



UNIVERSITY OF
CALGARY

Increasing Indigenous Engagement in Undergraduate Research Initiatives

Empowering the Spirit of Indigenization

UNIVERSITY OF CALGARY
Taylor Institute for Teaching and Learning

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The University of Calgary and the College of Discovery, Creativity and Innovation (CDCI) are situated in Treaty 7 territory, in the City of Calgary, known to the Blackfoot as Moh-kins-tsis. In the spirit of respect, reciprocity, and truth, we honour and acknowledge the Blackfoot Confederacy – comprising of the Siksika, Piikani, and Kainai First Nations – as well as the Tsuut'ina First Nation, and the Stoney Nakoda, including the Chiniki, Bearspaw, and Wesley First Nations. We acknowledge that this territory is also home to the Métis Nation of Alberta, Region 3, within the historical Northwest Métis homeland. Finally, through our work and intentions, we strive to honour and celebrate the land, the four-leggeds, the swimmers, the winged ones, the crawlers, and the plant people. We strive to honour and respect Indigenous people's long-standing relationships with experiential learning and recognize the history of colonization that has attempted to erase these ways of knowing and doing.

Within Indigenous approaches to research, it is appropriate to begin with identifying oneself in your work (Absolon, 2010). My name is Saskia Livingstone, and I am Red River Métis. Born in England, I spent my early years living in Japan before moving to Canada. Until our move to Canada, I didn't understand my identity as Métis. Our family's identity was not spoken about freely by my Métis relatives due to intergenerational trauma. The journey to understanding who I am as a Métis woman has been a long one and would not have been possible without the support and effort of my non-Indigenous mother. I am aware of the importance of decolonizing research, as experiences in Indigenous studies courses at UCalgary are what spurred my non-Indigenous mother to begin tracing my Métis family history and begin the process of connecting our family back to our community. This experience, combined with youth, dance, family and land-based cultural groups helped connect me with Knowledge Keepers, leaders and other youth my age who shared aspects of my identity with me and helped me begin to understand what it means to be Indigenous.

As a recent graduate from UCalgary, I hold a Bachelor of Arts in Law and Society. As a UCalgary alumna and a Métis scholar, I am passionate about combining my interests in research, Arts student experiences, student advocacy within the campus community, as well as the power of decolonized research spaces to transform individuals. In the summer of 2022, I was hired by the College of Discovery, Creativity, and Innovation (CDCI) to evaluate Indigenous engagement in undergraduate research and experiential learning. The many ideas for my role and this report were created following meetings between my supervisor at the CDCI, Dr. Kyla Flanagan and Dr. Michael Hart, the vice-provost of Indigenous Engagement at the University of Calgary and Dr. Leslie Reid (Vice-Provost, Teaching and Learning). For the past two years, I have been involved with the CDCI programming as a PURE student (2021) and a Research Coach (2021) for the Course-based Undergraduate Research Experiences (CUREs) program. Indigenous research is as diverse as the peoples who engage in the process (McGregor et al., 2018), and I am excited to offer my perspectives and experiences to this project.

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EXECUTIVE SUMMARY

Through exploring intersections between the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the Truth and Reconciliation Calls to Action (TRC-CTA), UCalgary's *ii' taa'poh'to'p* strategy, and UCalgary's Experiential Learning Plan (EL Plan), in this report, I will highlight ways the College of Discovery, Creativity, and Innovation (CDCI) can expand high-quality undergraduate research and experiential learning opportunities through increasing the accessibility of programming for Indigenous students. The CDCI focuses on building high-quality undergraduate student research experiences that "evoke students' curiosity, engage students in the process of discovery, ensure there is an opportunity for students to disseminate findings, and extend student learning through critical reflection" (TAY-URI, 2021, p. 1). These experiences are found within curricular course-based undergraduate research, non-curricular undergraduate research awards, undergraduate research events and micro-credential programs at UCalgary. Although these programs reach many undergraduate students at UCalgary, Indigenous students are underrepresented, and engagement with Indigenous students is an important issue for the CDCI.

Goals for this work

Three overarching goals guided this work:

1. Understand the current state of Indigenous undergraduate research programming across Canada and at UCalgary.
2. Evaluate Indigenous engagement with the CDCI, bringing in the lived experiences of Indigenous undergraduate students at UCalgary and highlighting the challenges, gaps and opportunities for growth.
3. Provide recommendations to increase Indigenous engagement with CDCI programming.

Methodology

The research process wove together student experiences, a literature review, in-depth review of UCalgary's Indigenous Strategy (*ii' taa'poh'to'p*), an environmental scan of research programs offered at Canadian universities, consultation with CDCI staff, and consultation with campus groups.

Key Findings

Underrepresented identifying persons (such as women, visible/racialized minorities, Indigenous peoples, persons with disabilities, and 2SLGBTQIA+) often experience barriers in accessing research opportunities. The CDCI's programming demonstrates an underrepresentation of Indigenous students, pointing to a gap in access and inclusion.

Barriers to accessing experiential learning and undergraduate research programming include; lack of awareness of opportunities, financial constraints, not seeing Indigenous representation, difficulty navigating complex application processes, lack of Indigenous-specific research programming and awards, lack of Indigenous faculty support, and an overall lack of inclusion of Indigenous ways of knowing and doing within experiential learning and undergraduate research programming.

Recommendations

Category	Recommendations
Ways of Knowing	<ul style="list-style-type: none">Align programming to ii' taa'poh'to'pEnsure staff critically evaluate their knowledge or lack of knowledge and biases about Indigenous peoples and histories in CanadaExplore creating an Indigenous research program in collaboration with other units on campusCreate supportive learning and research environments for Indigenous students that recognize and reflect Indigenous pedagogies, research methodologies and the concept of shared space
Ways of Doing	<ul style="list-style-type: none">Hire more Indigenous students to work in campus officesEngage in targeted outreach and recruitment campaigns to increase awareness of experiential learning and undergraduate research opportunitiesEvaluate and edit application formsCollect accurate data on Indigenous student engagement with programming
Ways of Connecting	<ul style="list-style-type: none">Ensure staff understand the land and traditional territories on which UCalgary is locatedSupport community-based researchEnsure cross-campus relationships are respectful, reciprocal and sustainableEnsure faculty supervisors are equipped to support Indigenous students
Ways of Being	<ul style="list-style-type: none">Visibly Indigenize CDCI/OEL campus spaces and eventsIncrease Indigenous student representation in programmingIncrease the funding for students engaging in experiential learning and undergraduate research opportunities

Conclusions

In consultation with students, campus groups, literature review, other institutions' programming, international and national reconciliation action plans, and CDCI staff, I provide 15 actionable recommendations. These recommendations serve as a starting point for conversations and actions to support Indigenous students at UCalgary in engaging with experiential learning and undergraduate research programming. The CDCI is committed to continually evaluating and improving our programming and processes, and I hope to create an environment that helps more Indigenous students access undergraduate research programming.

