Open Educational Practices (OEP) for Research Skill Development in an Online Graduate Program

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We would like to acknowledge the traditional territories of the people of the Treaty 7 region in Southern Alberta, which includes the Blackfoot Confederacy (comprising the Siksika, Piikani, and Kainai First Nations), as well as the Tsuut'ina First Nation, and the Stoney Nakoda (including the Chiniki, Bearspaw, and Wesley First Nations). The City of Calgary is also home to Métis Nation of Alberta, Region 3.

About the team

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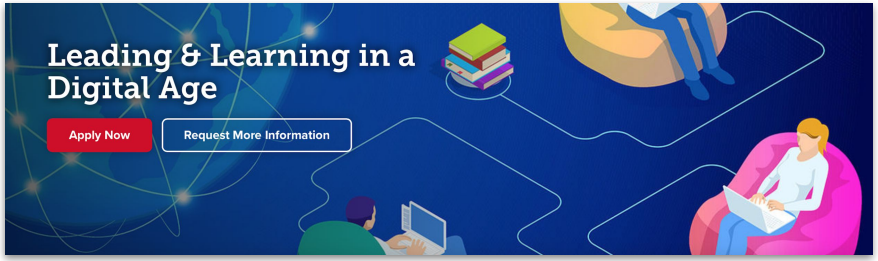
Program Design - MEd Interdisciplinary

Graduate Certificate	Graduate Diploma	Masters in Education	Doctoral Degree
Specialization Topic #1 4 - courses	Specialization Topic #2 4 - courses	Research & Application 4 – required research courses	Apply for doctoral degree (if interested)



Terms

Open educational resources (OER)

"teaching and learning resources in any medium, digital or otherwise, that permit no-cost access, use, reuse and repurposing by others with no or limited restrictions." (UNESCO, 2019, para 1.)

Open educational practices (OEP)

"collaborative practices that include the creation, use, and reuse of OER as well as pedagogical practices employing participatory technologies and social networks for interaction, peer learning, knowledge creation and empowerment of learners." (Cronin, 2017, p.4)

Research

Research Question:

How do open educational practices support the conditions for student learning of research-based skills ?

Methodology: Design Based Research

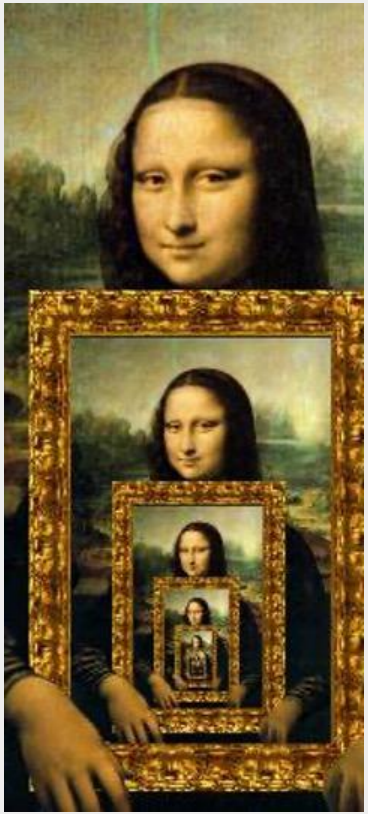
Data Collection: Open ended one on one interviews, survey (online 18 questions), artifacts

Survey Participants: (n = 13) 54% response rate

Interview Participants: (n = 8)

OER Chapter Contributors: (n = 15)

Characteristics / Benefits of DBR



Produces innovations and sustains their development (Bereiter, 2002)

–**Not confined by methodology**: change research with findings fed back into cycles of innovative design and evaluation (experiments, case study, survey, ethnography, mixed methodology) **(McKenney & Reeves, 2019)**

