

STRATEGIC SELECTIONS: AN OPEN EDUCATIONAL RESOURCE FRAMEWORK AND APPLICATIONS



NC Central
UNIVERSITY

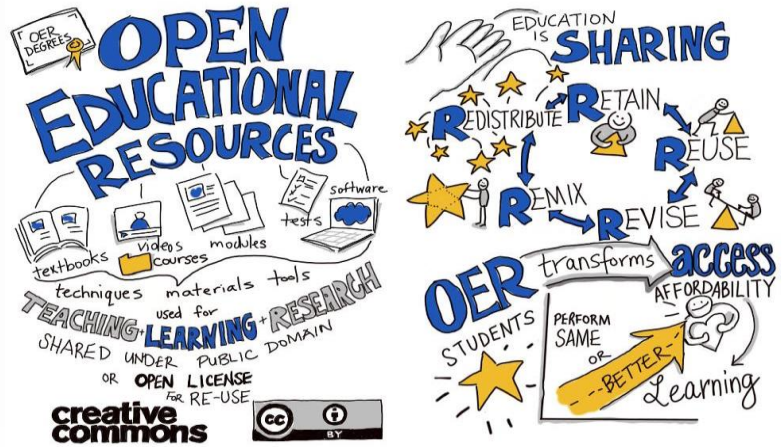
Dr. Charlotte Russell Cox and Dr. Jessica Davis Ganao

UNC System Learning and Technology Symposium

April 2023

SESSION OBJECTIVES

- Explain the 5R's of OER (revise, retain, reuse, remix, and redistribute).
- Discuss research based criteria and framework for selecting OER.
- Describe how the Criminal Justice department incorporates OER.
- Determine how to bridge OER theory/framework into practice.



"OER is sharing" by [giulia.forsythe](#) is marked with [CC0 1.0](#).



Charlotte Russell Cox, Ed.D.



- Education: North Carolina State University-Ed.D.
- Career: Instructional Designer
- Personal interest in OERs:
 - Experience as undergraduate student.
 - Designing a course using an OER textbook for graduate students.
 - Evaluation feedback from students



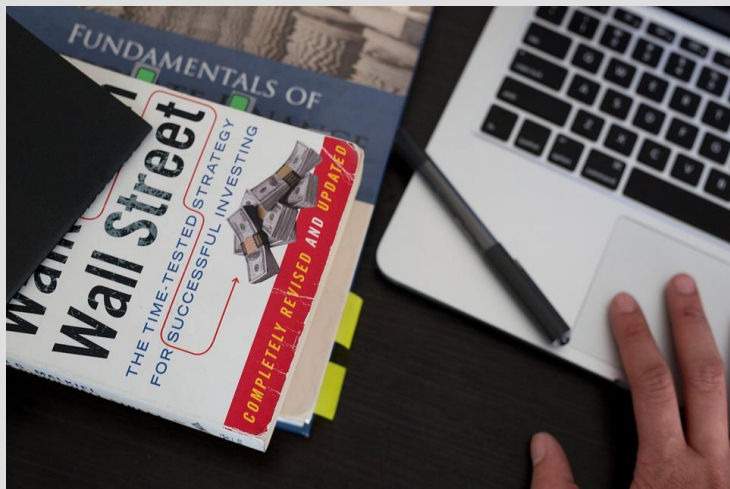
WHAT IS AN OPEN EDUCATIONAL RESOURCE (OER)?

- OERs are resources that are free materials that educators can use which are not copyright restricted. Open educational resources have open licenses for users to revise, retain, reuse, remix, and redistribute the materials.

Irvine, J., Kimmons, R. & Rogers, J. (2021)



QUALITY MATTERS GENERAL STANDARD 4



General Standard 4

Instructional Materials: Instructional materials enable learners to achieve stated learning objectives or competencies.

Specific Review Standard 4.1

“Instructional materials may include but are not limited to textbooks, Open Educational Resources, publisher- or instructor-created materials, slide presentations and interactive content (such as simulations), expert lectures, videos, images, diagrams, and websites” in modules or units.”



5 R'S OF OER

- **Revise**-Adapt, modify, and improve.
- **Retain**-Make and own a copy of resource.
- **Reuse**-Use in a wide range of ways.
- **Remix**-Combine two or more.
- **Redistribute**-Share with other individuals.

Wiley, D. (2017)



5 R'S OF OER EXAMPLES

- **Revise**-Translate it into another language.
- **Retain**-Download, duplicate, store, and manage.
- **Reuse**-In a class, in a study group, on a website, in a video.
- **Remix**-Incorporate the work into a mashup.
- **Redistribute**-Give a copy of the work to a friend.



OER'S IN EDUCATION



"Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge" (Hewlett, 2014).



