University of British Columbia

Social Ecological Economic Development Studies (SEEDS) Sustainability Program

Student Research Report

Stimulating University Student Engagement in Climate Action

An Analysis for UBC's Climate Action Plan 2030 (CAP 2030)

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UBC Social Ecological Economic Development Studies (*SEEDS*) *Sustainability Program*

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Stimulating University Student Engagement in Climate Action:

An Analysis for UBC's Climate Action Plan 2030 (CAP 2030)

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GEOG 371: Research Strategies in Human Geography

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Executive Summary

In 2020, The University of British Columbia (UBC) was ranked by The *Times Higher Education* (THE) Impact Rankings as the leading university in Climate Action of the world (THE, 2020). The attainment of this status stems from the actions the university has taken with regards to climate change, in particular, its 2019 Climate Emergency Declaration which was a result of years of student activism that demanded that the institution commit to becoming one of Canada's leading voices in the fight against climate change (UBC, 2019). This declaration laid the foundation for a partnership to be made with the UBC community in order to develop a comprehensive emergency response (Climate Emergency Task Force, 2020).

The development of UBC's Climate Action Plan (CAP) 2030 is a part of this response. UBC's CAP 2030 will determine the path UBC takes over the next decade to reach their "net zero by 2050" emissions target (UBC, 2021). Given past challenges in engaging with students (ibid) and the fact that climate plans impact future students the most, The CAP 2030 development team is focusing on improving student involvement in its co-creation process. This research project is a response to that renewed focus. This research has an even narrower scope due to the COVID-19 pandemic, which has changed the landscape of public engagement and prioritized virtual engagement methods for the foreseeable future - therefore this research has a specific emphasis on virtual engagement measures.

To investigate increasing student engagement by virtual means, a three part research strategy was implemented that involved three types of data collection methods: a literature review of academic and institutional literature related to student engagement and climate action plans, an online survey for UBC students on climate action engagement, and semi-structured interviews with key contacts who work directly with students in climate engagement organizations. Research participants were secured using a network sampling method, which allowed us to access a larger sample size than we would have using random sampling methods.

The survey asked UBC students about several topics - including their climate interests, how they perceived UBC's role in sustainability initiatives as well as about what incentives would encourage them to get involved. It received 33 unique responses. The interviews focused on gaining information on effective student engagement strategies, the challenges to transitioning to digital engagement, and what virtual technologies have been effective for student engagement.

Researchers interviewed 4 people in three interview sessions (one group interview, two individual interviews) via phone and Zoom.

Our analysis found that while students generally perceived UBC's role in providing sustainability initiatives in a positive light, there were several barriers that prevented them from participating fully, including a lack of time and the feeling of having no effect on policy . In particular, our surveys found that incentives (be it financial or academic) show significant potential in drawing students into engaging.

Our interviews provided richer information due to their semi-structured format. One takeaway is that students may have partially lost interest in engaging due to "tokenism by engagement" - where students are engaged at the end of the process purely as a means of checking a box. The interviewees emphasized that universities must embed students earlier in the policy-formation process for them to truly want to be involved. One interview also revealed that the common perception of students as being "hard-to-reach" may be misguided; successful engagement with students relies on working around student deadlines, using multiple methods to attract different styles of engagement, and most crucially, having tailored and relevant messaging on the engagement process. Missing one or more of these aspects, particularly not taking into account student schedules, can easily give the perception of being "hard-to-reach".

Overall, there is both a desire for and an effective need for more participatory methods of student engagement - including power-sharing, collaborative, and co-design processes. Virtual engagement methods can be effective, but their effectiveness very much depends on the ability to implement reciprocal engagement processes, the platforms on which they are used (the more the better), the engagement timeline, and the quality and relevance of the messaging. There is also significant academic and practical evidence that indicates that having longer engagement strategies that start earlier on in the project definition process, and that involve multiple "meetings" with opportunities for feedback and revision, will increase

Based on our research, we hope that future studies will be conducted that will build off our work, and focus on the specific questions: (1) which incentives best encourage participation?, (2) how can students fit into the climate policy formation process at an earlier stage?, and (3) how can the engagement process be adapted to fit the needs of the students?

Introduction

The 2019 University of British Columbia (UBC) Climate Emergency Declaration was a result of years of student activism, campaigning, and a climate strike, which demanded that the institution commit to becoming one of Canada's leading voices in the fight against climate change (UBC, 2019). The declaration pledged immediate action regarding both the direct and indirect consumption of fossil fuels, while incorporating other key themes such as emissions, long-term sustainability, and the need to advance Indigenous rights. It also mandated partnership with the UBC community to develop a comprehensive emergency response (Climate Emergency Task Force, 2020) and established a Climate Emergency Community Engagement process, that aimed to consult with the UBC Community to gain a more holistic insight into the scope and impact of future climate actions (UBC, 2019). This process has set preliminary goals for climate action, but also identified challenges in engaging with students (ibid).

The 2019 declaration also prompted the university to update its Climate Action Plan (CAP) (University of British Columbia, 2021). CAPs are documented mandates that act as guidelines for all future climate-related policy created by an institution. UBC's CAP 2030 will be an updated version of the original plan created in 2010, and will determine the path UBC takes over the next decade to reach their "net zero by 2050" emissions target (UBC, 2021). The CAP 2030 team wanted guidance on improving student involvement in its co-creation process, and in response, the UBC Social Ecological Economic Development Studies (SEEDS) Sustainability Program created a research opportunity on Developing Strategies to Promote Student Participation in the Emerging Climate Action Plan 2030 (CAP 2030). This opportunity is what made this research project possible.

The research outlined in this report was conducted to help identify the best practices for engaging student participation in climate action. Due to the impact of the current pandemic on the Climate Emergency Community Engagement process, this research focused on virtual engagement.

Problem Statement

Climate Change will impact younger generations the most, however, earlier UBC CAP versions haven't effectively targeted student engagement (ibid). This is partly due to the aforementioned challenges related to student engagement, many of which stem from the misconception of students as being hard to reach. However, it is also because of systemic approaches to policy-making in universities, which have for long followed a more typical institutional pattern of governance. One of such patterns is a top-down approach to policy-making where board members and knowledgeable professionals act as executive decision makers, who at most engage in one-way extractive consultation efforts after plans are mostly complete (León-Fernández et al., 2018). This reduces students' ability to meaningfully impact plans that affect their future. Implementing a bottom up approach - a democratic and consultative style of decision-making - in higher education institutions could help remove barriers to student engagement in climate-related initiatives. These obstacles mainly stem from inter-stakeholder conflicts of interest and an unwillingness of the student body to get involved (Wodika & Middleton, 2020), often due to the fear of not being heard.