Table of Contents

Introduction	1
Reconciliation and Post-secondary Indigenous Engagement.....	1
UCalgary's Experiential Learning Plan (2020-25) and Indigenous Engagement.....	5
Undergraduate Research Initiatives.....	5
Methodology	6
Key Findings	7
Demographic Analysis.....	7
Identified Barriers.....	7
Interviewed Student Profiles.....	8
Recommendations	10
Ways of Knowing: Teaching, Learning, Research	10
Ways of Doing: Policies, Procedures, Practices.....	12
Ways of Connecting: Relationships, Partnerships, Connection to Land, and Place	13
Ways of Being: Campus Identity, Inclusivity, Leadership, Engagement.....	15
Conclusion	16
Literature Cited	17
Appendix – ISAP x PURE Meeting Notes	19

INTRODUCTION

The College of Discovery, Creativity, and Innovation (CDCI) leads the Undergraduate Research Initiative (URI) at the University of Calgary. The URI seeks to advance undergraduate research across campus by providing multiple entry points for students to access research opportunities. Undergraduate research greatly contributes to the Academic and Research Plans by enhancing student experience and impact, driving innovation through teaching and research integration, increasing research capacity, and connecting communities.

In all undergraduate research experiences supported by the CDCI, students learn about research by doing research. This "learning by doing" is captured as one of the categories of experiential learning defined in the [Experiential Learning Plan \(2020-25\)](#), Research-Based Experiential Learning, where students lead or contribute to a research project. The Experiential Learning Plan establishes a target of all undergraduate students participating in at least two Experiential Learning opportunities. The CDCI team, as a unit within the Office of Experiential Learning (OEL), is committed to the goals of the Experiential Learning Plan in expanding capacity, reducing barriers, and increasing opportunities for students to participate in research.

Unfortunately, underrepresented identifying persons (such as women, visible/racialized minorities, Indigenous peoples, persons with disabilities, and 2SLGBTQIA+) often experience barriers in accessing research opportunities (TAY-URI, 2021, p. 25). Through work with undergraduate researchers, the team has become increasingly aware of barriers to research opportunities, including financial barriers and perceived biases about the types of research supported. The challenges and barriers faced particularly by Indigenous students at UCalgary prompted this work and inspired the team to investigate how Indigenous ways of knowing, doing, being, and connecting can be better incorporated within undergraduate research programs.

In this report, I [S. Livingstone], in collaboration with the CDCI team, explore Indigenous engagement at UCalgary in experiential learning and undergraduate research initiatives offered by the CDCI. I begin by grounding our work in international, national, and UCalgary frameworks, strategies, and initiatives for post-secondary Indigenous student engagement. Next, I outline specific findings regarding Indigenous student engagement and barriers to undergraduate research at UCalgary. Finally, I conclude with 15 recommendations for improving Indigenous student engagement with the CDCI's undergraduate research initiatives.

Reconciliation and Post-secondary Indigenous Engagement

This section presents key international, national and UCalgary documents that pertain to reconciliation and Indigenous engagement efforts. An environmental scan of Indigenous research programming offered at the top research universities in Canada is presented to demonstrate specific education, experiential learning and research initiatives that aim to increase Indigenous student engagement.

International Context

The Canadian government has been called on to adopt the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which "establishes a universal framework of minimum standards for the survival, dignity and well-being of the Indigenous peoples of the world" and "elaborates on existing human rights standards and fundamental freedoms" as they apply to Indigenous peoples (United Nations, n.d., para. 1). The UNDRIP articles listed below relate to education and removing barriers for Indigenous students:

UNDRIP article 15.1 states, "Indigenous peoples have the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public information" (n.d., p. 15).

UNDRIP article 15.2 states that there should be effective measures taken in consultation and cooperation with Indigenous peoples "to combat prejudice and eliminate discrimination and to promote tolerance, understanding and good relations among Indigenous peoples and all other segments of society" (n.d., p. 15).

National Context

The Truth and Reconciliation Commission of Canada has made 94 calls to action (TRC-CTA) to "redress the legacy of residential schools and advance the process of Canadian reconciliation" (Joseph, 2016). Calls to Action listed below are particularly related to education and research and apply to the CDCIs programming:

- TRC-CTA number 62.2 calls on the government to provide funding for post-secondary institutions to educate teachers "on how to integrate Indigenous knowledge and teaching methods into classrooms" (2022, p. 11).
- TRC-CTA number 65 states the importance of research to advance reconciliation (2022, p. 12).

Many Canadian post-secondary institutions have created specific initiatives to increase Indigenous student engagement in undergraduate research. Here I show my findings from a scan of Indigenous undergraduate research programs from U15 institutions, as well as some unique programs from non-U15 institutions. Where no information was available on university websites, I indicated the lack of information as "none found." I note that, as far as I am aware, no Indigenous undergraduate research program exists at the University of Calgary. UCalgary does have Indigenous-student-specific programs, including the [Indigenous Summer Student Program \(ISSP\)](#), which is an annual work experience program that promotes career development through Indigenous ways of knowing, doing, connecting and being.

Table 1 Environmental scan of Canadian U15, and additional, Indigenous research programs

University	Program Name	Program Description
University of Alberta	Engage North	<ul style="list-style-type: none"> ▪ A hub to connect Northern community-based organizations with Southern resources ▪ Offers an internship program that works with community-based organizations to develop research projects for undergraduate and graduate students for a 4-month placement ▪ Primarily focused on undergraduate students (offering placements for graduate students occasionally) ▪ Interns receive two weeks of pre-placement cultural and personal development training
University of British Columbia	Indigenous Undergraduate Research Mentorship Program (IURMP)	<ul style="list-style-type: none"> ▪ Partners Indigenous undergraduate students with professors to conduct research projects ▪ Students can request a supervisor but also do not need to find one before the program starts ▪ Minimum five hours a week commitment (stipend provided) ▪ First-year students and repeat students eligible to apply
Dalhousie University	N/A	None found
Université Laval	N/A	None found
University of Manitoba	Undergraduate Research Awards PIKE-Net Undergraduate Summer Research Internship Program	<ul style="list-style-type: none"> ▪ Undergraduate Research Award Program (similar to PURE) ▪ Specifies that 10% of awards will be allotted to Indigenous students, and two awards are given to community-based research projects ▪ The award is a recognized co-curricular record activity ▪ PIKE-Net Undergraduate Summer Research Internship Program allows students to explore Indigenous health and wellness through hands-on research experience with guidance from faculty and community-based researchers

