OER in the Classroom

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NKU Steely Library's After School Specials

"Courting the Open Movement: P-12 Educators' Changing Relationship with Information"

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My OER Journey

Started as MathEd Major
2006-2010

Taught First Maths Course
2010-2012

Introduced to & Created OER
2012-2016

First Adopted OER
2016-2018

Expanding OER Use & Creation
2018-Present

Quick Polling Question

Prior to this workshop,
how would you describe your experience with OER?

A. Had not heard of OER

B. Knew about OER but have not used/supported it

C. Have used/supported OER in limited capacity

D. Have used/supported OER extensively

Quick Polling Question

As of this moment,

how comfortable are you with implementing or supporting the implementation of new OER in the classroom?

A. No worries. I'm all over it!

B. I could probably do it, but am hesitant

C. I could try, but it probably wouldn't go very well

D. Are you kidding?! There's no way.

Quick Polling Question

What do you hope to gain from this session?

A. See examples of how OER can be used

B. Gain resources for future use

C. Cultivate ideas for using OER in the fall

D. Honestly… I'm content with just the PD hour

Possible Process — Ooh, Shiny!

Image from Disney's *Moana*

Breakout Rooms - Quick Q&A

First, introduce yourselves. Then,

Do you have an "Ooh, Shiny!" OER to quickly share?

It would be helpful to include:
1. its name,
2. a one-sentence description, and
3. a single, key feature to spotlight.

