



Miistakis
Institute

Community Engaged Research at Mount Royal University

Kelly Learned, Holly Kinas, Danah Duke

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Prepared by Kelly Learned, Holly Kinas, Danah Duke

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Miistakis Institute
Rm U271, Mount Royal University
4825 Mount Royal Gate SW
Calgary, Alberta T3E 6K6

Phone: (403) 440-8444

Email: institute@rockies.ca

Web: www.rockies.ca

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Introduction

The Miistakis Institute was tasked with assessing community-engaged research at Mount Royal University (MRU) for the Office of Research, Scholarship and Community Engagement (ORSCE). The goal of the project was to develop a starting point for discussions to enhance community-engaged research (CEnR) at MRU.

The project approach involved a survey of external institutes' CEnR programs, a survey of staff and faculty involved with CEnR related initiatives at MRU, and a literature review of CEnR research in order to enhance the understanding of CEnR at MRU today and into the future.

Context

There are a growing number of organizations, institutions, government agencies, etc. involved in advancing knowledge about community engagement and in promoting its use to solve some of today's most challenging problems. Increasingly, post-secondary institutions are adopting CEnR approaches to leverage impact and advance innovation to improve the lives of citizens and the communities in which they live. Mount Royal University's Office of Research, Scholarship and Community Engagement recognizes the strategic importance of what this report is referring to as CEnR.

Research for this report revealed CEnR approaches involve a collaborative process between the researcher and community partner(s) that create and disseminates knowledge with the goal of contributing to the discipline being studied, while at the same time strengthening the well-being of the community by fostering positive change. CEnR also offers unique learning and experiences for students through research and project work. MRU's mission statement supports these types of enhanced opportunities for students related to CEnR.

Since 1910, Mount Royal has built a reputation on a strong, liberal education foundation with an undergraduate focus. More than a century later, we remain responsive to the needs of our community through our enduring commitment to this legacy. We are a community of engaged citizens, providing personalized, experiential and outcome-based learning in an environment of inclusion, diversity and respect. Through our focus on teaching and learning informed by scholarship, we are preparing our graduates for success in their careers and lives. (Mount Royal University, 2017)

On a more global level though, society is facing evolving research, information and practices whether it be in the fields of health, environment, economy or culture in response to, or in anticipation of, changing contexts. It has been documented that research-based innovations make their way slowly, if at all into community practice often due to the breakdown or lack of trust between academic and community-based practitioners (Handley et al., 2010).

In many areas of practice, a problem occurs, and a solution is provided. However, those that are expected to adopt or take action on the solution offered have not been part of the evidence gathering or research, or the problem itself has not been identified in a way the community would articulate the issue, and therefore may not fully understand or trust the solution provided. One way to speed the uptake of evidence into community practice is to use a CEnR approach to research. This report looks at the potential for CEnR to help bridge the gap between research, science and practice and why MRU may consider formalizing a CEnR approach university-wide.

Methodology

An initial desktop scan was completed to gain a general understanding of the Community Engaged Research (CEnR) field of practice. Several initiatives specific to CEnR were identified as a starting point. Terminology discovered through the desktop scan helped form key questions used for the literature review:

- How is CEnR defined in the literature?
- What disciplines are represented?
- Are there best practices identified for CEnR in the literature?
- What are related terms used and how do they related to CEnR?

Once the literature review was completed, two surveys were developed. The first was distributed to external organizations and universities with CEnR related programs. The second was distributed to MRU faculty and institutes. A list of respondents for each survey are available through the Office of Research, Scholarship and Community Engagement.

The literature review is provided first in the report, followed by an overview of the external and internal survey results. Analysis and recommendations conclude the report.

Please note, this report was not meant to be fully representative of external or internal CEnR initiatives. Nor was it intended to be a comprehensive analysis of CEnR. The intent of this report was to provide a general overview of the subject matter and of the work being done related to the subject matter.

About Community-Engaged Research

CEnR is different than traditional research. Much of the thinking that has shaped the understanding of CEnR has its roots in early 20th century thinking and resistance to the positivist approach to research. Positivist research is empirically based and relies on quantitative scientific research and knowledge. Some critics refer to the positivist approach as elitist compared to CEnR approaches (Reed, 2015). Traditional research approaches will continue to fill an important role in

advancing knowledge in academia and scientific practice while the emergence of CEnR supplements and expands the traditional research approach and opportunity for application in community.

Support for collaborative work has grown, but with this growing support has come an increasing volume of diversity of initiatives, terminology, approaches and literature. CEnR has emerged as an approach to research conducted in community contexts, and encourages the development of collaborative strategies for advancing community wellbeing. In doing so, CEnR is used to foster and support partnerships between ‘researchers’ and ‘researched’ (Clinical and Translational Science Awards (CTSA) Consortium’s Community Engagement Key Function Committee, 2011; Reed, 2015). Table 1 offers a comparison between traditional research and CEnR.

Table 1: Differences Between Traditional Research and Community-Engaged Research

Traditional research approach	Research with the community	Community-based participatory research approach
<i>Community-Engaged Research</i>		
Researcher defines problem	Research IN the community or WITH the community	Community identifies the problem or works with the researcher to identify the problem
Research IN or ON the community	Research WITH the community as partner	Research WITH community as full partner
People as subjects	People as participants	People as participants and collaborators
Community organizations may assist	Community organizations may help recruit participants and serve on advisory board	Community organizations are partners with researchers
Researchers gain skills and knowledge	Researchers gain skills and knowledge, some awareness of helping community develop skills	Researcher and community work together to help build community capacity
Researchers control process, resources, and data interpretation	Researchers control research; community representatives may help make minor decisions	Researchers and community share control equally
Researchers own data and control use and dissemination	Researchers own the data and decide how they will be used and disseminated	Data are shared, researchers and community decide how they will be used and disseminated

(Hacker, 2013)

Although Reed’s et al (2016) article uses the term evaluative research interchangeably with CEnR, he posits the literature reveals three core objectives of community-engaged research: (1) empowerment of program stakeholders; (2) democratization of knowledge; and (3) effecting social change.

These three objectives occur along a spectrum of involvement for the community. CEnR is used as the umbrella term to describe research *with* a community, not *on* or *in* a community and those involved in engaging community must be responsive to the needs of that community as defined by the community itself (Clinical and Translational Science Awards (CTSA) Consortium's Community Engagement Key Function Committee, 2011).

The community engagement program at Virginia Commonwealth University (VCU) illustrates the CEnR spectrum in practice. Their University is an 'anchor institution'. Institutions with anchor missions are large place-based entities, such as universities that consciously and strategically apply their long-term, place-based economic power, in combination with their human and intellectual resources to better the welfare of the communities in which they reside. In VCU's case, as a major research university in an urban environment, VCU is an anchor institution for Greater Richmond, contributing to the economic vitality and health of the entire region. VCU is among the nation's top 50 public research universities in the United States and their guiding principles have been a focus on student success at all levels, unparalleled innovation through research, a university-wide commitment to human health, and engagement and empowerment in the communities they serve. In building on its commitment, the university's strategic plan emphasizes community engagement as a priority and includes community engagement as a means to providing high quality learning experiences and advancing excellence in research (Holton & Jettner, 2016).

Community engagement activities at VCU include community service, service-learning, and community-engaged research that involve students, faculty and staff, and community partners. VCU has developed a CEnR spectrum to track the type of CEnR faculty and students have engaged in with partners (Holton & Jettner, 2016). At VCU, the role of the community partner(s) in research provides three levels of stakeholder engagement:

- a. Community partners provided access to study subjects
- b. Community partners provided guidance on study design or conduct
- c. Community partners made decisions about and/or assisted in study design or conduct.

This identification of the role of community partners in research is a simple way to help clarify the difference between traditional research methods (no partnership with community members) and CEnR approaches to research.

A Canadian example of the CEnR spectrum in practice is the University of Victoria. The Office of Community-University Engagement was established in 2015 to provide strategic support and vision to the University of Victoria around community-university engagement in five spheres - one of which is CEnR.

In 2016 - 2017, a research project looked at the impact of community engagement initiatives undertaken at the University of Victoria between 2009 and 2015 (Tremblay, 2017). Key findings highlight that 167 instances of impact were identified, the location of the instances and the amount of research funding secured for these projects (\$21 million between 2009 - 2015). Of interest to other post-secondary institutions may be how the data collected during the research project will be used to inform the development of peer reviewed guidelines and an impact rubric to assess faculty participating in CEnR for promotion and tenure.

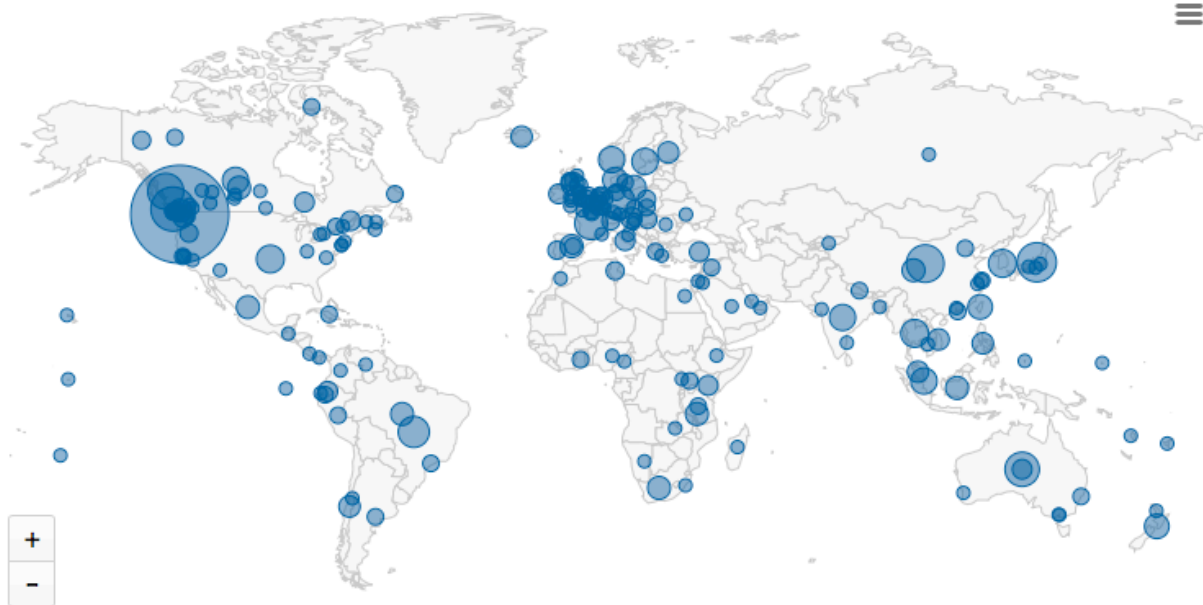


Figure 1: University of Victoria Engagement Map (<https://www.uvic.ca/ocue/engagement-map/index.php>)

