Community-University Partnerships for Local Impact: Advancing Sustainability Through Place-Based Education

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Abstract

Due to growing demands for experiential learning opportunities and the desire to better prepare students for "real-world" decision-making, community-university partnerships have become novel and experimental spaces within postsecondary institutions. This case study explores a 3-year community-academic partnership pilot designed to provide place-based education experiences around sustainability in an urban North American context. Students' experiences in the pilot program were examined using document reviews, interviews, and online surveys. This paper reports on student learning in relation to civic engagement and place-based education. It also explores how community-academic partnerships can be leveraged to advance sustainability goals at the municipal level, based on a framework encompassing cultural, social, and environmental dimensions of sustainability. The results suggest that the community-academic partnership provided important place-based learning opportunities that both fostered civic engagement and enabled the application of ideas about activism and action competency to support the municipality's holistic sustainability goals. Further analysis of the pilot applying a set of principles related to community-academic partnerships is used to draw insights and identify both the benefits and challenges of the partnership for the students, faculty, and municipal partners involved.

As societies around the world face intense social, environmental, political, and economic unrest, postsecondary institutions are increasingly engaging with their surrounding communities in deeper and more purposeful exploration of the roles that teaching, research and scholarship, and institutional capacity can play in addressing these complex challenges (Boyer, 1996; Dubb, et al., 2013; Hart & Northmore, 2011; Hollister et al., 2012; Singh, 2017; Nelson, 2021). Amid growing pressure from external stakeholders for postsecondary institutions to better prepare students for the realities and expectations of life outside academia, universities have become more conscious and strategic in their educational offerings (Zomer & Benneworth, 2011). In response to these shifting societal demands, higher education institutions are looking to offer more engaging and interactive courses to their expanding student populations (Berghaeuser & Hoelscher, 2020).

A reflection of this global trend in Canada is CityStudio Vancouver, which was launched in 2011 as a collaboration between the city of Vancouver and several local public postsecondary institutions (CityStudio, n.d.). The CityStudio model brings together city staff, students, faculty, and community to cocreate experimental projects that make the city more sustainable, livable, and inclusive. The initiative ultimately aims to accelerate sustainability through community-university partnerships and provide students with direct opportunities to work in and with the city on urban challenges (CityStudio, n.d.).

This initiative not only reflects broader trends in community-university engagement but also follows an equally widespread pedagogical shift to normalize experiential learning and civic action as key elements of higher education (CityStudio, n.d.; Henthorn, 2014; Wurdinger & Allison, 2017). Experiential education is "a philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities" (AEE, n.d., para. 1). It consists of a comprehensive set of educational theories that serve to guide and deliver cognitive, behavioral, affective, and social learning outcomes (Fenwick, 2000). Experiential learning often entails the involvement of multiple sectors to provide a holistic and contextually accurate understanding

of an occurrence or experience (Marriott et al., 2015). A growing number of cities across Canada and the world have adopted or been inspired by the CityStudio model (CityStudio, 2018, p. 33) to focus on experiential and real-life learning, including the city of Sasamat,[1] in Canada.

The Sasamat Lab was developed as an innovative partnership between city stakeholders and postsecondary institutions to address the City of Sasamat's priorities related to sustainability. The City of Sasamat defined sustainability in its Sustainability Charter 2.0 as: "Meeting the needs of the present generation in terms of the socio-cultural systems, the economy and the environment, while promoting a high quality of life but without compromising the ability of future generations to meet their own needs" (City of Sasamat, 2016, p.1).

As communities attempt to plan for their futures, sustainability through academic-community partnerships has become a growing area of interest (Mosier & Ruxton, 2018). Successful partnerships are driven by a wide-range of approaches in which the university and community collaborate in meaningful ways toward identified goals (Holliday et al., 2015). Communities can benefit greatly from such partnerships, which offer access to the connections, assets, and resources of postsecondary schools.

While the literature frequently highlights the role of community-academic partnerships in developing urban and environmental sustainability (Mosier and Ruxton, 2018; Ontong & Le Grange, 2014), the definition of "sustainability" in this paper uses a broader approach connected to the holistic conceptualization cited in the City of Sasamat's Sustainability Charter (City of Sasamat, 2016, p. 1). The charter's sustainability framework encompasses cultural, social, and environmental systems, demonstrating the interconnectedness of these areas throughout the City of Sasamat. This approach also acknowledges the need to address pressing local challenges while continually striving to create a more inclusive city (City of Sasamat, 2016).

The focus of this paper will be on the development of the Sasamat CityLab, as an experimental, systems-oriented initiative designed to support the strategic goals of the Sasamat municipality as set out in its Sustainability Charter 2.0 (see Figure 1). This paper presents a case study conducted by Mount Arbutus University (MAU) faculty and staff who participated in the Sasamat CityLab. It reports on student learning at MAU in relation to civic engagement and place-based education and explores how community-academic partnerships can be leveraged to advance municipality sustainability goals. The Sasamat CityLab focused on experiential learning and place-based education to realize its sustainability vision, as will be explained in the following sections.

Place-Based Education

One of the primary strengths of place-based education is that its form adapts to communities' unique characteristics and links students' everyday lives to the evolving curricula of schools or universities (Karrow et al., 2022). The notion of place-based education was first described by David Sobel (2004), and others have expanded these ideas (Gruenewald, 2003; Hutchison, 2004; Orr, 1992; 1994; Thomashow, 1996; Woodhouse & Knapp, 2000). Gruenewald (2003) writes that place-based learning connects theories of experiential learning, contextual learning, and problem-based learning in an effort to make the experience of place and community an important part of the curriculum. There are many benefits to engaging students in place-based education programs, including improvements in academic achievement, problem-solving, critical thinking, and cooperative learning skills as well as an increased motivation to learn (Zandvliet, 2012). In addition, place-based practices have the potential to affect other behavioral outcomes, including promoting more active forms of citizenship (Sturrock & Zandvliet, 2018). Through place-based education, learners' cognitive structures are altered, attitudes are modified, and the general learning environment that develops around these programs can enrich and stimulate further learning. The elements listed above are viewed as interconnected and will change as a whole system, not as separate parts (Johnson & Johnson, 2003).

Activism

Activism, taken from the Latin root *actus*, "a doing, a driving force, or an impulse," refers to taking direct action to achieve or impede social, environmental, economic, and political change. Activism can present itself in many forms: "from ordinary people writing letters to newspapers, or

[1] Sasamat is a pseudonym, as are all the names of institutions mentioned throughout the paper.

Figure 1. City of Sasamat Sustainability Charter 2.0

holding local meetings, through to the activities of international organizations … that conduct international campaigns" (Ricketts, 2012, p. 19). A range of issues may initiate activism from the general public, though activism is not limited to high profile causes, either. Examples include action surrounding people with disabilities, abandoned animals, older people, or the need for increased funding for cancer research (Ricketts, 2012). The public actions to advocate on behalf of a cause have played an important role in shaping society: "*It is the work of activists and social movements which pushes society along* [emphasis added]*"* (Ricketts, 2012, p. 6).

Activism and education, however, are a controversial pairing. Many people believe that postsecondary education should be impartial and focus solely on preparing young adults with the skills they need to participate positively in society (Biddix, 2014; Morgan et al., 2021). Still, while collective and globalized forces move us (slowly) toward a paradigm shift in favor of sustainability (Zoller, 2012), little has changed in education to facilitate this shift (Stevenson, 2007; Wals and Jickling, 2002). The challenge lies in developing educational programming that reflects a shift toward sustainability, with a curriculum development process that "accurately [reflects] current debates and the state of knowledge about human-environment interactions" (McClaren & Hammond, 2005, p. 267).

