Assessing Inclusive OER Design with DEIA and UDL Principles

Surita Jhangiani, Ph.D
University of British Columbia
Faculty of Education

"Open Voices, Just Choices" speaker series.
Hosted by the William H. Hannon Library

Focus

This workshop explores **strategies for designing and assessing Open Educational Resources (OER)** that **prioritize inclusivity by integrating Diversity, Equity, Inclusion, and Accessibility (DEIA)** principles with **Universal Design for Learning (UDL)**. Participants will learn how to evaluate student perceptions and experiences to ensure OER materials meet diverse needs, foster equitable learning environments, and align with best practices for accessibility and inclusivity. Real-world examples and actionable insights will be shared to empower educators in creating and refining OER that truly supports all learners.

Objectives

1. Understand key concepts of Diversity, Equity, Inclusion, Accessibility (DEIA), and Universal Design for Learning (UDL)

2. Learn practical strategies to integrate DEIA and UDL into OER design

3. Evaluate student perceptions and experiences related to OER through a DEIA lens

4. Acquire tools for assessing inclusivity, equity, and accessibility of OER
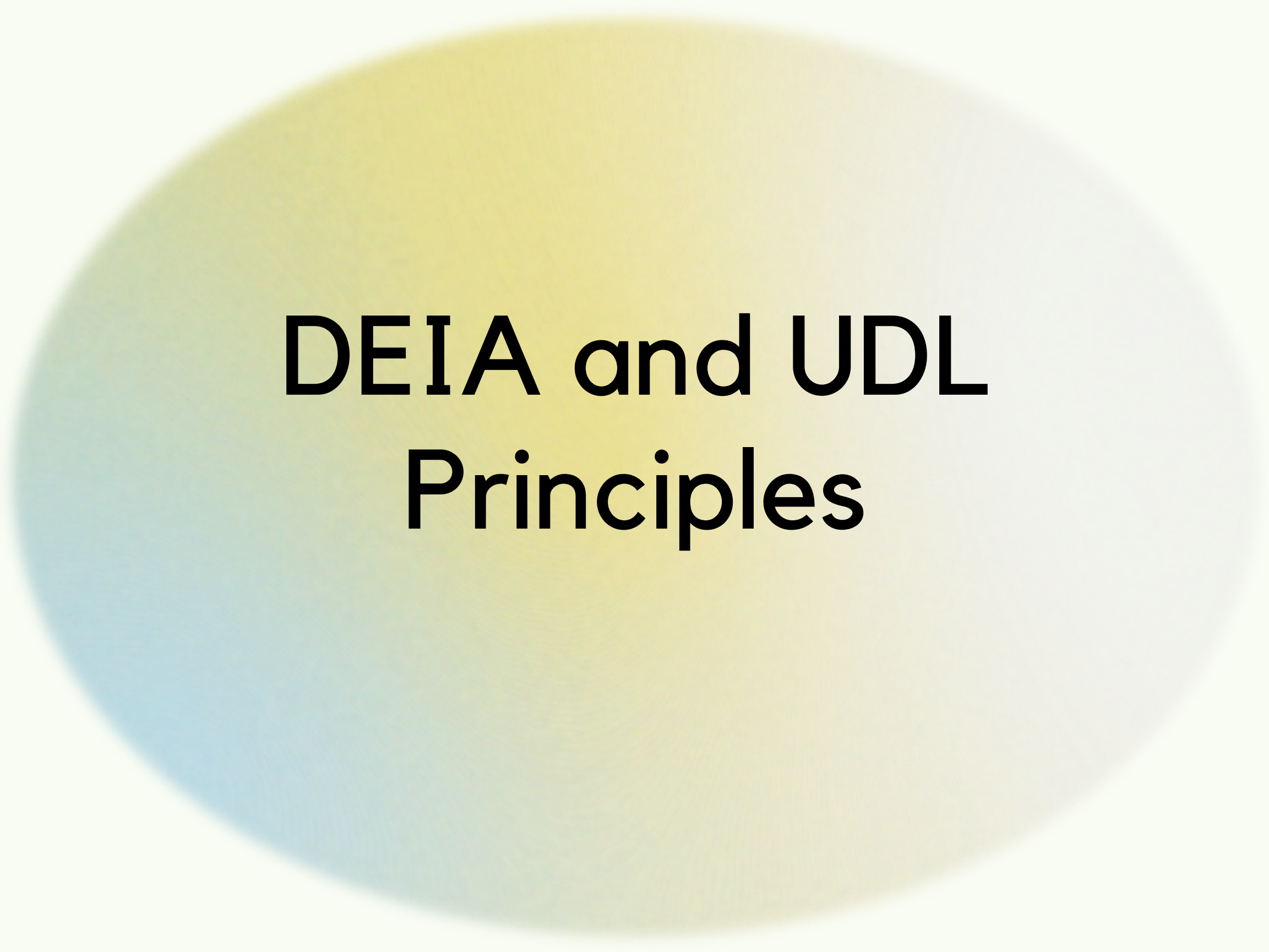
Introduction