Why is knowing the level of involvement of community partners of interest to institutions like VCU and University of Victoria? Research such as anchored, place-based research looking at everything from health, social justice, to environment and economic development, has the objective of discovering innovative solutions and change to difficult problems that currently exist, or are anticipated to arise in the near future. When researchers and community representatives engage in the process of discovery together, the results are more finely-tuned and immediately applicable to the lives of community members, and hence have a greater likelihood of improving the human, environmental or economic health of communities (Handley et al., 2010). In essence, it is about impact. Universities that include impact as part of their mission, are using CEnR as a means to achieve (and track) community impact and change.

Defining Community Engaged Research

The initial review of articles, websites and books to define CEnR involved a total of twenty four sources. The most important aspect from the definition review revealed that CEnR is not a methodology on its own, but an umbrella term used to describe action-orientated, participatory frameworks or approaches for conducting research with a community in order to create change. (Anderson et al., 2012; Cargill et al., 2016; Clinical and Translational Science Awards (CTSA) Consortium's Community Engagement Key Function Committee, 2011; Community Research Canada!, 2017a; Hacker, 2013; Handley et al., 2010; Levin, 2011; Roche, Guta, & Flicker, 2010; University of Alberta: Faculty of Medicine & Dentistry, 2017; University of Victoria: Office of

Community-University Engagement, 2017; Virginia Commonwealth University, 2013). CEnR frameworks involve partnerships with community that include designing the research, executing the process, and taking action on outcomes.

Cargill et al. (2016) states that, "CEnR presupposes a level of control assigned to community members or representatives aside from that of participant or staff member on the research team. CEnR approaches shape the research process in various ways, including collaborative identification of problems, identifying data collection methods, developing study implementation strategies, or providing feedback and consultation regarding interpretation and dissemination of research results. This approach yields an iterative dynamic that is more sensitive to realities 'on the ground' as they emerge and more responsive to numerous perspectives on the research design and implementation" (Cargill et al., 2016).

Anderson's article applies the term CEnR to "research that provides communities with a voice and role in the research process beyond providing access to research participants," and consider engagement to include studying the views of community members regarding research protocols, community advisory and review boards, hiring community members as part of a research team, and including community members as co-investigators (Anderson et al., 2012).

Virginia Commonwealth University defines CEnR as a collaborative process between the researcher and community partner that creates and disseminates knowledge and creative expression with the goal of contributing to the discipline and strengthening the well-being of the community. CEnR identifies the assets of all stakeholders and incorporates them in the design and conduct of the different phases of the research process (Holton & Jettner, 2016).


Handley et al describe CEnR as "a continuum of possibilities for research conducted with community partner participation". The possibilities range from an intensive degree of community involvement and means that the community is "[c]ollaborating fully in all aspects of research, including defining study questions, writing the funding proposal, designing the methods, implementing the research project, analyzing the results and disseminating the findings" to a lesser degree of community involvement that can be describe as: "[a]ssisting in discrete steps of a researcher-designed study, such as participant recruitment (Handley et al., 2010).

CEnR is an umbrella term used to describe a spectrum of research and community involvement with the goal of creating change. To assist in defining the expectations of a CEnR program and the number of possible methodologies that could be used under CEnR, it is helpful to refer to the engagement spectrum developed by the International Association of Public Participation (IAP2). This spectrum illustrates what level of influence the community/stakeholders have on a project, process or decision being made.

IAP2'S PUBLIC PARTICIPATION SPECTRUM



The IAP2 Federation has developed the Spectrum to help groups define the public's role in any public participation process. The IAP2 Spectrum is quickly becoming an international standard.

		INCREASING IMPACT ON THE DECISION 				
		INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL		To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
	PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

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Figure 2: International Association of Public Participation Engagement Spectrum

The following section provides descriptions of approaches that could be used under the CEnR umbrella of research.

Citizen Science: scientific research conducted, in whole or in part, by amateur or nonprofessional scientists. This is sometimes referred to as 'public participation in scientific research', or 'participatory monitoring' (University of Victoria: Office of Community-University Engagement, 2017).

Community Engaged Scholarship (CES): is a very specific subset of community engagement which considers a mutually beneficial partnership between research and an external community and results in scholarship deriving from teaching, discovery, integration, application or engagement. The practice of community-engaged scholarship (CES) includes scholarly teaching, service, and research that partner with and benefit communities. CES generally focuses on engaging communities most impacted by the scholarly work. Non-academics participate in creating, synthesising and mobilizing knowledge, with the aim of democratizing knowledge creation and dissemination. CES commonly looks to understand and solve societal problems or celebrate and support communities (Community Research Canada!, 2017b).

Community-based participatory research (CBPR): emphasize[s] the participation, influence and control by non-academic researchers in the process of creating knowledge and change. The participation of community members in research is believed to enhance the validity of research findings and assist in ensuring that research results are used to inform and foster social change at the local level. The benefits of community involvement in research are well recognized; they include improved access to and greater representation of marginalized groups in research; data that are richer in quality and more authentic in their representation; and the creation of opportunities for local capacity building and empowerment. These benefits are often (although not always) realized through authentic partnership approaches that leverage the skills and assets of all team members (Roche et al., 2010).

Community-based Participatory Action Research (CBPAR): is a collaborative research approach that is designed to ensure and establish structures for participation by communities affected by the issue being studied, representatives of organizations, and researchers in all aspects of the research process to improve health and well-being through taking action, including social change. This involves: co-learning and reciprocal transfer of expertise by all research partners with particular emphasis on the issues being studied with CBPR methods; shared decision-making power; and mutual ownership of the processes and products of the research enterprise. Used predominately, although not exclusively, in the health sector (University of Victoria: Office of Community-University Engagement, 2017).

Knowledge Mobilization (KM): KM can be described as getting the right information to the right people in the right format at the right time, so as to influence decision-making. KM is defined as the process of “moving knowledge into active service for the broadest possible common good”. This includes dissemination, knowledge transfer and knowledge translation. “Mobilization” emphasizes the multi-dimensional, longer-term and often political nature of the work in comparison to terms that seem to imply a one directional and linear move from research to practice (Levin, 2011).

Participatory Action Research (PAR): PAR, having its roots in participatory research (PR), has emerged as one of the most common terms for CEnR type of research. It is a qualitative inquiry that is considered democratic, equitable, liberating, and life-enhancing and which remains distinct from other qualitative methodologies, particularly concerning the roles played by the researcher and the participants. In PR and PAR there is a belief that critical reflection is crucial for personal and social change. PAR guides community partnerships that are committed to designing initial research questions (taking into account the objectives of the communities) and enhancing community capacity and quality of life (University of Victoria: Office of Community-University Engagement, 2017).

The intellectual assets of PAR and community partnerships contribute to knowledge generation, which increases community capacity for action and problem solving. The knowledge outcomes and products of these partnerships can improve community conditions, educational attainment, health and well-being, social inclusion, social capital, cultural understanding and economic growth (University of Alberta: Faculty of Medicine & Dentistry, 2017).

Participatory Research (PR): This term is used to describe a variety of community-based approaches to the creation of knowledge. Taken together these approaches combine social

investigation, education and action in an interrelated process. Participatory research and its sister concept participatory action research have in the past 20 years been taken up in many universities around the world both as a teaching subject and as a research method for graduate studies (University of Victoria: Office of Community-University Engagement, 2017).

The definitions and approaches above include a form of public participation. Public participation is “any process that involves the public in problem solving or decision-making and uses public input to make sustainable decisions. Public participation includes all aspects of identifying problems and opportunities, developing alternatives and making decisions. Public participation acknowledges the desire for humans to participate in decisions that affect their lives and effective participation facilitates understanding. It facilitates understanding for the public and in the context of this paper, the researcher. Both need to fully understand the problem or opportunity and the available options if change is to occur. And finally, public participation improves decision making, research and outcomes by including various perspectives, by identifying critical issues early that may not be obvious to all parties, and it promotes implementation of the solutions or decisions made because all affected parties were involved in some way throughout the process” (IAP2 International Federation, 2016).

Given the amount of overlap of the various approaches under CEnR, it can be confusing to students and faculty if there is not a clear framework to use in approaching research with external stakeholders. The figure below demonstrates how the IAP2 spectrum can help define the community engagement approach for CEnR projects, and what “promise to the public” should be made, depending where on the spectrum the engagement is to occur.

Table 2: IAP2 Spectrum and CEnR Typologies

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
GOAL OF INVOLVING PUBLIC	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision (research) including the development of alternatives and the identification of the preferred solution.	To place final decision making (research) in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision (research).	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision (research).	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions (research) to the maximum extent possible.	We will implement what you decide. (We will implement the research as you see fit).
CEnR Methodologies	Knowledge Mobilization	Participatory Research	Participatory Research Citizen Science Community Engaged Scholarship	Participatory Action Research Citizen Science Community Engaged Scholarship	Participatory Action Research Community Based Participatory Research Community Based Participatory Action Research

The table above provides a high level assessment of where each CEnR methodology might fit on the IAP2 Engagement Spectrum and further discussion and analysis needs to occur to confirm placement. However, this table was created to demonstrate the variety of process and level of engagement with stakeholders of CEnR approaches.