For sustainability to take a serious hold within the education system, the concept of sustainability "demands [a] serious didactical re-orientation" (Wals & Jickling, 2002, p. 228). Unfortunately, research continues to report that in both K–12 and postsecondary education, a traditional "teaching

to know" approach persists, characterized by teacher-led lectures and an emphasis on low-level processes such as rote memorization (Barak & Mesika, 2007; Boddy et al., 2003; Zoller, 2011). This approach develops only lower-order cognitive skills in students, and, sadly, teachers are often the only ones in a classroom engaged in higher-order processes (Stevenson, 2007). Lower-order cognitive skills are associated with recall of information, comprehension, and application, while higher-order cognitive skills are representative of the capabilities to analyze, synthesize, and evaluate the world, or in short, "learning to think" (Zoller 2011, 2012). In our opinion, the development of higher-order skills should be a primary goal of undergraduate education.

Activism and Action Competence

In this paper, we view activism through a lens of *action competence* to resolve some of our own dissonance about the role of undergraduate education and how it prepares students for the real-world situations as citizens or professionals. In this, the conception of "competence" is an ideal outcome for sustainability education. Action competence as defined here can be seen as a "capability, based on critical thinking and incomplete knowledge, to involve yourself as a person with other persons in responsible actions and counter-actions for a more humane world" (Schnack, 1994). In this sense, action competence may indeed be understood as an essential component supporting the development of postsecondary students.

The concept of action competence, Jensen and Schnack argue, should occupy a central position in the theory of sustainability education, as many of the crucial educational problems concerning a traditional liberal education are united and activated by this concept (Jensen & Schnack, 1997). Our interests in beginning with action competence as a potential outcome for undergraduate education are based on a skepticism about the dominant educational paradigm that manifests itself in a tendency toward individualization—and that often regards the educational process as simply a question of behavior modification (Jensen & Schnack, 1997). At the same time, action competence can be seen as an alternative to more traditional and largely science-oriented approaches to sustainability education.

Bishop and Scott (1998) argued that sustainability education can be characterized by a "rhetoric" of action-taking and that the call for the development of personal action competence is only one example of this. Their work critically examines the concept of action competence, which they define as (paraphrasing): a set of capabilities that equip people with the ability to take purposive and focused action and that embody a democratic commitment to participation in the continuing shaping of society. They note that action competence is seen by some as a crucial outcome in education, since it brings together education's processes and practices with an urgent need to develop democratic citizenship skills (and values) in students.

Students who have action competence are able and willing to act on issues of sustainability that interest and engage them. In practice, it is developed as students learn about sustainability issues, then plan and take informed action on those issues. Further, many factors potentially support the development of students' action competence, including experiential learning, personal reflection, knowledge construction, future visioning, action-taking, and community building. All these tools assist students when learning about the city and about sustainability-related issues.

Experiential learning and place-based education are often recognized as being interconnected (Henthorn, 2014; Knapp, 2005). For instance, both forms of learning emphasize hands-on problem-solving beyond the traditional classroom in which students and educators identify and address community issues (Knapp, 2005). Furthermore, experiential and place-based education involve active methods of learning that challenge how we view education and teaching (Wurdinger & Rudolph, 2009). Contrary to teacher-centered styles, these approaches allow students to apply learning in real-world settings (Angstmann et al., 2019).

Place-based education and experiential learning can also drive civic engagement among students, defined as "the ways in which citizens participate in the life of a community in order to improve conditions for others or to help shape the community's future" (Adler & Goggin, 2005, p. 1; Sobel, 2004). As place provides context, including identities and social relationships, these approaches encourage students to acknowledge their role within communities and give them direct experience with responding to problems afflicting their communities (Getting Smart, 2017; Henthorn, 2014). Moreover, through place-based and local experiences, students may enhance their sense of attachment to their communities (Barratt & Hacking, 2011). Experiential and place-based

learning opportunities also strengthen leadership skills necessary for community improvement and social change (Barratt & Hacking, 2011; Getting Smart, 2017; Guthrie & Jones, 2012).

Sasamat CityLab

The City of Sasamat was inspired by the CityStudio model to launch the Sasamat CityLab in 2018 as a new academic-community partnership between the City of Sasamat, MAU, and Salish Coast University (SCU). This partnership developed in response to the increasing demand for the two academic institutions to develop curricular experiential learning offerings in Sasamat. It commenced as a 3-year pilot project in which SCU and MAU faculty developed curricula to engage their students with municipal issues and challenges. The intention was for the Sasamat CityLab to engage faculty and city staff to cocreate learning experiences for undergraduate students, enabling them to help address pressing issues in the service of advancing sustainability, as defined in the Sasamat Sustainability Charter 2.0.

Sasamat CityLab Origins

Sasamat CityLab program that emerged at MAU had its roots in an earlier program that grew out of the Faculty of Environment and became known as the ChangeLab (Desjardins et al., 2014). The ChangeLab was originally designed to foster and facilitate a specific set of action competencies for participating undergraduate students; to help them mobilize their capacity on issues of personal and social importance. Thus, it focused on the intersections of sustainability, social change, and education. The ChangeLab considered sustainability as a form of activism in its broadest definition, to be "efforts to create positive social change" (Desjardins et al., 2014, p. 353).

In 2018, an iteration of ChangeLab named Health Change Lab was launched in the City of Sasamat to address complex social and environmental issues affecting the health and well-being of the Sasamat community (Ardiles et al., 2021). This initiative was a partnership between the Social Innovation Hub of the School of Business and the Faculty of Health Sciences at MAU. This program was rooted in principles of community engagement and social innovation; students were tasked with engaging with community partners in the City of Sasamat to find novel solutions for the complex problems affecting the community, such as food security, active transportation, and refugee settlement (Ardiles et al., 2021).

Sasamat CityLab Structure

The Sasamat CityLab was codesigned as a 3-year pilot by a steering committee composed of staff representatives from the City of Sasamat's Sustainability Office and faculty representatives from MAU's Health Science Department and the CSU Arts Department.

During the pilot, Sasamat CityLab hosted 21 courses, engaged 20 faculty and 219 students, and completed 61 projects in the City of Sasamat (City of Sasamat, 2020). Courses were hosted by the following departments at MAU: Faculty of Health Sciences; Cooperative Education; Faculty of Environment; Faculty of Education; Advancement and Alumni Engagement; Student Learning and Leadership; School of Business; School of Sustainable Energy and Engineering; Co-op program School of Sustainable Energy and Engineering), and by five departments at CSU (Faculty of Arts, School of Design, Geography and the Environment, Anthropology, and English) (City of Sasamat, 2020). Although Sasamat CityLab did not join the CityStudio global network established in 2019, it did benefit from access to the CityStudio learnings and tools developed to support the early plans for the design and evaluation of the pilot. Notably, an affiliate collaboration also permitted the Sasamat CityLab staff to use and adapt components of an evaluation survey, as described below in the Methodology section.

Sasamat CityLab Setting

The City of Sasamat is situated on the traditional territories of the Semiahmoo, Kwikwetlem, Qayqayt, Kwantlen, Katzie, and Tsawwassen First Nations; it is the second largest municipality in British Columbia (B.C.), Canada (City of Sasamat, 2016, 2020). Sasamat is the fastest growing city in B.C., the fastest growing home of B.C.'s urban Indigenous population, and often the destination of choice for refugee claimants and immigrants due to the high cost of living in the neighboring city of Vancouver (City of Sasamat, 2020). With nearly half of Sasamat's residents being immigrants, and a third speaking English as a second language, Sasamat is one of the most culturally diverse cities in Canada, rich in religion, language, and tradition (City of Sasamat, 2016, 2020).

Ultimately, the unique community needs of Sasamat's diverse population demand careful evaluation of the available support systems, public infrastructure, health care distribution, and income assistance to thoroughly satisfy

everyone (City of Sasamat, 2016). Accordingly, in 2015, stakeholders and policy-makers agreed that substantial work had to be done to meet the needs of Sasamat's steadily growing and diversifying population (City of Sasamat, 2016; Sasamat Poverty Reduction Coalition, 2015). Notably, the City of Sasamat recognized the importance of meaningful partnerships, making space for a collaboration between academic institutions and the city.

