



The McMaster Research Shop

Impact Report

July 2020

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McMaster
University 

Five years of experiential learning opportunities for students

The McMaster Research Shop recruits, trains, and supervises teams of student volunteers to answer community-driven research questions. Since 2016, the Research Shop has supported 191 volunteers from all six faculties to complete 44 real-world projects for the Hamilton community. The program is the first of its kind among Canada's U15 universities, and since its founding has developed scoping, project management, training, and monitoring infrastructure that supports high-quality experiential learning opportunities for students.

This report provides a summary of the impact of the McMaster Research Shop pilot program. As the report demonstrates, the Research Shop is well-positioned to be a flagship community-engaged experiential learning program at the university and could support capacity-building among other co-curricular groups and experiential learning initiatives on campus. Focusing on the most recent phase of the pilot since it was placed in the Office of Community Engagement (OCE) by the Provost in 2017, the report summarizes impacts, successes, and lessons learned as program foundations have been developed in support of the University's goals.

The Research Shop in Numbers

(2016-2020)



191

experiential learning opportunities created for students



Over 80%

of volunteers state they learned a lot volunteering with the Research Shop and applied their academic skills in a non-academic setting



Over 60

references provided for volunteers



100%

of community partners report having a positive experience with the Research Shop



Over 14,300*

student volunteer hours contributed

*191 student positions at 5 volunteer hours/week for an average of 15 weeks/semester



90%

of volunteers would recommend the Research Shop to their peers



44

research projects completed for community partners

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How the Research Shop works

Housed in the Office of Community Engagement, the Research Shop is managed by a part-time Coordinator and supervised by the office's Community-Engaged Research Facilitator. Throughout the year, the Coordinator meets with prospective community partners to scope potential project opportunities. At its current capacity, the Research Shop takes on an average of five projects each semester, ranging from program evaluations to environmental scans and community needs assessments.

Research Shop Project Life Cycle:



1. **Connection:** Community partners typically get in touch with us through our website. They submit a preliminary research question including details about the purpose, audience, and timelines of their proposed project.



2. **Scoping:** Research Shop staff work with the community partner to refine their research problem and prepare a project charter that captures their request.



3. **Matching:** The Research Shop Coordinator recruits and matches volunteers to the project based on their experience, skills, and interest.



4. **Implementation:** In partnership with the community organization, the research team plans and implements the research project over one semester.



5. **Deliverable:** The research team prepares a plain-language report (typically 15-30 pages) for the community partner. Additional deliverables can include a presentation, infographic, and/or another form of knowledge translation.

Project Scoping Criteria

When scoping a project opportunity, Research Shop staff use the following criteria to determine suitability:



Community Benefit: The research stands to benefit the Hamilton community and be put to concrete, practical use.



Need: The partner is a non-profit, community group, or other social purpose organization that does not have the resources to carry out research themselves.



Partner Support: The partner will help to inform volunteers, provide access to data, review draft deliverables, and provide direction where needed.



Capacity: The research can be completed over the course of an academic semester.



Positive Volunteer Experience: The project is interesting, and volunteers stand to gain important skills and experience from participating.



Steady growth of an impactful and sustainable model

The Research Shop has come a long way since its pilot in 2015 in the Faculty of Social Sciences. The initiative, first called the Rapid Response Research Unit, focused on literature reviews and environmental scans by graduate students to strengthen connections with non-academic organizations and to facilitate rich experiential learning opportunities for students. In 2017, the Research Shop received a 3-year Strategic Alignment Fund grant to build on this model, provided the program be housed in the Office of Community Engagement.

Since its launch, the Research Shop has grown in several key areas:

- **Staff Capacity:** Initially a 10 hour/week (0.3 FTE) coordinator, to roughly 0.75 FTE plus 5 part-time paid Team leads. By building capacity for ongoing staff positions, the program has reduced staff turnover and consequent loss of institutional memory. This growth has also enabled the development of extensive program infrastructure and robust supervision of project teams.
- **Number of Projects:** From 11 in 2016-17 to 22 in 2018-19¹. Forecasted annual capacity with current staffing levels is 13-15 projects per year.
- **Complexity of Projects:** Most now include a primary data collection component.
- **Volunteer Support:** Reflecting increasing project complexity, the Research Shop has, with additional capacity provided by the Career Ready Fund (2017-2019), developed a comprehensive volunteer training program.
- **Number of Volunteers:** From approximately 20² in 2016/17 to 81 in 2018/19. Forecasted capacity is for approximately 60 volunteer opportunities annually.
- **Demand for Volunteer Positions:** 6 new applicants were not offered positions in Fall 2018 due to competition for a limited number of positions; in Winter 2020 there were 42 applicants for whom no positions were available.