		<ul style="list-style-type: none"> 13-week program that includes workshops to cover research skills & topics related to Indigenous health (including traditional healing and approaches to health) To qualify, students must self-identify as First Nations, Métis or Inuit & be attending an undergraduate university degree program at the University of Winnipeg, University of Manitoba, Brandon University or the University College of the North
McGill	<u>Community Engagement Fund</u>	<ul style="list-style-type: none"> Students, staff, and faculty members can apply for funding to support meetings and visits with Indigenous community organizations, bringing community members to McGill, experiential learning opportunities for students on and off campus, and other creative partnership opportunities for Indigenous community support on and off campus
McMaster University	<u>Indigenous Undergraduate Summer Research Scholars program (IUSRS)</u>	<ul style="list-style-type: none"> 8-week intensive research training program hosted by the McMaster Indigenous Research Institute Open to Indigenous undergraduate students from universities across Canada who are interested in research and curious about graduate school Students take part in workshops & Indigenous Knowledge programming while contributing as research scholars under the supervision of a McMaster faculty member Students are given a \$5,000 scholarship and must dedicate full-time hours to research but are allowed to work part-time (max 15 hours a week) The program does offer other supports for in-person participants: housing stipend (if living on campus is required), reimbursement for travel to and from the program, modest meal card for daily food expenses on campus, modest childcare stipend for children under 12 (for scholars with childcare responsibilities)
Université de Montreal	N/A	None found
University of Ottawa	<u>Institute of Indigenous Research and Studies</u> <u>Undergraduate Indigenous Student Research Webpage</u>	<ul style="list-style-type: none"> Institute of Indigenous Research and Studies is developing a co-op option for undergraduate students in the Indigenous Studies program Undergraduate Indigenous Student Research Webpage highlights Indigenous undergraduate student projects
Queens University	<u>Indigenous Community Research Partnerships (ICRP)</u>	<ul style="list-style-type: none"> Indigenous Community Research Partnerships (ICRP) is an online open education training resource designed to assist researchers who are new to research in partnerships with Indigenous communities
University of Saskatchewan	<u>Indigenous Student Achievement Pathways Indigenous Research Program</u>	<ul style="list-style-type: none"> ISAP-led Indigenous research program is a bridging program, and nearly all pathways include a first-year research experience Indigenous research workshops series promotes system-wide learning on Indigenous research concepts, processes and protocols and provides examples of wise and leading practices for Indigenous engagement in research

	Indigenous Research Workshop Series MentorStep	<ul style="list-style-type: none"> MentorStep is a program that supports Indigenous women and girls at the University of Saskatchewan and Saskatoon Tribal Council regional high schools interested in STEM (Science, Technology, Engineering, and Math)
University of Toronto	Summer Mentorship Program Independent Research Study Courses	<ul style="list-style-type: none"> Summer Mentorship Program Gives high school students of Indigenous or African ancestry a chance to explore health sciences at the University of Toronto over four weeks in July The program can help students earn credit toward their high school diploma Independent Study in Indigenous Studies offers four research study courses where students can conduct research projects Maximum of one course per student during their undergraduate program
University of Waterloo	N/A	None found
Western	Head and Heart Indigenous Research Fellowship	<ul style="list-style-type: none"> 10-week program open to undergraduate and graduate students It is a culturally relevant research experience guided by a faculty supervisor Designed to nurture and inspire Indigenous scholars and has weekly co-curricular learning sessions for skills development Undergraduates are awarded \$8,400 with the expectation of 35 hours/week of research-related work
Thompson Rivers University ¹	Knowledge Makers Undergraduate Circle	<ul style="list-style-type: none"> 4-month Indigenous student-specific program with many student supports and opportunities such as; workshops, mentorship, journal publication and financial award Part of the Knowledge Makers – Canadian award-winning Indigenous research network
University of Winnipeg ²	Indigenous Summer Scholars Program (ISSP)	<ul style="list-style-type: none"> 12-week applied research program for Indigenous undergraduate and recently graduated students Students engage with various scholarly, collaborative, and community-based research projects Paid summer program where scholars are matched with and receive mentorship from University of Winnipeg Researchers as they contribute to their research projects
University of Northern British Columbia ³	Indigenous Research Ambassador Program	<ul style="list-style-type: none"> The Indigenous Research Ambassador Program and the Mitacs Indigenous Research Award are being offered in association with Mitacs The program will create ten six-month internships and 12 Indigenous student awards and connect students with researchers and communities, facilitate leadership and mentorship opportunities and celebrate and promote research and cultural connection to the natural world. UNBC also provides participants with laptops to assist with digital equity

¹ Non-U15 institution but features a unique Indigenous undergraduate research program

² Non-U15 institution but features a unique Indigenous undergraduate research program

³ Non-U15 institution but features a unique Indigenous undergraduate research program

UCalgary Context: ii' taa'poh'to'p

The UCalgary [ii' taa'poh'to'p](#) strategy highlights the importance of reconciliation and giving space to Indigenous ways of knowing and doing to decolonize the western institution we operate within (2017). The ii' taa'poh'to'p conceptual model has four main sections; ways of knowing, ways of doing, ways of connecting and ways of being, as described below:

- Ways of Knowing encompasses teaching, learning and research and “are sustained and expressed through languages, community traditions, protocols, and philosophies such as the recognition of the interconnectedness between humanity (past, present, and future), creation, and the cosmos” (ii' taa'poh'to'p, 2017, p. 15).
- Ways of Doing encompasses policies, procedures and practices which “need to be respectful and inclusive of Indigenous peoples and cultural protocols” (ii' taa'poh'to'p, 2017, p.19).
- Ways of Connecting encompasses relationships, partnerships, connections to land, and place and are “about the land and humanity's relationship with it and about partnerships between the University of Calgary and Indigenous communities” (ii' taa'poh'to'p, 2017, p. 23).
- Ways of Being encompasses campus identity, inclusivity, leadership and engagement and “transforming our ways of being means changing and renewing how all people are understood, supported and respected and how authentic relationships with Indigenous communities are developed and sustained (ii' taa'poh'to'p, 2017, p.27).

The ii' taa'poh'to'p strategy emphasizes that “building knowledge and understanding of Indigenous perspectives, worldviews, histories, cultures, and belief systems is essential to enabling and realizing steps towards true reconciliation between Indigenous and non-Indigenous peoples” (2017, p. 2). ii' taa'poh'to'p is the foundation and framework for my recommendations for the CDCI.