A More Systematic Process

1. Determine vision for classroom

2. Find and identify supportive OER

3. Evaluate and select OER to use

4. Prepare for and implement OER

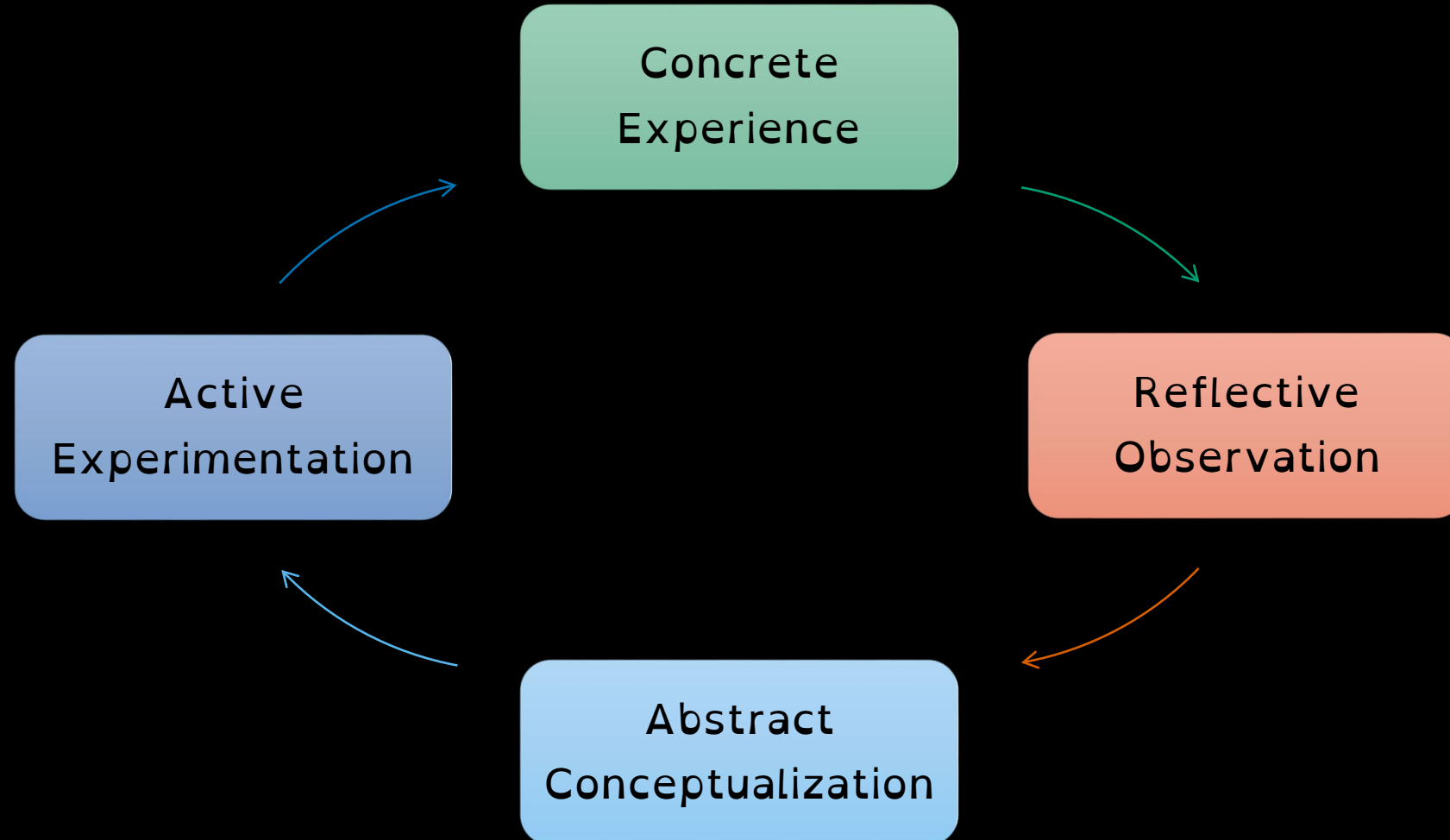# Vision

What could a class look like?

What do I want my class to look like?

What's your vision?

Take 2 minutes to vision your class/classroom.
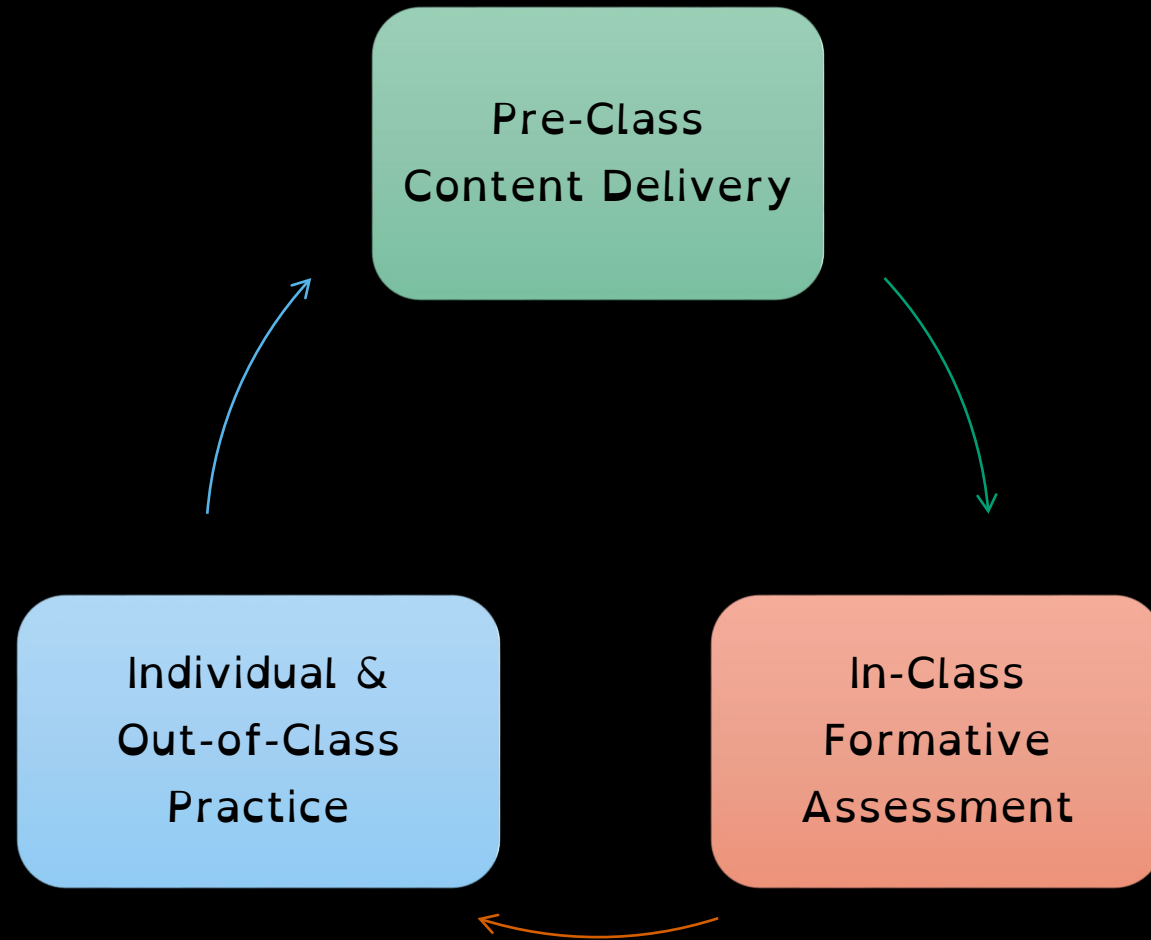
- What does it look like in terms of
  - Structure
  - Available Resources
  - Content Requirements
  - COVID Impact