Getting to Know Each Other

Let's start by sharing a bit about ourselves! Feel free to introduce yourself using words, emojis, or pictures—whatever feels best for you.

Here are some prompts to get you started (if needed):

- What inspired you to join this workshop today?

- Is there something specific you're hoping to learn or achieve?

- What's one thing you'd like me (and the group) to know about you?

DEIA and UDL Principles

Key Terms

Diversity: **Differences in the social identities and lived experiences and perspectives of people** that may include race, ethnicity, colour, ancestry, place of origin, political belief, religion, marital status, family status, physical disability, mental disability, sex, gender identity or expression, sexual orientation, age, class, and/or socio-economic situations.

Equity and inclusion glossary of terms

Key Terms

Equity: Equity refers to achieving parity in policy, process and outcomes for historically, persistently, or systemically marginalized (HPSM) people and groups while accounting for diversity. It considers power, access, opportunities, treatment, impacts and outcomes, in three main areas:

- Representational equity: the proportional participation at all levels of an institution

- Resource equity: the distribution of resources in order to close equity gaps

- Equity-mindedness: the demonstration of an awareness of, and willingness to, address equity issues.

Equity and inclusion glossary of terms

Key Terms

Inclusion: is an active, intentional, and continuous process to address inequities in power and privilege, and to build a respectful and diverse community that ensures welcoming spaces and opportunities to flourish for all.

Accessibility: According to Article 9 (Accessibility) of the United Nations' Convention on the Rights of Persons with Disabilities, accessibility enables disabled people to participate fully in all aspects of life, on an equal basis with others, and to access services, employment, information and communications, physical environments, and transportation.

Equity and inclusion glossary of terms

UDL Overview

Universal Design for Learning: is an approach to designing course instruction, materials and content to benefit people of all learning styles

- **Engagement**: Stimulate interest and motivation for learning.

- **Representation**: Present information and content in various ways.

- **Action & Expression**: Provide more than one way for learners to express what they know.

OER: Making Space for Innovation

1. Make a list of all you can do to make sure that you achieve the worst result imaginable with respect to your top strategy or objective.

2. Go down this list item by item and ask yourselves, '**Is there anything that we are currently doing that in any way, shape, or form resembles this item?**' Be brutally honest to make a second list of all your counterproductive activities/procedures.