Sasamat's vast and varying demographic factors, including its rural–urban composition and its diverse range in both socioeconomic status and age, all result in a complex social and physical environment ripe with opportunities for innovation to address the issues mentioned above (City of Sasamat, 2016). For instance, when considering areas with greater youth densities, prevailing transportation and accessibility limitations can impede youth's utilization of recreational centers, calling for solutions that prioritize the location of facilities and programs (City of Sasamat, 2018). Alternatively, when evaluating areas with higher immigrant proportions, challenges associated with cultural unfamiliarity and language barriers may indicate a need for the development of accessible programs that aid community navigation (City of Sasamat, 2018).

Sasamat CityLab Educational Goals

The overarching objectives of the Sasamat CityLab were designed to empower students to move ideas to action, to provide social change skills training, to promote sustainability at the municipal level, and to allow students to experiment/take risks while critically reflecting on their actions, all within a curricular context. The program focused on emergent projects and coalesced around themes of personal development, holistic conceptualization of sustainability, skills-oriented workshops, and place-based curriculum. In short, through its design the program aimed to develop students' action competence in the following ways.

Student Empowerment. Students often experience a sense of social isolation and disconnection from community, which can be one of the largest barriers to young people getting involved in civic life (Desjardins et al., 2014). To encourage connection, the program fostered student empowerment through a facilitation model that actively challenged the "sit back and be told" culture most students have experienced through the entirety of their formal education. Self-direction was paramount in this facilitated experience, and students were encouraged to be active partners in co-constructing the curriculum. The instructors acted as facilitators, which helped create a horizontal power dynamic and required students to take ownership of their own course experiences.

Assignments themselves were also aimed to foster empowerment while giving students an understanding of the decision-making processes, key stakeholders, and interest groups that affect sustainability at the municipal level. Students were required to engage key stakeholders and decision-makers in the community as a means to immerse them in the complexity of multistakeholder decision-making processes and the intricate power dynamics of the institutions and organizations they were attempting to change.

Social Change Skills. Affecting social change requires a unique skill set gained through both direct experience and training. In the development of Sasamat CityLab, it was important to both explicitly and implicitly provide students a platform for engaging with community and experimenting in the local context. Three key ingredients here include mentorship, training, and collaboration. Throughout the program, students had access to a network of mentors and project advisers to facilitate their personal growth and to help them complete their projects. Training from community partners was provided to the students, and community professionals were invited to the class to provide valuable skills training workshops. This model fostered dialogue and connections between community practitioners and students and served to mobilize students into action. Addressing complex social problems through action requires a capacity to work collaboratively across disciplines, sectors, cultures, and perspectives. Hence, the Sasamat CityLab was designed as an interdisciplinary experience with an emphasis on team projects to allow students to develop confidence and capacity working within collaborative structures.

Critical Reflection. Through reflections throughout the year and a final portfolio assessment, students were given ample space to explore their critical voices. Mandating reflection throughout the course experience was intended to guide students to think more deeply on activism while developing greater metacognitive capacities. Assignment formats were not restricted to a written medium, and students were encouraged to explore diverse and creative forms of communicating their ideas, thoughts, and aspirations to one another.

Sasamat CityLab Student Projects

Through direct experience and purposeful curricular design, the Sasamat CityLab was designed to equip students with the skills and abilities necessary to be effective change agents both at the university and in their communities after graduation. The development of Sasamat CityLab was predicated on an assumption that the process of students taking action with/in their undergraduate education may potentially develop *within them* a form of action competence. The central assignment for the program was the design of sustainability projects in the community. In the first few weeks of the course, key sustainability stakeholders were brought into the class to introduce the strategic direction of the sustainability agenda in the city and to pitch potential projects. The goals of the students' projects were to increase sustainability and to practice moving "ideas to action."

The Sasamat CityLab resulted in experiential learning opportunities that produced innovative prototypes and community projects aligned with the City of Sasamat's sustainability goals as outlined in the Sustainability Charter 2.0 (Figure 1). As the overarching guide for the municipality, the charter is based on a holistic view of community systems, and student projects were matched with desired outcomes identified in the charter and supported by staff champions from departments. The holistic nature of the charter also allowed for interdisciplinary consideration, as the projects could potentially address desired outcomes for inclusion, health, and the built environment. Examples of student projects resulting from the lab can be found in Table 1.

Principles for Community-University Partnerships

The Sasamat CityLab and similar models for education, learning, and social change rely on a foundation of partnerships with local government and community organizations in order to function. Partnerships are at the center of these initiatives, and their health can impact outcomes on student learning, community goals, and longevity of initiatives (Jagosh et al., 2015; Nelson, 2021). Therefore, attention to relationship and trust building between partners as well as overall stewardship of partnerships at the university level are key factors to success.

Historically, community-university relationships have been strained due to academic institutions' tendency to use community resources, including people and knowledge, to conceptualize and carry out research activity without community input or involvement and subsequently to publish results in formats inaccessible to the community in question (Drahota et al., 2016, p. 165). This practice is informed by deeply embedded assumptions about the value of certain systems of knowledge, thereby undermining the value of other systems, and points to a "lack of respect for community knowledge" and "a view of community members as objects, rather than partners, for research" (Buys & Bursnall, 2007, p. 74). The positioning of the university as the "expert" with significant access to information and resources, along with the failure to recognize and value the assets and knowledge resident within communities, creates a power imbalance in collaboration initiatives. This dynamic often leads to feelings of mistrust and suspicion and a mismatch between community needs and the resulting knowledge product, thereby rendering communities hesitant to work with academic institutions in the first place (Buys & Bursnall, 2007, p. 74; Drahota et al., 2016, p. 165).

This history signals a deep need for attention to process when engaging in community-university activities, and the literature in the field recognizes the value of strong, equitable partnerships as a foundational factor for facilitating positive outcomes in collaborative initiatives (Bringle & Hatcher, 2002; Holland & Ramaley, 2008; Pearce et al., 2008). Significant time, attention, and care are needed to develop and sustain these relationships that bring meaning and effectiveness to community-university partnerships (Hart & Northmore, 2011; Kearney & Candy, 2004; Pearce et al., 2008). A recent study by Nelson (2021) developed a set of effectiveness principles for community-university partnerships based on principles-focused evaluation methodology (Patton, 2018) that capture the important process elements for fostering trusting, respectful, and mutually beneficial relationships. These principles will be used as a framework for analyzing the Sasamat CityLab's approach with regard to student learning and implementation of sustainability projects with the community. It will also be used as a reflection tool to uncover key insights on the overall partnership that emerged during the 3-year pilot process.

The principles focus on five main themes—relationships, context, respect, flexibility, and communication—and include both overarching and operating principles, whereby "overarching principles are the main foundational principles, and operating principles provide practice-based guidance on how the principles can be applied" (Nelson, 2021, p. 5). Operating principles build

Table 1. Student Projects

Course title	Project name	Community partner	Sustainability theme	Project's contribution to sustainability theme
HSCI 495: Applied health science project	The Neighbours Zine	Phoenix Society	**Inclusion:** a caring community that encourages a sense of belonging and access to opportunity for all Sasamat residents to realize their full potential	An artistic zine that allows people experiencing houselessness to be commissioned for their contributions and low-barrier employment
HSCI 495: Applied health science project	Meriendita	DiverseCity Community Resources Society	**Economic prosperity and livelihoods:** continued prosperity and thriving livelihoods and a strong, equitable, and diverse economy	A food truck that provides outreach to temporary migrant workers by sharing resources and refreshments to help them understand available support and employment rights
HSCI 495: Applied health science project	Placemaking Superhero Cape	Newton Town Centre	**Public safety**: a city in which all people live, work, learn, and play in a safe and engaging environment	A cape comprised of Sasamat residents' positive memories of their local community
HSCI 495: Applied health science project	CoColour	Immigrant Services Society of British Columbia	**Inclusion**	A cocreated coloring book for refugee families in Sasamat to navigate local resources
HSCI 449: Community and health service	Art On The Go	Fraser Health	**Public safety**	A peer-led walking tour to key community establishments that support newcomer youth in gaining knowledge and skills related to traffic safety
HSCI 449: Community and health service	Lending Library	City of Sasamat	**Infrastructure**	A community-owned lending library that allows individuals to gain access to items that aren't available in traditional libraries, such as tools, household appliances, and sports equipment

practicality and flexibility into the framework. As knowledge about ways to apply the overarching principles develops in practice, additional operating principles can be included (Nelson, 2021). The principles are highly connected, interrelated, and collectively reinforcing, and they should be considered together when building or reflecting on community-university partnerships (Nelson, 2021). A full table of the principles can be found in Appendix A.