Academic research on student engagement has largely centred around identifying the causes for limited student engagement, with little identification of potential solutions. The UBC Climate Emergency Engagement process has identified some potential solutions, however, the following work was conducted to reveal a strategic direction, as opposed to examine the specific engagement needs and wants of students (Climate Emergency Task Force, 2021). Additionally, the challenges posed by the COVID-19 pandemic have shifted engagement towards Online Participatory Tools (OTPs). Therefore, our research aims to contribute to the identification of pathways for student engagement, and to determine the role of virtual technology in facilitating them. To that end, we framed the following research question:

What are the most effective digital engagement strategies to increase student participation in climate action initiatives?

Background / Literature Review

UBC's Climate Action Plan 2030 is being designed to provide directions and targets that align with higher-level climate policies such as those laid out in the Paris Agreement, but applying these within the context of the university's actions and campus operations (UBC, 2021). Policy-formation at academic institutions has traditionally been dominated by processes of top-down governance, in which boards of directors place themselves as executive decision makers (León-Fernández et al., 2018). Calls for a bottom-up approach to policy formation at universities are not new phenomena, yet the emergence of Climate Action Plans across higher education campuses globally has presented an opportunity for campuses to act as global leaders when it comes to climate action (Perdue & Stoker, 2013; Gomera et al., 2020). In practice however, there have been numerous issues that have created friction in the movement towards student led climate initiatives in universities. The two main sources of tension come from (1) inter-stakeholder conflict of interests and (2) the unwillingness of the student-body to get involved (Wodika & Middleton, 2020).

UBC aims to partner with the UBC Community, including students, in creation of Climate Emergency response strategies (UBC, 2019). Differences between the interests of the university and the student body, as well as various other stakeholders, have widely been recognised as a barrier preventing universities moving forward towards shared power relationships (Helferty & Clarke, 2009; Brinkhurst et al., 2011; Wodika & Middleton, 2020). Existing research indicates that the majority of student bodies across North America are largely in favour of future climate action by their institutions (Harmoinen et al., 2010; Wodika & Middleton, 2020). However, universities often have interests that prevent them from acting on behalf of the student's interests; much of which comes from their endowment funds which are often deeply tied to fossil fuel corporations. This has caused strain on university-student body relationships across North America, with Dalhousie University students going as far to suggest that oil firms have "co-opted influence" over universities across Canada (McGray, 2017).

A second source of tension regarding low student engagement is the lack of will for the student body to get involved. The existing body of research shows that as a social group, students are involved in large amounts of promotion of issue awareness, yet they are unwilling to participate much further than simply spreading awareness (Helferty & Clarke, 2009; Wodika and

Middleton, 2010). Much of this appears to be due to the fact that students believe that their voices will never be reflected by the university, and therefore they simply refuse to participate (Menon, 2005). Wodika and Middleton argue that until universities begin to open up more avenues of involvement in the decision-making process, students will continue to only participate in low numbers (Wodika and Middleton, 2010).

UBC's Climate Emergency Task Force ran a Climate Emergency Engagement process from March-June 2020, to engage with the UBC Community that will help inform the university on how to enact the actions set out in the 2019 Declaration on the Climate Emergency (Climate Emergency Task Force, 2021). In their interim report to the UBC Board of Governors, the Climate Emergency Task Force noted that the initial short engagement period (one month: March) posed a barrier to student participation, citing that students "were already at capacity given other events already planned during the engagement period" in addition to being a barrier to meaningfully engaging with Indigenous and marginalized communities (2020). The Climate Emergency Task Force's final report on Climate Emergency engagement included student engagement recommendations such as starting a Climate Emergency Fellowes program for PhD students; hiring and fairly compensating Indigenous, Black, and People of Colour (IBPOC) students to do research and work on climate and racial justice; increasing capacity and resources for engagement (including investing in student-led climate initiatives); encouraging student civic engagement; expanding climate-related professional development opportunities for students; advancing climate education opportunities across disciplines; and embedding external advisory Community Councils (which include students) in the President's Roundtables (2021). However, though this engagement process had student response, overall the engagement was characterized as having "significant response in particular from faculty and university staff" (ibid, p.2) - indicating that more targeted research is perhaps required to gain a more complete view of student solutions for engagement with Climate Emergency actions.

In order to better contextualize possible solutions for increasing student engagement in specific initiatives such as UBC's CAP 2030, it is necessary to contrast how universities currently engage students regarding climate change with what motivated students to strike and protest for the climate; bridging the gap between the two will help universities formulate meaningful participatory opportunities for students to engage with climate change planning.

Universities predominantly engage students on climate change through learning-based activities – classes, projects, and through job skills-based experiences like internship placements (Kluver at al., 2018; Hahn et al., 2020; Iwaniec et al., 2020). Most of these activities focus on a one-way flow of information from teacher (or employer) to students with little concrete decision-making powers, or what would be characterized by Sherry Arnstein as participatory tokenism (1969). Even with climate change education gamification through role-playing, which increases engagement and content retention (Wu et al., 2015; Kluver et al., 2018), these informing, consulting, and exploratory participatory experiences tend to be short-term and without evidence of long-term impacts other than transfer of information.

In contrast, there have been two kinds of influential, student-led environmental movements that shed light on motivations for student engagement with climate change: university fossil fuel divestment campaigns and the *School Strike 4 Climate* campaign. Research into these movements have identified that the feeling of belonging to a social group/cohort was a major motivator for participation (Bratman et al, 2016; Social Identity, 2020), even more so than education level (Social Identity, 2020). The literature also shows that centring environmental justice and the socio-economic impacts (rather than solely environmental impacts) were key to these movements (Bratman et al, 2016; Boulianne et al., 2020), and that storytelling and recounting of climate tragedies and experiences on a local and international level were crucial to galvanizing these movements (ibid). These movements persist through concerted rallies for action on social media, and because of the changes that followed the protests. They are also a physical manifestation of the upending of Arnstein's ladder of participation, which is a hierarchical system that centres experts as the controller of knowledge and solutions that is not suited to help solve a wicked problem like Climate Change, a problem that has no set solution (Collins & Ison, 2009). There is evidence of the benefits of student inclusion in climate adaptation planning/activities, which include providing more resources, facilitating the contraction of timelines, increased public engagement, and longer-lasting solutions (Stobbelaar et al., 2020), but little research into the best ways to approach students and maintain their involvement in the long term.

The protracted nature of climate change and the long term, consistent action required to address it poses a dilemma - how can universities most effectively engage a variety of students (who are at the institution for 4-10 years) to care about creating a plan that they will not

experience the benefits of? This not only involves knowing which groups of students are actively involved in climate action (and how to engage them), but also identifying which students could be engaged better. This could be done by characterizing groups of students based on Karen Kirk's Spectrum of Persuadability; identifying and activating the "informed but idle" groups of students is the most effective way to increase support for climate change initiatives (Kirk, 2018).

