

Weaving Together Arts with STEM

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Overview

Weaving Together Arts with STEM: creating a living repository of pedagogical resources for students in the Faculty of Education is a project aimed to raise awareness of interdisciplinarity and specifically to design and share resources related to STEAM (Science, Technology, Engineering, Arts and Math) that are appropriate to the BC K-12 curriculum. This TLEF funded project began in May 2019 and completes in the summer of 2021.

Resources were primarily shared via the [Scarfe Digital Sandbox](#), an existing repository of teaching and learning resources in UBC Teacher Education. This website had over 34,000 unique page views since Sept. 2020 with an average time on page of 2 to 4 minutes. 77,000+ total page views over two years help tell the story of this valuable and widely used open repository! Peak times for access were following workshops, in-class sessions, social media posts, podcast launch dates and program orientations with highs of 2000 and 3500 visitors on single days in March 2020 and 2021 respectively. Resources co-developed with instructors were shared via Canvas courses in 2020-21 with highlights or select resources included as OERs.

Open Education (OER)

We chose to create and share our work openly and invite those who access these resources to share alike under a creative commons license. Part of the work of this project included raising awareness of the value of accessing, creating & sharing OERs.

Interactive STEAM Resource Repository

The [STEAM resource area](#) on the Scarfe Digital Sandbox included an interactive searchable interface. User experience (UX) focus groups were scheduled for March 2020 but delayed due to the COVID19 lockdown. Planning is underway for virtual focus groups in July 2021.

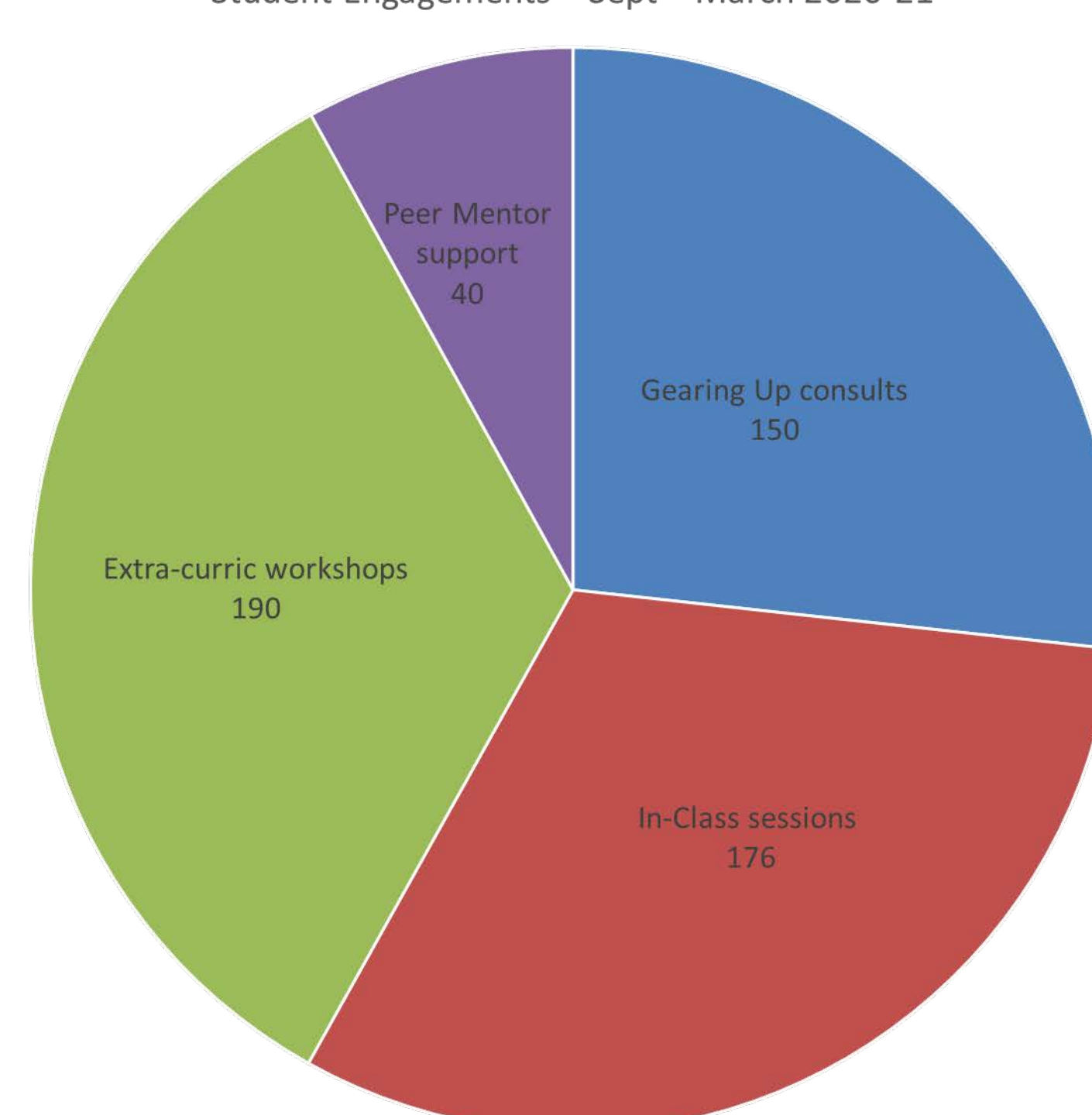
STEAM Resources



Student Engagement

As a result of this project, 550+ students participated in workshops, in-class sessions and consults between Sept. 2020 & April 2021, with over 1500 reached since May 2019. Sessions focused on STEAM topics and planning for interdisciplinary learning in K12. The majority of attendees were BEd students although many events were open to and alumni, other FoE students & guests.