Research Methodology

This exploratory case study (Yin, 2018) utilizes a mixed methodology that incorporates both qualitative and quantitative research methods. The principal investigator obtained initial funding for this case study from Mount Arbutus University's Institute for the Study of Teaching and Learning in the Disciplines (ISTLD) to conduct this research at MAU. Ethical procedures were followed, including obtaining informed consent and maintaining interviewees' anonymity for confidentiality.

Data Collection and Analysis

For this case study, multiple sets of data were collected at MAU at two different time points in the development of the Sasamat CityLab: Phase 1 was conducted during the first semester of the Sasamat CityLab pilot program (September–December 2018), and Phase 2 took place at the end of the program's last semester (April–May 2020).

Phase 1. The first phase consisted of a document content review and key informant interviews to explore student learning in relation to civic engagement. The document review was conducted using field notes, course syllabi, and student assignments from two different MAU courses from the Faculty of Health Sciences that were part of the Sasamat CityLab: HSCI 449 Community and Health Service and HSCI 495 Applied Health Science Project. Data collected through document review were synthesized and abstracted.

The semistructured interviews were conducted over the telephone in the span of four days with MAU undergraduate students that were registered in Sasamat CityLab courses in the 2018/2019 academic year. A total of eight participants were recruited for a 60-minute interview through a group email via the MAU intercampus mail system. A financial incentive of $25 CAD was given to each of the participants after successfully completing the interview. Data collected through semistructured individual interviews were recorded using a digital voice recorder, transcribed verbatim, and coded using thematic analysis (Braun & Clarke, 2006; Guest et al., 2012). The notes were revised, and the interviews were listened to repeatedly to build familiarity with the data, which was necessary before codes and themes could be identified.

A codebook was developed to extract specific themes and findings from the transcribed notes. Detailed notes were coded in original themes then grouped into broader themes. The emergent themes were labeled and analyzed accordingly.

Phase 2. The second phase consisted of a document content review and a student survey that was administered to understand student experiences and explore student learning in relation to place-based education. A document review was conducted of field notes collected by faculty and staff as well as the Sasamat CityLab's Annual Report (City of Sasamat, 2020) to explore the connection between community-university partnerships, student learning, and the development of the city's sustainability goals. Data collected through document review were synthesized and abstracted.

Student Survey. An online questionnaire was developed to assess student learning in the Sasamat CityLab. This instrument consisted of two sections: (a) questions integrated from CityStudio's Evaluation Survey and (b) the PLACES questionnaire (Table 2). In March 2020, the survey was distributed to students at MAU enrolled in Sasamat CityLab courses in the winter semester (HSCI 449 Community and Health Service, HSCI 495 Applied Health Science Project, EDUC 401/402 Integration of Theory & Practice, and ENV 642: Sustainable Community Planning and Regional Development). In total, 20 students participated in this survey, with 12 participants from education courses and eight from health sciences courses.

The questions selected from the CityStudio evaluation survey aimed to assess the student experience and were adapted (with permission) to fit the context of the City of Sasamat. Questions were selected by Sasamat CityLab steering committee members to assess students' experiences in relation to their participation in the program. The Place-Based and Constructivist Environment Survey (or PLACES) questionnaire selected for this study had been tested and proven to be reliable in measuring learning environments in postsecondary classrooms (Zandvliet, 2014). As the questionnaire is not time or age sensitive, it has been easily adapted for use in a variety of classroom formats. The eight scales incorporated into PLACES were originally adapted from

previously referenced inventories and were derived from data that emerged from a series of focus groups with sustainability educators. In summary, PLACES is a compendium of constructs that place-based educators viewed as being most important for their practice (Zandvliet, 2012). Typically, students respond to a series of statements using a Likert-type scale (e.g., *strongly agree*, *agree*, *not sure*, *disagree*, *strongly disagree*). This student survey data is also suitable for simple descriptive analysis. Sample statements from each of the eight constructs in PLACES are provided in Table 2.

Findings

Phase 1: Results

Document Review. The following section highlights the findings from the document review that aimed to support the contextualization of the data from the key informant interviews. Students in HSCI 495 were part of the Health Change Lab (HCL), a curricular program offered by the Social Innovation Hub of the School of Business and the Faculty of Health Sciences at MAU. The HCL is an experiential program designed for undergraduate students to develop innovative and entrepreneurial solutions to complex community health problems in Sasamat. Students in HCL participated in a meet-and-greet event with City of Sasamat staff at City Hall in September 2018 to identify some of the community's key priority areas. Some of the staff continued to mentor students throughout the semester as they were identifying the root causes of the problems they chose to focus on. As students were cocreating and iterating prototypes of solutions, they received additional support from city staff and community partners in the form of class presentations and coaching sessions in and outside of the classroom. The prototypes focused specifically on improving public safety for young women, refugee resettlement, social entrepreneurship for newcomers, and social inclusion for youth. The HCL students worked in interdisciplinary teams (from across health sciences, business, interactive arts, technology, etc.) and developed innovative prototypes that were aligned with Sasamat's sustainability goals, including built environment and neighborhoods, public safety, and economic prosperity and livelihoods (see Table 1).

Students in HSCI 449 were involved in a multiweek service-learning project that aimed to provide students with a service-learning opportunity in a real-world environment. Students worked with community partners to support the organization and/or evaluation of two community events. One team worked with an immigrant service agency to design and facilitate a wellness event for newcomers in Newton, Sasamat. The other team participated in and evaluated an Immigrant Indigenous Youth Initiative in Sasamat that aimed to build solidarity between immigrant youth and urban Indigenous youth.

Student Interviews. The thematic analysis applied to the interview responses highlighted pertinent trends in the data collected. These themes are key to understanding the experiences

Table 2. Sample Statements From the Selected Constructs for the PLACES Questionnaire

Construct	Sample statement
Relevance/Integration (RI)	I want my lessons to be supported with field experiences and other field-based activities.
Critical Voice (CV)	It would be ok for me to speak up for my rights.
Student Negotiation (SN)	I want to ask other students to explain their ideas and opinions.
Group Cohesion (GC)	I want students to get along well as a group.
Student Involvement (SI)	I want to ask the instructor questions when we are learning.
Shared Control (SC)	I want to help instructors plan what I am to learn.
Open-Endedness (OE)	I want opportunities to pursue my own interests.
Environmental Interaction (EI)	I want to spend most of the time during local trips learning about my sustainability.

of all eight participants. Final themes created for both interviews were further analyzed and merged to create three categories:

1. Building relationships and communication skills
2. Cultivating civic engagement
3. Applied learning related to prototypes and community events

Qualitative findings from the student interviews are summarized below by theme area, with selected quotes provided anonymously for further explanation.

Theme 1: Building Relationships and Communication Skills. Responses clustered under this theme highlighted how experiential learning opportunities impacted students' ability to build relationships. Many of the students agreed that through these Sasamat CityLab courses they not only built new friendships but also secured new municipal and community partner contacts that could impact their future careers. Student 1 noted, "Through this course, I have greatly improved my ability to use language differently in the real-life settings. I learned to be more professional and mastering which type of language to use in different settings."

Students were asked how they built relationships with city staff and community partners. Student 2 responded, "I was no longer afraid. . . . Interacting with City of Sasamat staff helped me put a face to power authorities and I became confident."

