Open Education Resources

This resource provides a framework to help you evaluate the efficacy, quality, and usefulness of OER content from a variety of sources. Follow the established pathway to consider the various criteria, allowing you to arrive at a decision about the OER content in question.

To evaluate OER content consider the variables of content, learning activity, engagement, feedback, usability, and functionality in a step by step way to arrive at a decision about including or rejecting the OER in your teaching.

Content: Does the OER material relate to the topic, course, or module? Does it have a clear, articulated focus?

- **Yes** → **Learning activity**: Does the OER support student learning through information, interactivity, critical thinking, problem solving, or reflection?
- **No** → **Discard**

Learning activity: Does the OER support student learning through information, interactivity, critical thinking, problem solving, or reflection?

- **Yes** → **Engagement**: Will it be accessible for your students, or is it too technical? Or is it robust and challenging enough for your students?
- **No** → **Discard**

Engagement: Will it be accessible for your students, or is it too technical? Or is it robust and challenging enough for your students?

- **Yes** → **Feedback**: Does the OER offer integrated opportunity for students to check their learning or does it cover abstract concepts and must be supplemented by other class activities?
- **No** → **Reconsider**

Feedback: Does the OER offer integrated opportunity for students to check their learning or does it cover abstract concepts and must be supplemented by other class activities?

- **Yes** → **Reuse**: Does the license allow changes/derivative works? Is that required in this instance?
- **No** → **Reconsider**

Reuse: Does the license allow changes/derivative works? Is that required in this instance?

- **Yes** → **Functionality**: Does the OER act/behave as a learner would expect? Does the functionality promote or inhibit learning?
- **No** → **Reconsider**

Functionality: Does the OER act/behave as a learner would expect? Does the functionality promote or inhibit learning?

- **Yes** → **Congratulations**
- **No** → **Reconsider**

Reconsider

If this component is vital to your instructional needs, discard.
If not, then continue to next component.

Congratulations

After reviewing the OER under consideration, you have made a decision that it meets your educational objectives and learner needs.

After this selection, you are ready for integration with your other teaching materials.

Mathematics OER Resources

Broad-Scope Resource

OER Commons:
With a browseable collection, this is an excellent search tool for those newer to OERs. Results may be filtered by object type, subject, education level, and Copyright license.
Website URL: oercommons.org

Oasis:
An OER search tool that covers open content from 98 sources and holds over 350,000 records. Results may be filtered by object type, subject, source, and Copyright license.
Website URL: oasis.geneseo.edu

MIT Open CourseWare: Massachutsetts Institute of Technology:
Web-based publication of virtually all MIT course content, including lecture notes, online textbooks, assignment problems, and video lectures.
Available subtopics for Mathematics include Calculus, Computation, Linear Algebra, Probability and Statistics, and Applied Mathematics.
Website URL: https://ocw.mit.edu/courses/

Speciality OER Databases: Mathematics

Project Jupyter:
Project Jupyter is a non-profit, open-source, open-standards project that supports interactive data science and scientific computing across all programming languages. The Notebook interface is a web-based, interactive development environment which can access and work with live data as it is being run.
Website URL: https://jupyter.org/index.html

OpenAI:
OpenAI is a research laboratory that offers open resources to help anyone become a practitioner in deep reinforcement learning. Resources include modules that build knowledge of learning algorithms and a toolkit to develop reinforcement learning algorithms.
Website URL: https://openai.com/

Open Education Resources Decision Tree for Mathematics
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