TEXTBOOK COST

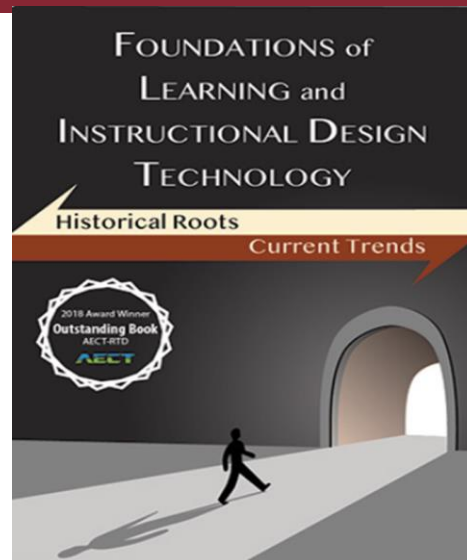
“Senack (2014) noted the cost of textbooks in the USA have increased by 1041% since 1977, including 82% between 2002 and 2013 alone (as cited by Jhangiani et al., 2016, pp. 6).”

Blomgren, C. (2018).



OER TEXTBOOK EXAMPLE

- Course: Foundations of Instructional Technology
- New Course
- Graduate Students



Richard E. West

Citation

West, R. E. (2018). *Foundations of Learning and Instructional Design Technology* (1st <https://edtechbooks.org/lidtfoundations>)

Licensing

CC BY: This work is released under a CC BY license, which means that you are free to do with it as you please as long as you properly attribute it.










NC Central
UNIVERSITY

STUDENT SAVINGS-INTERNATIONAL EXAMPLE

Known Open Textbook Adoptions in B.C.

2012 - 2022

 Student savings	\$30,211,294
 Number of B.C. students using open textbooks	254,265
 Number of B.C. institutions currently adopting	43
 Top 5 adopting institutions (number of adoptions)	1. Douglas College, 2. Langara College, 3. Kwantlen Polytechnic University, 4. Thompson Rivers University, 5. University of British Columbia
 Top 5 adopting institutions (student savings)	1. University of British Columbia, 2. Douglas College, 3. Langara College, 4. Simon Fraser University, 5. Thompson Rivers University,
 Number of known B.C. faculty adopting	792
 Number of known B.C. adoptions	5,921

[Open Textbook Adoptions](#)



NC Central
UNIVERSITY

THINK-PAIR-SHARE



What OERs are you considering using or encouraging faculty to use such as textbooks, videos, simulations, assessments, book chapters?



FRAMEWORK FOR SELECTING OER

- Purpose-Seven Criteria
- Ease of Use-Four Criteria
- Content-Five Criteria
- Pedagogy-Nine Criteria



PURPOSE

7 Criteria (Jung et al., 2016)

- Providing open, accessible and quality content.
- Sharing best practices for learning resources.
- Helping developing countries improve learning.
- Offering non-formal/informal knowledge pathways.
- Providing for geographically, socially or economically excluded and non-traditional, work-based learners, etc.
- Improving online education with greater awareness of open and inclusive educational practices.
- Enables collaboration between institutions, sectors, disciplines and countries.

EASE OF USE

4 Criteria (Jung et al., 2016)

- The OER corresponds with open content licenses (e.g., Creative Commons).
- The OER can be reused, revised and remixed.
- The screen design and navigation systems are clear.
- The presentation methods corresponds with the learner's abilities.

CONTENT

5 Criteria (Jung et al., 2016)

- Goals and content of the OER are easily understood.
- The content is accurate and up to date.
- Content covers concepts and enables understanding.
- The content progresses from simple to more complex.
- The content is appropriate to students' knowledge, experience, and demographics.

PEDAGOGY

9 Criteria (Jung et al., 2016)

- The OER gains and keeps students' attention.
- OER helps learners recall, relate or apply knowledge.
- OER provides structure for knowledge/skill transfer.
- The OER provides opportunities for task analysis, hands-on, real-world problems.
- The OER's text, images, audio and video elements and hyperlinks provide diversity in learning.
- The design focuses on key aspects of the learning.
- OER contains feedback, support and assessment.
- The OER enables the transfer of the new knowledge and skills to different tasks, problems or contexts.
- OER enables students to consolidate learning or construct meaning through reflection and discussion.

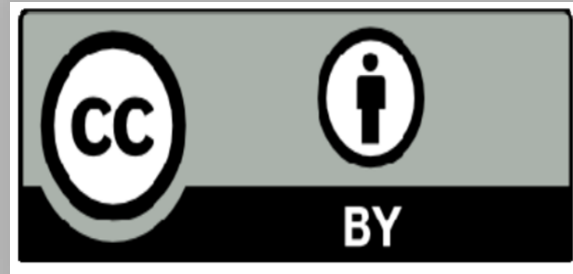
OER WEBSITES

- | | |
|--|---|
| <ul style="list-style-type: none">● <u>Open Textbook Library</u>● <u>EdTech Books</u>● <u>MERLOT</u>● <u>BcCampus OpenEd</u>● <u>OER Commons-Open Textbooks</u>● <u>The Mason OER Metafinder (MOM)</u> | <ul style="list-style-type: none">● <u>NC Live</u>● <u>Open Course Library</u>● <u>MIT Open Courseware Online Textbooks</u>● <u>The World Digital Library (WDL)</u>● <u>Community College Consortium for OERs</u>● <u>OpenStax</u> |
|--|---|



BEST PRACTICES FOR OER IMPLEMENTATION

1. Use Jung et al. OER criteria (ease of use, content, and pedagogy) to select appropriate required and supplemental course books and materials.
2. While selecting resources, ensure that OER instructional materials align with course and module learning objectives.
3. Provide appropriate attribution to OER such as Creative Commons (CC) information like providing credit, providing a link to the license, and/or indicating if changes to the resource were made.