Survey Responses: Community Engaged Research

Surveys were issued to external institutes and organizations that had defined CEnR programs or initiatives. As well, surveys were distributed to faculty and staff at MRU that were known to have a link to CEnR courses, research or project work.

The external survey's purpose was to gain an understanding of work going on outside of MRU related to CEnR projects and initiatives. The internal survey was to gauge the level of knowledge related to CEnR faculty at MRU have.

External Survey Results

OVERVIEW

- Distributed to 38 institutes, universities and organizations (globally)
- Survey was open between April 18 and May 29, 2017
- 12 participants total
- Representing 10 different institutes/organizations
- 8 respondents affiliated or working for a university

DEFINING COMMUNITY-ENGAGED RESEARCH

Participants were asked how they define CEnR and to indicate if they use a different term to define CEnR (For example: community-engaged scholarship, community-based research, participatory research, knowledge mobilization, etc.).

Several respondents provided terms they used in their organizations:

- community-engaged scholarship,
- community-based research,
- CEnR,
- public engagement,
- community-based research,
- knowledge mobilization or knowledge exchange.

The University of Guelph, Bonn Science Shop, University of Victoria and Virginia Commonwealth University offered definitions and descriptions of their approaches to CEnR.

The University of Guelph uses community-engaged scholarship (CES): "CES involves the researcher in a mutually beneficial partnership with the community and results in scholarship deriving from teaching, discovery, integration, application or engagement" (Jordan C. (Editor), 2007).

In the Community-Engaged Research External Survey the Bonn Science Shop described their approach as "... pursues the idea of public engagement with, and participation in, all levels of the research and innovation process: participation of citizens and/or [Civil Society Organisations] CSOs in generating research ideas, questions, and agendas; participation in monitoring, steering, advising on or performing research; in data collection, data analysis or scenario development; and the co-creation of knowledge with the aim of contributing to social change. Bonn Science Shop promotes an open dialogue and debate between science and civil society:

- It provides scientific knowledge for citizens in an open, action-oriented and participatory way
- It brings civil society issues and interests to the scientific discussion
- It promotes the co-creation of knowledge among Civil Society Organisations and researchers.

University of Victoria provided the following definition and description: “At its core community-based research (CBR) is collaborative, concerned with equity, involves community and university scholars as equal partners, and combines knowledge with action usually to achieve social change. The intent in CBR is to transform research from a relationship where researchers act upon a community to answer a research question to one where researchers work side by side with community members” (Community Research Canada!, 2017, as cited in survey response)(Community-Based Research Partnerships, 2006).

"Community-based research is research that strives to be:

- Community situated: the research topic is of practical relevance to the community and is carried out in community settings.
- Collaborative: community members and researchers equitably share control of the research agenda through active and reciprocal involvement in the research design, implementation, and dissemination.
- Action-oriented: the process and results are useful to community members in making positive social change and in promoting social equity" (Centre for Community Based Research, n.d., as cited in survey response).

Virginia Commonwealth University defines CEnR as “[a] collaborative process between the researcher and community partner that creates and disseminates knowledge and creative expression with the goal of contributing to the discipline and strengthening the well-being of the community. Community-engaged research identifies the assets of all stakeholders and incorporates them in the design and conduct of the different phases of the research process” (Virginia Commonwealth University, 2017).

While the definitions and descriptions provided do have some common themes, the divergence between the approaches provides insight into where they fit on a CEnR spectrum. For example, at the core of community-engaged scholarship is (naturally) scholarship. Community is involved and benefits from the scholarship, but by analyzing the definition provided by the University of Guelph, the approach may or may not involve *engagement* of the community – a core tenant of CEnR. On the other end of the spectrum is the Bonn Science Shop where they describe their approach to CEnR as community co-generating research ideas, questions, doing the monitoring, research, data collection, analysis, and co-creating the knowledge along with the science community. This is on the empowerment end of the engagement spectrum.

EVALUATION APPROACHES

While there is a diversity of paradigms, theories, methodologies and voices represented in the fields of research and evaluation, there are three reasons why evaluation is important for CEnR. First, it helps the researcher and stakeholders understand whether impact occurred. Second, evaluation

helps identify what key elements are required for transformation through community engagement. And, finally, evaluation identifies required adjustments to the program/project and/or future improvements to the program to make it effective (Szilagyi et al., 2014).

When participants were asked about their evaluation approaches, two key resources were provided. The Centre for Community Based Research hosted a national summit in 2014. As part of that summit, over 60 participants representing collaborative campuses were tasked with identifying a preliminary list of indicators of excellence in community based research. The document is provided in this report’s resource directory, *Community Based Research Preliminary Indicators of Excellence* and is suggested as a good reference for those seeking insight into the types of indicators that could be used to measure progress or success of CEnR projects or programs (Centre for Community Based Research (CCBR), 2014).

The second resource suggested was *Community Engagement and Regional Impact: A Review of Systematic Data Collection Mechanisms* (Holton & Jettner, 2016). This resource demonstrates how VCU plans to measure regional impact of the university’s community engagement work. VCU has declared to be an anchor university and has committed to using community engagement as part of achieving impact as an anchor university. Community engagement is organized into three categories: service-learning, CEnR, and university-community partnerships.

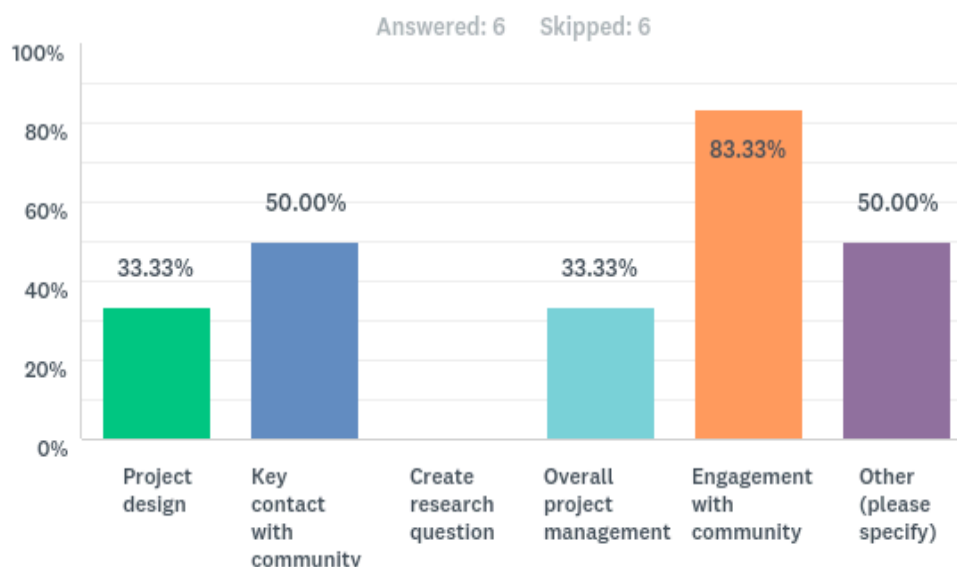
ROLES OF FACULTY, STUDENTS

Faculty (professors, instructors, researchers) were identified as being involved in all aspects of CEnR projects however, comments made specified that involvement changed from project to project. Faculty involvement includes project design, acting as a key contact with the community, creating research questions, overall project management and engagement with the community.

Q. What role do professors/instructors and researchers typically play with regard to the community-engaged research project?



Q. What role do students typically play with regard to the community-engaged research project?



Students are most heavily involved in engagement with the community (ranked as 83%) followed by being a key contact with the community (50%). Project design and project management both ranked at (just over 33%). Interestingly, no one indicated that students are involved in creating the research question.

INSTITUTION/ORGANIZATION'S PRIMARY ROLE RELATED TO CENR

Of the 6 respondents that answered this question, the majority indicated access to networks was the primary role their organization played with regard to CEnR. Project and program design and funding were the next highest ranked roles. The comments provided listed roles such as: conducting the research; knowledge mobilization expertise; professional development, tracking, infrastructure, pipeline of funding; and knowledge brokering.

SUGGESTIONS FOR KEY RESOURCES OR TOOLS

The survey inquired whether participants could recommend key CEnR resources or tools. Several were provided by participants. One suggested resource was Living Knowledge: The International Science Shop Network (www.livingknowledge.org). The website has a link to a Living Knowledge Toolbox and includes resources such as monitoring forms for research projects, community base research application forms for students, research agreement examples for community-based learning, and project checklists, to name a few of the tools provided.

The website for Responsible Research and Innovation was suggested as an additional resource. This website, <https://www.rri-tools.eu/>, has training and toolkits sections (RRI Tools, n.d.). Included in the toolkit are resources specific to higher education institutions grounded in community-based participatory research. The 'how to set up a particular research agenda' tool might be of interest to MRU.

The Action Catalogue (www.actioncatalogue.eu) consists of 57 methods with the common denominator that their focus is research driven by involvement and inclusion. The tool allows the user to search 57 different methods on 32 different criteria, with the possibility of weighing the importance of each criterion. The user will be presented with the results, either on a prioritized list of the methods that fits the search or in a visually intuitive overview with relevance of each method corresponding to its size. This could be a useful discovery tool for those at MRU interested in exploring approaches to CEnR.

Community-Based Research Canada's (CBRC) mission is to be a national champion and facilitator for community-based research (CBR) and campus-community engagement in Canada. Their website was suggested as a resource for MRU: www.communityresearchcanada.ca. This website provides links to related websites, community-based research networks, journals, books and documents. Several Canadian universities are members of CBRC so it may be something MRU may want to investigate for networking and potential resources.

PERSPECTIVES OF CENR

Seven responded to the question on how CEnR is valued compared to conventional academic research at their institution. Two respondents indicated CEnR is not valued as much at their institution, and 2 indicated it is not valued about the same. One respondent indicated it is valued more than conventional academic research.