Strategies for Inclusive OER Design

Framework for Enacting Open and Culturally Responsive Practices

			Dimension of Open Educational & Culturally Responsive Practices				
			Student agency & ownership	**Inclusive content**	**Collaborative knowledge generation**	**Critical consciousness**	**Classroom culture**
			Course allows for student agency or ownership (e.g., student has voice, choice, or leadership over learning)	Course contains inclusive content (e.g., brings in diverse perspectives, tailors to students' backgrounds, needs or interests)	Course allows opportunities for students to apply, evaluate, or create new knowledge	Course aims to develop students' critical consciousness and/or emancipation	Course has strong culture or relationships (e.g., safer space, ethic of care, respect among students and instructor, inclusive environment)
Course Features	**Course design**	Course feature related to course design (e.g., course vision, planning, structure, grading policies)	Students have a say in course design, e.g., co-creating syllabus, input on grading practices	Course design creates opportunities for the expression and development of diverse perspectives	Course design includes collaborative and generative learning activities	Course includes learning experiences in which students investigate and take action on real-world problems	Instructor plans course activities to build collaborative, welcoming, and open class culture
	Instructional materials	Course feature related to course materials (e.g., texts, PPTs, and other materials)	Students choose, edit, or create instructional materials	Course materials include topics that are relatable to the students and their communities	Students have opportunities to contribute to or create lesson materials	Instructor incorporates a diversity of authors to bring in multiple perspectives	Class materials reflect students' needs, backgrounds, or interests to create an inclusive and safer learning experience
	Teaching practices	Course feature related to instructional practices (e.g., questioning strategies, lesson structure, how instructors use class time)	Instructor uses instructional strategies that invite student voice, choice, and leadership	Instructor tailors class topics to include culturally referenced prior knowledge and student interests	Instructor learns with and from students	Instructor reflects on own positionality, power, and potential for bias.	Instructor demonstrates an ethic of care and maintains a safer and respectful environment
	Assignments & Assessments	Course feature related to course assignments and assessments (e.g., homework, assignments, class activities, assessments)	Instructor gives students choice over how they demonstrate their learning	Assignments involve application of course concepts to real-world topics	Students contribute to the creation of assignments that are used again in future classes	Instructors design assessments that account for culture and context	Students experience satisfaction & joy sharing their knowledge and skills
	Interactions	Course feature related to interpersonal interactions (e.g., how instructors and students interact) both online and in person.	Instructor facilitates discussions and allows students to drive the conversation	Students and instructor demonstrate an understanding of, respect for, and interest in each other's backgrounds and perspectives	Instructor and students are learning together through respectful discourse and collaboration	Instructor encourages students to pursue multiple perspectives and question dominant narratives	Instructor creates a safer space and sense of community

Griffiths, R., Joshi, E., Pellerin, E., & Wingard, A. (2022). Teaching and Learning with Open Educational Resources (OER). Menlo Park, CA: SRI International.

Assessment Criteria

Criteria	Guideline
Culturally Responsive Pedagogy	Ensuring authentic representation across race, gender, disability, socioeconomic status, and cultural backgrounds
Implicit bias in content creation	Plain, inclusive, and non-discriminatory language
Universal Design for Learning	Adaptable content formats: providing choices in text, audio, visual, and interactive elements Accessible multimedia: using closed captions, transcripts, alt-text, and screen-reader friendly designs

The Equity Rubric for OER Evaluation gives a resource a high rating for [Perspective](#) if it "challenges perspectives within instructional materials."

The Rubric suggests looking for "an assets-based versus deficit narrative in a textbook passage."

Math for Trades: Volume 1

Flinn & Overgaard

This book ensures case studies and scenarios are inclusive and do not reinforce stereotypes.

For example, in Chapter 7: The Basics of Fractions, gender-neutral pronouns and names for electrical apprentices are used that invite the reader to imagine people outside the stereotype of a masculine tradesperson.

Source: https://opentextbc.ca/mathfortrades1/

Access: Math for Trades

Defining a Fraction

Our story of fractions begins with Abigail, Hanna, and Naomi, who are electrical apprentices going through their schooling at the same time who hope to open a company together once they get their Red Seal Electrical Tickets.

We'll start with a couple of definitions. Every fraction has two parts: the numerator and the denominator. Let's take a look at a fraction to define each.

Culturally Sustaining OER challenge historic methods of legitimising academia and recognise and celebrate each learner's culture, inviting learners to engage with a topic through the richness of their own lens.

💡 **Learning Resource: 'Diverse examples and balanced perspectives'** in *Enhancing Inclusion, Diversity, Equity and Accessibility (IDEA) in OER*

Nikki Andersen

This chapter includes a section on intersectionality and how to apply this theoretical framework in the classroom.