- What could it look like?
  - Engagement
  - Differentiation
  - Assessment - Formative and/or Summative
  - Content Delivery

Kolb & Fry's Experiential Learning Model

- Kolb, David A.; Fry, Ronald E. (1975). "Towards an applied theory of experiential learning". In Cooper, Cary L. *Theories of group processes*. Wiley series on individuals, groups, and organizations. London; New York: Wiley. pp. 33-58.
- Abdulwahed, Mahmoud; Nagy, Zoltan K. (July 2009). "Applying Kolb's experiential learning cycle for laboratory education". *Journal of Engineering Education*. **98** (3): 283-294.

Breakout Rooms - Discuss Visions

You will have 2-3 minutes per person.

What is your vision?   **Identify Focus for Brainstorm**

- I currently use worksheets within guided discussion,
  and am interested in hearing suggestions for continuing during COVID.

- I would like to incorporate in-class polling,
  and am looking for thoughts on using results to support differentiation.

- I am thinking about recording videos for asynchronous delivery,
  but am not sure if I have sufficient time to make it interactive.
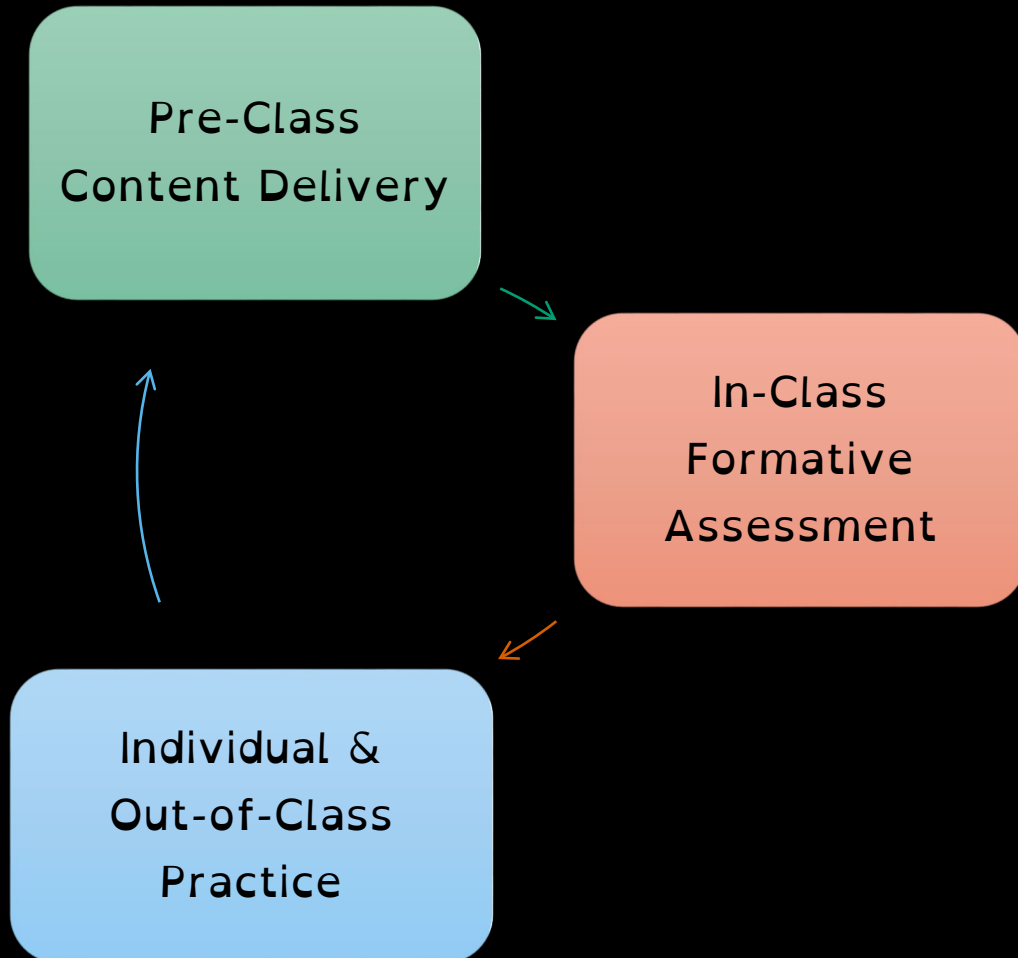
Identify