UCalgary's Experiential Learning Plan (2020-25) and Indigenous Engagement

Opportunities for experiential learning and undergraduate research, especially for students in programs that do not have access to co-op, internships, or research-based learning opportunities, can create essential bridges between academic knowledge and professional knowledge (Kincaid et al., 2021). Although Indigenous ways of knowing and doing are varied and diverse, the importance of experiential learning is one of the few commonalities across diverse Indigenous pedagogies (Antoine et al., 2018; Battiste, 2018). Experiential Learning is integral to Indigenous teaching methodologies and has been identified as a significant factor for greater autonomy and self-determination for Indigenous students and communities (O'Connor, 2010; Kincaid et al., 2021).

Over the past year, there has been increasing feedback from the campus community regarding the need to connect the Experiential Learning Plan to ii' taa'poh'to'p and reach more Indigenous undergraduate students. The CDCI and the Office of Experiential Learning (OEL) teams have committed to this work.



“I think we’re still at like the point where Indigenous peoples see research as a dirty word... and I think breaking that barrier specifically will make a world of difference, because then we will have Indigenous students seeking research positions and right now we’re not necessarily.” Alexis Miedema



Undergraduate Research Initiatives

The CDCI focuses on undergraduate research initiatives through unique programs and supports for students from all programs across campus. Currently, the CDCI offers undergraduate research experiences through a curriculum-integrated program, a research summer studentship, and a non-credit micro-credential:

- Program for Undergraduate Research Experience (PURE) - is a competitive research award for UCalgary undergraduate students. PURE recipients are awarded up to \$7,500 in financial support to undertake an 8, 12, or 16-week research project between May and August. PURE is a unique program at the intersection of teaching and research and depends on academic supervisors and staff within the OEL to provide essential mentorship on research and professional skills

development. For more than ten years, PURE has provided students with UGR opportunities, supporting 151 students and 135 supervisors in the 2021 term.

- Course-based Undergraduate Research Experience (CURE) - is the course-based inclusion of research or discovery experience. It can encompass any field of study and nearly any undergraduate course, including large class sizes or remote classroom contexts. Supported by instructors, staff at the OEL and a student research coach(es), CURE courses provide an opportunity to spark students' curiosity, drive student-led discovery and allow students to disseminate their findings and reflect on the research process. CURE has been running since the fall of 2020, supporting eight courses across five faculties with 11 research coaches and helping provide 1,284 students with research experience in a course.
- The Ready for Research Badge - is a micro-credential program aimed at preparing students to participate in research within their undergraduate studies confidently. The badge is a blend of online and in-person workshops, allowing students to choose from various research-focused learning workshops to match their interests. Participating in this badge will help students discover undergraduate research opportunities on campus, create a plan to get involved with the research, and enrich undergraduate students' experience.



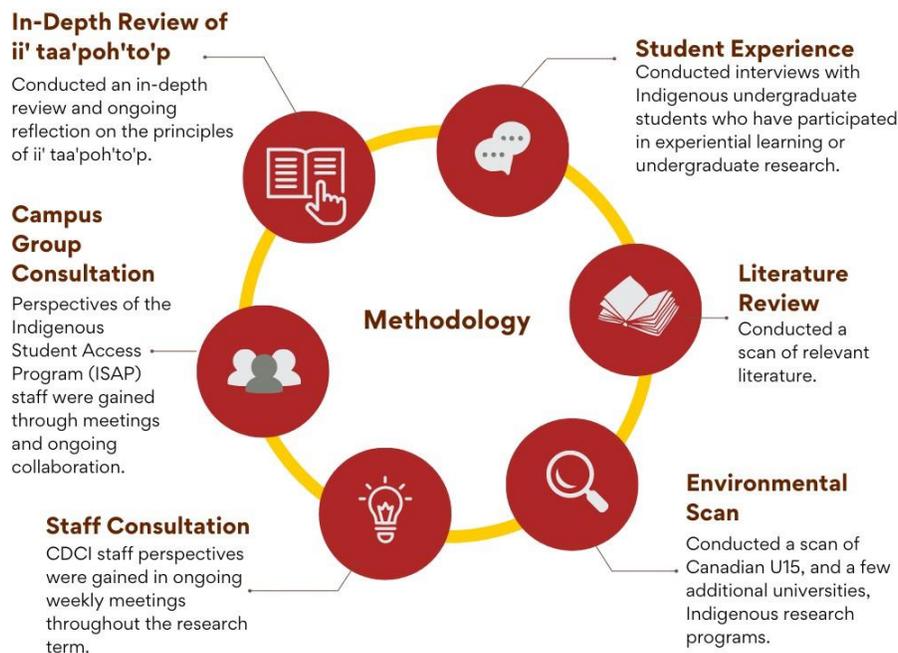
“The experiential learning course with Adela (INDIG 502) made me interested in research.... It was very beneficial for the students to get hands-on research experience and experience working with the community. We learned how to do research respectfully, learned ethics and community protocol, and how ethics and consent might differ for Indigenous research projects... [and] learned how to design a project in a good way.” Gabriella Livingstone



METHODOLOGY

The research process wove together student experiences, a literature review, in-depth review of ii' taa'poh'to'p an environmental scan of research programs offered at Canadian universities, consultation with CDCI staff, and consultation with campus groups (Figure 1).

Figure 1 Research Methodology



KEY FINDINGS

As a Métis student who gained a Bachelor of Arts in Law and Society from UCalgary, I was hired to share my perspectives and experiences with experiential learning and undergraduate research programming and explore ways the CDCI can better engage with Indigenous students on campus. My current role has allowed me to understand the extensive background work that goes into planning and facilitating these programs and bring my lived experience and concerns forward in a constructive and supportive space. Having accessed several experiential learning and undergraduate research opportunities, including participating in the PURE program, I have been fortunate to benefit from these experiences. However, there are major barriers to accessing these experiences and many areas where I would be at a loss for what to do or how to navigate the complex systems without guidance and support from my supervisor. In general, University spaces can be difficult for Indigenous students to navigate, so it is important to intentionally create space for diversity within programs and connect students to existing supports and networks, as it should not be a case of “meeting the right person” to gain access to fundamental experiential learning and research experiences (Behrisch, 2016; Coker & Porter, 2016; Finley & McNair, 2013; Shanker et al. 2013).

Demographic Analysis

A report on Equity, Diversity, and Inclusion (EDI) and PURE prepared by Austin Ashbaugh, Joanne Fung, and Dr. Kyla Flanagan in 2021 highlights access and inclusion issues with the PURE program. The report found that currently, Indigenous students are underrepresented in PURE's application and allocation pools:

The UCalgary Indigenous student population is 3.1%. However:

- in the 2021 PUREs pool of applicants, only 1.3% were Indigenous, and 2.1% of awards were given to Indigenous applicants
- in the 2022 PUREs pool of applicants, only 2.1% were Indigenous, and 2.3% of awards were given to Indigenous applicants

There is no data on the Indigenous identity of students in CUREs or Ready for Research (launching Fall 2022). However, based on the data from PURE, there appears to be a lower representation of Indigenous students in CDCI undergraduate research programming.