Responses also indicated that the skills students gained through community engagement will be useful in their lifelong career advancement. Said Student 3, "The community partners we worked with were very helpful and happy to share their contacts with us. I have personally reached out to them after the course and offered to volunteer in future events."

Theme 2: Cultivating Civic Engagement. All participants reported that the courses enabled them to become better citizens of their communities, as indicated in Table 3.

Students described the experience as "non-theoretical and hands-on," and it was both "mind and eye-opening" to learn how to deal with logistics and administration challenges.

Respondents also reiterated that having a chance to address real-life issues of the target population was a highlight of their learning experiences. Said Student 1, "I don't live in Sasamat and have never understood why Sasamat had a reputation for gang activities and crime, this class made me understand the complexities behind it."

All students echoed responses that pointed to being freshly inspired to contribute to their communities. Student 2 said, "I learned that you could make an impact! You are not just a student number that graduates. This cemented my decision to pursue a career in public health."

Theme 3: Experiential Learning Related to Prototypes and Community Events. All the respondents from HCL believed that their research had been beneficial to the City of Sasamat. According to Student 1, "Our research was more beneficial than the prototype itself."

Building prototypes provided the participants with deep insights to the City of Sasamat's complex problems, including transportation challenges, social exclusion, and diverse and increasing refugee populations. The HCL students all worked on creating mobile applications that either connected young people with physical activities or connected newly arrived refugees to appropriate community resources to help with resettlement. The students made sure to check in with the target population through email and virtual meetings during the brainstorming process to identify community members' most pressing health issues. Said Student

Table 3. Student Responses on Civic Engagement

Student	Response
Student 4	"It forced us to care and be more passionate and provided us with an in-depth lens to learn about Sasamat's complex issues and the roles different stakeholders play."
Student 5	"It was different than seeing it in the news or on social media platforms."
Student 6	"I understand bureaucracies and bylaws now and this has made me more compassionate towards lawmakers and why they can't do things as quick as we want them."

2, "Our knowledge of social determinants of health helped us know what to consider. I mean issues like social isolation, chronic stress, equity etc."

Phase 2: Results

Student Survey Results. Key findings from the student survey are summarized below alongside direct quotes from respondents.

Responses to CityStudio Adapted Survey Questions. Survey questions from the CityStudio Evaluation Survey were adapted to fit the context of the Sasamat CityLab. The following section describes the responses from this survey.

An important aspect of the Sasamat CityLab is providing stakeholders and students with opportunities to develop relationships. Approximately 60% of participants indicated that they built new relationships through the Sasamat CityLab. Almost half (45%) "somewhat agreed" or "strongly agreed" that they built trust in these relationships.

In response to a question about students' experiences during their CityLab course, respondents mostly noted that they learned through doing and listening and had fun along the way. Most participants (85%) found the experience with the Sasamat CityLab to be useful for their career and/or academic program. Similarly, 80% of participants stated that this experience was "somewhat useful" or "very useful" for their daily life.

One of the aims of the Sasamat CityLab is to support the strategic goals of Sasamat as outlined in its Sustainability Charter 2.0. Many of the survey respondents agreed that Sasamat CityLab is making Sasamat a more thriving, green, and inclusive city. Respondents also agreed that the CityLab inspired them to take action, helped them see what is possible in the City of Sasamat, and made them feel more connected to the city. Furthermore, 100% of respondents indicated they would recommend Sasamat CityLab to people in their network.

When asked what they learned from their projects, students underscored the importance of communication, iterating, and coordination. One participant said:

> I learned that there are multiple approaches we can take to handling an issue, and that no one way was the "correct" way. I think keeping in constant contact with the stakeholders worked really well and helped guide us to take alternative routes to reach our answers. I think over all the project was really well thought out, the prof was easily accessible and offered a lot of insight to tackle the project.

Participating in the Sasamat CityLab also inspired students' actions and thoughts by driving them to get involved in additional community projects, join community groups, and potentially pursue grad school. One respondent noted:

> CityLab provided me with an opportunity to pursue different things. Before taking the course, I was solely focused on a health promotion route. After this course, I want to explore the realm of community and city development work. I am looking forward to participating in more community work like homeless counts or public consultations.

When asked what students would want more or less of at Sasamat CityLab, responses were mixed. One respondent said:

> I really liked how there was a variety of project subjects in a class. I think it brings variety and groups are able to learn from each other in new subjects. It would be interesting to see summer cohort programs be developed for students.

Since this survey was disseminated during the first wave of the COVID-19 pandemic in Canada, students' experiences were impacted by the shift to remote learning methods. One respondent wrote, "I believe incorporating more hands-on events within the projects offered will enhance learning, in addition to the research process."

Perceptions of the Learning Environment. Learning environment studies acknowledge that learning of all kinds takes place within the social realm and that social conditions can contribute to the quality of both learning and experience (Zandvliet, 2012). This may be especially true for innovative programs such as the Sasamat CityLab. The PLACES questionnaire (developed for use in place-based educational settings) was used to obtain information about students' perceptions of their learning environment. Two versions of the survey were administered during the program. The first or "preferred form" was given near the beginning of the semester and asked students to reflect on what type of learning environment they would prefer for their learning going forward. The

second or "actual" form of the survey asked about students' perceptions at the culmination of the program. Figure 2 outlines the mean responses of students across MAU courses participating in the CityLab program.

Figure 2 shows that, overall, students perceived the CityLab program's learning environment as very positive, and they ultimately experienced a learning environment very close to the one that they reflected on in the "preferred" form of the survey. The results also indicated which factors students viewed as most important to learning; the constructs of Critical Voice (CV) and Group Cohesion (GC) were most important for this cohort of students. A descriptive analysis of each of the constructs/domains in the PLACES survey is provided in Table 4.

Document Review: Annual Report and Field Notes. The following section highlights the findings from the Sasamat CityLab annual report (City of Sasamat, 2020) along with findings from MAU faculty and staff field notes that offer helpful context for the student survey data. It analyzes how Nelson's (2021) principles for partnerships (outlined in Appendix 1) were implemented in practice and discusses how they contributed to student learning and the city's sustainability goals.

Principles for Partnerships in Practice. Alongside community practitioners, MAU staff and faculty members with substantial experience in community engagement designed and implemented the Sasamat CityLab. Community based knowledge was essential to guiding the structure of the program and the learning process as it ensured that students were immersed in a living example of principled practice in community-university partnership and engagement. Evidence of effective principles for community-university partnerships, including attention to relationships, context, respect, flexibility, and communication (see Appendix 1; Nelson, 2021), emerged through testimonials from students, faculty, and community members.

These principles were also evident in the ways the Sasamat CityLab prepared and led students through their community-engaged learning experience; the program's thoughtful design was a key component to building respectful, equitable, and mutually beneficial partnerships and to ensuring that the education and learning goals were not being pursued at the expense of the community. There is a risk inherent in community-engaged courses where well-intentioned but ill-prepared students and/or faculty can unintentionally cause more harm than good through their engagement with community (Conner & Erikson, 2017). This risk was mitigated for MAU courses participating in the Sasamat CityLab by several structural components that exemplified principled practice for working with community partners. The program's thoughtful approach to and emphasis on respectful partnership development also facilitated the conditions needed for student