How can OER fit into my vision?

Where can I find OER?

Where can OER fit in your vision?

Take 1 minute to identify place(s) where OER may fit.

- Is there something OER can replace?
  - Do I need to create content videos for my classes?
  - Can I save paper by using electronic exit tickets?
  - Do students really need a graphing calculator?

- Is there something new OER can facilitate?
  - Are there existing resources for the new course I'm teaching?
  - Can I distribute, collect, and grade assignments online?
  - Can students start discussing readings before class?

Identify – Calculus 1 Example

Pre-Class Content Delivery

In-Class Formative Assessment

Individual & Out-of-Class Practice

Content (i.e. Textbooks)
- OpenStax, APEX, Active Calculus

Medium
- Online, Print, Videos (w/ Quiz), Gamification

Polling / Voting
- Plickers, iClicker

Questions
- Cornell GoodQuestions, Carroll College MathQuest

Inquiry Based Exploration
- Desmos, Various Activity Repositories

Online Homework
- WeBWorK, Edfinity, iMath, MyOpenMath

OER Resource List (from Steely planned slides)

- Merlot
  - Advanced search filters
- OER Foundation
  - Courses and support for creating OER
- University of Pittsburgh's Big list of resources

- OpenStax
- OER Commons
- MIT OpenCourseware
- Oasis
- Open Michigan

The Mason OER Metafinder (MOM)
- Searches the other sites

Breakout Rooms - Search for OER

Take 5 minutes to search the Mason OER Metafinder (MOM)
https://oer.deepwebaccess.com
What type of resources do you find?

Consider searches for:
- The name of a course
- A topic that you cover
- Something you're interested in learning about

Select

What might I consider when evaluating OER?

How do I make a decision on which OER to pick?

What Might I Consider When Selecting?