Strategizing long term engagement also involves understanding what types of students have the most capacity to be involved, and involves some understanding of why people involve themselves in social issues in the first place. Klandermans & Oegema outline three different motivations for involvement in social movements: collective motivation (which involves a cost-benefit analysis for impact of collective action and likelihood of beneficial results), social motivation (which hinge on reactions of close members to social movement involvement), and reward motivation (which hinge on a more personal cost-benefit analysis relating to lost money, lost time, and social gain) (1987). Stürmer & Simon discuss how anger about a social issues can be a strong, but not enduring motivation for involvement in social action (2009), while Scott & Šerek note how youth (18-26) participation in civic movements is impacted by parental attitudes/involvement towards social movements and are positively correlated with identifying as part of the in-group of the movement (2015). Understanding motivations for involvement in social movements, especially youth involvement, will enable the creation of more effective messaging and engagement strategies that encourage the participation of less-engaged students in UBC's CAP 2030.

COVID-19 and innovations in digital technology have re-shaped the nature of communication, research, and public engagement to be more virtually focused. However, while virtual platforms like social media seem to be the perfect medium for engagement, Williamson & Ruming's analysis of Sydney's #MySydney digital engagement strategy shows that social media needs to be wielded purposefully, and with adequately trained and available resources to ensure that engagement is productive and meaningful (2020). Locally centred visualizations of climate change are very effective, as are visioning strategies that position people in a situation to rank or pitch courses of action (Sheppard et al., 2011; Hjerpe et al., 2018). Gamification combined with local visualizations (especially scenario based graphics) are helpful to not only educate, but keep participants engaged in content (Wu et al, 2015; Kluver et al., 2018); however, there has been limited research on how these systems affect university students' continued engagement in

climate change initiatives. More research needs to be conducted to understand which engagement methods will keep students engaged in climate initiatives, and what students' themselves identify as the best methods of ensuring continual engagement; this is what this research project aims to explore.

Our target audience for this study is not only the UBC student population, but also some specific key contacts that have experience with student engagement (such as UBC Campus and Community Planning). UBC has continually sought to solidify a culture of sustainability on campus grounds and amongst all members of the university community, which has encouraged the growth of UBC specific climate action organizations such as The Centre for Interactive Research on Sustainability (CIRS), UBC Climate Hub, and UBC Climate Justice - initiatives that are led by both staff and students. The hope is that by connecting with these knowledgeable student groups and institutional departments, the nature of the current landscape of student engagement strategies used at UBC can be quantified, and be used as additional background knowledge that can help find pathways that can boost student engagement in the creation of the university's Climate Action Plan (CAP 2030).

Methodology

Research was conducted over a 10 week period (February 6, 2021 to April 19, 2021) in three distinct phases: the Preparatory Phase, Data Collection Phase, and Analysis Phase.

The Preparatory phase (February 6 - March 24) involved solidifying scope, completing a research proposal, conducting a literature review, interviews with research project stakeholders, creating a semi-structured interview question bank and contacting potential interview subjects. The literature review involved on academic papers relating to governance and participation, student/youth interest in Climate Activism, virtual communication and public engagement, and also referred to existing work that focuses on engaging the general public in modern social issues, including communication industry guides and papers, information on UBC engagement processes, and guides from Climate Change communication specialists. Potential interview subjects (including students, UBC staff members, and external organizations) were chosen based on their practical expertise with student climate activism at UBC, youth engagement, and plan formation processes.

This phase ended up being longer than anticipated because of course-based timeline

constraints, challenges with interviewee acquisition, and UBC ethics requirements. Information on interview challenges are discussed in the Interviews subsection, and information on ethics requirements are outlined in the Ethics subsection.

The Data Collection Phase (March 29-April 16) incorporated a mixed methodological approach, integrating both qualitative and quantitative data analysis into our research. Two different methods of data collection were used - an online survey (Appendix A), and semi-structured interviews (Appendix B). Details on these methods are in the sections below.

The Analysis Phase (April 9-19) involved coding the data, giving an interim presentation on results, and formulating conclusions and recommendations. Details on coding and recommendations are in subsequent sections.

Online Surveys

A 3-minute long Qualtrics survey regarding student perspectives on climate action at UBC was distributed among the target population for this study – students at the University of British Columbia – via social media, word of mouth, and mass email distribution by university-level climate organizations. Due to the study's underlying premise (supported by academic literature) that students are a hard-to-reach population, sampling methods that assumed relatively high levels of participation were not chosen. Consequently, a "network" sampling method was used for distributing our survey, which allowed for an (albeit limited) snowball effect – where original participants would grant us access to other potential participants, granting us a larger sample size. As this study does not make use of inferential statistics in order to support a hypothesis, there were no issues with a non-random approach being taken in the sampling process. The validity of this data may not be accurate for the general UBC student population, as researcher personal networks may have an overrepresentation of students engaged in climate action, and opt-in surveys tend to attract those who are already passionate about the survey topic.

The survey consisted of 4 sections (Figure 1), and efforts were made to keep the survey as short as possible; as research suggests the longer the survey, the lower the response rate (Kost & Correa da Rosa, 2018).

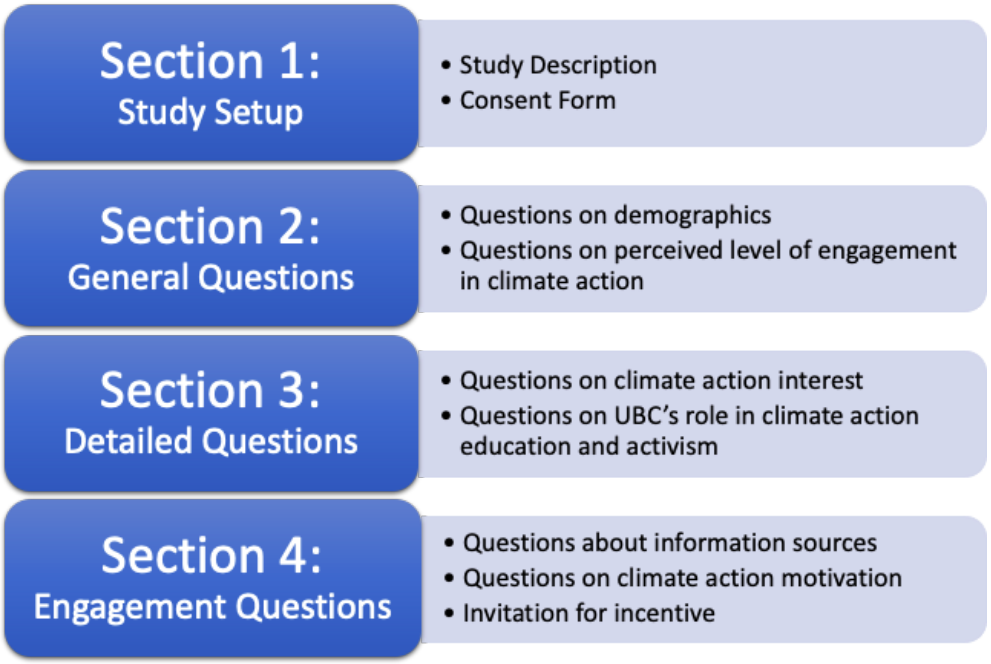

Figure 1: Survey Sections

The survey had a mixture of open and close-ended questions. The options for closed question responses were informed by ideas identified in the literature review. A multiple response approach to questions was used when appropriate. Where the list of choices for a close-ended question were not exhaustive, an open-ended option labelled "Other, please specify below" was used. However, we did not receive many responses to the open-ended questions and therefore received very little in terms of useful data from them. While an attempt at coding the responses was made, it was determined that such a small sample would not be useful for our analysis.

