Encourage students to share work products beyond the educator-learner dyad -Use both peer and self-evaluation -Clearly communicate expectations and evaluation criteria
OER-enabled pedagogy	Students may: <ul style="list-style-type: none"> -Write or edit articles for Wikipedia -Create an openly licensed textbook -Take photos and license them openly -Author test questions for wider use -Develop tutorial resources for other students -Create summaries of key concepts -Develop social media postings for others

After reviewing the table on the previous page, consider which methods, along with those in this guide, align with your own teaching philosophies as a faculty member who is embracing elements of open pedagogy.

It is helpful to write down which elements of open pedagogy you most align with and to communicate those to students when you introduce your course. Remember that open pedagogy may be a new concept for some students, so in order for it to be successful you will need to orient them to the basic ideas of open pedagogy.

I invite you to fill in the following table as you reflect on these ideas and consider using it as a way to explain to students how you envision co-creating learning with them:

Category (see above table)	How to Explain to Students	Examples Specific to This Course
Open design	I have designed this course to...	
Open content	These materials will be used instead of a traditional textbook:	
Open assessment	This is how you will demonstrate what you learn in this class: Or We will work together to determine how you will demonstrate your knowledge in this class.	
OER-enabled pedagogy	These are some of the learning activities in this class:	

Source: Werth, E., & Williams, K. (2022). The why of open pedagogy: A value-first conceptualization for enhancing instructor praxis. *Smart Learning Environments*, 9, 10.

<https://doi.org/10.1186/s40561-022-00191-0>