

Research Study Proposal: CC(oe)R – Student Co-Creation of Open Educational Resources

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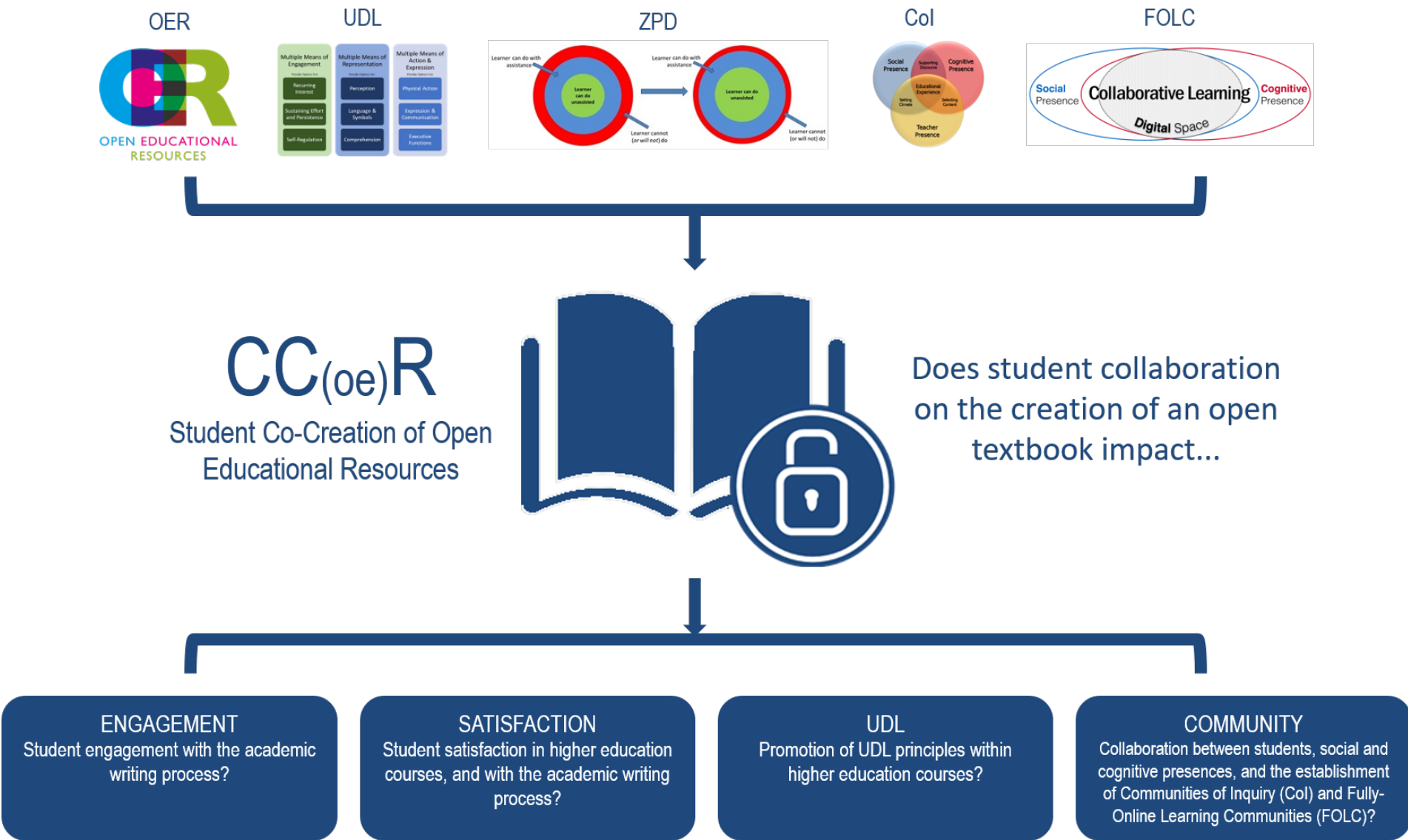
Research Study Proposal: CC(oe)R – Student Co-Creation of Open Educational Resources

