TLEF Project – Final Report

Report Completion Date: (2024/05/15)

1. PROJECT OVERVIEW

1.1. General Information

Project Title:	Strategies for the Effective Design and Implementation of Collaborative Peer Learning Activities
Principal Investigator:	Ricardo Serrano
Report Submitted By:	Jason Myers and Micheal Jerowsky
Project Initiation Date:	April 1, 2020
Project Completion Date:	May 15th, 2024
Project Type:	☐ Large Transformation ☒ Small Innovation ☐ UDL Fellows Program ☐ Hybrid and Multi-access Course Redesign Project ☐ Other: [please specify]

1.2. Project Focus Areas – *Please select all the areas that describe your project.*

☐ Resource development (e.g., learning materials, media)

☐ Infrastructure development (e.g., management tools, repositories, learning spaces)

☒ Pedagogies for student learning and/or engagement (e.g., active learning)

☒ Innovative assessments (e.g., two-stage exams, student peer-assessment)

☐ Teaching roles and training (e.g., teaching practice development, TA roles)

☐ Curriculum (e.g., program development/implementation, learning communities)

☐ Student experience outside the classroom (e.g., wellbeing, social inclusion)

☐ Experiential and work-integrated learning (e.g., co-op, community service learning)

☐ Indigenous-focused curricula and ways of knowing

☐ Diversity and inclusion in teaching and learning contexts

☐ Open educational resources

☐ Other: [please specify]

1.3. Final Project Summary – *What did you do/change with this project? Explain how the project contributed toward the enhancement of teaching and learning for UBC students.*

This project involved the piloting and evaluation of collaborative learning activities in the Faculty of Arts and was motivated by feedback from instructors who identified a need for increased instructional and technical support in this area. With funding secured through a Small TLEF proposal, Arts ISIT and instructor co-applicants explored approaches and tools for facilitating collaborative learning activities involving 10 courses, 15 sections and 9 instructors between 2020W2 and 2022W2. The project supported instructors in designing, administering and evaluating collaborative learning activities across a broad range of course contexts and disciplines. The broader goal of this project was to learn from instructor and student experiences in these pilot courses to build capacity within the Faculty of Arts to facilitate the adoption of peer pedagogies through collaborative document authoring, supporting activities like peer review, group projects, and small group writing.

1.4. Team Members – *Please fill in the following table and include __students__, undergraduate and/or graduate, who participated in your project.*

Name	Title/Affiliation	Responsibilities/Roles
Staff		
Ricardo Serrano	Director, Arts ISIT	Project principal investigator
Angela Lam	Senior Manager, Arts Learning Technology Support	Supervised Arts ISIT staff working on the project
Sami Haque	Learning Technologist, Arts ISIT	Learning technology support for pilot courses
Jason Myers	Faculty Liaison, CTLT/Arts ISIT	Project coordination and evaluation support
Rupee Kahlon	Educational Consultant, Arts ISIT	Learning design and evaluation support
Mike Jerowsky	Teaching and Learning Research and Evaluation Assistant, Arts ISIT	Evaluation support and final report development
Julia Chan	Learning Designer, Arts ISIT	Learning design and evaluation support
David Rubeli	Learning Designer, Arts ISIT	Learning design and evaluation support
Faculty members		
Dr. Neil Armitage	Lecturer, Department of Sociology	Piloted collaborative learning in SOCI 102 and SOCI 224
Dr. Laura Baumvol	Lecturer, School of Journalism, Writing, and Media	Piloted collaborative learning in WRDS 150B
Dr. Giséle Baxter	Sessional Lecturer, Department of English Language and Literatures	Piloted collaborative learning in ENGL 243
Dr. Katherine Lyon	Assistant Professor of Teaching, Department of Sociology	Piloted collaborative learning in SOCI 290

Dr. Michael Schandorf	Lecturer School of Journalism Writing and Media	Piloted collaborative learning in WRDS 150A
Dr. Brianne Orr-Alvarez	Associate Professor of Teaching Associate Head of Spanish Studies, Department of French, Hispanic and Italian Studies	Piloted collaborative learning in SPAN 280
Dr. Qian Wang	Chinese Language Program Director	Associate Professor of Teaching, Chinese Linguistics, Department of Asian Studies	Piloted collaborative learning in CHIN 133 and CHIN 134
Dr. Siobhán Wittig McPhee	Associate Professor of Teaching, Department of Geography	Piloted collaborative learning in GEOG 121
Dr. Zhaokun Xin	Lecturer, Department of Asian Studies	Piloted collaborative learning in CHIN 494