Figure 2. Responses to Student Survey

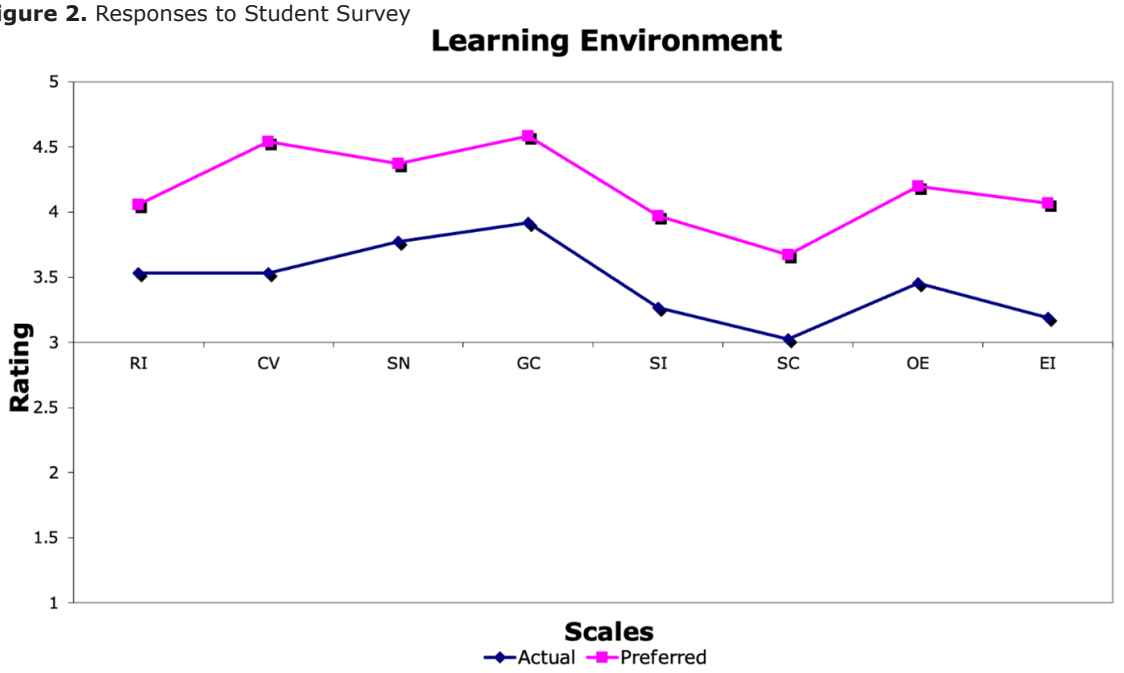

Table 4. Responses to the PLACES Questionnaire

Domain	Responses
Relevance/ Integration (RI)	Nearly three-fourths of the sample stated that because of their experiences with the Sasamat CityLab, they learned about their communities outside of the university. More than half the respondents said their new learning started with issues important to the local community and that their lessons were supported by community field trips.
Critical Voice (CV)	Approximately half of the respondents always felt comfortable speaking up for their rights, openly expressing their opinions, or asking their course instructor why they were learning specific content. Nearly 70% of participants indicated that they "always" or "sometimes" felt comfortable asking for a better explanation of confusing learning activities when needed.
Student Negotiation (SN)	Almost two-thirds of respondents stated that they always had opportunities to talk with other students about how to solve problems, explain ideas, and share opinions. About 70% of respondents indicated that they "always" or "sometimes" made an effort to explain their ideas to other students.
Group Cohesion (GC)	About 81% of respondents "always" or "sometimes" noted that members of the class helped one another during classroom activities, and 68% felt they were "always" or "sometimes" able to depend on others for help during classroom activities. Approximately 70% of participants indicated that students always got along well as a group and had opportunities to get to know each other through participation in classroom activities.
Student Involvement (SI)	Almost 60% stated that the instructor "always" or "sometimes" asked the students questions when learning, while nearly 70% of respondents said they "always" or "sometimes" asked the instructor questions. 47% of participants always offered their opinions during discussions. Nearly two-thirds of the sample felt that their ideas and suggestions were "always" or "sometimes" used during discussions.
Shared Control (SC)	Approximately 68% of participants stated that they "always" or "sometimes" helped the instructor plan what they were going to learn and decide how they would learn it. Nearly one-third indicated that they always helped the instructor decide which activities or projects would be best for them to work on. Similarly, more than 52% "always" or "sometimes" helped the instructor decide what activities to do in the classroom. More than one-third of participants sometimes helped decide how much time was spent on learning activities.
Open-Endedness (OE)	Nearly three-fourths of the sample indicated that they "always" or "sometimes" were encouraged to think for themselves. Almost half the respondents stated that there were always opportunities to pursue their own interests. Approximately one-third of the sample felt they were able to design their own learning projects and express themselves freely in their learning.
Environmental Interaction (EI)	During community and field experiences, nearly 40% of respondents felt more engaged during field trips. More than half felt as though they could easily express themselves and considered learning to be very important during field trips.

projects to demonstrate relevance, impact, and contribution toward the city's sustainability goals.

Program Preparation. An important preparatory component included an application process and training for new faculty interested in delivering courses through the *Sasamat CityLab*. Training material was made available through the membership with CityStudio and provided a way to ensure that participating faculty had a foundational understanding of best practices in community engagement. Another vital method of preparation included a session for MAU Faculty of Health Science (FHS) students within their courses on how to work with community partners, putting focus on ethical guidelines, equity-centered design (Pinedo, 2020), and reflection on their own social location, power, and privilege when undertaking work in the community (Ardiles Gamboa & Fernando, 2022). FHS students were guided to consider how partnerships can be liberating for all that are involved in the process, and they reflected on the importance of building trust, listening, acting authentically and with humility, doing no harm, ensuring consent and confidentiality, and showing respect. The delivery of this training before students' work with community partners began reflects several important principles for community-university partnerships, including context, respect, and flexibility (Nelson, 2021). The historical community-university divide and inherent power imbalances require students and other institutional representatives to acknowledge this dynamic and recognize their own social location within systems of oppression. They must be prepared to approach collaborations with open minds, vulnerability, inclusiveness, humility, a healthy respect for community knowledge, and a willingness to "step back or change course based on feedback" (Nelson, 2021, p. 7).

Evidence of students applying these principles in practice emerged in statements describing their learning; statements touched on letting go of assumptions, gaining an understanding of the complexities behind gang and crime activity in cities, learning how to incorporate feedback from community members into their projects, acknowledging that "there are multiple approaches we can take to handling an issue," and recognizing that "sometimes your first idea isn't great but it's always okay to pivot and adjust."

Structural Elements. With regard to the structure of the program, each course at MAU offered through the Sasamat CityLab began by grounding learning in the community. Priority was placed on building relationships, respecting community knowledge, and understanding community context through an orientation with city staff. For instance, FHS participating students would learn about pressing community issues and how the municipality works through different departments and processes. Following the orientation, students were matched with various priority areas identified in the community and put in touch with the appropriate city staff contacts. Using a network approach to community development (Gilchrist, 2004), students were then connected with other community contacts working on the identified issues. These connections included nonprofit organizations, the health authority, and community tables. The cross-boundary partnerships facilitated by the network approach catalyze innovation, strengthen the social fabric, and drive the building of relationships and social capital (Cross et al., 2015; Gilchrist, 2004). From a principles perspective (Nelson, 2021), the focus on connection to community partners helped students learn the importance of building relationships and networks in community-university partnerships as well as the importance of valuing different forms of knowledge by centering the community's voice. It also served to deepen students' contextual understanding of the complexities surrounding the issues they were tackling and the social, economic, political, and other considerations involved when working with community partners (Nelson, 2021).

Testimonials from students, faculty, and community partners gathered from evaluations and the Sasamat CityLab annual report (City of Sasamat, 2020) exemplify some of these findings and principles in practice. With regard to building relationships, networks, and social fabric, students cited the maintenance of contact with their community partners and their partners' willingness to share their own contacts for future engagement or volunteer opportunities. One student said:

> The most valuable thing in connecting students with City of Sasamat staff is providing students with the skills and tools to be able to work collaboratively with all levels and disciplines of stakeholders within our diverse municipal systems. For myself, this has included project work with diverse community groups, service providers and municipal, regional, and provincial governments in the delivery of healthy living strategies, programs, and initiatives. (City of Sasamat, 2020, p. 18)

A faculty member also identified the value of cross-boundary collaborations in terms of sparking innovation and community building through caring relationships, saying:

> I think the collaborative nature of the course cultivates community between students, faculty, and City staff in really important ways. All parties involved are able to learn from each other, and that fosters not only creativity and innovation, but also a deep sense of care and responsibility to one another. (City of Sasamat, 2020, p. 12)

Community partners also identified the mutually beneficial nature of these partnerships in terms of developing new ideas. One said:

> The students provided their recommendations which gave City staff an outside glimpse of what is needed. The research also allows City staff to explore innovative ideas. It was truly a pleasure to work with two groups of students that both produced actionable, research-based information. (City of Sasamat, 2020, p. 11)

Related to the principle of context, which calls for an understanding of the complexities involved in community development work, one student said:

> Going from policy, and identification of a problem, to creating a solution, allowed me to learn the different angles that policy studies can take. Not every problem requires a law, some require group effort and project partners to create a solution (City of Sasamat, 2020, p. 25).