–**Inherently interventionist**: seeks "what can be", makes change happen

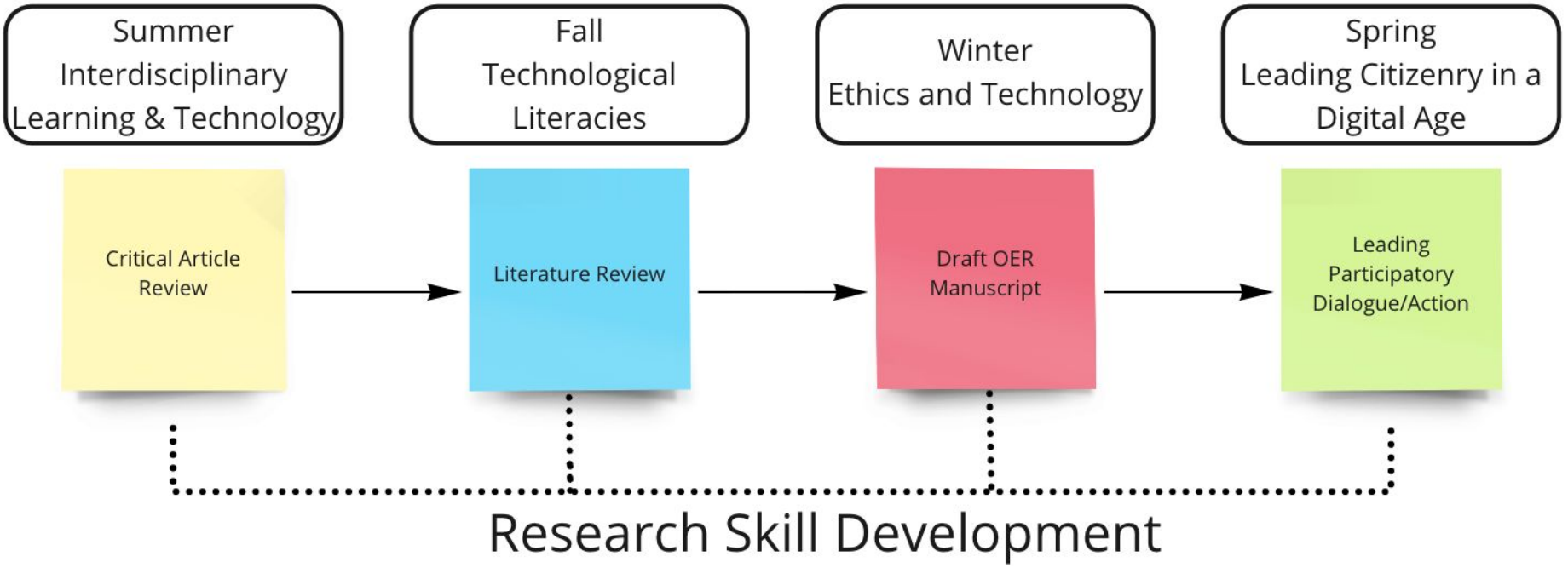
–**Continual improvement**: multiple iterations of design and testing

–**Community of practice**: researchers and practitioners work collaboratively to design and implement innovations

–**Problem based**: Addressing complex problems of practice in authentic contexts

–**Theory informed**: Contributes theoretical insights, design principles

Relevance & Rigor


Summer
Interdisciplinary
Learning & Technology
Fall
Technological
Literacies
Winter
Ethics and Technology
Spring
Leading Citizenry in a
Digital Age
Critical Article
Review
Literature Review
Draft OER
Manuscript
Leading
Participatory
Dialogue/Action
Research Skill Development

Research Facets Mapped to Program Assignments

Table 1

Research Facets Mapped to Assignments in the Program

Facets Willison & O'Regan (2007; 2006/2019)	Learning Tasks Designed to Develop Research Skills
Facet 1: Embark on inquiry and so determine a need for knowledge/understanding	• Critical Article Review • Literature Review • Draft OER Manuscript
Facet 2: Find/generate needed information/data using appropriate methodology	• Literature Review • Draft OER Manuscript • Leading Dialogue/Action
Facet 3: Critically evaluate information/data and the processes to find/generate them	• Critical Article Review • Literature Review • Draft OER Manuscript • Leading Dialogue/Action
Facet 4: Organize information collected/generated	• Visual Synthesis • Literature Review • Draft OER Manuscript • Leading Dialogue/Action
Facet 5: Synthesize/analyze new knowledge	• Graduate Student Colloquium • Visual Synthesis • Literature Review • Draft OER Manuscript • Leading Dialogue/Action
Facet 6: Communicate knowledge and understanding, and the processes used to generate them	• Graduate Student Colloquium • Draft OER Manuscript • Leading Dialogue/Action

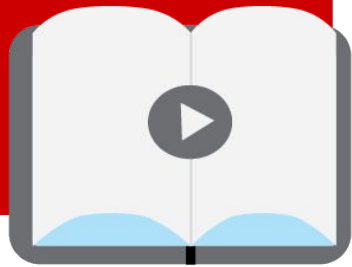
Course Pathway

Course "Open" Tasks, Feedback loops (internal/external) and Reflective Activities

- Digital outline
- One minute pitch
- Draft chapter
- Receive feedback
- Present draft
- Include work in Pressbook?

Provide students with choice in use of tools and approaches.

Provide supports and frameworks across all tools (e.g. tool suggestions, templates, model for providing constructive feedback).



Adapted from Roberts, V. & Neutzling, N. (2019). https://bit.ly/3c4tzwa

Ethical Use of Technology in Digital Learning Environments:

Graduate Student Perspectives

Barbara Brown
Verena Roberts
Michele Jacobsen
Christie Hurrell
(Eds.)

Participant Responses

Learning Process

The integration of Twitter & publicly accessible blogs made the learning open to the world & therefor more authentic. The utilization of the wider #edtechethics community brought the possibility of engaging with others around the world who have been working on the topics.