The survey also included an incentive, in the form of a draw for one of three gift cards, as this has been cited as a particularly effective method to increase student participation in online surveys (Smith et al., 2019). However, as our literature review suggested, response rates among the student population were not the highest, resulting in a sample size of 33. While this prevented us from making inferential statements about the student population, in reality this was of little effect to our study, as our aim was not to infer, but to identify new ways in which students could become engaged in climate action.

Interviews

Semi-structured interviews were conducted via Zoom and a telephone call with four personnel from organizations that had worked with student engagement in climate action initiatives and other topics. These personnel were pre-identified by the researchers of this study as key people with practical expertise in the field of student climate activism, and provided information that added to the body of knowledge acquired in the literature review. The process of securing interviewees happened in two stages: cold-emailing organizations, and requests through personal networks. Initially, researchers cold-emailed pre-identified UBC and external organizations through their general email inboxes or email forms on websites to request interviews; however, this method had limited success, generating two positive responses and securing one interview. Subsequently, researchers tapped into their personal networks via email and social media in efforts to reach these same organizations, and this method generated 5 positive responses and 2 interviews. Unfortunately due to the timing of the Data Collection Phase, which concurred with the final weeks of university classes, student contacts in particular were unable to grant us an interview because of competing priorities.

Three interviews were conducted on April 1, 2021 (two individual interviews, and one group interview). Interview questions were taken from a question bank developed during the Preparatory Phase (Appendix B) and the flexibility of the interviews meant that questions were tailored towards the particular topics that the interviewee specialized in. This meant that questions were not necessarily asked in order, nor were they all explicitly asked, as many of the questions prompted long story-based answers that answered many questions simultaneously. The semi-structured interview format was chosen over a structured or survey style data collection method in order to allow for this flexibility, which generated richer and more detailed data that gave additional context that had not before been considered by the researchers.

Two interviews were recorded with permission from the interviewees, while the telephone interview was not recorded due to a last-minute change in interview medium. This made transcription creation for the latter particularly difficult, however, the main and most important points were captured in note form by the interviewer. The coding process is covered in more detail in the next section.

Coding

Initially, the coding process started by tracking which interview questions were answered by whom. The rest of the coding process was conducted by hand. The coding process, which began with a loosely-defined codebook generated from the question bank and hypothesized trends and later involved constantly developing new code, represents a mixture of both deductive and inductive coding that roughly follows a workflow described by DeCuir-Gunby et al. (2011). The interview codebook can be found in Appendix C.

Ethics

Though this study fell into the lowest risk category of academic research, several ethical factors were considered which ultimately delayed the Data Collection Phase. Survey and interview consent forms had to comply with British Columbia's Freedom of Information and Data Privacy Act, which involved multiple drafts of forms and setting up of data storage procedures and containers. All raw data collected was stored on Canadian servers (the UBC OneDrive folder), which will be deleted a few months after survey completion. All participants were made aware of how their data will be used and stored, and were informed that they could cease their participation at any time. Any identifying information has been anonymized and generalized.

The survey incentive posed some ethical issues. While an incentive is an effective tool to increase response rates, it is essential that the incentive is not considered a considerable amount of money by the participants, as this could potentially be a source of bias in our data collection (Smith et al., 2019). Consequently, low value gift cards were chosen as the incentive for this study, and the survey was redesigned so that any participant, whether or not they completed the survey, could put their name into the gift card draw so as to not appear biased.

Results and Analysis

Online Survey

Our survey received a total of 33 responses, from a diverse range of backgrounds. Every year level (first year through to doctoral students) had at least two respondents, and a wide range

of faculties were represented. Most of the respondents (48%) were upper year undergraduate students, while Science was the most represented faculty (35%), although Arts students also made up a significant proportion (28%). The demographics can be seen in Figures 2 & 3. Only 6% of our responses came from first year students, which actually benefited our analysis. Given the ongoing COVID-19 pandemic, it is unlikely first year students have had the chance to be involved in the range of climate action at university that upper year students have had access to, and therefore they may have been unable to respond to some of the questions in the survey, due to their lack of first person experience on what was being asked.