1.5. Courses Reached – *Please fill in the following table with __past__ and __current__ courses (e.g., HIST 101, 2017/2018) that have been reached by your project, including courses not included in your original proposal (you may adapt this section to the context of your project as necessary).*

Course	Academic Year
WRDS 150A	2020W2, 2021W1
WRDS 150B	2020W2, 2021W1, 2022W1, 2022W2
SPAN 280	2020W2, 2021W1
CHIN 133	2020S
CHIN 134	2020S
GEOG 121	2021W1
SOCI 102	2022W1
SOCI 224	2022W2
SOCI 290	2022W2
ENGL 243	2022W2

OUTPUTS AND/OR PRODUCTS

1.1. *Please __list__ project outputs and/or products (e.g., resources, infrastructure, new courses/programs). Indicate a URL, if applicable.*

Output(s)/Product(s):	URL (if applicable):
Collaborative learning overview page on the Arts ISIT web site	https://isit.arts.ubc.ca/services-support/teaching-learning-strategies/pedagogical-approaches/collaborative-learning/
January 2024 Edubytes editorial on Collaborative Learning	https://ctlt.ubc.ca/2024/01/25/edubytes-collaborative-learning/
Evaluation Summary report document	https://isit.arts.ubc.ca/wp-content/uploads/sites/57/2023/12/Summary-Report-Collaborative-Learning-TLEF-Project.pdf
Strategies for Collaborative Learning page on the Arts ISIT web sites that includes a review of the literature	https://isit.arts.ubc.ca/news/strategies-for-collaborative-learning/
Teaching stories from collaborative learning pilots:	- Laura Baumvol, WRDS 150B - https://isit.arts.ubc.ca/news/reading-circles/ - Giséle Baxter, ENGL 243 - https://isit.arts.ubc.ca/news/creative-student-projects-using-collaborative-learning/ - Neil Armitage, SOCI 102 - https://isit.arts.ubc.ca/news/practical-learning-alumni-interviews/ - Zhaokun Xin, CHIN 494 - https://isit.arts.ubc.ca/news/facilitating-peer-based-learning-through-collaborative-translation/ - Brianne Orr-Alvarez, SPAN 280 - https://isit.arts.ubc.ca/news/a-teaching-manifesto-on-the-assembly-co-facilitating-collaborative-participatory-learning-in-span-280-revolution/ - Katherine Lyon, SOCI 290 - https://isit.arts.ubc.ca/news/collaborative-and-community-based-experiential-learning/ - Qian Wang, CHIN 131 - https://isit.arts.ubc.ca/news/collaborative-note-taking-for-language-classes/

1.2. Item(s) Not Met – *Please list intended project outputs and/or products that were not completed and the reason(s) for this.*

Item(s) Not Met:	Reason:
A number of the course pilots that were planned in the Year 1 proposal, including those in ECON, German Studies and Creative Writing were not completed.	Due to the COVID-19 pandemic and the shift to remote learning, initial pilots were delayed and some cancelled due to changes in instructor plans in teaching approach and course design. With some instructors opting out of the project, we recruited and supported additional instructors in the pilots. Some instructors also changed which course they implemented collaborative learning activities in, while still participating in the project.
The Year 1 proposal included plans to set up and configure an instance of OnlyOffice that would be used for the course pilots and consult with LT Hub on the procurement of a permanent solution for collaborative document authoring.	At the start of Year 1 of the project, UBC procured access to Microsoft Teams and Office 365 for UBC students. With the availability of this new tool, the decision was made to suspend OnlyOffice setup and utilize Microsoft Teams for the pilots instead.
Present findings to LT Hub and UBC IT to share feedback on support and usability issues.	This item has not been completed yet, but is still planned. The main reason for the delay is that the project evolved over time to have less focus on a specific collaborative learning tool and greater attention to collaborative pedagogies more broadly. The initial project plan, as outlined in the proposal, had a strong focus on evaluating the usability of OnlyOffice which was no longer relevant with the transition to Microsoft Teams. In Year 1 of the project, the student and instructor experiences with Microsoft Teams were collected. Some of the initial onboarding challenges students experienced were shared with LT Hub and resolved. In Year 2 of the project, pilot courses gave students the option to choose which technology platform to use for collaboration, so a specific evaluation of Microsoft Teams was not done. Findings in the final report involving student attitudes towards their preferences and choices related to collaborative technologies will continue to be shared and discussed with various groups including LT Hub and Faculty of Arts leadership and instructors.