Participant engagement in formative feedback loops beyond the duration of the course reflected how they had a heightened commitment to ensuring that their original inquiry into a topic of interest was synthesized to the highest quality of writing for publication

92% of survey participants agreed that connection to experts outside the class enhanced their learning in the course

"The ability to determine the subject of the chapter created an internal motivation to complete the work. This motivation would not exist, or not be as strong, if the subject (if chapter) was assigned by instructor"

Cohorting & peer feedback strongly supported my learning. I felt being in the same class with the same students developed a positive environment (even in an online class). Peer feedback was very helpful in our studio groups as it helped refine ideas & develop our inquiries better.

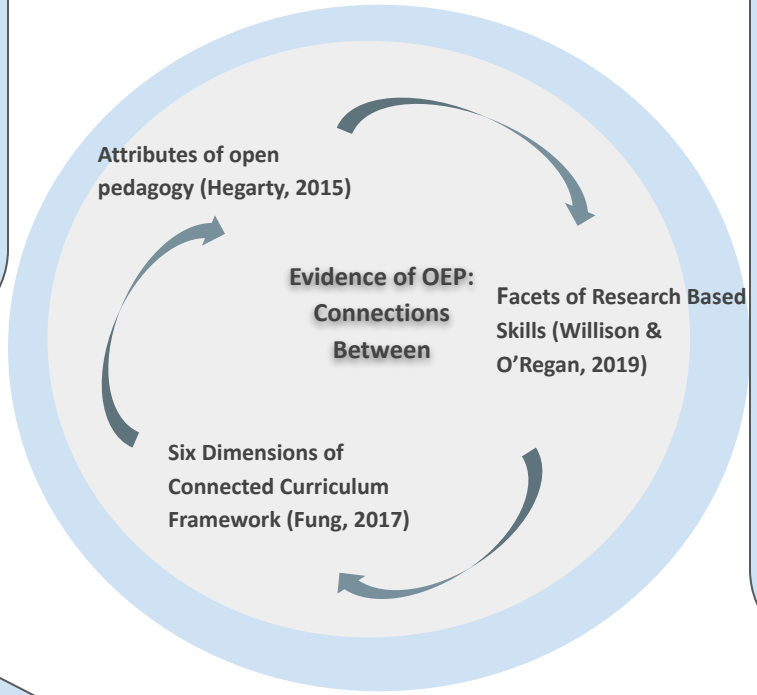
90 % of participants completed survey agreed the authenticity of assignments, including being able to pursue a topic of professional & personal interest & relevance, increased their learning & engagement. (Survey results)

Layered Assignments:

- Offered renewable assignments to students could develop ideas as progressed through each course
- Provided accountability through:
  - continually needing to find info. / Critically evaluate, organize info. & synthesize new info.
- Participatory tech/ social media created opportunities to communicate knowledge with others

Formative Feedback:

- Received from peer groups, instructors, outside exerts found by students, outside experts connections through instructors & alumni
- Helped students find, analyze & synthesize needed information
- Feedback continued beyond program (until chapter published)
- Some found feedback overwhelming



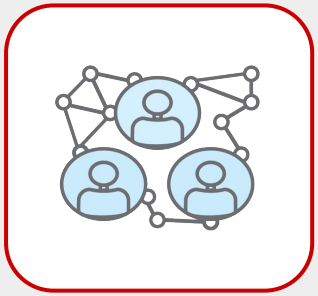
Peer learning:

- Embarking on inquiries with peers with diverse perspectives & experiences
- Helped students find, analyze & synthesize needed information
- Supported with critically evaluating research
- Grad students felt motivated to continue developing research skills knowing community of peers also working to producing collective open output
- Emphasis on collaboration & supportive communication with peers meant grad students had a strong support network to meet challenging experience of being "pushed out of comfort zone"
- Gained confidence to engage as active participants of knowledge-building and "protagonists" of their own learning

Peer Groups

Support: Check - ins & Timelines

Condition 3: Peer Learning



Internal & External Feedback

Connection to Experts

Condition 2: Ongoing and Constructive Formative Feedback

Program & Course Design

Authentic Tasks & Learning Experiences

Condition 1: Design of Layered Assignments for Authentic Learning and Engagement

Ingredients for success

- **Coherent Program and Course Learning Design**
- **Infrastructure:** access to Pressbooks via your institution or region
- **A team commitment:** Our team had diverse expertise in
  - Open educational practices/open pedagogy/co-design
  - Digital authoring tools
  - Copyright and licensing
  - Peer review, Copyediting and editing
- **Students open to learning and collaborating in new ways**
- **Funding:** University of Calgary Teaching & Learning Grants
  - Second iteration of the course more challenging without funding

Thank you!

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Read our chapter

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Direct link to our chapter - http://hdl.handle.net/1880/115931