Identified Barriers

Here we share our findings on the key barriers Indigenous students may be experiencing to accessing undergraduate research and experiential learning opportunities. I have identified these barriers based on my experiences, the literature, and conversations with Indigenous students highlighted below (Alexis Miedema, Jer Bobosky and Gabriella Livingstone) and ISAP staff (Teena Starlight, Micah Jamison, Jer Bobosky). All quotes have been validated by those interviewed to ensure they correctly reflect the sentiments expressed and have been edited for clarity.

Many identified barriers are echoed in the [Equitable Pathways to Experiential Learning](#) report, however, some are specific to Indigenous students and research. The Equitable Pathways to Experiential Learning project aims to better understand student perspectives in access, participation and engagement with experiential learning.

Interviewed Student Profiles

Jer Bobosky



Jer Bobosky is nîhithaw from Little Red River Cree Nation in Treaty Eight Territory. They are currently living on Treaty Seven Territory in Mohkînstsis (Calgary, Alberta), in their third year of working towards a Bachelor of Arts in Philosophy and Political Science at the University of Calgary. Throughout Jer's studies, they have been and continue to be principally concerned with the elimination of Canada's Indian Act, and the thereafter required reconstruction of Indigenous political power through means of understanding public persuasion and political philosophy. They also intend to pursue research about reclaiming and redefining the Two-Spirit experience. Jer currently sits with the TI Indigenous Strategy Working Group as a representative of Indigenous undergraduate students. The working group comprises Indigenous Elders, scholars, staff and alums to help advance UCalgary's Indigenous strategy, ii' taa'poh'to'p.

Gabriella Livingstone



Gabriella Livingstone is a member of the Métis Nation of Alberta Region 3, and is currently living in Calgary, Alberta where she is entering her final year of obtaining a Bachelor of Arts in Global Development Studies at the University of Calgary. During her studies, Gabriella has explored a wide range of topics including taking many International Indigenous Studies classes. Over the summer, Gabriella has been working as a research assistant for Dr. Adela Kincaid. Her work included a partnership with the Alberta Institute for Wildlife Conservation (AIWC), where she took care of baby birds as part of her work (see image). This Fall semester, Gabriella is working as a Research Coach for Dr. Kincaid's Indigenous Studies 415 course, helping students complete research projects of their own.

Alexis Miedema



Alexis Miedema (right) is a nêhiyaw-iskwêw from Peepeekisis Cree Nation in Treaty Four Territory. She currently is an uninvited guest living, studying, and working on Treaty Seven Territory, where she is entering her fourth and final year of obtaining a Bachelor of Arts in International Indigenous Studies with a minor in Political Science at UCalgary. During her studies, Alexis has discovered a passion for Indigenous self-determination, which has led her to pursue a Juris Doctor degree upon completing her undergraduate degree. Alexis has the privilege of working with Dinos Athletics and Siksika Nation on a community-based participatory research project, kakatosiiks, which is a mentorship program grounded in reciprocity between the UCalgary's student-athletes and Siksika Nation's Indigenous youth and is currently undergoing development. Her areas of focus center around the wellness of Indigenous youth and aiding Indigenous communities to legally obtain their sovereignty in a manner recognized by the colonial government, holding governments at all levels responsible for the promises made to Indigenous Peoples, and in doing so, giving back power to Indigenous communities.

Table 2 Identified barriers and student quotes

ii' taa'poh'to'p connection	Identified Barrier	Student Perspective
Ways of Knowing	Lack of research awards or programs specifically for Indigenous students (Behrisch, 2016; Coker & Porter, 2016; Finley & McNair, 2013; Shanker et al 2013).	When asked about existing barriers to accessing research and experiential learning opportunities that Indigenous students face, Gabriella Livingstone highlighted that “a lot of research opportunities are based in western ways of knowing and doing” and that “access to funding and opportunities is hard especially when it’s based on criteria like grades, because Indigenous students have the added barrier of leaning western knowledge.”
	Lack of (Indigenous) faculty to support and mentor Indigenous students in research (Behrisch, 2016; Finley & McNair, 2013; Kuh, 2008).	Alexis Miedema shared her experience in Dr. Adela Kincaid’s Indigenous Ethics and Protocol course (INDG 415), which included creating a research project using Indigenous methodologies, and expressed that “there’s a large barrier that we’re facing where students in other disciplines who might not have had that experience [with Indigenous research] might have that barrier where they have to put their Indigeneity and research in separate categories.”
Ways of Doing	Lack of awareness of experiential learning and undergraduate research opportunities (ISAP, 2022), particularly early in their program (Behrisch, 2016, Coker & Porter, 2016; Finley & McNair, 2013; Kuh, 2008).	“I never really thought about research, to be honest, like, I never thought I'd be a researcher... And I think that a problem is then you go into your masters and a lot of undergraduates haven't done research before and then all of a sudden they're thrown into it, and they don't know what they're doing.” Alexis Miedema
	Lack of targeted recruitment of Indigenous students into research (ISAP, 2022).	“I think there's just a lack of...advertising to undergraduate students, but especially to Indigenous undergraduate students that are interested in research, because Adela’s [experiential learning] classes, are like the only option, and if you're not taking an International Indigenous Studies Program you're not being exposed to those classes.” Alexis Miedema
	Difficulty navigating the processes required to engage in research, including finding a supervisor, completing funding applications, and academic jargon on applications (ISAP, 2022).	Jer Bobosky highlighted that a lot of Indigenous students are first-generation university students and “may not know or have a lot of anxiety around approaching professors,” and have a lack of knowledge about what research looks like.
	No space to provide a positionality statement on research award applications or use mixed media methods for applications (ISAP, 2022).	When asked about envisioning a different application for the PURE program, Jer Bobosky expressed that a mixed media approach would be beneficial to students. “The mixed media application would be great... it’s embedded in a lot of pan-Indigenous ways, telling your own story orally, and I think it might be less stressful for some students to have that option there.”

Ways of Connecting	Little to no signalling that Indigenous students are welcome and encouraged to apply for research opportunities (ISAP, 2022).	"I feel like when I came in, I didn't know that research was an option in our program, but especially for Indigenous students that are in other [non-Indigenous studies] disciplines...I don't know if they know how accessible Indigenous research is to them in their program." Alexis Miedema
Ways of Being	Lack of representation of Indigenous students in programming communications, websites, etc. (ISAP, 2022). Financial constraints for participation (i.e. loss of wages or reduced pay for experiential learning or undergraduate research) (ISAP, 2022; Behrisch, 2016; Coker & Porter 2016; Finley & McNair, 2013).	When asked about how to engage more Indigenous students in research, Alexis Miedema shared that "having more presentations or facilitation or talking circles about Indigenous research... and research in general" would be beneficial. Alexis Miedema also shared that breaking down barriers and showing "that research isn't a dirty word, and you know, having our peoples in that space will really benefit all Indigenous peoples, especially in academic institutions." Gabriella Livingstone highlighted that "the barrier to access post-secondary in general with the time needed and money" is already an issue, let alone accessing experiential learning opportunities on top of that.