Student Engagements – Sept – March 2020-21



Education Library Partnership

The Ed Library team were among partners in the activities of this project & supported sustainability.

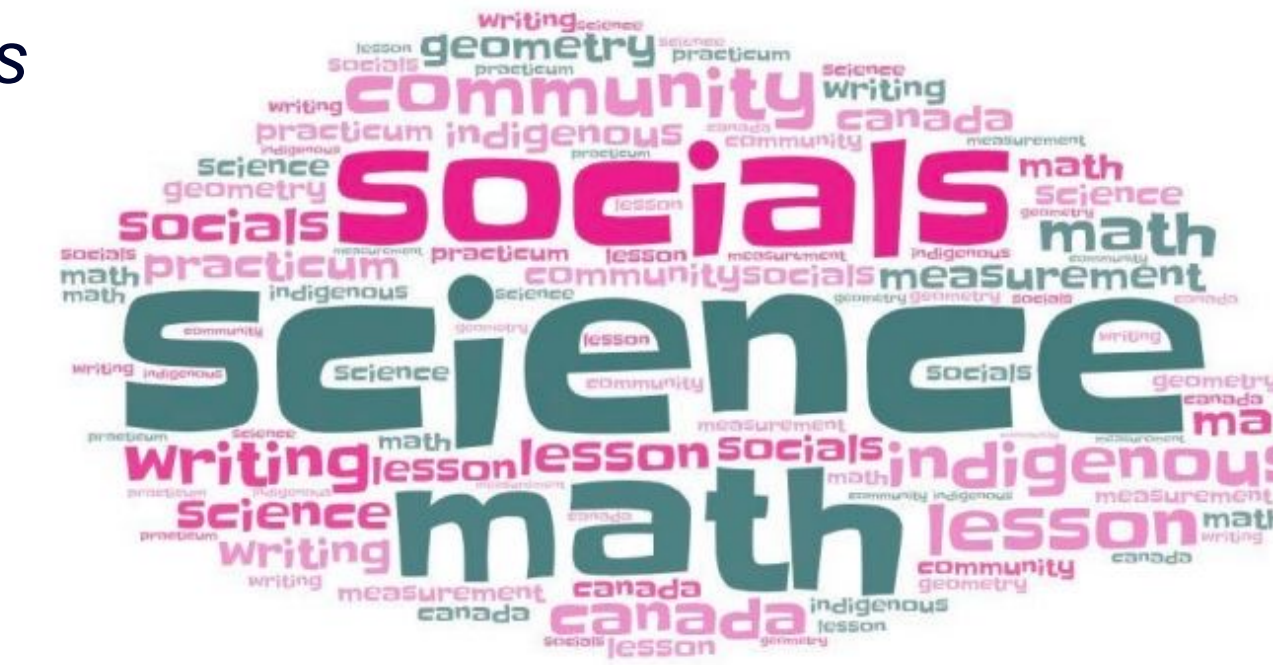
Create Make Innovate

Working with our partners in the Education Library, pop-up STEAM activities took place weekly in the Fall and periodically throughout the year to support engagement in hands-on & cross-curricular, digital technology integrated making activities. These were face to face in 2019-2020 and virtual in 2020-21 due to the COVID 19 pandemic. Accompanying kits are available for ongoing loan in the library.



Gearing up for Practicum

Education Librarians Wendy Traas & Emily Fornwald together with Yvonne Dawydiak, Learning Design Manager in Teacher Education, host small group and one-on-one consults with teacher candidates in the BEd program 3 to 4 times per week December through March. Funding from this project allowed graduate students in education to focus on bringing STEAM resources into sessions in 2019-2021. Also supporting sustainability, Eric Lee, Worklearn student webmaster, designed a complex Qualtrics RSVP form that can be used in future years & helped us capture key themes & topics of interest to our attendees the development of booklists highlighting Library collections.



PODCAST Series: Thinking Outside the Sandbox

Grad students involved in Winter & Summer 2020 produced a [Podcast series](#) with accompanying blog posts to engage our audience in considering interdisciplinary learning from multiple perspectives. Belen & Nashwa interviewed faculty members from several departments in the Faculty of Education and wove together audio from these interviews based on the emerging themes including:

- Arts-based learning
- Outdoor and place-based learning
- Technology Integration
- Challenges of interdisciplinarity
- Math & interdisciplinary learning & teaching
- Food literacy
- Exploring textiles

Raw video footage was captured and will be valuable in creating short instructive videos highlighting links between theory and practice by future students.

Acknowledgements

We are thankful to have the opportunity to conduct our work on the traditional, ancestral, and unceded territory of the xwməθkwəyəm (Musqueam) People and further acknowledge that much work occurred during 2020-21 during a global pandemic on the territories of other Coast Salish peoples as we pivoted to remote working, teaching & learning.

We gratefully acknowledge the support of the Teacher Education Office, CTLT, WorkLearn UBC & the financial support provided by UBC Vancouver students via the Teaching & Learning Enhancement Fund.

I am submitting this poster with thanks to a committed and caring team of collaborators, partners & participants over two years (May 2019 – May 2021) and to those who will contribute in the future.

Special Thanks

2019-20 Student Staff:

Yousra Alfara, Belen Guillemín, Nashwa Khedr, Eric Lee, Scott Robertson, Cindy Yu,

2020-21 Student Staff:

Jacqueline Boivin, Maryam Begzada & Naomi Hudson,

Contributors:

Education Library, UBC Geering Up, Education Technology Support (ETS), FoE faculty members