Access: Be Aware of Intersectionality

Empowered OER

Good Practice Example – *Teaching in the University: Learning from Graduate Students and Early Career Faculty*

<u>Teaching in the University: Learning from Graduate Students and Early Career Faculty</u> provides insight and strategies for successful teaching, advising, and mentoring postsecondary students. This book is designed for new university teaching faculty and graduate teaching assistants looking for innovative teaching resources. This textbook provides university instructors free access to high-quality teaching materials based on the experiences of fellow new instructors. Twenty contributors and two co-editors from the current students and alumni of university teaching scholars' programs offer this resource for fellow faculty and graduate students to improve instruction and engagement. Each chapter comes from the experiences and expertise of these talented individuals who speak directly to their peers. Although centring on the STEM faculty, the authors are of diverse genders and backgrounds. The text also contains diverse points of view with one vignette titled 'No, really, I don't have Internet' and another on indigenising the classroom. This book is an exemplar for having diverse contributors and diverse perspectives.
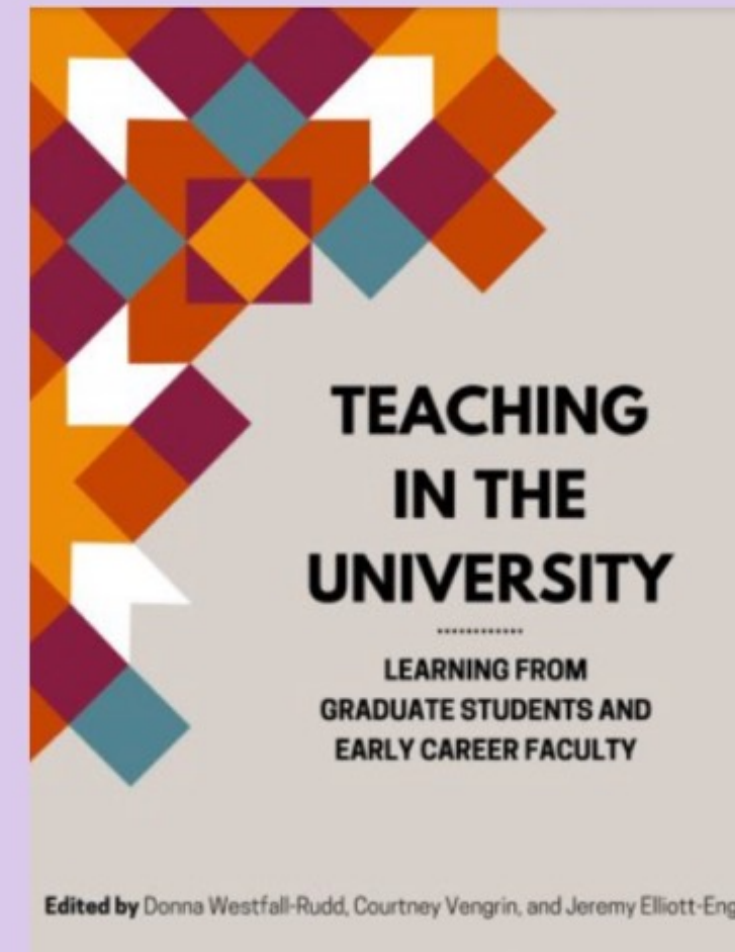
Culturally Relevant and Inclusive

رجوع ←

طلبنا منك أن ترسم شكل ملاك

لقد رسمت هذا الشكل، لكنّ الشبكة العصبية لم تتعرّف عليه

ولاحظت أن رسمك يشبه الأشكال التالية:

تطابق صحيح
ملاك

A screenshot from QuickDraw in Arabic: The first image is my doodle of an angel that QuickDraw asked me to draw even though angels are not depicted in Islam. The second image is by QuickDraw - a typical angel doodle - which shouldn't feature in the Arabic-language version as most Arabic speakers are Muslim.