Program Celebration. At the end of each semester, the Sasamat CityLab courses hosted a celebration and/or showcase event at which student groups, community partners, faculty, and other stakeholders came together at City Hall to present their research and prototypes for innovative ideas to address pertinent social and environmental challenges. This activity models an important principle for community-university partnership under the theme of respect, which is to "celebrate partnership accomplishments in ways that honour and value the contributions of all partners" (Nelson, 2021, p. 9). It can be challenging for partnerships to find the space, time, and resources to celebrate partners' accomplishments together and reflect on the collective work, but celebrations can be a powerful tool to deepen relationships and trust by validating and appreciating all partners' knowledge and contributions. Most importantly, a key consideration for postsecondary institutions undertaking partnership work is to ensure that recognition activities or communication materials do not favor the contributions of the university over others, as doing so would reinforce a problematic social hierarchy and power dynamic that separates the university from the community (Blake & Moore, 2000; Kenworthy-U'Ren & U'Ren, 2008).

Beyond the Lab: Contributions to Sustainability in Sasamat. Beyond the celebration event, city staff and community partners were encouraged to use the research and prototypes in ways that were useful to them, and some student groups continued working with community partners to bring their ideas to the implementation phase outside of the CityLab construct. The evidence of students taking action on their ideas is a testament to the assumption identified earlier in this article that students are developing a form of action competence: They are developing the ability and willingness to learn, plan, and take action on issues of sustainability that interest and engage them. Given the City of Sasamat's broad and holistic definition of sustainability, student projects took on many different forms and contributed toward sustainability in areas such as inclusion, infrastructure, public safety, and more (see Table 1). The foundational partnership development work and trust achieved through Sasamat CityLab enabled students to engage in scholarship that contributed toward the city's sustainability goals with impacts reaching well beyond the CityLab's timeframe.

In connection to the city's sustainability theme around infrastructure, two student projects focused on developing a research-based framework to help the city's festival and events team incorporate sustainability best practices into their event planning and implementation. As stated by a city staff member:

> The students in the program provided case studies of various cities across North America, with similar dynamics to Sasamat, that were either in the process or already implementable sustainable practices. The students provided their recommendations which gave City staff an outside glimpse of what is needed …. It was truly a pleasure to work with two

> groups of students that both produced actionable, research-based information around Sustainable Events to help event organizers make their events greener. (City of Sasamat, 2020, p. 25)

Another initiative, the "Placemaking Superhero Cape" project, was aimed at reclaiming a public space and community sense of safety in an area of the city with a history of violence and crime. The team partnered with the local business improvement association to set up a table in a location that had recently witnessed a homicide. They asked passersby to write down positive experiences they had with members of their community on pieces of cloth. Those pieces were later sewn together into a cape, which was then displayed in the community (City of Sasamat, 2020, p. 13–14). This project contributed to the city's sustainability theme around public safety, the goal of which is to have residents feel safe, participate in crime reduction, connect with their neighbors, and reduce stigmas related to safety in Sasamat (City of Sasamat, 2016, p. 27–28).

One example of a student group that worked to implement its project beyond the CityLab is the MAU "CoColour" project, in which students cocreated a coloring book with Sasamat refugee families to showcase the city's diversity and culture, highlight resources, and provide helpful information for newcomers (MAU, 2018). This project connects to the city's sustainability goals around inclusion and building a community of care and belonging. The students applied for and received funding through MAU's Student Community Engagement Competition to implement their project after the CityLab (Mount Arbutus University, 2021). They proceeded to build relationships with local residents and partnered with a local community organization to codevelop and distribute these coloring books, which showcased newcomers' lived experiences and provided information to help them navigate the city's amenities and resources (MAU, 2018). A reflective conversation between these students and the MAU's Office of Community Engagement revealed several principles for effective community-university partnership work that deepened the learning they began through this process and played an important role in the successful implementation of their project. By working through challenges and realizing successes along the way, the students identified the following key learnings related to principles of relationships, flexibility, communication, and respect:

- Building relationships and trust takes time, effort, and care.
- Progress happens at the speed of trust; flexibility is needed for deadlines and timelines on deliverables, as progress will be slow until sufficient trust is built in the community.
- Consistent communication is important for building relationships, setting goals, and managing expectations.
- Boundaries and capacity constraints must be respected. (MAU, 2019)

These student projects would not have been possible or well-received without the knowledge and collaboration of community partners. It is therefore important to recognize and learn from the essential role that effective partnership development played in the implementation of student projects that contributed toward the city's sustainability aspirations.

Discussion

The preliminary results from our case study suggest that the Sasamat CityLab successfully applied ideas about activism, action competency, and community-university partnership to student learning. Further, we were able to utilize place-based education ideas to foster novel solutions that supported the municipality's sustainability goals. Our study results indicate that the program not only fostered student research and innovation but also improved civic engagement—a key factor for the City of Sasamat—and increased student awareness of city priorities and broad civic challenges. Having students take on these challenges promoted greater engagement and risk-taking and guided the municipality to adopt innovative solutions that reflected a youth point of view. This is critical given Sasamat's long-term sustainability vision and the important roles that these youth will take on over time within their communities. Through the process of engaging with the community as part of their learning journey in the Sasamat CityLab, students also implicitly learned effective approaches and process factors for developing respectful, reciprocal, and equitable community-university partnerships.

The findings also suggest how community-academic partnerships can support the engagement of new actors, ideas, and resources to promote technical and social innovation in the context of the urban setting (Naumann et al., 2018). For instance, the additional research and innovation capacity

provided by student projects also has the potential to increase coordination and decrease workload for municipal staff and community organizations partnering with the lab, and the projects themselves may enhance the city's efforts to build a sustainable and livable urban community.

However, community partnerships are complex, dynamic, ever-changing, and affected by many external forces. Upon completion of the 3-year pilot in 2020, the Sasamat CityLab ceased to operate. While the COVID-19 pandemic was a factor in the lab's conclusion, other contributing factors are worth uncovering and sharing as insights and learning for future projects. The discussion below uses Nelson's (2021) principles for effective community-university partnerships as a tool to reflect on some of the challenges faced and to outline some related recommendations.

Relationships

The overarching principle related to the theme of relationships is: "Develop and sustain trusting relationships based on a foundation of authenticity and mutual value" (Nelson, 2021, p. 16). In reflection of this principle, the Sasamat CityLab initially had a solid foundation of relationships between partners. The lab emerged as a passion project from mid-management-level city staff and faculty who eventually made up the steering committee. Significant relationships and trust were built between the city staff and faculty involved, and they shared an understanding of mutual value. However, when changes occurred among the city's management staff, this synergy was disrupted, and competing priorities made it challenging to maintain the trust and deep connections needed to sustain the Sasamat CityLab.

An executive committee was created with senior leadership involvement after the vision and initial conversations had already been established by staff and faculty champions. The committee's work focused on ensuring that the annual deliverables for the lab were met, including the report, celebration event, and evaluation. Future initiatives may benefit from the establishment of an executive committee from the outset, with priority focus on building relationships at the institutional level, stewarding the partnership, and embedding the initiative into institutional structures to ensure that it is less vulnerable to individual staff changes.