Of the 3 that responded to the question of whether it helped or hindered their academic careers, 2 indicated it has helped, and one indicated it has hindered. Comments provided revealed the question was not relevant to their organization, or they were not academic researchers.

Worth noting is the comment provided by one respondent: "Personally speaking, I benefited from being an engaged researcher as it enabled me to do ethical work with Indigenous peoples and communities. My academic career may have suffered in some regards (fewer publications, grants), but benefited in terms of satisfaction and impact. In the end, I was promoted along the way so all worked out!"

CHALLENGES AND OPPORTUNITIES

Participants were asked to identify the top 3 – 5 challenges they experienced with CEnR. Promotion and tenure were mentioned most frequently (3 out of 6 responses), with time and valuing community knowledge each mentioned twice in the responses. Other challenges included:

- Scoping project and appropriate researcher/student involvement
- Understanding and evaluating impact
- Research ethics
- Sustainability of networks
- Silos within institutions
- Early involvement of stakeholders/community groups
- Resources (training and education) for co-creating knowledge
- Grants and funding.

Two key opportunities were identified: impact of CEnR projects on a community (4 out of 6 responses), and the applied aspect of the research (3 out of 6). Other opportunities mentioned include:

- Recognition of the university's role as an active community stakeholder and contributor
- Openness and a non-academic paradigm
- International networking
- Potential significance of the work globally
- Cooperative partners
- Building relationships that last a lifetime
- Diverse team work
- Relevance of the research.

The challenges and opportunities are something ORSCE may want to investigate more thoroughly with experienced CEnR organizations as the program is advanced at MRU.

Internal Survey Results

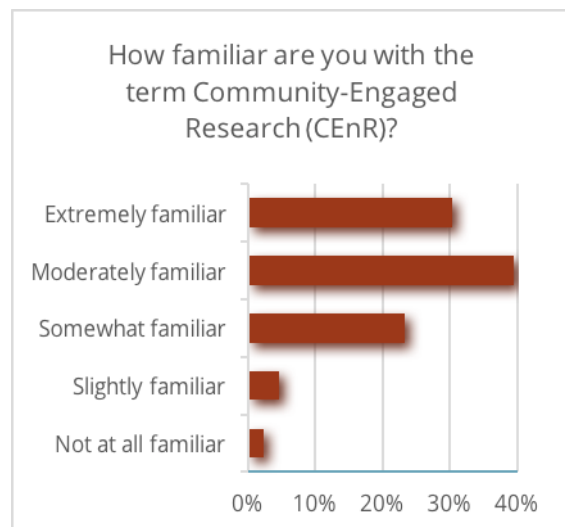
OVERVIEW

- The survey was sent to approximately 154 MRU faculty and staff.
- Promoted from April 26 to May 12, 2017
- These faculty and staff members were selected based on research they are/were involved with that resembles, or is, CEnR. The list was populated from MRU Institute websites as well as input from Dr. Michael Quinn, Associate Vice-President, Research, Scholarship and Community Engagement.
- 45 total responses
- A wide variety of disciplines were represented by survey respondents: business, health, interior design, environment, sociology, and civic innovation.

FAMILIARITY AND TERMINOLOGY

Participants were asked how familiar they are with the term Community-Engaged Research. Of the 43 respondents, approximately 93% indicated they were on the spectrum between 'somewhat familiar' to 'extremely familiar'. Familiarity is likely built into the audience because distribution was targeted to those related to CEnR in some way.

When asked if there are other terms used instead of CEnR, the 29 respondents to this question provided several terms, however community-based research (9 times) and community service learning (5 times) were mentioned most frequently.



Fourty participants provided their definition of CEnR or the terminology they used. A review of the responses revealed common themes such as collaboration, mutual benefits between the researchers and community members, community needs, partnerships (between researchers and community), active community participation, action-oriented, impact.

One respondent provided a CES continuum that involves four stages (problem definition, knowledge creation, knowledge mobilization, and knowledge integration) and suggested that researchers that collaborate with an external community partner at one or more of these stages are considered to be performing community engaged scholarship rather than traditional scholarship that has no involvement of the external community.

Most frequently used terms

Community-based research
Community service learning

MRU CENR INITIATIVES

A range of subject matter and projects were provided when participants were asked what involvement they had with CEnR at MRU. Because there is no definition of or criteria for CEnR at MRU, it is difficult to determine whether the projects listed by participants are truly CEnR, however there was a suite of subjects covered in the responses related to:

- Health: community wellness, palliative care, HIV
- Indigenous place-based research
- Social Science and Humanities: disaster and human resilience, sexual orientation, immigration
- Technology: usability testing, shelter design
- Environment: citizen science projects, geospatial modelling, sustainability

When survey participants were asked if they are aware of any other community-engaged research at MRU, again, a range of responses were provided however there were a few mentioned more than once:

- Vivacity
- Community garden project
- Centre for Child Well-being, Centre for Community Disaster Research
- Miistakis Institute
- Faculty of Health, Community and Education
- Journalism/communications programs

Three individuals were mentioned by various respondents:

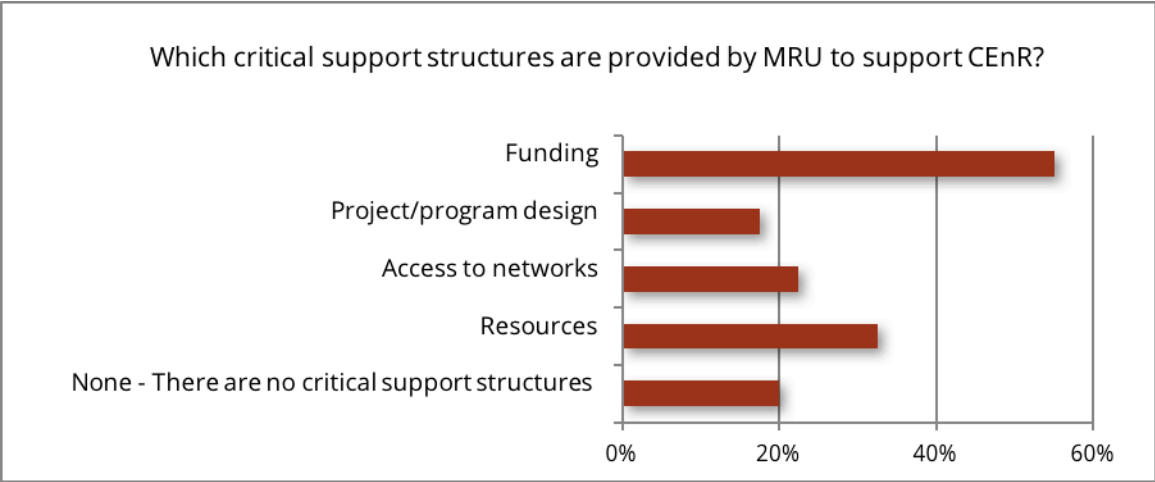
- Victoria Calvert
- Sonya Jakubec
- Dorothy Hill

And finally, capstone projects were mentioned several times as CEnR at Mount Royal University. Capstone projects were mentioned across disciplines and were indicated to be identified as CEnR across the board at MRU. This could be something to build on strategically if MRU is interested in creating a formalized framework for CEnR.

CRITICAL SUPPORT STRUCTURES FOR CENR

Funding support ranked as the most recognized critical support structure available to MRU faculty for CEnR related projects. The comments provided indicated not enough funding was available from some perspectives while others commented on the funding they received. A number of respondents (5 out of the 22 that provided additional comments) indicated they, or other faculty they knew, did not know of CEnR support available at MRU. Three comments specifically mentioned time (course release) as a resource that was needed to support CEnR but was not provided. One comment

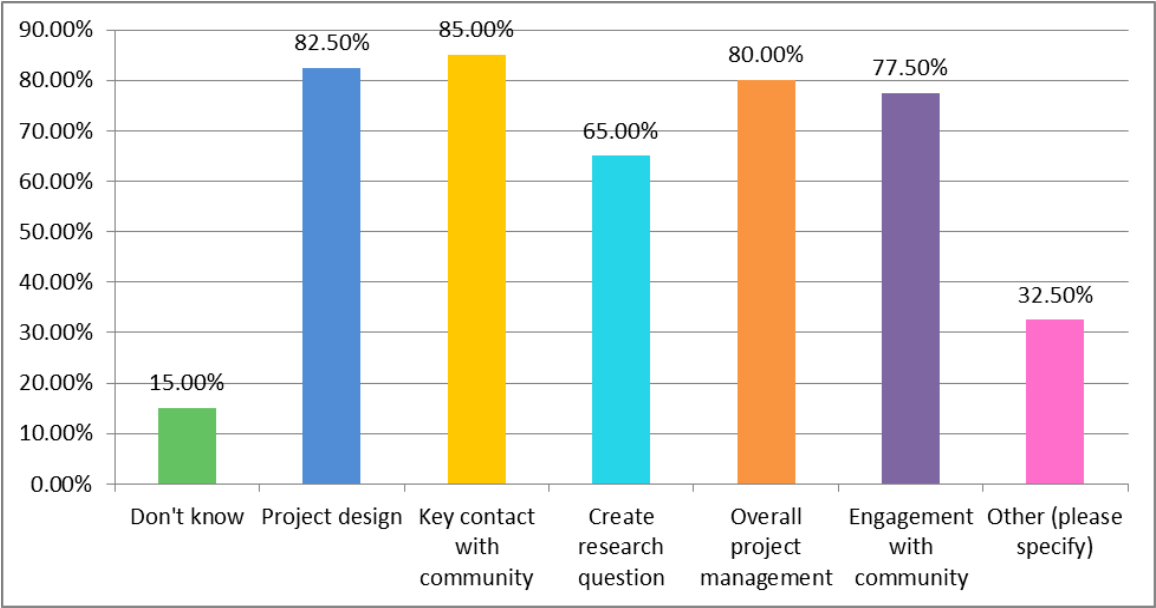
admitted while there are some structures in place they are ineffective. On the other end of the spectrum, one respondent commented they feel the work is supported culturally through ORSCE and through the tenure and promotion system. Promoting the resources available to those interested in CEnR may be something ORSCE provides across departments in the future.