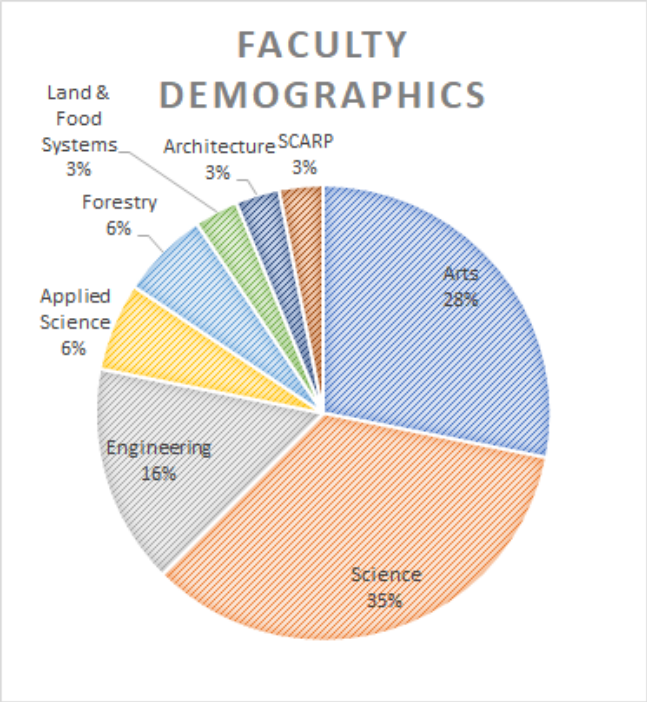

Figure 2: Faculty Demographics

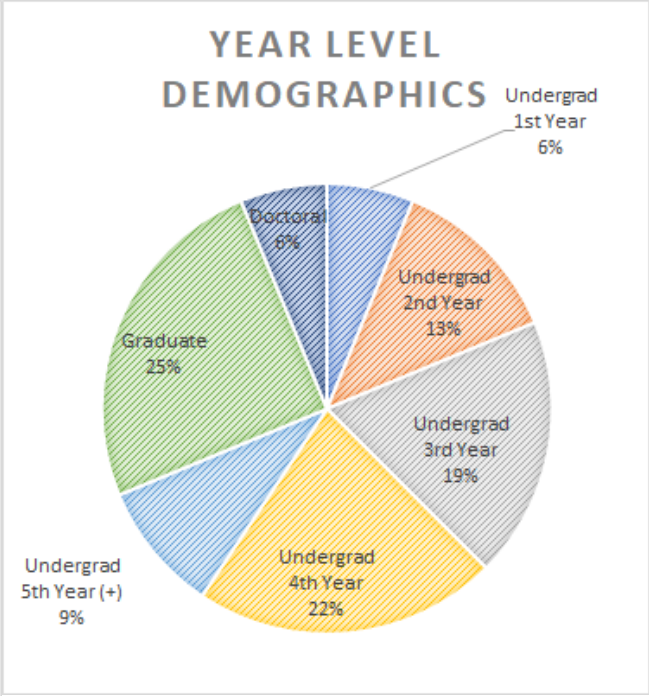

Figure 3: Year Level Demographics

Our results suggested that students were generally quite engaged with climate initiatives with 75% of respondents stating that they have been directly involved in climate action at least once during their time at UBC. Of those who didn't participate in any initiatives, time and lack of interest were the two most common themes for their lack of participation. Written comments by this group also suggested that some respondents did not believe protests were productive, and that they don't believe climate initiatives are "properly focussed." Interestingly, this suggests that climate action is perceived by some as simply protesting, rather than by the diverse array of

activities that it actually consists of. When the data of those who have participated in climate initiatives is analyzed, some interesting trends are evident.

Students Perceptions of UBC's Sustainability Initiatives are Largely Positive

Despite the fact that our literature review suggested that there was often friction between the interests of the student body and the interests of the university, our data suggested that the way students view UBC's climate policy so far is overwhelmingly positive. Out of our 33 respondents, 23 believed that UBC was either "somewhat committed" or "strongly committed" to sustainability, with only 4 believing they are not committed. Furthermore, 22 agreed or strongly agreed that they have learned more about both the climate crisis, and climate initiatives since enrolling at UBC (Figure 4).

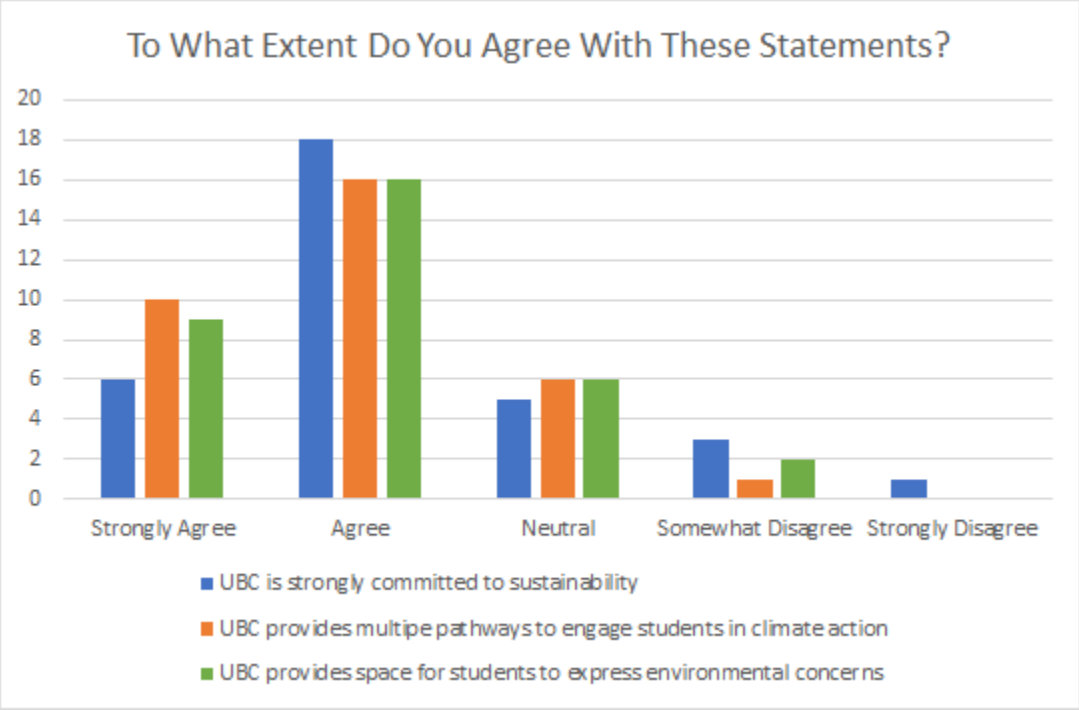

Figure 4: Student perspectives regarding UBC's position on several sustainability issues.

The data collected in the survey also suggested that UBC was already perceived as an accessible place for students to engage in climate actions. 25 of the 32 respondents agreed that UBC provides multiple opportunities to engage in sustainability and/or climate action initiatives.

Likewise, 24 respondents stated that they also agree that UBC provides space for student voices to be heard in the shaping of UBC climate policy.

Students Want Incentives in Exchange for their Participation

When asked the question "*What would increase your willingness to participate in climate action?",* the two most frequent responses were graded academic activities and financial incentives (Figure 5). This suggests that it is unrealistic to expect that large proportions of students will get involved in the climate action process merely because of their interest. To increase student engagement going forward, incentives are likely to be needed.

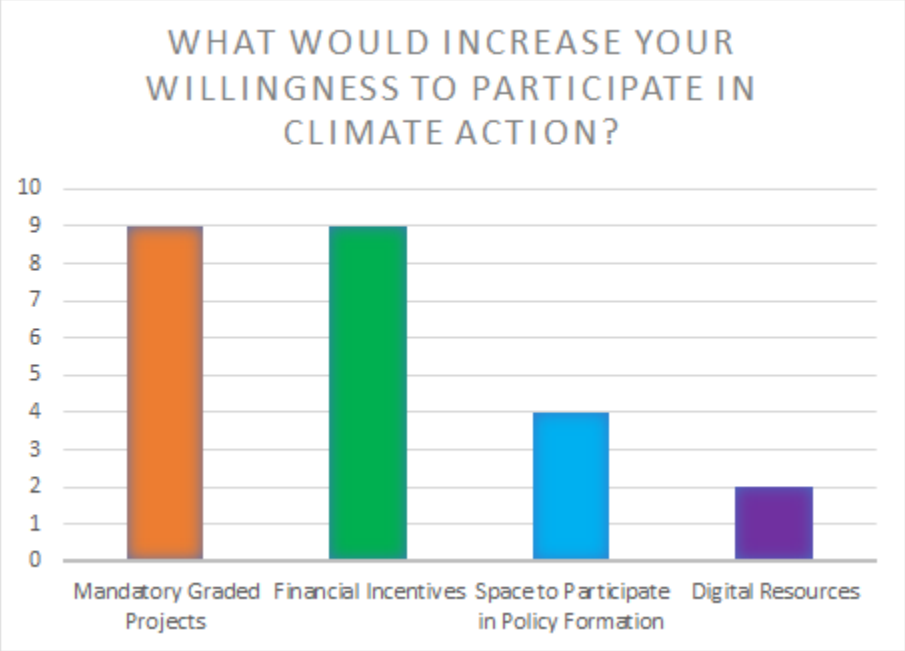

Figure 5: Students responses to the question - *What would increase your willingness to participate in climate action?*

Social Media Appears to be Key in the Spread of Climate Information

The data collected through the survey also suggests that digital media should continue to be one of the primary means of engagement in the post-COVID world. Social media platforms such as Facebook, Instagram and Twitter made up half of the responses to our question - *"Through what medium do you usually come across climate-related information?"* Likewise, 22 out of 28 responses to the question *"What is your primary source of information related to local*

climate initiatives?", identified social media or mass distribution emails as their primary source of information regarding local engagement opportunities. Evidently, digital engagement is essential to capturing the attention of the student body.