Blog Posts

- Where are the crescents in AI?
- Highlights bias in AI
- To draw a hospital, you're likely to put a cross on it to differentiate it from any other building, right? But in the Muslim world, most hospitals have a crescent on them, not a cross (which is what QuickDraw suggests)

- Source: Where are the crescents in AI? By Maha Bali

Where are the crescents in AI?

Co-creating OER: Grade 3 Class

Photo by [Volodymyr Hryshchenko](#) on [Unsplash](#)

Business Writing For Everyone

Arley Cruthers

Business Writing For Everyone is an inclusive guide to writing in the workplace. The book takes a process-oriented, storytelling approach to composition: focusing less on genre and more on the decisions that effective business communicators make. Business Writing For Everyone also contains interactive H5P activities for students to test their learning, and activities for further reflection that instructors can use in the classroom or assign as homework.

READ BOOK

Business Writing for Everyone

Arley Cruthers

KPU | Open Education

Kwantlen Polytechnic University
Where thought meets action

Download this book

Business Writing for Everyone

About This Book

This book takes an inductive, inclusive approach to business communication. It has the following goals:

- To meet the needs of a diverse student population, including English language learners, students from diverse cultural backgrounds, mature students, and students who are LGBTQ+, neurodiverse and/or disabled. The author has taken care to include activities, examples and reflection exercises tailored to a wide range of students, and to collaborate with communicators from diverse backgrounds.
- To offer an inductive, iterative approach to business communication that focuses less on genre and more on the decisions communicators make.
- To encourage students to reflect on their own attitudes, beliefs and assumptions about communication, and to connect their learning to other courses and/or their workplace experience. Each chapter begins with a 'Questions for Reflection' section so that students can reflect individually or in a learning journal and ends with suggested reflection activities that an instructor can assign.
- To prepare students for a diverse workforce by including the voices of communicators from many different backgrounds.

This book also contains narratives by Brenda Fernie, who is the President of Seyem, the economic development branch of the Kwantlen First Nation. Students are invited to read her narrative then reflect on it as they read the rest of the chapter. Instructors may choose to have students freewrite about the connection between the narrative and the chapter in order to deepen their understanding of both.

Case Studies

Preet's Textbook Experience

Here is where you experience a semester as Preet, making decisions about your textbooks and grades at the start, mid-point, and end of a semester

Start the Semester →

Case Studies

Preet's Tracker App

○ A. Tracking at Start of Semester

● B. Goals for Preet

● C. At the Bookstore: Tracking Textbook Options

● D. Textbook Checkout: Textbook Decisions

● E. After Bookstore Budget

● F. One More Chance to Save Money

● G. Mid Semester Event

● H. Midterm Exams

● I. Late Semester Event

● J. Final Exams

A. Tracking at Start of Semester A Reminder of Preet's Profile

Welcome to the Textbook Game Tracking app. As a student, you have much to keep track of. It will call for diligence to move back and forth from the game above to your records here. All sections here are identified with section codes (capital letters) and numbers. Just like tax forms, the tracker app will provide prompts to do things like "Enter in H2 the value from C3 the previous balance in A4."

Before your semester begins, enter here in section A the balances for your savings, expected income, anticipated living expenses, and starting levels for study and health points.

(A1) Savings. Enter the current balance of your savings. This information is provided in your profile and also from within the game itself.

*

$

https://kpu.pressbooks.pub/textbookgame/

Who Gets to Wield Academic Mjolnir?: On Worthiness, Knowledge Curation, and Using the Power of the People to Diversify OER

Amy T. Nusbaum

Making Psychology's *Hidden Figures* Visible Using Open Educational Resources: A Replication and Extension Study

Alison E. Kelly[1] , Jenna N. Laurin[1], and Virginia Clinton-Lisell[2]
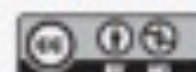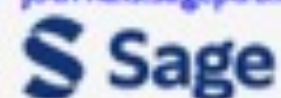
Evaluating Student Perceptions and Experiences

MentiMeter

The code **8626 8588**

What is your challenge? & What kind of help do you need?

9 responses

balancing student voices and their inclusion

Avoiding tokenism.