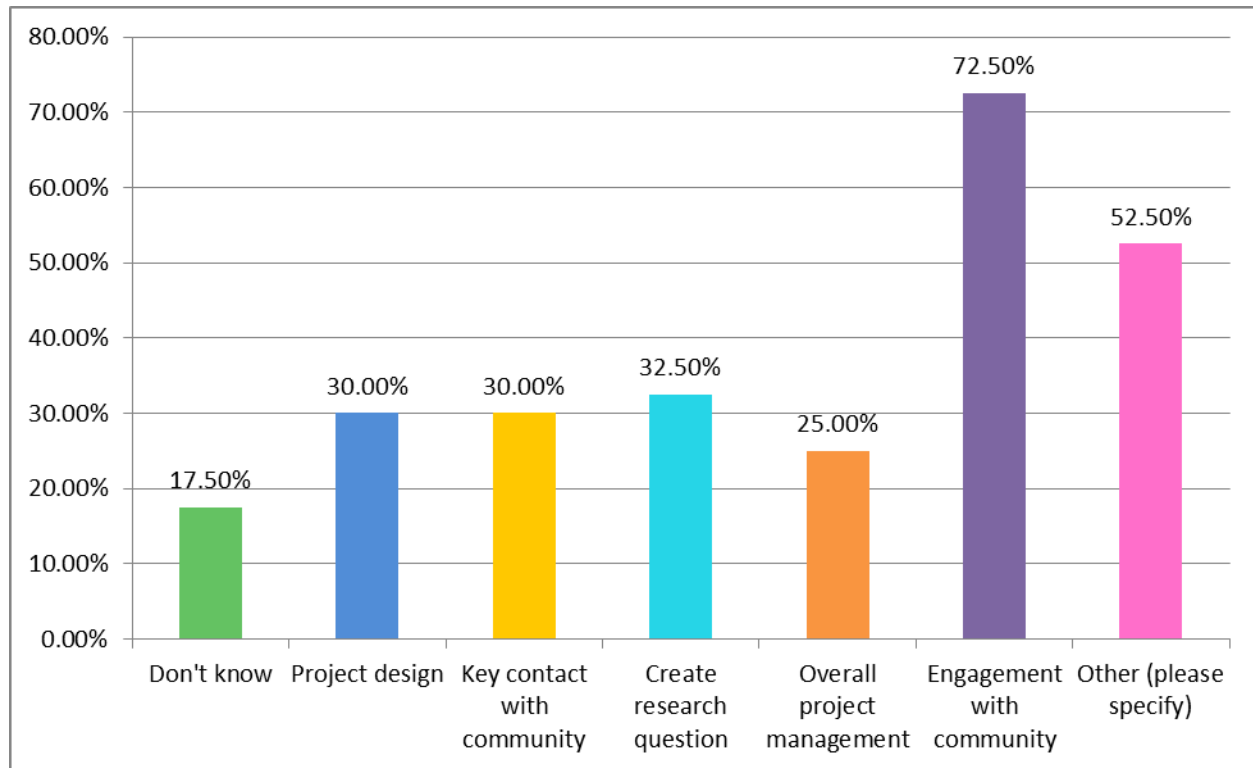
ROLES OF FACULTY, STUDENTS

Faculty (professors, instructors, researchers) were indicated as being most heavily involved in project design, the key contact with the community, overall project management and engagement with the community.

Q. What role do professors/instructors and researchers typically play with regard to community-engaged research? (Answered; 40; Skipped: 5)



Q. What role do students typically play with regard to community-engaged research? (Answered: 40; Skipped: 5)

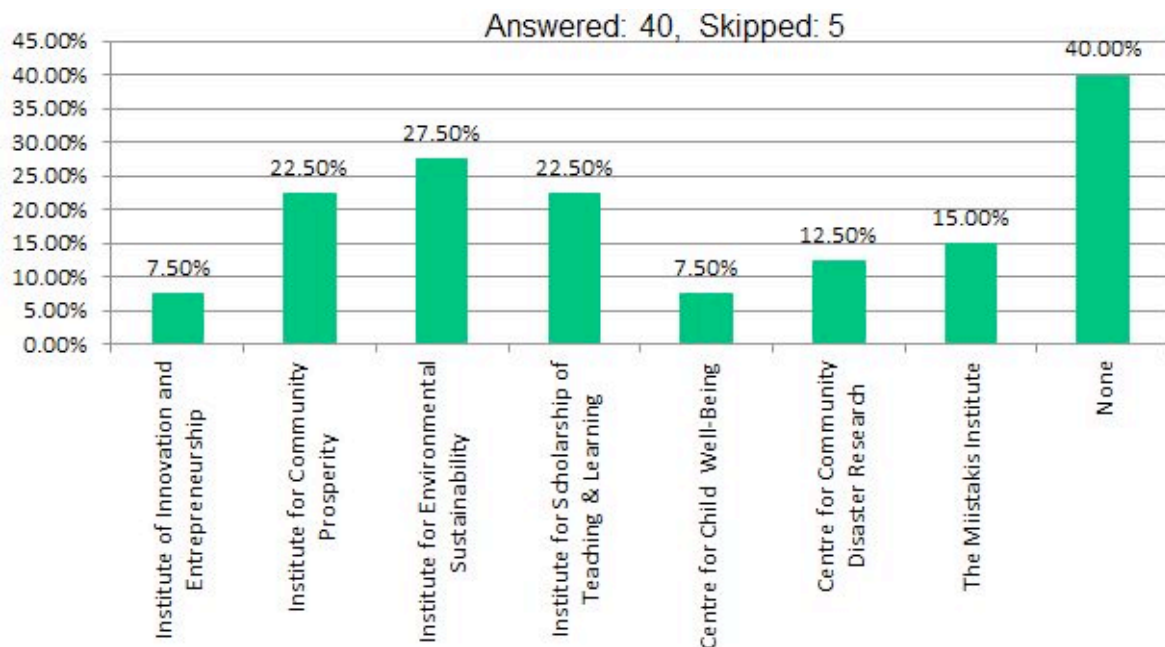


Students were ranked to be most heavily involved in engagement with the community (29 out of 40 respondents chose that answer). In the comment section, 12 out of the 21 comments provided noted that students were also involved in the research and data collection or data entry.

WORK WITH MRU RESEARCH INSTITUTES

Sixteen out of the 40 respondents do not currently work with MRU research institutes, and 11 out of the 40 currently work with the Institute for Environmental Sustainability.

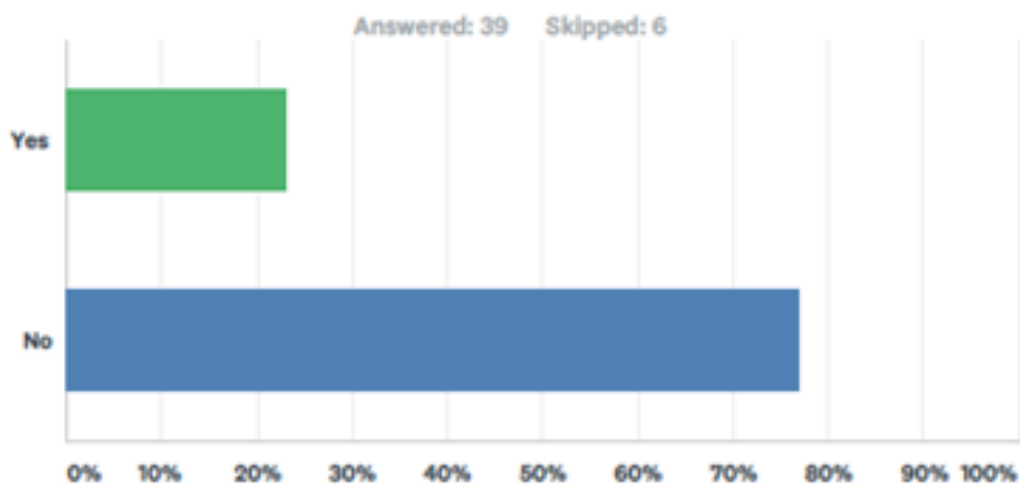
Q. Which of the following MRU research institutes do you currently work with or have worked with in the past? (please check all that apply)



EVALUATION METHODS

More than 50% of the 39 respondents indicated they do not have evaluation methods for the community-engaged research project they were/are involved in.

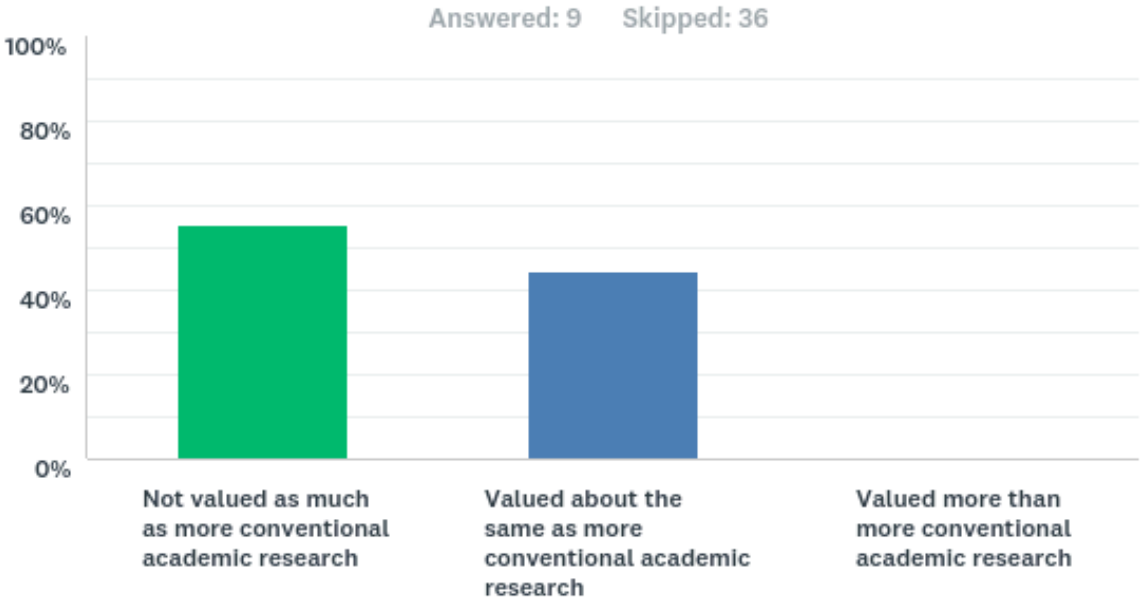
Q. Do you have evaluation methods for the community-engaged research project? (for example: community impact, internal impact, etc.)