In addition to steady growth, the program has piloted:

- a fee-for-service partnership with a local non-profit organization,
- a strategic partnership with the Hamilton Community Foundation to support paid Team Lead positions and assist the foundation's grantees with program evaluations, and
- the use of the Research Shop's project scoping process to broker new university-community partnerships for opportunities outside the scope of the program.

As university-wide priorities have emphasized the creation of real-world experiential learning opportunities for graduate and undergraduate students, the Research Shop continues to build upon a program model that is principled, sustainable, and impactful for all parties involved.



¹ Twelve (12) projects were initiated in the Winter 2019 term, which strained program capacity and delayed completion for some projects. This level of service was deemed unsustainable.

² Maintaining detailed records in the early period of the Research Shop was challenging given the pressures of supervising multiple projects for a 10-hour/week coordinator. Records note the number of volunteers was estimated.



Excellence in student-supported learning

Since 2016, the McMaster Research Shop has recruited, trained, and supervised 191 student and alumni volunteer positions across 44 projects in the Hamilton community. Approximately 68% of the program's volunteers are graduate students or in post-doctoral positions, 25% are upper-year undergraduate students, and the remainder (7%) are alumni. The table below provides a yearly breakdown of volunteers by faculty from 2016-2020.

Number of Research Shop Volunteers by Faculty, 2016-2020

Year	Social Science	Humanities	Health Sciences	Science	Business	Engineering	Other ¹	Total Opportunities
2016 -2017	8	2	5	5	0	0	0	20
2017-2018	7	2	11	6	5	1	1	33
2018-2019	15	8	47	11	7	7	1	96
2019-2020 ²	5	2	20	10	5	0	0	42
Total	35	14	83	32	17	8	2	191

¹ Community members who were neither McMaster students nor alumni were included as volunteers initially. Volunteer eligibility criteria was restricted to students or alumni of McMaster in Summer 2019.

² This data reflects volunteers from two semesters only: Fall 2019 and Winter 2020. Other years in this chart show data from three semesters each (Fall, Winter, and Summer).

Volunteer Training

The interdisciplinary nature of Research Shop projects means students arrive with varying skills, experience levels, and backgrounds. To support student learning, the program has developed a training program for volunteers, including an Avenue to Learn course and interactive workshops. The training curriculum aims to increase volunteers' knowledge of and experience with research design, data collection and analysis (literature reviews, surveys, interviews, focus groups), and plain language writing. For example, volunteers can learn theoretical approaches to qualitative interviews in a self-directed online module then practice their interview skills in a supervised "mock interview" workshop with their peers.

The Research Shop Helps Students Get Jobs!

Research Shop staff have provided over 60 references on behalf of volunteers for employment or further education applications since October 2016. This is testament to the program's value in providing students with the skills they need to succeed in academia and the workforce.

"I believe the Research Shop is an excellent idea! I wish there were more of them, as I see it as a place to hone skills, and also introduce people who are thinking about a career in research. It provides a good idea of exactly what private research work is like."

Volunteer

"[My experience with the Research Shop] reinforced the need for clear, concise communication within the group, and to ensure a group cohesion so every member feels they understand their role and what is expected of them."

Volunteer





Measuring learning outcomes

To measure learning outcomes, at the end of every project the Coordinator administers a feedback survey, which has a response rate of about 70%. As reflected in the figures below¹, volunteers consistently report having a positive experience and developing transferable skills that will help them in their academic and professional careers.

Student Learning Outcomes (Fall 2018-Fall 2019, n=64)

90%

I would recommend this experience to my peers

88%

I enjoyed my experience working with the McMaster Research Shop

86%

I would like to explore further opportunities to collaborate with the community partner or get involved in the community

85%

I learned a lot from my experience working with the McMaster Research Shop

81%

The experience helped me learn how to apply my academic skills in a non-academic setting

77%

I would like to do another project with the McMaster Research Shop

74%

The experience will help me achieve my academic and/or career goals

68%

The experience helped me integrate my classroom/coursework knowledge by applying it to a real-world example

Student Skill Development (Fall 2018-Fall 2019, n=64)

90%

Plain language report writing

86%

Teamwork

81%

Social research methods

81%

Community engagement

76%

Knowledge of Hamilton context, issues, and organizations

72%

Searching grey literature

58%

Searching academic databases



“I am once again thrilled to have had the opportunity to work with McMaster. The dedication and commitment is an excellent example of what can happen when trained people collaborate with community and ideas are shared.”