2. PROJECT IMPACT

2.1. Project Impact Areas – *Please select all the areas where your project made an impact.*

☒ Student learning and knowledge

☒ Student engagement and attitudes

☐ Instructional team-satisfaction

☒ Teaching practices

☒ Student wellbeing, social inclusion

☐ Awareness and capacity around strategic areas (Indigenous, equity and diversity)

☒ Unit operations and processes

☐ Other:

2.2. Please provide details on each of the impact areas you selected in 3.1. – *For example, explain in which ways your teaching practices changed; how student wellbeing was impacted; how students wellbeing benefited from your project, etc.*

Student Learning and Knowledge

Fifteen course sections took part in this study, directly benefiting from the use of innovative pedagogical approaches and collaborative learning technologies. Specifically, we found that students reported these activities helped them to develop soft skills, like time management, communication and critical thinking that were transferable to other academic and real-world settings. Further, collaborative learning activities encouraged empathy and intellectual diversity, while enriching the students' understanding of the course material. Relatedly, opportunities to collaborate with non-academics and professionals provided practical skills and helped them to apply their knowledge in real-world settings. Finally, these collaborative activities were structured to help students learn how to work effectively in a team while also promoting digital literacy with a variety of tools like Microsoft Teams, EtherPad, and PeerScholar.

Student engagement and attitudes

Our interviews and surveys also indicated that participating students showed high levels of engagement and that collaborative learning activities improved their attitudes towards learning. These activities helped to create more participatory classrooms and facilitate critical thinking and discussion among students by empowering them to take more responsibility for their own learning. Specifically, students were able to divide tasks amongst themselves based on individual skills or interests, which promoted engagement while also providing them with a greater sense of ownership over their projects.

Teaching Practices

The nine faculty members who took part in this study pointed to several ways that the implementation of collaborative learning activities positively benefited their teaching practices. First, online collaborative activities allowed instructors to provide more frequent and timely feedback to students at multiple stages of the learning process. Feedback could also be communal, making the feedback process more scalable. Second, the tools and online nature of the activities provided instructors better insight into the learning of their students. That is, they could more easily trace student engagement and thought processes through revision histories, etc.

There are also more indirect benefits to the teaching practices of instructors emerging from this study, such as the ability to apply student feedback to their course design and the chance to iteratively engage in the design of collaborative learning activities alongside Arts ISIT; however, these will be covered in Section 4 of this report.

Student Wellbeing and Social Inclusion

One of the main benefits reported by students who took part in this study was how the collaborative learning activities helped to develop a sense of community. This was particularly important for students emerging from the pandemic or still taking classes online. These activities allowed students to build friendships, while also becoming acquainted with each other's work styles. Also, students reported that the division of responsibility within group activities helped reduce their workload on certain projects. Finally, students reflected on how working in groups helped to promote inclusion and engagement with a diverse range of perspectives.

Unit Operations and Processes

The findings of this study have prompted Arts ISIT to consider several support recommendations. Specifically:

- Onboarding and Set-Up: If online collaboration tools are going to be used more broadly across courses, finding strategies to address onboarding will help to ease many of the time commitment and buy-in challenges both students and instructors face. Support from Arts ISIT when onboarding students, creating groups, and rolling out collaborative learning activities would be particularly helpful for instructors. Specifically, support for setting up UBC email addresses for students and groups within Microsoft Teams would be helpful, as email addresses are not connected to student names due to privacy restrictions.

- Teaching Assistant and Instructor Training: Developing a set of standardized training materials for faculty and teaching assistants would be helpful. This would include information on useful tools, applicable training materials, and guidance on the effective use of different software alternatives for collaborative learning. Tools for project management, communication, and document authoring are particularly valuable.

- Address Technical Issues for Supported Software: The findings of this report should be communicated to the Central IT units at UBC so that technical issues can be addressed collectively.