There has been significant transformation in access to teaching and learning opportunities since the start of the COVID-19 pandemic in early 2020. Many of these changes have centered on the use of a wide range of digital technologies to facilitate interaction, knowledge and skills creation, and knowledge sharing. Power and Kay (2023) and Power et al. (2024) demonstrated how higher education faculty at two Canadian universities leveraged digital tools to transform their teaching and learning practices, particularly with respect to fostering engaging, collaborative, and democratic learning communities within their courses. Power (2024b) presented one such transformational approach, wherein graduate-level Education students collaborated on the co-creation of Open Educational Resources (OER). The approach saw students create interactive chapters for Open Access (OA) eBooks, leveraging the Pressbooks (2025) platform, in lieu of preparing traditional course research paper assignments. Power (2024b) highlighted the pedagogical rationale for the approach, which aimed to increase student engagement, increase collaboration, improve academic writing performances, and promote the principles of Universal Design for Learning (UDL) (CAST, 2022a, b).

Statement of the Problem

The underlying questions to be explored by this research center on the impacts of collaboration on the co-creation of an Open Educational Resource on students' experiences of community creation within a higher education course, and their perceptions of the impacts on their academic writing experiences and skills. This research will explore the perceptions of students who used the instructor-created "core readings" sections of the open access eBook *The ALT Text: Accessible Learning with Technology* (Power, 2024a), and who collaborated on the production and publication of the "Summer 2024 Critical Analyses" section of that eBook. The research will investigate students' perceptions of the value of using OER resources, such as *The ALT Text*, as part of their academic studies. It will also investigate students' perceptions of whether participating in the co-creation of sections of that OER achieved the intentions discussed by Power (2024b). Specifically, did their participation in the creation of an open textbook increase their engagement and satisfaction with the academic writing process? Did it promote the UDL principles of providing for multiple means of engagement, representation, and action and expression? And, did it leverage social, teacher, and cognitive presences to promote the establishment of a Community of Inquiry (CoI) (Athabasca University, n.d.; Garrison et al., 2000) or a Fully-Online Learning Community (FOLC) (Blayone et al., 2017; Webb et al., 2019)? The foundations of this research are highlighted in the Conceptual Framework presented in Figure 1.

Figure 1
Conceptual Framework



Research Questions

1. Does collaboration on the creation of an open textbook impact student engagement with the academic writing process?
2. Does collaboration on the creation of an open textbook impact student satisfaction in higher education courses, and with the academic writing process?
3. Does collaboration on the creation of an open textbook promote UDL principles within higher education courses?
4. Does collaboration on the creation of an open textbook promote collaboration between students, social and cognitive presences, and the establishment of Communities of Inquiry (CoI) and Fully-Online Learning Communities (FOLC)?

Significance of the Research

This research aims to examine the efficacy of the co-creation of open educational resources by students. It aims to answer questions related to students' perceptions of the impacts of the OER creation process on their engagement and satisfaction with the academic writing process, their sense of engagement within academic learning communities, and the benefits of the incorporation of UDL principles on their academic experiences and success. The findings of this research will be beneficial to educators and instructional designers who seek to incorporate pedagogically-sound forms of alternative learning activities and assessments into the designs of their higher education courses.

Proposed Methodology

This research will employ a mixed-methodological approach, designed to capture both quantitative and qualitative data. For this research, an electronic survey will be distributed to students who collaborated on the production and publication of the "Summer 2024 Critical Analyses" chapters section of *The ALT Text: Accessible Learning with Technology* (Power, 2024a) as part of their coursework in EDUC5507G: Accessible Learning with Technology at Ontario Tech University during the Spring 2024 academic term. The survey will include fixed-response (Likert-scale) questions related to their perceptions of the value of the "Core Readings" section of the aforementioned eBook to guide their course studies, as well as their perceptions of the impacts of participating in co-creation of the "Summer 2024 Critical Analyses" section of the eBook on their learning experience. The survey will also incorporate a series of open-response questions intended to gather qualitative data on students' experiences with the OER creation project.

Participant Selection and Recruitment

This research will employ a convenience sampling method. Participants will be recruited from the cohort of students enrolled in EDUC5507G: Accessible Learning with Technology during the Spring 2024 term at Ontario Tech University. This method was chosen because of the recency of the target participant pool's experience with the OER creation process.