Incorporating student agency

Coming up with meaningful diverse examples would feel better in community. Our project team doesn't always have time to meet to work together. We divide and conquer

Generating new content that reflects diverse voices and perspectives - especially when our team is fairly homogenous.

I come from a background that is often not included in "inclusion" so it's exhausting

The type of mentorship needed for co-creation to be successful

Finding time and sources without feeling like examples are token.

Dedicated time to get feedback on the work as we are still working on development

9

Evaluation

Learning Resource: *Critically Appraising for Antiracism Tool*

Ramona Naicker

Dedicated to identifying racial bias in published research, the *Critically Appraising for Antiracism Tool* guides users through key questions for consideration with brief explanations and rationale.

Naicker's website goes into further detail about the two main categories of concern: underrepresentation and interpretation. The site offers a simplified breakdown of these key concepts as well as curated readings.

Access: Critically Appraising for Antiracism

[Naicker's Critically Appraising for Antiracism Tool](#)

OFAR

Naicker's Critically Appraising for Antiracism (CAA) Tool

Study:	Yes	No	Unclear	N/A
1. Were minoritised ethnic participants recruited? If not, are explanations offered and/or limitations noted? Is the ethnicity/racial data full and accurate? **REMEMBER**: Minoritised ethnic people exist in all populations and should be included in relevant research.	☐	☐	☐	☐
	Comments:			
2. Is the sample of minoritised ethnic participants representative? **Think about:** Is the sample representative of the population under study? Are ethnic subsamples large enough to draw statistically significant results? **REMEMBER**: Minoritised ethnic groups may be disproportionately affected by certain issues / conditions / diseases / illnesses – is this reflected in the research?	☐	☐	☐	☐
	Comments:			
3. Are the methodologies (e.g., interventions, assessments) suitable/validated for minoritised ethnic populations? **Think about:** Have authors noted the applicability of the assessment methods for diverse populations? Did researchers consider the range of factors that could affect the accuracy and effectiveness of the tool for individuals from diverse racial/cultural/linguistic backgrounds? **REMEMBER**: Devices and assessments may have been designed and tested primarily on white men, differences in physical characteristics such as skin colour may not have been considered leading to inaccuracies in those who were not represented in the initial test.	☐	☐	☐	☐
	Comments:			

Access Naicker's Critically Appraising for Antiracism Quality Appraisal Tool

Table 2: OER, OEP and Social Justice Framework

Dimension	Injustices	Ameliorative (Affirmative) response: • *Addresses injustice with remedial reforms*	Transformative response: • *Addresses the root causes of inequality*
Economic	Maldistribution: • *Intermittent power supply* • *Inadequate access to computing devices* • *Expensive and/or poor connectivity* • *Only digital OER*	Redistribution: • *Printed OER* • *OER available in various formats, including Open source Software* • *MOOCs where the resources are OER*	Restructuring: • *Stable power supply, adequate access to functional computing devices and affordable and stable connectivity in rural environments in particular* • *Government and/or institutional funding for OER creation, adaptation and dissemination* • *Mechanism for acceptance of OERs or MOOCs as micro-credentials*
Cultural	Misrecognition: • *Using OER "as is" (copying)* • *Translating OER uncritically*	Recognition: • *Locating and incorporating* *• OER used "as is" within local epistemological and cultural contexts* • *Translating OER into local languages prudently*	Re-acculturation: • *Re-mixing OER critically to engage with and challenge hegemonic perspectives* • *Sharing their remixed teaching and learning materials publicly* • *Creation of OER*
Political	Misrepresentation: • *IP legislation inhibiting educators from sharing materials created in the course of educators' work*	Representation: • *Permission by employer to create and share OER created in the course of educators' work* • *Creating and sharing OER on a publicly accessible platform*	Re-framing: • *Internationally alter current IP rights to allow for properly attributed educational resources to be created, adapted and shared without formal permission* • *Creation of OER and engagement of OEP that balances power on educational materials and authorities*

Hodgkinson-Williams, C. A., & Trotter, H. (2018). A social justice framework for understanding open educational resources and practices in the global south. Journal of Learning for Development, 5(3).