Support Partnerships: Given the time constraints on instructors who are setting up Microsoft

Teams for their courses, working with partners such as UBC IT and Chapman Learning Commons to explore strategies and resources for onboarding and training students may help to reduce instructor workload.

- Create an online space for sharing examples and resources: Create an online space to share sample materials and examples of collaborative learning activities resulting from the pilots. Guidance on selecting collaborative learning tools, digital literacy, and project management for students could be made available for other instructors to modify and use in their own courses.

2.3. How do you know that the impacts listed in 3.1/3.2 occurred? – *Describe how you evaluated changes/impacts (e.g., collected survey data, conducted focus groups/interviews, learning analytics, etc.) and what was learned about your project from the evaluation. You are encouraged to include graphical representations of data and/or scenarios or quotes to represent and illustrate key themes.*

Student feedback was collected through online surveys distributed to each pilot near the term's end. Additionally, student focus groups were incorporated in Year 2 to provide greater context surrounding their experiences with collaborative learning and to get more in-depth feedback on themes that emerged from the surveys in Year 1. Semi-structured interviews were also conducted with instructors in Year 1 to identify key themes surrounding their pedagogical approach to collaborative learning and motivations for integrating collaborative learning into their courses. Since all the Year 1 pilots utilized Microsoft Teams as the primary tool to facilitate collaboration, targeted questions were also included in both the instructor interviews and the student surveys to better understand their experiences with that specific tool.

Following each round of data collection, responses from students and instructors were thematically analyzed to determine common experiences and insights related to collaborative learning. Specifically, the benefits of collaborative learning were explored, as were barriers to its successful implementation, the ideal role of instructors, how learning technologies were being used, and if there were any barriers to their use. Descriptive statistics surrounding these areas of interest were also obtained from student surveys where appropriate.

The overall results of the surveys were positive, indicating that most students felt that the collaborative activities benefited their learning. Looking at the aggregate responses across courses, 77% of students either "strongly agreed" or "agreed" that collaborating with other students in a group activity was beneficial to their learning. However, when asked whether they would collaborate online again, only 53% expressed a positive sentiment.

Did the collaborative activity benefit my learning?

13%

10%

77%

■ Positive ■ Neutral ■ Negative
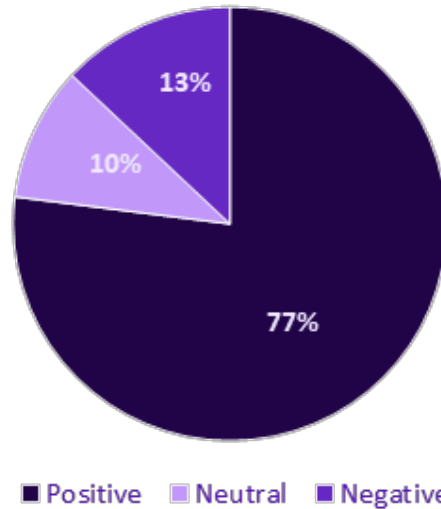
Would I collaborate on group work online again?

26%

53%

21%

■ Positive ■ Neutral ■ Negative
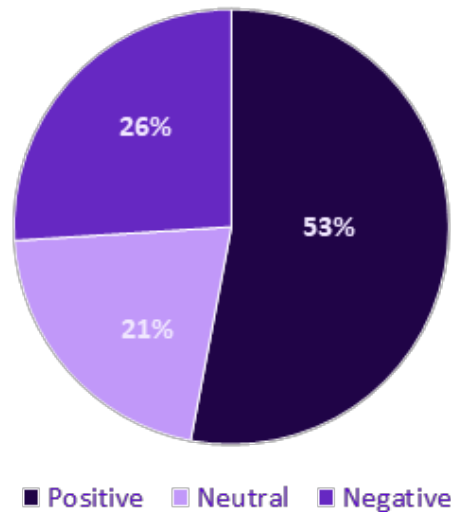
These sentiments are expected given the data obtained from focus groups. Students reported a wide range of benefits associated with these collaborative learning activities, including improved engagement, self-directed learning, skill development, relationship building, and a broad diversity of opinions/skills within groups. However, many challenges were also expressed such as the additional time required to complete collaborative activities and difficulty organizing times to meet with their group members. Many students suggested they needed more time to meet in person during class to get to know their group members better and plan next steps. This suggests that a hybrid environment which combines the flexibility of online collaborative learning while allowing for face-to-face meetings is generally preferred.