PERSPECTIVES OF CENR AT MRU

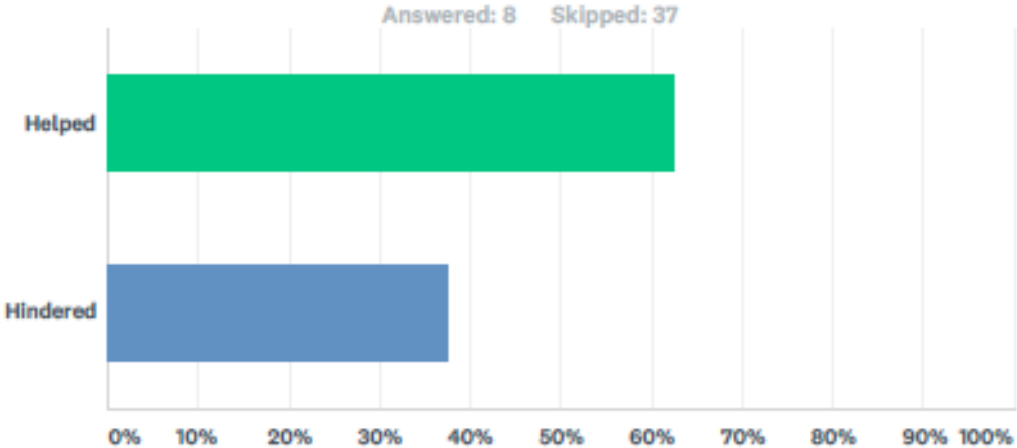
Out of the nine that answered how they feel CEnR is valued at MRU, five indicated it is not valued, and four indicated it is valued about the same and none indicated it is valued more than conventional academic research.

Q. At MRU, do you feel that community-engaged research is:



Of the eight that answered the following question, five think being a community-engaged researcher has helped their career while three think it has hindered their career.

Q. Do you think that being a community-engaged researcher has helped or hindered your academic career? (Please explain)



Several participants provided comments to further respond to this question. One revealed the perspective that some research at MRU that considers itself CEnR is “actually more focused on ‘outreach activities’ and ‘community involvement’ and serves to dilute the reputation of work done under this banner...”. Another comment says that CEnR has ‘helped in many ways but it has also hindered my career...[b]ecause the culture leans towards conventional academic research”. A stronger but similar sentiment was provided in another comment: “[i]ts hard to publish a lot while being honest to the community process so most researchers wait until tenure to do it...You stop being able to fit into any category...and are seen as less serious, less intelligent and less driven. Which also can unfortunately reinforce negative gender stereotypes in the hiring process.”

The survey answers and comments to Q15 and Q16 reveal a desire to conduct CEnR at MRU, but as articulated in Q17 below, several challenges and barriers remain that need to be addressed at the institutional level.

CHALLENGES AND OPPORTUNITIES

Participants were asked to provide the top 3-5 challenges they have experienced with CEnR (both internally and externally). Thirty-two participants answered the question and *time* was mentioned more than any other comment with funding coming in as the second most mentioned challenge. The following list was created from the survey responses. Numbers in brackets show how many times it was mentioned.

- Time (19). This related to having time to do CEnR, the fact that CEnR approaches take more time than conventional research, and fitting CEnR into course work timelines.
- Funding (10). The expense of CEnR was mentioned as well as the lack of funding for CEnR work.
- Legal and/or ethical issues (4) related to contracts required for working with the public, ethics approvals, and lengthy legal reviews.
- Managing expectations (3) of the public groups, students, other faculty.
- Academic rigor and quality of research (3).
- Under-valued or under-recognized research (3).
- Limited support and resources (3).
- Finding partners and starting partnerships (2).
- Participant recruitment and organization (2).
- Assessment of CEnR (2).
- Competing research agendas and community needs (2).
- Flexibility in the institutional system (2).
- Outreach and dissemination of findings (2).
- Matching student interests to project (1).
- Balancing community impacts with contribution to theory (1).
- Motivation (1).
- Limited network of professors engaged in CEnR (1).

Following the question about challenges, participants were asked to provide the top 3-5 opportunities they have experienced with CEnR (both internally and externally). Community impact, research applicability and the opportunity to collaborate with community, students and other faculty were the top opportunities provided.

- Impact/applicable research (11).
- Community partnerships and relationships (7).

- Collaboration (varied in terms of what the collaboration was referring to – with students, other faculty, other disciplines, community partners) (6).
- Student opportunities as a result of CEnR projects (6).
- Network building (4).
- Dissemination of results through community partners (4).
- Improved outcomes compared to traditional research methods (3).
- Skill development such as project management, research (3).
- University/program reputation (2).
- New student recruitment for MRU from CEnR projects (1).
- External funding (1).
- Learning about the local area or community (1).

The outcomes of this survey question align with a key aspect of defining CEnR: community impact and/or applied research. It is somewhat surprising that the university or program reputation was not mentioned more frequently as an opportunity.

Summary of Surveys

The two surveys had a number of similar questions and it is interesting to compare the answers to gain an informal situational analysis in terms of where MRU is in relation to formalized CEnR institutions.

The external survey provides a scan of current best practices in the field of CEnR. The primary role of institutions sponsoring a CEnR program was access to networks to enable CEnR networks. While this did not come up in the MRU faculty survey, this may require further investigation by MRU if CEnR is a path to pursue to understand why it is such an important role institutions play in CEnR. The MRU survey respondents indicated the top critical support structure for CEnR was funding.

In terms of perspectives of the value of CEnR, respondents to the external survey were split between CEnR being valued and it not being valued with one saying it was more valued than traditional research. The MRU response was fairly evenly mixed between the choices which may indicate a variety of experiences and perspectives on CEnR for faculty.

At MRU and in the external organizations, faculty are typically involved in all aspects of CEnR projects. However, the role of students diverged between MRU and the external organizations in that externally, there was no indication students were involved in developing the research question, but the internal MRU survey showed students were involved in that role. It may be of interest to investigate further on why students are not involved in developing the research question in external organizations.

Evaluation for CEnR projects work is being done however the survey revealed there does not seem to be a 'go to' resource or methodology used for CEnR projects either by external institutions or at MRU. This is a gap in resources for CEnR.

The following page compares the lists of the external and internal opportunities and challenges survey outcomes.

Challenges External

- Promotion/Tenure
- Time
- Valuing community knowledge
- Scoping project and appropriate researcher/student involvement
- Understanding and evaluating impact
- Research ethics
- Sustainability of networks
- Silos within institutions
- Early involvement of stakeholders/community groups
- Resources (training and education) for co-creating knowledge
- Grants and funding.

Challenges MRU

- Time
- Funding
- Legal and/or ethical issues
- Managing expectations
- Academic rigor and quality of research
- Under-valued or under-recognized research
- Limited support and resources
- Finding partners and starting partnerships
- Participant recruitment and organization
- Assessment of CEnR
- Competing research agendas and community needs
- Flexibility in the institutional system
- Outreach and dissemination of findings
- Matching student interests to project
- Balancing community impacts with contribution to theory
- Motivation
- Limited network of professors engaged in CEnR

Opportunities External

- Impact/applicability of the research
- Recognition of the university's role as an active community stakeholder and contributor
- Openness and a non-academic paradigm
- International networking
- Potential significance of the work globally
- Cooperative partners
- Building relationships that last a lifetime
- Diverse team work
- Relevance of the research.

Opportunities MRU

- Impact/applicable research
- Community partnerships and relationships
- Collaboration
- Student opportunities
- Network building
- Dissemination of results through community partners
- Improved outcomes compared to traditional research methods
- Skill development such as project management, research
- University/program reputation
- New student recruitment for MRU from CEnR projects
- External funding
- Learning about the local area or community

Between the external and internal surveys, there was a substantial number of common themes for challenges and opportunities. For challenges, time, promotion, funding, valuing community knowledge and CEnR, scoping/managing expectations, evaluating impact, networks, resources participation and recruitment of community partners, and legal or ethical issues were common. Interestingly enough some of the challenges were also listed as opportunities and included: networks (CEnR is an opportunity to build upon networks or build new networks but they are a challenge to maintain); and dissemination of findings (some listed dissemination as a challenge while others saw it as an opportunity to get the results into the community).

The comparison of opportunities yielded several similarities as well (impact, applicability of research, university recognition, network building, collaborative partnerships and relationships, and diverse team work) however most interesting is where the opportunity descriptions diverged. The external survey listed the opportunity of openness in a non-academic paradigm and did not mention any opportunities related to students. The MRU survey respondents listed student opportunities, skill development and improved outcomes compared to traditional methods. This may be an indication of a student centric approach at MRU compared to the external agencies that participated in the survey. However, it could also be a result of what role the respondents are in at their institutions (professors versus executive directors or program managers).

Recommendations

Mount Royal has the potential to become a leader in CEnR at the undergraduate level. Numerous faculty members are involved in CEnR related projects and have experience to offer the institution as well as to other faculty interested in leading these types of projects. The external survey revealed key support requirements including: funding, time, training and networking. However, before any of that can happen, MRU needs to develop a mandate supporting CEnR to value and enable this type of work.