Explore

Wherever I went in the US and Canada (learn more here), the Equity Rubric for OER Evaluation was ooed and aahhed about – and I am so inclined to join the enthusiasm surrounding the Rubric, that it has become the foundation upon which I have built this site (ah, the beauty of CC licensing!).

The Rubric was developed by the Branch Alliance for Educator Diversity to help instructors check whether their curriculum materials are equitable by examining them against four Dimensions:

1. **Learner-Centred**
2. **Critical**
3. **Culturally Sustaining**
4. **Universally Designed for Learning**

EMPOWERED OER

CRITICAL

A critical resource addresses:

Perspective	Not observed	Acknowledges diverse perspectives within instructional material	Represents or provides diverse perspectives within instructional material [Look fors]	Challenges perspectives within instructional materials	
Equity & Inclusion	Not observed	Attempts to address issues of equity and inclusion but uses framing or baseline of a "dominant culture."	Addresses issues of equity and inclusion, as well as barriers to diversity, equity, and inclusion [Look fors]	Implements measures to resolve issues of equity and inclusion and eliminates barriers to diversity, equity, and inclusion	
Narratives	Not observed	Acknowledges extraordinary individuals from marginalized groups	Recognizes strengths of each individual from marginalized groups [Look fors]	Utilizes asset-based narratives	

BranchED Equity Rubric for OER

Reimagining Education

Stommel's Definition of Critical Digital Pedagogy
Centers its practice on community and collaboration
Must remain open to diverse, international voices, and thus requires invention to reimagine the ways that communication and collaboration happen across cultural and political boundaries
Will not, cannot, be defined by a single voice but must gather together a cacophony of voices
Must have use and application outside traditional institutions of education

Evaluation

Inclusive survey design and question

- Do you feel your experiences are accurately represented in the learning materials? Why or why not?
- Have you encountered any barriers to accessing or understanding the materials provided?
- In what ways do the educational resources promote fairness and equity in your learning experience?

Evaluation

Conducting culturally competent focus groups and interviews

- How do your personal identities influence your learning experience with these materials?
- Describe how these materials affect your sense of belonging in the classroom.
- Are the materials accessible? How so, or if not, how could they be improved?
- Have you experienced any content that you feel is biased ?

Evaluation

Reflective Assessments and Journals that highlight Student Identities and Experiences

What is it: structured reflections that aim to understand student engagement, identity, belonging, fairness, and experienced barriers

Possible reflective assessment prompts:
- Describe moments when the learning materials resonated with or challenged your identity and experiences.

- Reflect on times you felt included or excluded by the educational content provided.

- How fairly do you feel represented in the OER materials, and how could inclusivity be improved?

Evaluation

Hypothes.is

[Open Pedagogy Notebook](#)

OER: Making Space for Innovation

1. Make a list of all you can do to make sure that you achieve the worst result imaginable with respect to your top strategy or objective.

2. Go down this list item by item and ask yourselves, '**Is there anything that we are currently doing that in any way, shape, or form resembles this item?**' Be brutally honest to make a second list of all your counterproductive activities/procedures.

3. Go through the items on your second list and decide what first steps will help you stop what you know creates undesirable results?

What must we stop doing to make progress on our deepest purpose?

Considerations

- What was your goal in creating your OER?
- What are markers of success for your team? Your learners?
- How can you build and sustain the work you have co-created?
- What is your 15%?

Thank you!

Do you have any questions?

Resource Page

[CREATING ACCESSIBLE OPEN EDUCATIONAL RESOURCES](#)

[OER Accessibility Toolkit](#)

[Equity and Inclusion Glossary of Terms](#)

[Critically Appraising for Antiracism](#)

[EMPOWERED OER](#)

[EXPERIENTIAL LEARNING AND OPEN EDUCATION: PARTNERING WITH STUDENTS TO EVALUATE OER ACCESSIBILITY](#)

[CREATING ACCESSIBLE OPEN EDUCATIONAL RESOURCES](#)

[Branch Alliance for Educator Diversity (BranchED)](#)