However, there was also significant variability across courses, indicating that factors like activity design and technical issues can play a key role in determining how positively students perceive collaborative learning activities. Many students expressed challenges with Microsoft Teams that may have impacted their overall satisfaction with the activity as well. Generally, these included technical issues or a desire to use software that they were already familiar with. Instructors also highlighted several barriers related to Microsoft Teams, such as a lack of student buy-in and the amount of time it took to set up their classrooms online.

While this is a broad overview of our findings, please refer to the Summary Report for a more detailed examination of the barriers and benefits that students/faculty experienced when engaging in collaborative learning.

3. **TEACHING PRACTICES** – *Please indicate if **your** teaching practices or those of **others** have changed as a result of your project. If so, in what ways. Do you see these changes as sustainable over time? Why or why not?*

The nine faculty members who participated in this two-year TLEF all integrated collaborative learning activities into their courses. For some, this involved the modification of activities that already existed to incorporate online collaborative writing tools, while other instructors designed and integrated entirely new activities. The feedback received from students for each course was shared and discussed with instructors as an opportunity to refine the activity. The specific course feedback and general recommendations emerging from the evaluation have helped instructors make the activities more sustainable while also helping Arts ISIT develop better support structures to assist instructors with implementing these types of activities. In many cases, decisions to incorporate different collaborative learning technologies or pedagogical approaches were made to help scale the activity, or to address barriers faculty were facing related to their level of teaching support or time pressures related to assessment and feedback.

One example of how the project had a positive impact on teaching practice is discussed in Dr. Laura Baumvol's teaching story that describes student feedback and design changes made across multiple iterations of her Reading Circles Activity. During the COVID-19 pandemic, she first adapted this activity to an online environment as she sought an approach to teaching that would continue to engage her students in group writing and discussions. Over the next two years, she revised the activity multiple times across four terms in response to student feedback and changing course delivery modes. Over this time, she introduced a peer assessment component to manage feedback in a more sustainable way and made the first group activity ungraded to provide an opportunity for groups to have low-stakes practice and feedback before being graded on their work. This experience reaffirmed the importance of peer learning and engagement and helped her develop a more flexible and sustainable activity to fit her course goals and students' needs. For additional examples, please look to the teaching stories listed in Section 1.1.

An additional outcome of this project was to use case studies, like Dr. Baumvol's, to provide Arts ISIT and associated units insight into the types of barriers instructors are facing when running collaborative learning activities. Coupled with the considerations listed in Section 3 of this report on possible improvements to our support system, this should help ensure it is sustainable to continue running such activities in the future.

4. **PROJECT SUSTAINMENT** – *Please describe the sustainment strategy for the project components. How will this be sustained and potentially expanded (e.g., over the next five years). What challenges do you foresee for project sustainment?*

In addition to supporting individual instructors in introducing collaborative learning activities into their courses, the larger goal of the project was to use these pilots to learn about instructor and student experiences with collaborative learning and provide a range of examples that other instructors could learn from. To help support broader adoption, Arts ISIT worked with instructors involved in the pilots to create a series of teaching stories (listed in Section 1.1) that describe the different collaborative activities along with instructor reflections. These provide models that other instructors can take inspiration from and build off of when designing their own activities. In addition, Arts ISIT has created a strategy guide and resource page that includes a summary of key takeaways from the literature on collaborative learning in addition to lessons learned from the project. The final evaluation report that summarizes instructor and student experiences with collaborative learning activities has also been made available on the Arts ISIT web site. These resources have been shared through various channels including the Arts ISIT newsletter, the January 2024 Edubytes Editorial and a 2023 CTLT Winter Institute panel session. There is also a planned session for the 2024 Arts ISIT Welcome Back Conference and discussions are underway to share a summary of the project and findings from the evaluation report with the Arts Leadership team. Arts ISIT plans to continue to work in cooperation with the instructors involved to share the results of the project to build awareness of the potential benefits of collaborative learning and further support other instructors who wish to engage in this type of pedagogy.