RECOMMENDATIONS

This section presents recommendations for increasing Indigenous student engagement in UCalgary programs. Our recommendations result from literature reviews, consultations (see Appendix 2 for consultation notes), and conversations that sought to understand how undergraduate research programs can reduce or eliminate barriers for Indigenous students. The recommendations are categorized according to themes outlined in ii' taa'poh'to'p, including a) Ways of Knowing, b) Ways of Doing, c) Ways of Connecting, and d) Ways of Being. These recommendations are intended to support increased alignment between UCalgary programming and ii' taa'poh'to'p and address some identified barriers. Lessons learned from these recommendations can be applied broadly across campus, and the CDCI notes that it is committed to documenting, evaluating and sharing our journey and learning with the campus community.

In alignment with ii' taa'poh'to'p, this report's progress will be monitored, and content and direction will be renewed through a process of evaluation and evolution committed to by the CDCI (2017, p. 4). As ii' taa'poh'to'p highlights, UCalgary staff "will need to continue acquiring knowledge to gain a deeper understanding of the devastating impact of colonization on Indigenous peoples in Canada" (2017, p. 2). Each recommendation is framed as an ongoing goal, with some that will take less time to initiate and accomplish than others. Short and mid-term goals (6 months – 2 years) include recommendations: 1, 3, 5, 6, 7, 8, 9, 12, 13, 15. Longer-term goals (2+ years) include recommendations: 2, 4, 10, 11, 14. It is important to note that the recommendations highlighted in this report are intended to be worked on indefinitely, with many of the recommendations requiring ongoing work.

Ways of Knowing: Teaching, Learning, Research

ii' taa'poh'to'p highlights that "Indigenous ways of knowing are sustained and expressed through languages, community traditions, protocols and philosophies, such as the recognition of the interconnectedness between humanity (past, present and future), creation, and the cosmos" (2017, p. 15). ii' taa'poh'to'p explains that it is essential that different worldviews and epistemologies are considered and acknowledged throughout the process of transforming our ways of knowing, and

that it is important to consider how this learning can be translated into teaching, learning and research across the academy (2017, p. 16).

1. Align programming to ii' taa'poh'to'p

ii' taa'poh'to'p highlights that educational institutions have a "profound responsibility in initiating, securing and sustaining reconciliation" (2017, p. 2).

The CDCI team should engage in reconciliation by regularly examining all sections of ii' taa'poh'to'p and reflecting on alignment with CDCI programming, operations, and goals. The CDCI team has already begun this work (as reflected here), but this needs to be a collective and long-term effort from all CDCI staff.

2. Ensure staff critically evaluate their knowledge or lack of knowledge and biases about Indigenous peoples and histories in Canada

ii' taa'poh'to'p highlights that a "general lack of knowledge about Indigenous cultures and respect for cultural protocols create barriers to respectful Indigenous inclusion and community engagement" (2017, p. 18).

Additionally, the literature highlights that a lack of knowledge about Indigenous peoples, history, and cultures by faculty, staff, and students contributes to the perception that the university environment is unwelcoming to Indigenous students (Bailey, 2016; Battiste, 2003; Cull et al, 2018; Indspire, 2018; Wilson, 2018).

The CDCI can facilitate group learning sessions through workshops and meetings. Staff can also take learning into their own hands through many online resources such as:

- [Learning Resources from UCalgary's Office of Indigenous Engagement](#)
- [Fundamentals of OCAP Online Training Course](#)
- [University of Alberta - Indigenous Canada Course](#)
- [Building Research Relationships with Indigenous Communities \(BRRIC\) Training Modules](#)
- [Wilfrid Laurier University Indigenous Learning Programs](#)
- [University of Waterloo Allyship Resources](#)
- [Indigenous Work Integrated Learning Hub](#)
- [Indigenous Education National Centre for Collaboration – Teaching Resource Centre](#)
- [Questions for Indigenous Students to Prospective Employers](#)
- [Anti-Racism, EDI and Positionality in Teaching and Learning Module](#)
- [Indigenous and Trans-Systemic Approaches Toward Decolonizing the Academy Conference Presentation by Dr. Battiste](#)
- [okinohmakē, kēntasowin: Teaching and Learning Through Indigenous Knowledge Systems conference presentation by Dr. Ottman](#)

UCalgary offers Honoraria and Gifting training (accessed through Enterprise Learning and is available to all UCalgary faculty, staff and students)

3. Create an Indigenous research program in collaboration with other units on campus

ii' taa'poh'to'p outlines the need to "expand educational opportunities for Indigenous and non-Indigenous students through innovative programming," such as Indigenous exchange programs within Canada and land-based learning (2017, p.18).

"...the experience of doing research is important and gives you self-confidence" - Gabriella Livingstone

UCalgary should consider creating an Indigenous-specific research program or summer studentship equipped with support for students and supervisors. The CDCI team should foster relationships with other units on campus to explore the creation of such a program and offer support for this project. Consider the existing programs at other institutions across Canada (Table 1) and use this information to support program design.

“...I think that it's such a struggle at the University of Calgary that everything Indigenous based is...just put on the backs of the Indigenous Program. Our other disciplines aren't embracing this” - Alexis Miedema

4. Create supportive learning and research environments for Indigenous students that recognize and reflect Indigenous pedagogies, research methodologies and the concept of shared space

A central component of ii' taa'poh'to'p is the concept of shared space, which refers to “developing a process for ongoing dialogue and active listening that fosters constructive collaboration between the University of Calgary and Indigenous communities” (2017, p. 7). It is through the commitment and exploration of this journey that the “process of Indigenization will become authentically realized” (ii' taa'poh'to'p, 2017, p. 7).

ii' taa'poh'to'p describes building up Indigenous research capacity using a three-pronged approach (2017, p. 16):

- Recruit, support and retain Indigenous graduate students and staff
- Involve Traditional Knowledge Keepers and community members to guide research
- Increase the campus community's knowledge of Indigenous ways of knowing and doing

“Having Indigenous students realize that they can use their Indigeneity as an asset to research instead of having to put it aside would make a big difference” - Alexis Miedema

PURE and CURE are already innovative educational opportunities, but these programs must be expanded and altered through engaging with the process of Shared Space, to engage and better support Indigenous students. The CDCI can focus on incorporating examples of Indigenous student research into our website, application forms, rubrics and examples used in workshops.