Interviews

Researchers conducted three interviews (two individual interviews and one group interview) and questioned a total of four people. Each semi-structured interview lasted approximately 45 minutes long. Interviewees were generally very enthusiastic about the study content, and did not appear (or sound) hesitant about answering any questions asked of them. All interviewees were part of organizations that engaged UBC university students in sustainability or climate action related activities; one organization was associated with UBC, while the other two were external organizations. Three of the four interviewees were staff, and one interviewee was a former staff member.

There were 4 common themes throughout the interviews: engage students where they are at, use more participatory engagement methods, be clear about what students can meaningfully influence, and digital-only engagement has significant benefits and some drawbacks.

Engage students where they are at

The interviewees unanimously voiced that the most effective way to engage students was to embed engagement within existing networks and student requirements to lower the barrier to participation. Two interviewers worked primarily with students through course connected projects, and said that this method of engagement was effective because it is an activity that students are already doing; by making it a part of a course requirement it makes it easier to participate and it tends to have a ripple effect beyond the students themselves as they reach out to their networks and peers. Another interviewee stated that engaging students through existing groups on campus (such as campus clubs, the UBC Sustainability Initiative, or Centre for Community Engaged Learning) is effective, and a different interviewee emphasized "bringing together where your audience gets their news, where they physically are, and figure out where in that space you can embed the engagement tools". This person suggested making TAs and professors ambassadors for the cause, using as many social media channels as possible (Discord, TikTok, and Reddit in addition to the usual Facebook, Instagram and Twitter), embedding the

engagement in Canvas, and building mutual networks with campus groups that have similar goals.

Use more participatory engagement methods

The concept of reciprocity in engagement was mentioned in all three interviews; they mentioned that surveys and focus groups are one way extractive processes, and that a two way dialogue provides much richer engagement. All interviewees put an emphasis on the necessity of integrating a feedback mechanism to report back results to make students feel like their efforts are having an impact. One interviewee put it succinctly; people are more familiar with the lower rungs on Arnstein's Ladder of participation (Figure 6), however meaningful and deeper engagement occur at higher rungs, "which are time intensive, and about building relationships and sharing power, and have that equity piece".

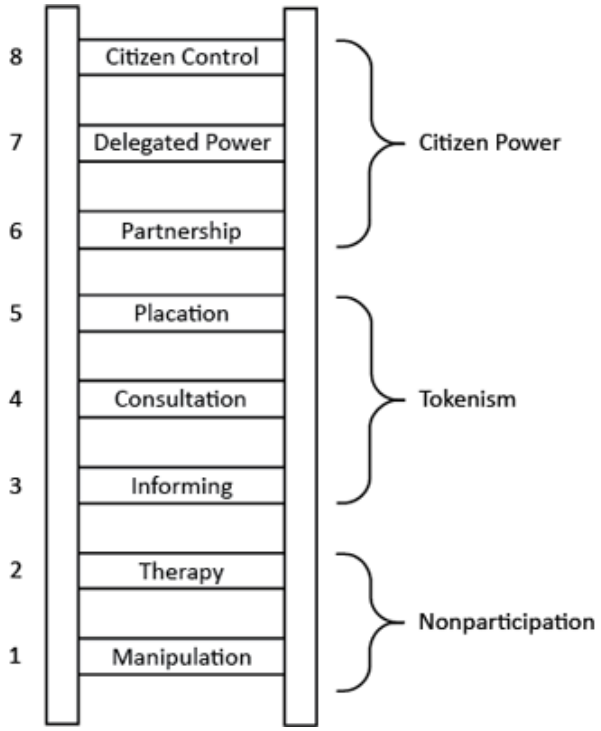

Figure 6: Arnstein's ladder of participation (1969)

The interviewee also noted that these more participatory engagement methods included co-designing the engagement process with the targeted groups, and usually involved earlier and repeat engagement sessions. They also noted that Two interviewees specifically mentioned a

need for students to be involved in every level of the administration, and from project ideation and initiation, rather than consulting students at the end of the design process.

Be clear about what can be meaningfully influenced

All interviewees discussed the importance of having clear deliverables and expectations of impact with student engagement. One interviewee stated that having student participation should be not only for representation's sake, having enough students (at least three) in positions where their decisions have impact is crucial to avoiding tokenism as engagement, which ultimately alienates students and can discourage them from future participation.

Digital-only engagement has significant benefits and some drawbacks

All interviewees emphasized that the switch to digital-only engagement has led to some significant benefits, including increased participation from people who normally would not be able to participate, creating a tight online community, having international perspectives. Digital-only drawbacks mentioned centred around accessibility of digital technology, and accessibility of space to participate in a work from home environment. All interviewees also emphasized that future engagement will likely be a hybrid of in-person and digital systems.

In addition to these common themes, individual interviews yielded some enlightening data. While common tools used for student engagement included Zoom (most often used in a focus-group or charette based activity), three respondents mentioned additional virtual tools that were helpful. Kumu Maps was cited as being useful for system mapping, while MURAL was cited as being a great collaboration and brainstorming tool. Ethelo, Thought Exchange, and PlaceSpeak were mentioned by another interviewee as online participatory tools that were useful.

One interviewee stated that they did not agree with the assertion that students are hard-to-reach, citing that their student engagement efforts were quite successful. They outlined that what matters is timing, how students are engaged, and the messaging. This interviewee stated that engagement has to reach out to students at the right time of the year, when they have time to engage, and that now [our Data Collection Phase timeline] was not a good time to be engaging with students because they are "busy with their exams, busy with their final papers… and they're done with virtual platforms". This interviewee also outlined that a variety of methods, including short surveys, should be used to capture different levels of participation.

They noted that some students who are introverts may prefer something like a survey, while other students prefer talking rather than writing. The interviewee also pointed out that the key to getting more engagement is that "the messaging has to be really clear and concise and relevant to the students who you are wanting to engage", and phrasing it in terms of "how does this process impact them as a student at UBC?"