Based on the research for this report, several steps are suggested to begin exploring an institution wide CEnR program:

- **Define CEnR for MRU.** Several terms are being used at the university and relate to CEnR so perhaps there is an opportunity to expand the vocabulary to ensure it is more inclusive across departments while at the same time building on the opportunities of CEnR such as community impact, a positive reputation for the university in the community it serves, and effective resources to support faculty and students leading CEnR projects.
- **Articulate CEnR typologies.** MRU may want to consider using the IAP2 spectrum as a starting point to help determine whether project is CEnR (versus traditional research), to articulate the community role and to measure the potential community impact.
- **Develop CEnR criteria.** initial questions that may help MRU develop a CEnR criteria and build momentum with faculty and students include:
 - Why is MRU involved in CEnR?

- Is there a specific geography that MRU can be the most effective in?
- Is MRU positioned to build CEnR impact areas related to MRU course work or areas of focus?
- **Infrastructure support.** Funding, time, recognition of CEnR as a legitimate approach to research, tracking impact are pieces of infrastructure that survey respondents indicated are needed to support ongoing CEnR development. The section below provides an example of the operationalization and tracking of CEnR at VCU.

Resources and tools from existing programs such as VCU's *Community Engagement and Regional Impact: A Review of Systematic Data Collection Mechanisms* (Holton & Jettner, 2016) may be helpful to MRU if it does decide to launch a CEnR program. Specifically, page 13 provides clear CEnR metrics, the data collection process, a data dashboard, and an operational definition of CEnR:

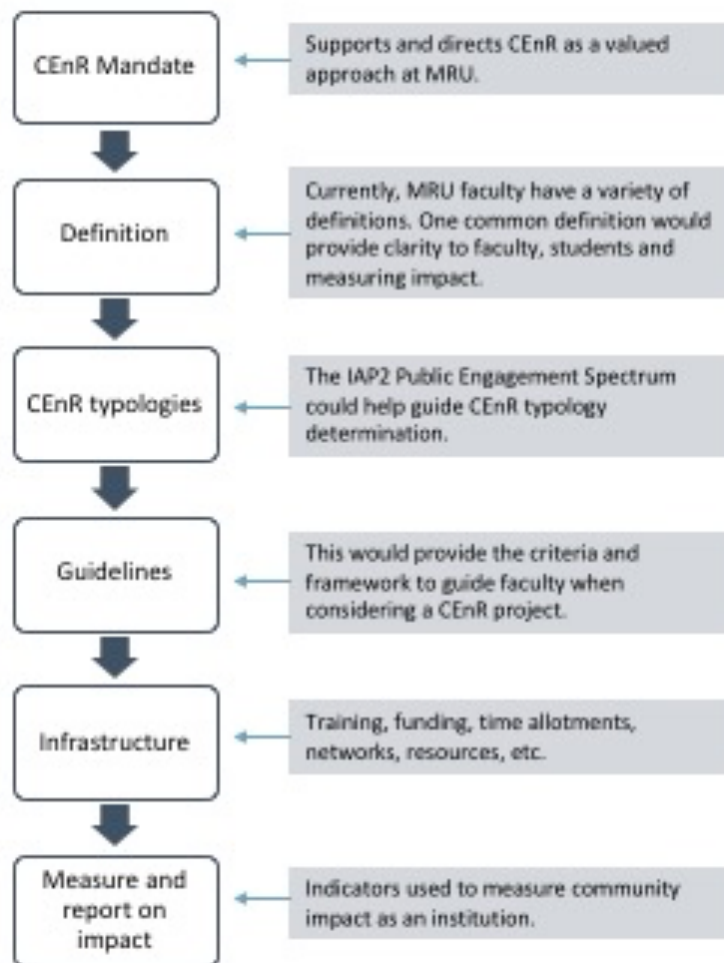
"CEnR is operationalized as all human-subjects' protocols approved by the Institutional Review Board (IRB) involving a community partner. Launched in August 2013, the following information is captured in the IRB application process to systematically track CEnR (Appendix F).

1. Whether community partners have been involved in the study's design and/or its implementation.
2. Name and address for each community partner (can only list up to 5 per IRB protocol).
3. The role of the community partner(s) in the research. Three levels of stakeholder engagement are provided:
 - a) Provided access to study subjects
 - b) Provided guidance on study design or conduct
 - c) Made decisions about and/or assisted in study design or conduct
4. Source of funding received
5. Amount of funding received (in development)" (Holton & Jettner, 2016).

Faculty complete a form to indicate a CEnR project and the IRB uses it to track and measure CEnR work.

Valerie Holton is the Director of CEnR for VCU's Division of Community Engagement. In her role she leads and contributes to strategic initiatives that deepen and demonstrate VCU's civic mission to be the premier urban, public research university in Virginia and to advance knowledge and student success. Ms. Holton is helping develop university wide infrastructure to advance CEnR and the development of tracking and measuring the impact of VCU's engagement. Valerie Holton's position is evidence of the commitment the university has made to CEnR. VCU's program should be considered a key resource for MRU, should it pursue a CEnR program.

The recommendations above are illustrated in the following diagram:



Conclusion

CEnR has the potential to set a post-secondary institution like MRU apart from other undergraduate (and even graduate) universities in Alberta if a program is deliberately developed and strategically executed. It will require buy in from senior administration as well as support and engagement from faculty and students. Engagement of a wide variety of internal MRU stakeholders would assist ORSCE in determining the level of interest, gauging how much investment would be required in developing the building blocks of the program and ensuring successful implementation and longevity of the program.

The key opportunity of CEnR is impact: impact on community, impact on effective and meaningful change, impact on faculty research, and impact on the student experience and education. If MRU is interested in fostering change in the community it serves, CEnR may be the type of program that should be seriously considered.

References

- Anderson, E. E., Solomon, S., Heitman, E., DuBois, J. M., Fisher, C. B., Kost, R. G., ... Ross, L. F. (2012). Research Ethics Education for Community-Engaged Research: A Review and Research Agenda. *Journal of Empirical Research on Human Research Ethics*, 7(2), 3–19. <https://doi.org/10.1525/jer.2012.7.2.3>
- Arctic Institute of Community-Based Research. (2017). Arctic Institute of Community-Based Research: For Northern Health and Well-Being. Retrieved July 20, 2003, from <http://www.aicbr.ca/about-us/>
- Cargill, S. S., De Bruin, D., Eder, M., Heitman, E., Kaberry, J. M., McCormick, J. B., ... Anderson, E. E. (2016). Community-Engaged Research Ethics Review: Exploring Flexibility in Federal Regulations. *IRB: Ethics and Human Research*, 38(3), 11–19.
- Carnegie Foundation. (2017). Carnegie Foundation for the Advancement of Teaching. Retrieved April 1, 2017, from <https://www.carnegiefoundation.org/>
- Centre for Community Based Research. (n.d.-a). Centre for Community Based Research: About Us. Retrieved from http://www.communitybasedresearch.ca/Page/View/About_Us
- Centre for Community Based Research. (n.d.-b). What is Community Based Research? Retrieved January 1, 2017, from http://www.communitybasedresearch.ca/Page/View/CBR_definition
- Centre for Community Based Research (CCBR). (2014). Community-Based Research: Preliminary Indicators of Excellence: 2014 National Summit. In *National Summit on Pursuing Excellence in Collaborative Community Campus Research (CCCCR)* (p. 11). Waterloo, Ontario.
- Clinical and Translational Science Awards (CTSA) Consortium's Community Engagement Key Function Committee. (2011). *Principles of Community Engagement*. NIH Publication No. 11-7782 (Second Edi). <https://doi.org/10.1016/j.jenvman.2015.04.014>
- Community Research Canada! (2017a). Community-Based Research Canada. Retrieved July 20, 2003, from <http://communityresearchcanada.ca/home>
- Community Research Canada! (2017b). Community-Based Research Canada: What is Community Based Research? Retrieved July 20, 2003, from <http://communityresearchcanada.ca/cbr>
- Hacker, K. (2013). *Community-Based Participatory Research*. (J. Westby, M. Vail, B. Bauhaus, K. Husband, & K. Ehrmann, Eds.). Thousand Oaks, California: SAGE Publications, Inc. Retrieved from <https://us.sagepub.com/en-us/nam/community-based-participatory-research/book237295#contents>
- Handley, M., Pasick, R., Potter, M., Oliva, G., Goldstein, E., Nguyen, T., & Paula Fleisher (Ed.). (2010). *Community-Engaged Research: A Quick-Start Guide for Researchers*. San Francisco, CA. Retrieved from https://accelerate.ucsf.edu/files/CE/guide_for_researchers.pdf
- Holton, V., & Jettner, J. (2016). Community Engagement and Regional Impact : A Review of Systematic Data Collection Mechanisms. *Virginia Commonwealth University*, 44. Retrieved from http://scholarscompass.vcu.edu/community_resources/55/