Student data will not be accessed as part of the participant recruitment process. Each of the target authors (former EDUC5507G students) has included their preferred email contact information as part of their biographical information in the bylines of their chapter contributions within *The ALT Text* eBook. This email contact information will form the primary means of recruitment for this research. In cases where authors' published preferred email contact information is no longer valid, and where those

authors' have publicly-visible profiles on the LinkedIn (2025) social media platform, recruitment materials will be forwarded to those authors via the private messaging capabilities within LinkedIn.

Dissemination of Results

The results of the research study will be prepared for publication as one or more journal articles, and potentially as submissions for conference presentations (anticipated Fall 2025 to Winter 2026). The phases and components of the proposed research study are presented in Figure 2.

Proposed Research Timelines

The phases and components of the proposed research study are presented in Figure 2.

Figure 2

Proposed Timelines

Winter 2025

Data Collection
(administration of survey)

Summer 2025

Data Analysis
(quantitative and qualitative analysis of
survey data results)

Fall 2025

Write-Up
(preparation of journal articles and
conference presentation proposals)

Winter 2026

Dissemination
(journal and conference submissions)

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- Power, R. (2024b, November 6). *Collaboration and Co-Creation to Transform Access to Learning*. Invited Keynote presentation at the eCampus Ontario Technology + Education Seminar + Showcase 2024, 5-6 November 2024, Toronto, ON, Canada.
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Appendix 1

Survey Questionnaire

Section 1: Consent

Include Informed Consent Statement (Appendix 2)

1. Do you consent to participate in this research survey? [Yes/No]

Section 2: OER Use

With respect to the primary course e-textbook (the “Core Readings” section of *The ALT Text: Accessible Learning with Technology* (Power, 2024)) used while you were a student in EDUC5507G at Ontario Tech University:

Likert Scale Questions (1 = disagree/not satisfied, 5 = strongly agree/very satisfied)

2. The e-textbook provided foundational resources for the topics explored throughout the course.
3. The e-textbook was easy-to-use.
4. The e-textbook made it easier for me to access required resources throughout the course than materials hosted within the university’s learning management system (Canvas).
5. The e-textbook incorporated a variety of media formats.
6. The e-textbook was more engaging than resources provided in other courses in my program of study.
7. The e-textbook did not contain any Accessibility barriers for me.
8. I have referred to materials in the e-textbook since the completion of this course.
9. I am likely to refer to materials in the e-textbook in the future.

Section 3: Student OER Creation

With respect to your experience participating in the co-creation of the “Summer 2024 Critical Analyses” chapters section of *The ALT Text: Accessible Learning with Technology* (Power, 2024) while you were a student in EDUC5507G:

Likert Scale Questions (1 = disagree/not satisfied, 5 = strongly agree/very satisfied)

1. I found the process to be more authentic than traditional course research paper assignments.
2. I found the process to be more interesting and engaging than traditional course research paper assignments.
3. I was able to focus on a topic that I found personally relevant.
4. I felt a higher degree of responsibility and accountability for the quality of my writing than I do with traditional course research paper assignments.
5. The blind (anonymous) peer feedback process was valuable to improving the quality of my writing.
6. I felt free to express myself and share my growing expertise in formats that were personally relevant and engaging.
7. I felt that my writing would reach a relevant audience (beyond my instructor and classmates).
8. The writing and peer review process helped to build stronger connections between myself, my instructor, and my classmates.

9. I felt a sense of accomplishment beyond a course grade.
10. I am happy with the final product of my OER creation process.

Section 3: Open Response Questions

11. What did you find most valuable about your participation in the co-creation of the e-textbook while you were a student in EDUC5507G?
12. How did the e-textbook creation experience impact your level of engagement and satisfaction with this course, in relation to other courses you have completed in your program of study?
13. What (if anything) would you change about the experience?
14. Have you engaged in the creation of any other open resources (such as eBooks) since participating in the co-creation of the e-textbook in this course?
15. Additional Comments.