Take 1 minute to think about something you might consider when selecting OER for your classroom
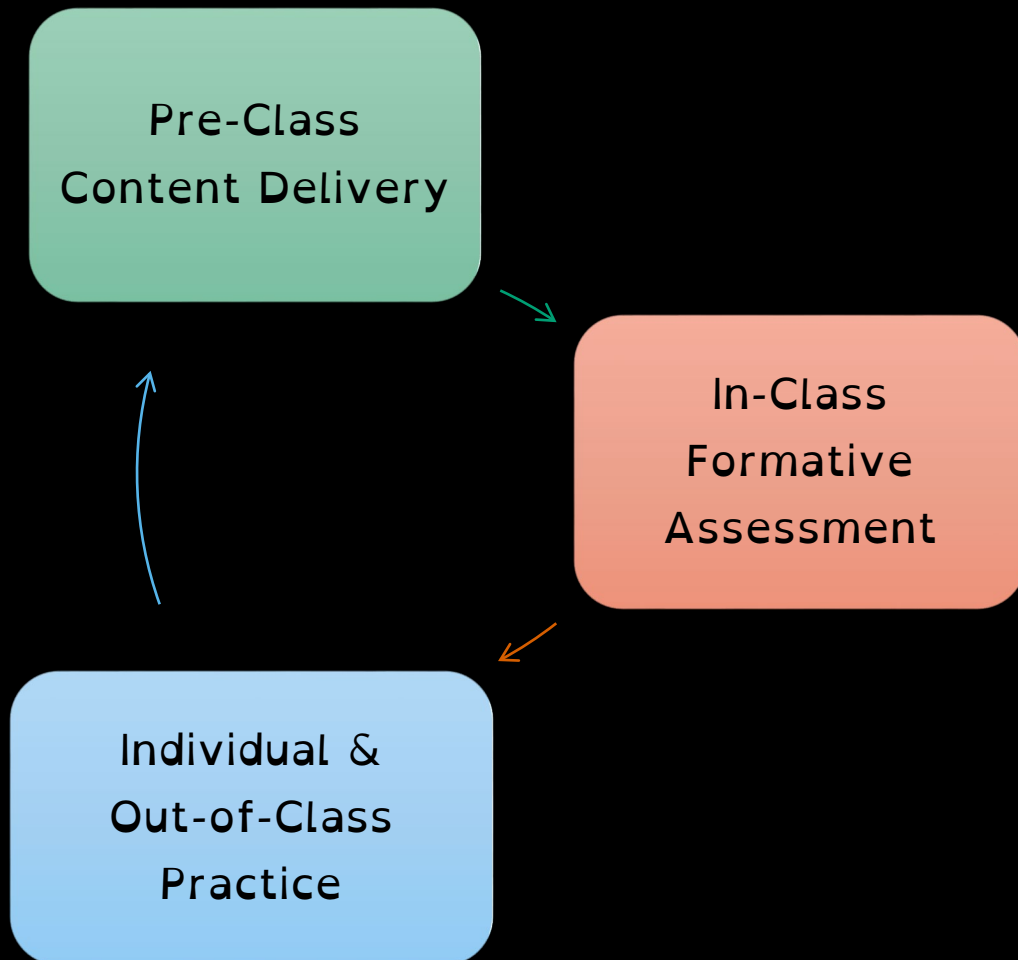
Content

- Relevance
- Student Access
- Is it up-to-date?
- Reliability
- Licensing
- Medium (pdf, web)
- Longevity

Platform

- Accessibility
  - cost, technology, inclusion (ADA)
- Student data collection and storage
- LTI integration

Select – Calculus 1 Example

Pre-Class Content Delivery

In-Class Formative Assessment

Individual & Out-of-Class Practice

OpenStax maybe switching to ActiveCalc
Online Features // Preview Activities
Active Learning Approach

Perusall
Collaborative Reading // LTI Integration
Analytics & Confusion Report // Auto Grade

Plickers with Cornell GoodQuestions
No Cell Phones // Sets // Grade Book
Display Math Symbols

Desmos - Interactivity // Library of Activities

WeBWorK – Accessibility // LTI Integration

ALL FREE!!

Side Note on Accessibility

Color Palette RGB Codes
- Gold // 230, 159, 0
- Green // 0, 158, 115
- Red // 213, 94, 0
- L Blue // 86, 180, 233
- D Blue // 0, 114, 178
- Pink // 204, 121, 167

Dyslexic-Friendly Font

OpenDyslexic
https://www.opendyslexic.org

Implement

What to consider?

Where can I find support?

How to Implement?

Take 1 minute and think about how you might approach implementing OER in the classroom.

What should/are you considering?

Post thoughts in the chat.

Thoughts on Implementing

Content
Same as always

- Need to create/supplement?
- Compatibility/Consistency
- Licensing Infringement
- Supportive Community

Platform

- How long to train self?
- How long to train students?
- How many to train?
- LTI integration
- Account creation/payment
- Technology access/policy
- Support Staff

Implement — Calculus 1 Example

Content

- OpenStax Textbook
  - Supplement HW Exercises
- Cornell GoodQuestions
  - Adjust notation/phrasing
- WeBWorK
  - Accept existing or learn to write own

Platform

- Perusall
  - LTI and Accessibility
- Plickers
  - Cardstock, Create, Install Chrome Add-On, Gradebook
- Desmos
  - Device Functionality
- WeBWorK
  - LTI, Capacity, Learning Curve

OER in the Classroom

1. Vision
2. Identify
3. Select
4. Implement

Ooh, Shiny!

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Slides available at
https://bit.ly/37PpUiB