CRIMINAL JUSTICE DEPARTMENT PRESENTATION



- Dr. Ganao attended an OER Workshop (Office of e-Learning) in Fall 2021
- Invitation to present at Criminal Justice Fall 2022 Retreat
- Explained the framework for selecting quality OERs



Jessica Davis Ganao, Ph.D.



- Education: Michigan State University-Ph.D.
- Career: Criminal Justice Department Chair
- Personal interest in OERs:
 - My personal experiences in school.
 - Seeing students struggle to get the materials they needed to take class.
 - Seeing how that affected their performance in my classes.
 - Materials not being adequate for the way I wanted to teach.



NCCU STATISTICS

- In Fall 2021, at NCCU there were 6,067 degree-seeking undergraduate students across all classes. Of that figure, 3,357 (63.1%) were Pell recipients; for first-time new undergraduates, 824 (72.9%) were Pell recipients.
- Around 83.0% of incoming students get some financial aid, the majority of which is scholarships and grants.



STATISTICS ON TEXTBOOK PURCHASES

- According to the Chronicle of Higher Education, 7 in 10 students didn't purchase a textbook because it was too expensive.
- One in five college students has skipped or deferred a class due to the price of the required learning resources.
- The cost of textbooks is rising at a rate of 4 times inflation.
- 60% of students have delayed purchasing textbooks until they've received their financial aid.



BENEFITS OF OERS

- **Expanded access to learning**-Students anywhere in the world can access OERs at any time, and they can access the material repeatedly.
- **Scalability**-OERs are easy to distribute widely with little or no cost.
- **Affordability**-OER has been shown to increase student learning while breaking down barriers of affordability and accessibility.
- **Augmentation of class materials**-OERs can supplement textbooks and lectures where deficiencies in information are evident.



ADDITIONAL BENEFITS OF OERS

- **Enhancement of regular course content.** For example, multimedia material such as videos can accompany text. Presenting information in multiple formats may help students to more easily learn the material being taught.
- **Quick circulation.** Information may be disseminated rapidly (especially when compared to information published in textbooks or journals, which may take months or even years to become available). Quick availability of material may increase the timeliness and/or relevance of the material being presented.



BARRIERS TO OERS



- Finding materials
- Perception of Quality of Resources
- Revamping Course
- Lack of understanding related to open licensing options versus copyrighted resources.
- Sustainability and Support from Institution



THINK-PAIR-SHARE



What are some strategies to overcome barriers to successfully implement OERs ?



NCCU STUDY AND FINDINGS

- Mini grant to develop innovative ideas to increase access to students
- 4 and then 7 faculty
- Developed a learning community
- Developed 7 classes using OER
 - Reviewed SLOs
 - Backwards Design Template
 - ACUE course on student engagement
- Stipend
- One semester to develop course



WHAT DID WE LEARN?

The learning community allowed for collaboration and accountability



It takes dedication due to the workload



Faculty were willing to participate



Most of the willing participants were senior faculty and adjuncts



OUTCOMES



- Courses taught using OER had higher student satisfaction.
- The outcomes for OER courses were the same as non OER classes.
- Most of the faculty who used OER are still using them in the same course s/he developed and have added OER in other courses.
- Three of faculty members only teach using OER



FUTURE IMPLICATIONS

We have made it a part of our strategic plan that 100% of our courses will use OER by Fall 2024.

We are seeking foundation funding to create stipends for faculty to revamp their courses.

As we revamp the courses using OER, we will also attempt to get them ready for Quality Matters (QM) review.



REFERENCES

BcCampus OpenEd. (2022). Known Open Textbook Adoptions in B.C. <https://open.bccampus.ca/advocate-for-open-education/open-textbook-stats/>

Blomgren, C. (2018). OER awareness and use: The affinity between higher education and K-12. *International Review of Research in Open and Distributed Learning*, 19(2).

Redden, M. (2011). 7 in 10 Students Have Skipped Buying a Textbook Because of Its Cost, Survey Finds. [Chronicle of Higher Education](#).

Hewlett. (2014). Open Educational Resources. <https://edtechbooks.org/-zh>

Irvine, J., Kimmons, R. & Rogers, J. (2021). [Recognizing and Overcoming Obstacles: What It Will Take to Realize the Potential of OER](#). EDUCAUSE.

Jung, I., Sasaki, T., & Latchem, C. (2016). A framework for assessing fitness for purpose in open educational resources. *International Journal of Educational Technology in Higher Education*, 13(1), 1-11.

West, R. E. (2018). *Foundations of Learning and Instructional Design Technology* (1st ed.). EdTech Books. <https://edtechbooks.org/lidtfoundations> .

Wiley, D. (2017). *OER-enabled pedagogy*.



REFERENCES