Ways of Doing: Policies, Procedures, Practices

Ways of doing encompasses our policies, procedures and practices, and ii' taa'poh'to'p highlights that these elements need to be “respectful and inclusive of Indigenous peoples and cultural protocols” (2017, p. 19). ii' taa'poh'to'p points out that the systems required to make daily practices at UCalgary possible are “complex, layered, and based on models and procedures developed within an administrative tradition that may be intimidating and foreign to people with different cultural contexts and backgrounds” (2017, p. 19).

5. Hire more Indigenous students to work at campus offices

ii' taa'poh'to'p highlights the need to strategically identify, recruit, hire and support emerging Indigenous scholars at UCalgary, and ensure these individuals feel supported (2017, p.20).

Conversations with Indigenous Student Access Program (ISAP) staff Teena Starlight, Micah Jamison and Jer Bobosky highlighted that representation is key (2022). Undergraduates that feel supported by the University's systems and reflected in undergraduate research spaces may be more likely to return to UCalgary for further education as staff or find a passion for working in research-related fields. Positions within the CDCI should be advertised in spaces Indigenous students frequent on campus, such as the Writing Symbols Lodge, ISAP program and the Indigenous Students Circle.

“It would be great to see positions open for Indigenous students, whether they're connected to Indigenous research or not, just because we need to have Indigenous voices in those [campus] spaces” - Alexis Miedema

The cognitive and emotional load experienced by Indigenous students in balancing their culture, identity, and sense of belonging while attending university is already heavy (Indspire, 2018, Kirkness & Barnhardt, 1991). It is important to avoid putting Indigenous students in an "Indigenous only" box, as Indigenous students may not want to work on Indigenous-specific projects. Offering an array of opportunities that encompass a variety of specializations is important.

“In research spaces, often Indigenous students are expected to teach about Indigenous cultures and be that liaison, but for many of us, we don’t have that connection or ability due to being disconnected from our own culture” - Gabriella Livingstone

6. Engage in targeted outreach and recruitment campaigns to increase awareness of experiential learning and undergraduate research opportunities

Despite several university programs focusing on the recruitment and retention of Indigenous students, Indigenous students are underrepresented among our student body (ii' taa'poh'to'p, 2017, p.19).

It is critical to promote experiential learning opportunities to students earlier in their degree and, if possible, through targeted advising (Behrisch, 2016, Coker & Porter, 2016; Finley & McNair, 2013; Kuh, 2008). The CDCI should work with Writing Symbols Lodge and the ISAP program to advertise opportunities and encourage involvement in programming.

7. Evaluate and edit application forms

ii' taa'poh'to'p explains that "wise practices for recruitment, admission, enrolment, retention, success, and engagement of Indigenous students must be created, implemented and evaluated" to further this goal (2017, p. 21).

ii' taa'poh'to'p highlights that during the consultation process, "data revealed that the forms and procedures used in the admissions process can be intimidating and confusing for Indigenous students," a sentiment echoed by ISAP staff (2017, p. 19; ISAP, 2022).

Jer Bobosky expressed that “when doing the PURE application, some of the questions seemed like they were very subtle in the distinctiveness of what they were asking, so I kind of felt like I was repeating myself,” and highlighted that more indication of the availability of the CDCI to answer clarification questions would be beneficial.

The CDCI should evaluate program application forms and ensure they are easily understandable, and that the application process is transparent. In a meeting with ISAP staff, questions were posed about the evaluation process for PURE and ‘what makes a good application.’ The process and rubrics for evaluating all applications should be transparent and advertised to students.

8. Collect accurate data on Indigenous student engagement with programming

Feedback from CDCI staff meetings highlighted a general issue with a lack of accurate data and reporting on Indigenous undergraduate student engagement with experiential learning and undergraduate research programming at UCalgary.

The report on Equity, Diversity, and Inclusion (EDI) and PURE prepared by Austin Ashbaugh, Joanne Fung, and Dr. Kyla Flanagan in 2021 compiled data for the PURE program that highlighted access and inclusion issues. Demonstrating this discrepancy in Indigenous undergraduate student engagement with the PURE program was one of the reasons this report was requested, but there is the ongoing issue of no data on the Indigenous identity of students in CUREs or Ready for Research (launching Fall 2022), which needs to be remedied.

See the [Equity, Diversity, and Inclusion & the Program for Undergraduate Research Experience \(PURE\)](#) report for further details on demographic data within the PURE program.

Ways of Connecting: Relationships, Partnerships, Connection to Land, and Place

Transforming ways of connecting is about the land, our relationships with it, and "partnerships between the University of Calgary and Indigenous communities" (ii' taa'poh'to'p, 2017, p. 23). Critically, ii' taa'poh'to'p highlights that these

relationships need to be respectful, reciprocal, and sustainable, and there needs to be a strong focus on renewal and transformation (2017, p. 24).

9. Ensure staff understand the land and traditional territories on which UCalgary is located

For the University of Calgary to provide meaningful experiences found in teaching, learning, research, or simply visiting campus, "Indigenous and non-Indigenous people must see deep changes to how land is viewed and experienced" (ii' taa'poh'to'p, 2017, p. 13).

Staff should become "knowledgeable and aware of the history of the land on which the university is located," which will inform "students, faculty, staff, and administrators about how colonization has impacted the lives of Indigenous and non-Indigenous people" (ii' taa'poh'to'p, 2017, p. 23). Ensure that land acknowledgements are conducted before CDCI programming and events.

10. Support community-based research

ii' taa'poh'to'p highlights that transforming ways of connecting "is about the land and humanity's relationship with it, and about partnerships between the University of Calgary and communities" (2017, p. 14).

ii' taa'poh'to'p states that "in support of the Indigenous principle of community reciprocity, the university shall strive to be of service to interact respectfully with Indigenous communities and organizations as equal learning partners" (2017, p. 24) The CDCI can support this through creating and supporting partnerships to fund community-based research projects for Indigenous undergraduate students. Conversations with Dr. Adela Kincaid highlighted that support should be provided to the students and supervisors to apply for these programs, as the process can often be complex and long, especially for first-time applicants.

ii' taa'poh'to'p highlights that current criteria "discourage community-based and community-driven research, and the process of trust and relationship-building with Indigenous communities is not adequately recognized in these systems" (2017, p. 20).

When asked about what she would like to see at UCalgary, Gabriella Livingstone said she wants "to see more ethical spaces created on campus where Indigenous and non-Indigenous students can learn about Indigenous cultures in respectful ways," adding that it would be great to see more "courses that integrate land-based learning," more "Indigenous teaching included in the sciences" and more "Indigenous-based research projects with and for Indigenous communities."