Appendix 2

Informed Consent (Student Survey)

INFORMED CONSENT

Student Co-Creation of Open Educational Resources

Research Purpose

The underlying questions to be explored by this research center on the impacts of collaboration on the co-creation of an Open Educational Resource on students' experiences of community creation within a higher education course, and their perceptions of the impacts on their academic writing experiences and skills. This research will explore the perceptions of students who used the instructor-created "core readings" sections of the open access eBook *The ALT Text: Accessible Learning with Technology* (Power, 2024a), and who collaborated on the production and publication of the "Summer 2024 Critical Analyses" section of that eBook. The research will investigate students' perceptions of the value of using OER resources, such as *The ALT Text*, as part of their academic studies. It will also investigate students' perceptions of whether participating in the co-creation of sections of that OER achieved the intentions discussed by Power (2024b). Specifically, did their participation in the creation of an open textbook increase their engagement and satisfaction with the academic writing process? Did it promote the UDL principles of providing for multiple means of engagement, representation, and action and expression? And, did it leverage social, teacher, and cognitive presences to promote the establishment of a Community of Inquiry (CoI) (Garrison et al., 2000) or a Fully-Online Learning Community (FOLC) (Webb et al., 2019)?

Researchers

- Dr. Rob Power (Assistant Professor, Education, Cape Breton University).
- Dr. Robin Kay (Professor, Ontario Tech University).

This study has been reviewed by the Cape Breton University Research Ethics Board [File # 2025012] on 25 February 2025.

RESEARCH DESCRIPTION

Eligibility Criteria

To participate in this study, you must have been enrolled as a student in EDUC5507G: Accessible Learning with Technology, with the Mitch and Leslie Fraser Faculty of Education at Ontario Tech University during the Summer 2024 academic term.

What you will be asked to do as part of this research:

You will be asked to complete an online survey.

Notification of Research Results:

Final results of this research study will be submitted for publication as one or more journal articles and may also be submitted for presentation at educational technology-themed academic conferences.

Risks and Discomforts:

We do not foresee any risks associated with participation the study. Your participation in this research study will not impact your participation in your academic program, or your grades on any course assignments.

Benefits of the Research and Benefits to You:

This research aims to examine the impacts of participation in the co-creation of an Open Educational Resource, as part of your participation in EDUC5507G at Ontario Tech University, on your engagement and satisfaction with your course and academic writing experience, as well as your perceptions of the impacts of this activity on your sense of community and collaboration within the course. The results of this research may be beneficial to other educators or instructional designers seeking alternatives to traditional academic writing course activities and assessments.

Voluntary Participation:

Your participation in the study is completely voluntary and you may choose to cease your participation in this research at any time before or during the data collection phases. To withdraw your participation from a survey as part of this research study, simply close your browser before completing the survey and your responses will not be recorded. Once a survey has been submitted, your responses cannot be withdrawn.

CONFIDENTIALITY

All information collected is anonymous and will only be used as part of research work being carried out by a researcher at Cape Breton University. However, due to the size of the research participant pool, it may not be possible to guarantee complete anonymity. All data collected will be stored in a secure location. Access to questionnaires will only be granted to the researchers listed above or assistants working directly for them. Data, when reported, will be in aggregate form. No personally identifiable information will be given out at any time.

Collection of Demographic Information

No personally identifiable demographic information will be collected as part of the survey for this research study.

Data Storage

All data will be stored on a password-protected external digital storage device (not connected to the Internet), which will be secured in a locked storage facility for a period of five (5) years after completion of the research. All data on the digital storage device will be deleted, and the device itself will be reformatted to prevent the recovery of deleted data.

In the unlikely event of a data breach, it will not be possible for personally identifiable information to be obtained through unauthorized access to data collected through the main initial survey.

Duty to Disclose

Please note that the researchers do have a "Duty to disclose" suspected abuse or neglect of a child or adult in need of protection. Under section 23(1), Nova Scotia Children and their Family, The Protection of Children and Adoption (1990) states that "Every person who has information, whether it is confidential or privileged, indicating that a child is in need of protective services shall forthwith report that information to an agency." Agency is defined as "an agency continued by or established and

incorporated pursuant to the act...” that is, Nova Scotia Department of Community Service Child Welfare. This may vary across provinces within Canada and different regions outside of Canada.