- IAP2 International Federation. (2016). *Foundations in Effective Public Participation: Planning for Effective Public Participation*.
- Jordan C. (Editor). (2007). *Community-Engaged Scholarship Review, Promotion & Tenure Package*. *Community-Engaged Scholarship for Health Collaborative*. Retrieved from http://depts.washington.edu/ccph/pdf_files/CES_RPT_Package.pdf
- Levin, B. (2011). Mobilising research knowledge in education, 9(1), 15–26. <https://doi.org/10.1080/14748460.2011.550431>
- Living Knowledge: The International Science Shop Network. (n.d.-a). Living Knowledge: The International Science Shop Network. Retrieved from <http://www.livingknowledge.org/>
- Living Knowledge: The International Science Shop Network. (n.d.-b). Living Knowledge: The International Science Shop Network Basic Conception. Retrieved from http://www.livingknowledge.org/fileadmin/Dateien-Living-Knowledge/Dokumente_Dateien/Living_Knowledge_Basic_Concept_July_2016.pdf
- Mount Royal University. (2017). *Building on Strengths: 2015/16 Annual Report*. Calgary, AB.
- President and Fellows of Harvard College. (2017). Harvard Catalyst: Community-Engaged Research (CEnR). Retrieved April 1, 2017, from <https://catalyst.harvard.edu/programs/regulatory/cenr.html>
- Reed, R. (2015). Program Evaluation as Community-Engaged Research: Challenges and Solutions. *Gateways: International Journal of Community Research & Engagement*, 8(1), 118–138. Retrieved from <https://login.e.bibl.liu.se/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=109277922&site=eds-live&scope=site>
- ResearchImpact. (2017). ResearchImpact: Turning Research into Action. Retrieved July 20, 2003, from <http://researchimpact.ca/>
- Roche, B., Guta, A., & Flicker, S. (2010). Peer Research in Action I : Models of Practice. *Community Based Research Working Paper Series*.
- RRI Tools. (n.d.). RRI Tools. Retrieved January 1, 2017, from <https://www.rri-tools.eu/>
- Szilagyi, P. G., Shone, L. P., Dozier, A. M., Newton, G. L., Green, T., & Bennett, N. M. (2014). Evaluating Community Engagement in an Academic Medical Center, 89(4), 585–595. <https://doi.org/10.1097/ACM.0000000000000190>
- Tremblay, D. C. (2017). *Community-engaged research at the University of Victoria: An Impact Summary 2009 - 2015* (Vol. 1).
- University of Alberta: Faculty of Medicine & Dentistry. (2017). Community Engaged Research: Scholarship of Engagement. Retrieved from <https://www.ualberta.ca/medicine/communities/engagedresearch/scholarship>
- University of Guelph. (2014a). Community Engaged Scholarship Institute: About. Retrieved May 1, 2017, from <http://www.cesinstitute.ca/about>
- University of Guelph. (2014b). Community Engaged Scholarship Institute: Resources. Retrieved March 1, 2017, from http://www.cesinstitute.ca/resources?field_category_tid=1
- University of Victoria: Office of Community-University Engagement. (2017). *Draft: Community-Engaged Research*.
- Virginia Commonwealth University. (n.d.). VCU Scholars Compass: Community-Engaged

Research Resources. Retrieved March 1, 2017, from http://scholarscompass.vcu.edu/cer_resources/

Virginia Commonwealth University. (2013). *VCU Community Engagement Terms and Definitions*.

Virginia Commonwealth University. (2017). Community Engagement. Retrieved May 1, 2017, from <http://community.vcu.edu/community-indicators--data-/community-engagement-terms--definitions/>

Appendix A: Community-Engaged Research Organizations and Initiatives

Initiative/Organization	Website Link	Source	Description
Community-Based Research Canada	http://communityresearchcanada.ca/home	(Community Research Canada!, 2017a)	<ul style="list-style-type: none"> • “Community-Based Research Canada’s (CBRC) mission is to be a national champion and facilitator for community-based research (CBR) and campus-community engagement in Canada. We envision vibrant Canadian communities enabled by CBR. We believe that CBR can create socio-cultural, economic and environmental benefit for Canadians and Indigenous Peoples in Canada.” • You can sign up as a member of CBRC • There are many resources for CBR on this website
Community-Based Research Canada: What is Community Based Research?	http://communityresearchcanada.ca/cbr	(Community Research Canada!, 2017b)	<ul style="list-style-type: none"> • List of definitions of several terms similar to Community-engaged research.
Pursuing Excellence in Collaborative Community-Campus Research 2014 National Summit	http://www.communitybasedresearch.ca/Page/View/National_Summit		<ul style="list-style-type: none"> • National summit to explore key indicators for evaluation
Centre for Community Based Research	http://www.communitybasedresearch.ca/	(Centre for Community Based Research, n.d.-a)	<ul style="list-style-type: none"> • “The Centre for Community Based Research (CCBR) is focused on strengthening communities through social research. • Founded in 1982, CCBR believes in the power of knowledge to impact positive social change. We are passionate about bringing people together to use knowledge to provide real and innovative solutions to

Initiative/Organization	Website Link	Source	Description
			community needs. Our approach to research is participatory and action-oriented in a way that mobilizes people to participate as full and equal members of society."
Research Impact	http://researchimpact.ca/	(ResearchImpact, 2017)	<ul style="list-style-type: none"> RIR is committed to developing institutional capacities to support knowledge mobilization by developing and sharing knowledge mobilization best practices, services and tools.
Arctic Institute of Community-Based Research	http://www.aicbr.ca/about-us/	(Arctic Institute of Community-Based Research, 2017)	<ul style="list-style-type: none"> A CBR organization in Canada – one focus area is climate change
Virginia Commonwealth University	http://scholarscompass.vcu.edu/cer_resources/	(Virginia Commonwealth University, n.d.)	<ul style="list-style-type: none"> Community-engaged research resources
	http://community.vcu.edu/community-indicators--data-/community-engagement-terms--definitions/	(Virginia Commonwealth University, 2017)	<ul style="list-style-type: none"> Terms and definitions
Community Engaged Scholarship Institute (CESI)	http://www.cesinstitute.ca/about	(University of Guelph, 2014a)	<ul style="list-style-type: none"> Explains their organization's overarching goals or principles
	http://www.cesinstitute.ca/resources?field_category_tid=1	(University of Guelph, 2014b)	<ul style="list-style-type: none"> Definitions and resources for community engagement, outreach, community-engaged scholarship, community-based scholarship, knowledge mobilization.
Carnegie Foundation	https://www.carnegiefoundation.org/	(Carnegie Foundation, 2017)	<ul style="list-style-type: none"> Improvement of school systems for teachers and students to improve learning Want to see change in school districts and colleges and recognized in policy. "The Carnegie Foundation for the Advancement of

Initiative/Organization	Website Link	Source	Description
			<p>Teaching is committed to developing networks of ideas, individuals, and institutions to advance teaching and learning. We join together scholars, practitioners, and designers in new ways to solve problems of educational practice. Toward this end, we work to integrate the discipline of improvement science into education with the goal of building the field's capacity to improve."</p> <ul style="list-style-type: none"> • "Carnegie advocates for the use of improvement science to accelerate how a field learns to improve."
Harvard Catalyst: The Harvard Clinical and Translational Science Center	https://catalyst.harvard.edu/programs/regulatory/cenr.html	(President and Fellows of Harvard College, 2017)	<ul style="list-style-type: none"> • Specific page and group committed to community-engaged research • Defines CEnR and provides a list of resources as well as contact information for the organization • Provides toolkits and guides for CEnR for the different stakeholders within CEnR programs
University of Alberta, College of Dentistry, Community Engaged Research	https://www.ualberta.ca/medicine/communities/engagedresearch		<ul style="list-style-type: none"> • Cites CEnR as part of their work.
Institute for Community Engaged Research (ICER)	http://icer.ok.ubc.ca/welcome.html		<ul style="list-style-type: none"> • University of British Columbia (Okanagan)
Wissenschaftsladen Bonn - Bonn Science Shop	https://www.wilabonn.de/en/	Community-Engaged Research (External Survey)	<ul style="list-style-type: none"> • A participant in the External Survey is from this organization and provides the following description: "Bonn Science Shop - with its persons involved or projects - pursues the idea of public engagement with, and participation in, all levels of the research and innovation process: participation of citizens and/or CSOs in generating research ideas, questions, and agendas; participation in monitoring, steering, advising on or performing research; in data collection, data analysis or scenario development; and the co-creation of knowledge with the aim of contributing to social change. Bonn Science Shop promotes an open dialogue

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			and debate between science and civil society: • It provides scientific knowledge for citizens in an open, action-oriented and participatory way • It brings civil society issues and interests to the scientific discussion • It promotes the co-creation of knowledge among Civil Society Organisations and researchers”
Living Knowledge: The International Science Shop Network	http://www.livingknowledge.org/	(Living Knowledge: The International Science Shop Network, n.d.-a) (Living Knowledge: The International Science Shop Network, n.d.-b)	<ul style="list-style-type: none"> • “The Living Knowledge Network is composed of persons active in -or supportive of- Science Shops and Community Based Research. Living Knowledge aims to foster public engagement with, and participation in, all levels of the research and innovation process. • We facilitate cooperation with Civil Society Organisations (CSOs) to generate research ideas, questions and agendas. We perform research in response to these questions, either ourselves or with the assistance of others, notably higher education students. Our goal is to co-create research to find solutions and therefore make a positive impact on real world problems. • By doing this, we promote community focused cooperation between civil society and those involved in teaching, research and innovation, particularly in higher education. Our process of engaging with society aims to strengthen both the research process and its outcomes for all partners, and thus contribute to research excellence and innovation outcomes that meet views, wishes and demands of civil society.”
International Association of Public Participation	https://www.iap2.org/		<ul style="list-style-type: none"> • “IAP2 is an international association of members who seek to promote and improve the practice of public participation in relation to individuals, governments, institutions, and other entities that affect the public interest in nations throughout the world.”
Clinical and Translational Science Award (CTSA) program	https://ctsacentral.org/		<ul style="list-style-type: none"> • “With support of the National Institutes of Health (NIH), the Clinical and Translational Science Award (CTSA) program was launched in 2006 and has expanded to about 60 academic medical institutions across the

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			<p>country. Each component of the CTSA program is crucial in supporting our mission: Accelerating Discoveries Toward Better Health. Working together, we can help shape the future of healthcare.”</p>
<p>University of Victoria, Office of Community- University Engagement</p>	<p>http://www.uvic.ca/ocue/</p>		<ul style="list-style-type: none"> • “In May 2015, the Office of Community-University Engagement (OCUE) was established to provide strategic oversight and vision to the University of Victoria (UVic) around community-university engagement in the following five spheres: <ul style="list-style-type: none"> ○ Community-engaged learning (CEL) ○ Community-engaged research (CER) ○ Being a good neighbour (GN) ○ Knowledge mobilization (KM) ○ Institutional and policies supports (IPS) • OCUE is guided by three institutional-level goals: <ul style="list-style-type: none"> ○ Develop UVic as a hub for excellence for community-engaged scholarship; ○ Increase opportunities for all UVic students to have an engaged experience as part of their education; and ○ Leverage the university’s strengths and strategic commitment to sustainable social, cultural and economic development in our local region.”