The CDCI should explore integrating a community-based funding model into the PURE program, including increased funding to support the additional needs of community-based research (for example, travel to the community, honoraria).

11. Ensure cross-campus relationships are respectful, reciprocal, and sustainable

ii' taa'poh'to'p highlights that relationships must be respectful, reciprocal and sustainable and have a strong focus on renewal and transformation (2017, p.24).

Jer Bobosky highlighted that collaboration between units on campus is key as "a lot of things are very fragmented... people are doing the same things just not collaborating."

The CDCI will need to build strong, respectful, reciprocal and sustainable relationships with many campus groups when enacting many recommendations outlined in the report. Relationship building has already begun through the creation of this report, and these existing relationships will need to continue to be fostered.

12. Ensure faculty supervisors are equipped to support Indigenous students

Ensuring supervisors are well equipped and supported in order to best support Indigenous students is key to improving the student experience and to create a safe and welcoming learning environment. ii' taa'poh'to'p highlights that “merit and promotion system must recognize community service and research, and encourage faculty to fully engage with Indigenous communities in respectful, reciprocal learning and knowledge development,” and that non-Indigenous staff “must have opportunities for professional development to learn about Indigenous peoples, perspectives, histories, and cultures” (2017, p. 21). Links included in recommendation #2 may be useful for supervisor training or as a starting point for resources.

“Lots of Indigenous students are first-generation students and may not know or have a lot of anxiety around approaching professors and even knowing what research looks like.” - Jer Bobosky

All students interviewed have experience working with Dr. Adela Kincaid and expressed that their experience with undergraduate research began with Dr. Kincaid sharing opportunities and expressing openness to collaboration with undergraduate students.

“Adela is a rare exception in terms of professors where she really does kind of advertise herself as wanting to help support students with research...in my experience with any other classes that's never the case where a professor says that.” - Jer Bobosky

Ways of Being: Campus Identity, Inclusivity, Leadership, Engagement

Ways of being encompasses inclusion and representation on campus and requires us to change and renew how all peoples are “understood, supported and respected and how authentic relationships with Indigenous communities are developed and sustained” (ii' taa'poh'to'p, 2017. P. 27). ii' taa'poh'to'p highlights that these changes require a shift in our values, beliefs, behaviors, and attitudes as well as an ongoing commitment and intention to this work (2017, p. 27).

13. Visibly Indigenize CDCI/OEL campus spaces

The campus community is encouraged to visibly Indigenize the physical infrastructure, landscapes, and campus spaces through methods such as art and increased ceremonial spaces (ii' taa'poh'to'p, 2017, p. 23).

The CDCI can add Indigenous artwork to the office spaces on campus, and individual staff members can add Indigenous artwork to home office spaces.

Feedback from CDCI staff highlighted that programming events should also be visibly Indigenized. Staff suggested the PURE celebration of achievement be a good starting point to begin modelling parallel processes.

14. Increase Indigenous student representation in programming

ii' taa'poh'to'p promotes the creation of a more inclusive campus by increasing Indigenous representation in teaching, learning, and leadership through recruitment and retention of students, staff, and academic staff (2017, p. 29).

The CDCI will achieve this through many of the steps recommended here, as set by this report's intention. However, one clear action that can be taken is to allocate a specific number of PURE awards for Indigenous students. Additionally, Indigenous representation should be tracked and monitored in all CDCI programming to measure the impact of interventions (see recommendation #8).

15. Increase the funding for students engaging in summer studentships

Increasing Indigenous representation on campus requires changing and renewing how all people are supported, and creating a more inclusive campus through recruitment and retention of Indigenous students and staff is a key recommendation from ii' taa'poh'to'p (2017, p.29).

A "top barrier for underserved student populations was balancing finances and time," and students are "unable to afford the costs of tuition or of taking time off work" (Behrisch, 2016; Coker & Porter, 2016; Finley & McNair, 2013). To increase the recruitment and retention of Indigenous students, UCalgary should increase the financial assistance for their paid opportunities (Behrisch, 2016; Shankar et al., 2013). The funding for students participating in summer studentships like PURE should be increased to at least minimum wage in Alberta. Raising wage levels is critical in the wake of recent global events that have exponentially raised the cost of living (Government of Canada, 2022). The Canadian Consumer Price Index (CPI) rates rose 7.6% in July 2022 (Government of Canada, 2022), and students' wages must reflect the rising cost of living.

To further remove financial barriers, UCalgary can create a secondary funding source for students who require additional funding for their research projects. For example: if honoraria are required, if students are required to travel to a community outside of Calgary or if they need help with transportation costs. These are all additional costs and barriers for students wanting to undertake summer research positions and should not come from a student's stipend (also see recommendation #10).

CONCLUSION

ii' taa'poh'to'p aims to create a more inclusive campus by increasing Indigenous representation in teaching, learning, and leadership through recruitment and retention of students, staff, and academic staff, which should begin at the undergraduate level (2017, p. 29). In consultation with students, campus groups, literature review, other institutions' programming, international and national reconciliation action plans, and CDCI staff, I provide the 15 actionable recommendations that will require ongoing work. These recommendations serve as a starting point for conversations and actions to support Indigenous students at UCalgary in engaging with experiential learning and undergraduate research programming.

The CDCI is committed to continually evaluating and improving our programming and hopes that through undertaking these recommendations, we can create an environment that aligns with the goals of ii' taa'poh'to'p and helps more Indigenous undergraduate students access our programming.

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APPENDIX – ISAP X PURE MEETING NOTES

In Attendance: Teena Starlight, Jer Bobosky, Micah Jamison, Kyla Flanagan, Jessica O'Connell, Saskia Livingstone
June 20th 2022 3:30-4:30PM

Issues with research programming or access:

- Funding for research projects needs to be increased (honoraria, travel to community costs etc.)
- Students lack awareness of opportunities --> targeted recruitment required
- Wording issues with PURE application (academic language and repetitive sections)
 - Is there a potential to add an "about me" (positionality) statement sections?
 - Jer is open to reviewing PURE application language/jargon changes
- For the workshops focused on student recruitment --> in person works better for sharing information with students
- Potential to plan/host an info session on PURE program in the Writing Symbols Lodge red lodge for all interested Indigenous students
 - Panels work well to showcase student researchers' work and help students see themselves reflected
 - It would be good to look into hosting a 2-part workshop
 - One aimed at professors/researchers sharing their work who are open to recruiting students and what they want to see in students when recruiting for research assistants (i.e., what they look for in a student researcher applying)
 - One from students who have done the work and how they accomplished it
- On the topic of reserving spots for Indigenous students in the PURE program --> ISAP does think that this would help with recruitment if students know there are certain allocated spots for Indigenous student research projects (students can better gauge chances of receiving award)