Another interviewee stated that there were two parts to successful engagement: reciprocal engagement, and providing a way to get involved with the cause (reciprocity, mentorship, honoraria) - done not just for altruistic reasons, but also to increase accessibility. This involves engaging "the earlier the better, and more often", and providing reimbursement to people for their time.

Overall, this interview data was very helpful to place current engagement strategies within a UBC context, to find out what methods do and do not work, and to act as groundwork for final recommendations on UBC student engagement strategies.

Research Significance

Our literature review revealed that while there was a significant body of existing research on the need for student engagement in university environmental policy creation, there was very little material that focussed on how to get students involved. Previous work suggested students could not be engaged in an identical manner to the population as a whole, and that special approaches needed to be implemented in order to get them involved. Our study revealed some foundations on which future research can be built upon. Through our research methods, we heard directly that a new approach is needed - an approach that is inherently more strategic in nature. For example, the cyclical schedules that universities follow must be integrated into engagement strategies, as must the specific timings at which engagement activities take place - students and staff have very different daily schedules. Likewise, our study suggested that engagement strategies work better with students if conducted over longer time periods, with one-time events often seeing low turnouts and being a shallower engagement method. Events that are conducted in exam periods were also suggested to suffer from low turnouts, and consequently it is essential that any engagement strategies take into account the need to know one's audience, as Karen Kirk states (Kirk, 2018).

Therefore, it is essential that future engagement strategies attempt to meet students at their level, rather than expecting students to get involved at the level of the planning departments or take on a lot of extracurricular engagement work. This means that engagement strategies need to be embedded where students are most often both physically and online, and should target not only physical places like dorms, but also online spaces such as the UBC Reddit channel, Discord, and Canvas in addition to social media such as Facebook, Instagram, and Twitter. Students also appear to want "two-way" engagement strategies, rather than the traditional one-way flows of information from professor to students, with some of our survey participants stating that they did not feel their participation would do anything. These engagement strategies are usually longer and more involved, but also lead to deeper and more meaningful engagement.

Finally, our research suggests that a significant amount of research is needed into the use of incentives alongside any future engagement strategies. Our surveys suggested that students would be most inclined to be engaged in exchange for financial rewards and/or graded academic work. While such methods may go against traditional avenues of engagement, further research is needed on the topic if universities are serious about getting students involved in the climate policy process.

Limitations

Although we still believe that the survey/interview approach was the most effective strategy given the goals of our research, we acknowledge that this approach was hampered by the time constraints of the course. This especially impacted our sample sizes, as we only obtained 33 survey responses and 3 interviews - far less than we expected. Moreover, our network sampling methods likely had an impact on the responses that we received. As we began sampling through our own networks, we may have unintentionally influenced the type of respondents involved - namely, we were likely peers with people also interested in climate issues, which could make it misrepresentative of the greater UBC student population.

Future Research Directions

While our study provided key insights into the best practices when engaging students in the climate action process, we were limited by resource shortages, particularly time. It is essential that future research builds upon our study in order to implement new strategies that will

truly increase student participation. In particular, this research could center itself around the use of incentives to encourage climate action. While we did briefly mention incentives in our survey and interviews, we did not explore the topic in depth. More research is needed to identify the form that these incentives should take - with our early work suggesting financial rewards and/or academic activities could be key for this approach.

Likewise, while our study identified that digital engagement strategies were key to capturing the attention of the student body, our lack of resources (predominantly sample size and time) meant that we could not explore the best specific strategies that should be utilized. Social media was often referenced by our participants as their main source of climate related information, yet social media itself is a rapidly evolving medium. Research into the best methods of digital engagement is likely to need a more in depth research method than the surveys we utilized in our study, and for that reason it is suggested interviews or focus groups be used.

Furthermore, this research did discuss the lack of student involvement in the structure of university policy making bodies, but did not delve deeply into the mechanisms that would resolve this issue. However, our literature review and qualitative data suggest that a main cause for student apathy is feeling disempowered because they think they cannot truly affect university policy. Investigating specific mechanisms that could embed student participation in UBC structures is a promising future research project that will help students be meaningfully involved in the Climate Emergency Response decision making process.

We believe that there is opportunity for future SEEDS researchers to build on our study. As the student community returns to campus following the COVID-19 pandemic, there is an opportunity to use more in depth research techniques with longer time scales such as repeated focus groups to identify specific digital engagement strategies that work best with students. This was near impossible for us to conduct remotely and it is hoped that a return to on-campus activity allows for the opportunity to work with students face-to-face.

Finally, as climate policy at universities continues to evolve, it is hoped that research could be carried out that differentiates UBC's climate policies with those from other universities in Canada. This approach could use "success stories" from other universities to suggest new strategies that could be implemented at UBC.

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Appendices

Appendix A: Qualtrics Survey

GEOG 371: Research Strategies in Human Geography
The University of British Columbia
Research Project
Group Members: Maria Paula Serrano, Maya Korbynn, Frank Crossley

SECAP - Students Engaged in Climate Action Plan

Draft Survey Design
March, 2021

Survey Design

Question Block #1: Demographics

1. **What year of study are you currently in?**
- ❏ First year
- ❏ Second year
- ❏ Third year
- ❏ Fourth year
- ❏ Fifth or higher

2. **How old are you?**
[text entry]

3. **What gender do you identify as?**
[text entry]

4. **What faculty are you in?**
- ❏ Arts
- ❏ Science
- ❏ Engineering
- ❏ Other [please specify below]

[text entry]

5. **Are you currently in the Greater Vancouver area or in close proximity to the UBC campus?**
- ❏ Yes
- ❏ No

Question Block #2: Knowledge & Participation

1. **Have you heard of a 'Climate Action Plan' before?**

❏ Yes, I'm aware of what it entails
❏ Yes, but I'm not sure what it entails
❏ No, I've never heard of that

2. **Have you ever participated in a climate action initiative?**

❏ Yes, multiple times!
❏ Yes, only once
❏ No

3. **If you answered "no" in the previous question, what would you say is the main reason why you haven't participated in such an initiative?**

❏ Lack of time
❏ Lack of interest
❏ Lack of opportunities
❏ Other [please specify below]

[text entry]

Question Block #3: UBC & Sustainability (student perceptions)

For the following section, please rate how strongly you agree with the following statements on a scale from 1 to 5:

1. **As an academic institution, UBC is strongly committed to sustainability:**
   1. Not in my experience / Neutral
   2. Completely disagree
   3. Somewhat agree
   4. Agree
   5. Strongly agree
2. **I have learned more about the climate crisis and climate action initiatives since I enrolled at UBC:**
   1. Not in my experience / Neutral
   2. Completely disagree
   3. Somewhat agree
   4. Agree
   5. Strongly agree
3. **UBC provides multiple pathways/opportunities for students to learn more about and engage in sustainability and climate action initiatives:**
   1. Not in my experience / Neutral

2. Completely disagree
3. Somewhat agree
4. Agree
5. Strongly agree

4. UBC provides space for students to express their environmental concerns and to be active voices in the shaping of institutional policymaking:

1. Not in my experience / Neutral
2. Completely disagree
3. Somewhat agree
4. Agree
5. Strongly agree

5. If you have attended a UBC-led sustainability and/or climate action initiative (including panel talks, strikes, workshops, etc.), please describe the event and your experience below:

[text entry]

Question Block #4: Engagement pathways / tools

1. Who/ what is your primary source of information related to local climate action initiatives?

❏ UBC campus-wide emails and notices
❏ UBC student-led groups (i.e UBC 350)
❏ The Ubyssey
❏ Other [please specify below]

[text entry]

2. What platform are you most likely to encounter climate change related information in?

❏ Word of Mouth (through my social circle)
❏ Social media
❏ Emails
❏ Newspapers, magazines, and/or advertisements

3. Who / what draws you the most to participate in climate action initiatives?

❏ My friends
❏ My career goals / personal beliefs
❏ My family
❏ My faculty and/or university in general
❏ No one / nothing encourages me to participate

4. **What do you believe would increase your willingness to participate in climate action initiatives?**

- ❏ Mandatory (graded) academic projects / activities
- ❏ More space to participate in policy-making at UBC
- ❏ More digital resources like Zoom workshops & Instagram/Facebook lives
- ❏ Financial incentives / Rewards (i.e: bookstore or on-campus restaurant discounts)

<u>Suggestions / Comments</u>

Please leave any additional questions, suggestions, or comments regarding UBC's upcoming Climate Action Plan 2030 and / or UBC's commitment to Sustainability in the following box:

[TEXT ENTRY]

Thank you for participating in our survey! We appreciate your support.

Appendix B: Semi-Structured Interview Questions

Interview Question Bank

Thank you so much for agreeing to be interviewed. This interview should take around 45 minutes long. Just to remind you, we will be talking about student/youth engagement in climate action. You can decline to answer questions or exit the interview at any time.

May I record this conversation?

Introduction Questions:

1. What organization do you work for and how long have you worked there?

2. What kind of issues does your organization work with in relation to youth/students?
   *Youth/students are defined as people between the ages of 16-30.
   - *Will inform what to talk about with (TOPIC) later - could be multiple subjects that includes or does not include Climate Change*
   - *E.g. providing programs for youth, providing information, providing scholarships/internships, involving them in international organizations, facilitating them to change policy, employing youth, etc.*

3. How are students/youth involved in your organization's mandate?
   - *E.g. helping create mandate, benefiting from mandate via programs, not involved at all, etc.*

General Student Engagement Questions:
We are going to discuss your experience with student engagement, under pre-pandemic circumstances.

<u>Priority questions:</u>

4. Generally, what methods have been the most successful in attracting student/youth involvement in (TOPIC)?

5. What engagement methods/tools do you most frequently use to attract student/youth participation/insight on (TOPIC)?
   - Do you have an engagement strategy/mission/goals that you would be willing to share with us?

6. In your opinion, what methods are missing or not used enough to attract youth/student involvement?

Other questions:
Who is generally involved in (TOPIC)?

What demographics are harder to reach?

Are there any strategies that your organization is investigating to reach the audiences?

- If so, have these methods been successful?

What barriers do you face when trying to engage with students on (TOPIC)?

Impact of Pandemic and move to digital engagement questions:

Now, we're going to talk about how the pandemic has impacted and changes your engagement process.

Priority questions:

7. How has the pandemic impacted your organization's engagement processes?

8. What has worked best for you to get people engaged in surveys/participation via digital means?

9. What has worked best to get youth/students to participate beyond providing information?

10. Are there any digital engagement methods that have not worked?
    - Can you give me more details on why these methods were not as effective as other methods?

Closing Questions

11. Is there anything else on the topic of student/youth engagement that you would like to share with us?

12. Is there anyone else that you recommend we speak to about this topic?

Thank you so much for agreeing to be interviewed! Just to reiterate, your information will be stored in Canada on the secure UBC server and will be deleted after this research is over in the fall of 2021.

Appendix C: Interview Code Book

Table 1: Initial Thematic Codes Inspired by Semi-Structured Interview Questions

Code	Description	Example from Transcripts
Engagement Challenges	Interviewee refers to challenges with engagement with student populations.	Specific examples from the transcripts include too much identifiable information.
Engagement Successes	Interviewee refers to successes with engagement with student populations.	Specific examples from the transcripts include too much identifiable information.
Demographic Challenges	Interviewee refers directly or indirectly to specific audiences that are hard to reach.	"Not everybody has access to reliable connectivity, and who, again, who are we leaving behind? Who doesn't have a safe place, a connective place, a quiet place to be able to participate? And I don't think we've resolved seriously, some of these issues"
Digital Engagement	Interviewee refers to types of digital tools or processes used in engagement practices.	"We've been using Zoom…we've also used MURAL, we used... Kumu Map to try to kind of visually make a representation in connection of how everything is connected in our work."
Pandemic Impacts	Interviewee refers to changes that the COVID-19 pandemic has made to engagement strategies.	"It has changed everything, but also we're still doing the work. So I mean obviously it was a steep learning curve to figure out how to do all of this online. "

Table 2: Codes Developed During Transcript Analysis

Code	Description	Example from Transcripts
Sustainability	Interviewee defines sustainability.	"We define sustainability as a very broad topic. So we include of course, climate justice, climate anxiety, climate change, kind of topics but also social justice, environmental and economic issues. So it is very broad. "

Reciprocal Engagement	Interviewee refers to engagement using the words dialogue, two-way, or reciprocal.	"...like maybe once I've gotten my feedback as a student, I want to see what happened with that feedback. Maybe, maybe I have other thoughts on it a little bit later on after hearing some updates. So I think there has to be more of a conversation and a discussion, like back and forth."
Best Practices for Engagement	Interviewee outlines multiple components of effective engagement strategy.	"So I think that's the third bit that I would say that, you know, the messaging has to be really clear and concise and relevant to the students who you are wanting to engage."
Student Locations and Networks	Interviewee refers to places (physical or virtual) and networks that students inhabit.	" For a university audience, I would suggest looking at using Reddit, Tiktok, Youtube, Discord as well as the usual Instagram, Twitter, and Facebook. In person dorms are a hub of sorts on campus. Another thing to look at would be to embed the engagement in Canvas, so it's just not another link. "
Influence and Impact	Interviewee refers to student influence or impact with engagement, governance, or climate impact activities.	"I find that when asking for youth participation at a conference, there need to be a big enough group so that people would not just be there, but also be on panels and be meaningfully involved. Because otherwise it's just tokenism as engagement"
More Participatory Engagement	Interviewee refers to engagement methods that are in the "Citizen Power" section of Arnstein's Ladder of Participation	"for us it's very important to move towards the collaboration and the co-creation and the meeting of the minds. Because there is, you know, a very little possibility of changing something or somebody by pointing just a finger"