QUESTIONS ABOUT THE RESEARCH

If you have questions about the research study in general or about your role in the study, please feel free to contact:

Rob Power, EdD

Assistant Professor, Education, Cape Breton University, Rob_Power@cbu.ca

If you have any questions about your rights as a participant in this study, complaints, or adverse events, please contact:

- Jared Walters, Cape Breton University Research Administration Officer, Facilitation and Outreach at ethics@cbu.ca or (902) 563 – 3196
- Bishakha Mazumdar, Co-Chair, Cape Breton University Research Ethics Board at Bishakha_Mazumdar@cbu.ca
- Tracey Harris, Co-Chair, Cape Breton University Research Ethics Board at Tracey_Harris@cbu.ca or (902) 563 – 1328.

INFORMED CONSENT

By selecting “**I AGREE**,” I acknowledge that I have been informed of the purpose of this research and agree to participate in this survey.

Note: Should you decide not to participate at this point, select “**I DO NOT WISH TO CONTINUE**,” and this survey will end without recording any responses.

Note: By selecting “**I AGREE**,” this form you do not give up any of your legal rights against the investigators, sponsor or involved institutions for compensation, nor does this form relieve the investigators, sponsor or involved institutions of their legal and professional responsibilities.

Appendix 3

Student Recruitment Email

Date to be sent: To be determined.

Sender: Dr. Rob Power

Target audience: Students who were enrolled in EDUC5507G: Accessible Learning with Technology, at Ontario Tech University during the Summer 2024 academic term.

Subject line: **Optional Research Study: Student Co-Creation of Open Educational Resources**

Header: **Student Co-Creation of Open Educational Resources**

Body:

This message is being sent on behalf of Dr. Rob Power (Cape Breton University School of Education and Health). You are invited to participate in an **optional** research study **Student Co-Creation of Open Educational Resources**. Participation is entirely **voluntary** and there is no obligation nor need to participate if you do not want to do so. Please direct inquiries to Dr. Rob Power (Rob_Power@cbu.ca).

Participation in this research study will include the completion of one survey.

If you are interested in participating in this study, please access the survey at [Link to be Added].

Note – the full research project information letter and informed consent are available through this survey link and at [Link to be Added].

If you have any questions about your rights as a participant in this study, complaints, or adverse events, please contact:

- Jared Walters, Cape Breton University Research Administration Officer, Facilitation and Outreach at ethics@cbu.ca or (902) 563 – 3196
- Bishakha Mazumdar, Co-Chair, Cape Breton University Research Ethics Board at Bishakha_Mazumdar@cbu.ca
- Tracey Harris, Co-Chair, Cape Breton University Research Ethics Board at Tracey_Harris@cbu.ca or (902) 563 – 1328.

This study has been reviewed by the Cape Breton University Research Ethics Board [REB # 2025012] on 25 February 2025.

Sincerely,

Dr. Rob Power

Assistant Professor, Education, Cape Breton University

Appendix 4

Research Biographies

Dr. Rob Power

Assistant Professor, Education, Cape Breton University

Dr. Rob Power is currently an Assistant Professor of Education at Cape Breton University. He has an extensive background in educational technology integration and instructional design for online and blended learning in K12, post-secondary, and workplace training contexts. Dr. Power has worked as an instructional design consultant and as the Leader of the Online Learning team with the Fraser Health Authority in British Columbia, Canada. He has also served in leadership roles with the International Association for Mobile Learning (IAmLearn) and the Canadian Network for Innovation in Education (CNIE). Dr. Power is also a founding member of the Pedagogy, Education and Technology Lab (PETL) and the International Research Network for Innovative Sustainable and Seamless Learning (IRN-ISSE), and president of Power Learning Solutions.

Website: <https://www.powerlearningsolutions.com/>

Robin Kay, PhD

Full Professor, Mitch and Leslie Fraser Faculty of Education

Ontario Tech University

Robin.Kay@ontariontechu.ca

Dr. Robin Kay is currently a Full Professor, and has served as the Interim Dean with the Mitch and Leslie Fraser Faculty of Education at Ontario Tech University in Oshawa, Canada. Dr. Kay received his MA in Computer Applications in Education at the University of Toronto and his PhD in Cognitive Science (Educational Psychology) at the University of Toronto. He has published over 160 articles, chapters and conference papers in the area of technology in education and has taught in the field of computer science, mathematics, and educational technology for over 25 years at the high school, college, undergraduate and graduate levels. Dr. Kay is also a founding member of the Pedagogy, Education and Technology Lab (PETL).

Website: <https://www.drrobinkay.org/>