Context

The overarching principle related to the theme of context is: "Consider the unique social, economic, political, cultural, and environmental context, history, and power dynamics as factors in how each partnership is approached, designed, and sustained" (Nelson, 2021, p. 16). In reflection of this principle, the Sasamat CityLab could have benefited from a slightly adjusted agreement structure. The partnership consisted of two postsecondary institutions and a municipality. Each of these partners is a large institution with its own goals, priorities, policies, and resources. The partnership agreement developed at the beginning of the pilot included all three partners in a single agreement. This arrangement later became challenging due to the postsecondary institutions' differing goals and priorities, in addition to funding challenges and staff turnover, which affected the course of the partnership overall.

The CityStudio model that provided the foundation for the Sasamat CityLab operates with separate agreements for each postsecondary institution. This may be a consideration for future projects to protect the initiative and other partners from contextual changes occurring in any one institution. To facilitate collaboration, perhaps additional subagreements or memoranda of understanding between postsecondary institutions could be drafted to facilitate opportunities to support each other and work together throughout the experience.

Respect

The overarching principle related to the theme of respect is: "Demonstrate respect for the knowledge, experience, and capacity of all partners and strive for equity in the relationship" (Nelson, 2021, p. 16). Closely related to the concepts of equity, valuing different forms of knowledge, and creating inclusive environments is the fact that the Sasamat CityLab operated in a highly diverse municipality; at least 43% of Sasamat residents are immigrants to Canada. The lack of racial diversity in leadership structures was especially salient for an initiative operating in such a highly racialized community, and this demographic mismatch led to challenges. Future initiatives may benefit from the development of new or reimagined structures for project leadership and guidance that reflect the diversity of the community. New structures would need to ensure that resources are shared equitably and that community members are compensated for their knowledge.

Flexibility

The overarching principle related to the theme of flexibility is: "Facilitate the space for emergence and be open and adaptable to change in a complex environment" (Nelson, 2021, p. 17). The Sasamat CityLab experienced challenges adapting to change. The needs identified in the Relationships section, above, likely contributed to the lack of flexibility in the partnership. Strong relationships grounded by a shared understanding of mutual value help provide a solid foundation for adaptability. The Sasamat CityLab was unable to respond and adapt to unexpected issues such as funding challenges, shifts in staffing, and the COVID-19 pandemic or to take advantage of opportunities that may have eased those burdens.

Communication

The overarching principle related to the theme of communication is: "Communicate openly, honestly, accessibly, and with enough frequency to establish clarity, facilitate ongoing improvement, and navigate challenges" (Nelson, 2021, p. 17). The Sasamat CityLab would have benefited from stronger communication between partners, especially with regard to unforeseen challenges and differing goals and priorities. For example, while municipal staff and leaders focused on getting student assistance in meeting their targets related to sustainability goals across a broad range of domains, educators focused on creating a unique and innovative learning environment that leveraged real-world learning opportunities. Frequent and clear communication in relation to each partner's different priorities would have supported more cohesion in the partnership. Communication is highly connected to relationships, and stronger relationships and trust would have likely enabled deeper and more honest communication, which in turn would have facilitated a higher degree of adaptability to change and challenges.

The above analysis does not encompass the many perspectives, nuances, and complexities at play in the Sasamat CityLab. Rather, it is meant to offer reflections on some prominent challenges and provide an opportunity for discovery around recommendations for future consideration. Furthermore, it is important to keep in mind the interconnected and synergistic nature of the principles for effective community-university partnerships. The principles overlap and reinforce one another; hence, the strengths and challenges identified above are inherently connected to more than one principle.

Limitations and Future Research

This research had various limitations. First, the data reported in this study were exclusively collected at MAU and do not capture the breadth of the Sasamat CityLab experience. Due to constraints beyond the control of the researchers, this study was not designed to collect data from SCU faculty and students, City of Sasamat staff, or community partners. Hence, the study lacks data from other institutions that were critical to the partnership. Additionally, Phase 2 of this study was implemented at the start of the COVID-19 pandemic, which hampered our efforts to get a larger survey response rate from students. In addition to the research constraints, leadership and staff changes had a significant impact on the implementation of the Sasamat CityLab, as described in the Discussion section.

Conclusions

As outlined in the Findings and Discussion, it is evident that the Sasamat CityLab was a valuable and mutually beneficial partnership for students, faculty, and community partners. In addition, many challenges presented themselves in the context of resources, policies, structures, communication, and priorities that influenced the implementation of the lab. Future consideration to the principles outlined by Nelson (2021) as part of the research design, implementation, and evaluation of a community-academic partnership such as Sasamat CityLab is recommended to ensure that communication, diverse representation, and managing change are all addressed as part of the ongoing engagement process.

This paper fills a gap in knowledge regarding labs addressing a holistic view of sustainability in the context of community-academic partnerships. The Sasamat CityLab demonstrates how student engagement and learning can support the building of community-academic partnerships and promote the legitimacy and scholarly importance of community engagement work. The ability to effectively demonstrate the value of community-engaged work as it relates to student learning, research, community, and institutional outcomes is an important prerequisite for instigating systemic change within an institution for the legitimization, rewarding, and resourcing of community engagement work as a scholarly endeavor (Cuthill, 2008; Garlick & Langworthy, 2008; Holland, 2001; Shephard, et al., 2018; Vargiu, 2014).

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Appendix A. Effectiveness Principles for Community-University Partnerships

Themes	Overarching Principles	Operating Principles
Relationships	Develop and sustain trusting relationships based on a foundation of authenticity and mutual value.	• Participate in community and add value without a preconceived agenda. • Demonstrate reliability and commitment by delivering on promises. • Facilitate the space to get to know partners on a personal and human level. • Be responsive and helpful, where capacity allows, to requests for assistance outside of the parameters of the particular partnership project or activity. Leverage available resources, networks and knowledge to be of help where needed. • Explore ways to deepen relationships by building networks and social fabric. Introduce and recommend partners to other contacts and positively promote the partnership.
Context	Consider the unique social, economic, political, cultural, and environmental context, history, and power dynamics as factors in how each partnership is approached, designed, and sustained.	• Acknowledge the history of unequal power dynamics and social hierarchy separating the university from community. Approach collaborations with vulnerability, openness, and humility, and be willing to step back or change course based on feedback. • Avoid perpetuating systems of oppression by engaging in regular self-reflective practice and being open to feedback and learning. • Codevelop implicit or explicit principles and processes with partners for each collaboration, considering the context and nature of activity. Use formal agreements if needed or necessary for establishing parameters, managing resources, and balancing power.
Respect	Demonstrate respect for the knowledge, experience, and capacity of all partners and strive for equity in the relationship.	• Approach partnerships with a listening and learning mindset, and ensure all partner voices are heard to help shape and bring forward collaboration initiatives. • Create inclusive environments where all partners feel welcome and valued for their time, experience, and knowledge. • Discuss what a fair distribution of resources and benefits looks like for the partnership based on the specific initiative, capacity and contribution of partners, and resources available. • Celebrate partnership accomplishments in ways that honor and value the contributions of all partners.
Flexibility	Facilitate the space for emergence and be open and adaptable to change in a complex environment.	• Be willing to shift direction for projects and initiatives provided there continues to be mutual value in the partnership. • Take advantage of unanticipated opportunities where capacity allows. • Allow for outcomes to emerge and change throughout partnership initiatives where possible while taking into account established parameters. • Choose evaluation methods that are a match with the initiative, desired insights, and available resources. Attempt to capture unanticipated learnings, outcomes, and ripple effects.
Communication	Communicate openly, honestly, accessibly, and with enough frequency to establish clarity, facilitate ongoing improvement, and navigate challenges.	• Establish a shared understanding of interests, goals, commitments, and limitations. • Check in with partners along the way to provide feedback for improvement and ensure continued mutual benefit. Make adjustments as needed. • Determine preferred modes and frequency of communication. • Use accessible language. • Communicate concerns or changes in the partnership with timeliness, respect, and honesty.

Source: Nelson, 2021, p. 16–17