From a learning technology support standpoint, the experience of piloting Microsoft Teams with a small set of courses early in the University adoption process helped to build capacity within Arts ISIT and inform the broader rollout and support of the tool. Arts ISIT learned about challenges students were having with onboarding and was able to communicate with LT Hub and UBC IT to help resolve some of the issues. Through this work, Arts ISIT also developed support materials available for instructors to use with their students to make onboarding easier. In addition, experience with the TLEF pilots helped Arts ISIT staff gain an understanding of different ways Microsoft Teams and Office 365 can be set up for facilitating group collaborative writing activities within courses, allowing the unit to be better able to provide guidance to other instructors who are interested in using this technology.

While the project was effective at helping to build capacity to support online collaborative learning activities across a range of course contexts, there are several challenges that emerged that require further conversation and continued work to address.

- Student buy-in for collaborative learning activities was a challenge identified by feedback from both students and instructors. As discussed in Section 2.3, although students largely agreed that collaborative activities benefited their learning (with 77% of students indicating they either "strongly agree" or "agree"), only 53% expressed positive sentiment when asked if they would participate in online collaborative learning again. Some of the key challenges that students identified included technical issues, increased workload, unequal distribution of work between group members, scheduling and time management issues, and concerns related to grading fairness. Instructors noted

concerns that the level to which students perceived activities as beneficial to their learning did not always align with the instructor's broader pedagogical intentions or goals.

The teaching stories and additional resources developed by Arts ISIT provide strategies to help instructors emphasize the benefits of collaborative learning, such as exposure to diverse perspectives and community building, while minimizing the challenges. In addition, many instructors involved in the project developed strategies to address student buy-in, such as clearly communicating to students why they are being asked to work collaboratively and utilizing approaches such as peer assessment to address accountability concerns. These practices can serve as models for other instructors to utilize. Continued work will need to be done to help communicate these strategies to instructors and support them in designing activities.

- Instructors also expressed challenges related to time and workload. They noted that introducing the collaborative activities required additional time prior to the start of term to design the activities and prepare associated materials. During the term, additional time was needed to organize the activity,

  monitor group processes and provide feedback. For the courses involved in the TLEF project, undergraduate assistant support was available to assist with these tasks. Since student assistance will not be available to future instructors who would like support adopting similar approaches, it will be important to support instructors in designing collaborative activities that are sustainable from a time management perspective. Several strategies developed by instructors in this project can be shared to help with this. In addition, support resources developed through the project, along with Arts ISIT staff support can be leveraged to assist instructors in designing sustainable activities.

- Student and instructor buy-in and fluency with online collaborative writing tools is another challenge that will need to be addressed. Learning to use collaborative technologies, such as Microsoft Teams, as part of course instruction requires instructors to learn a new technology as well as learn how to integrate it with other learning technologies used in the course in support of their learning goals. This will require ongoing support and training from Arts ISIT and other support units. Students also need support to help with onboarding and help them learn how to use the tool. Experience and comfort level with UBC supported tools such as Microsoft Teams can vary across students. In the evaluation, students reported that they most commonly turn to instructors, teaching assistants and other students for technical support which can add an increased time burden to instructional staff. When given the choice of which tools they would use to collaborate with, students commonly chose tools they were already familiar with such as Google Docs and Instagram rather than utilizing UBC supported tools. While this can present challenges for support, it also offers opportunities for instructors to engage students in conversations around digital literacy to apply a critical lens to their technology choices and consider factors such as privacy and access.

5. **DISSEMINATION** – *Please provide a list of scholarly activities (e.g., publications, presentations, invited talks, etc.) in which you or anyone from your team have shared information regarding this project. Be sure to include author names, presentation title, date, and presentation forum (e.g., journal, conference name, event). These will be included on the TLEF scholarly output page.*

- McPhee, S., Orr-Alvarez, B., Lyon, K., Jerowsky, M., Myers, J. (2023, December 13). Collaborative Learning: Recommendations and Strategies for Use When Developing Collaborative Learning Activities in Your Classroom [Panel session]. University of British Columbia 2023 CTLT Winter Institute, Vancouver, British Columbia, Canada. https://institute.ctlt.ubc.ca/winter-institute/winter-institute-events/
- McPhee, S. & Jerowsky, M. (2022). What is 'blended learning' and how can it benefit post-secondary students? *The Conversation.* https://theconversation.com/what-is-blended-learning-and-how-can-it-benefit-post-secondary-students-187971