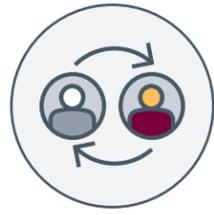
Community partner

“I would encourage other groups to consider using the Research Shop to collect evidence on a concept they would like to develop. The information is invaluable and can be leveraged to mobilize an idea to reality. A BIG thank you to the research team!”

Community partner



¹ Numbers indicate percentage of respondents who agree or strongly agree



Building positive university-community partnerships

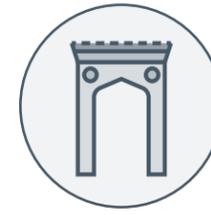
The Research Shop strives for mutually beneficial partnerships that not only provide meaningful learning opportunities for students but that respond to genuine community needs. The Research Shop has worked with a range of non-profit, charitable, and grassroots groups who could not otherwise afford to conduct needed research or evaluation due to limited staff, resources, and/or expertise. Their work spans a whole variety of community issues, including those related to:

- The environment
- Economic development
- Healthcare
- Arts and culture
- Poverty reduction
- Inclusion
- Education
- Neighbourhood organizing

Community partners use research deliverables for a variety of reasons, most commonly to inform organizational strategy and the development and improvement of their programs and services. Other uses include:

- informing internal and external stakeholders on the research topic (e.g. onboarding discussions, distribution at conferences),
- advocacy work,
- applying for funding, and
- grounding for future research on the topic.

At the end of their project, partners fill out an evaluative questionnaire about their experience. The Research Shop has received unanimously positive feedback about the program's process and deliverables. For example, 100% of respondents agree or strongly agree that the resulting research product met their expectations, that the program offers a valuable service to their organization, and that they would recommend the Research Shop to other organizations.



Supporting McMaster's strategic priorities

Over the past 3 years, the OCE has utilized the strategies noted in this document to develop a Research Shop program model that is principled, sustainable, and impactful for all parties involved. The Research Shop is ideally suited to serve the following University goals:

- **Strategic Research Plan:** The program has the potential to serve every objective of the University's 2018-2023 research plan.
- **Alignment with Faculty Priorities:** Conversations with Deans and Associate Deans in each Faculty have reinforced the importance of creating real-world learning opportunities for graduate and undergraduate students.
- **Interdisciplinary:** The program provides a unique experience that strives to maximize the assets and skills of various disciplines that span all areas of the University.
- **Impact and Rankings:** Program outcomes directly serve the University's goals and can contribute towards efforts to improve the University's rankings from a range of perspectives.
- **Partnership Incubator:** Some requests from community groups have turned into new education and research partnerships extending beyond the scope of the Research Shop.



A flagship experiential education program for McMaster

As this report demonstrates, the McMaster Research Shop is well-positioned to continue to provide excellent quality experiential learning opportunities to students and alumni, and tangible benefit to Hamilton's many communities. From a modest investment through the Strategic Alignment Fund in 2015 to building capacity and infrastructure through leveraging outside investment in the years since, the McMaster Research Shop continues to demonstrate excellence in facilitating experiential learning opportunities for student while fostering meaningful university-community partnerships. Further, the program has the potential to serve as a leader in co-curricular experiential learning across McMaster campus, amongst McMaster's U15 peers, and internationally.



Supporting apprenticeship pathways in Hamilton

The Research Shop partnered with the Adult Basic Education Association of Hamilton (ABEA) to better understand the extent to which adult learners in Hamilton's Literacy and Basic Skills Programs are aware of and interested in apprenticeships. The Research Team conducted focus groups, surveys, and interviews and discovered that adult learners have significant knowledge gaps when it comes to apprenticeship requirements and opportunities. ABEA used the team's findings and recommendations to inform actions in their 2018-2019 work plan to increase apprenticeship knowledge for both learners and literacy practitioners.



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