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Article

Barriers to sustainable universities and ways forward: A Canadian students' perspective

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Abstract: While efforts to integrate Education for Sustainable Development (ESD) at universities have been increasing, said integration has not been occurring fast enough to counteract the unbalanced nature of humanity's interactions with the planet. A number of studies have delved into the possible barriers slowing this progress and incentives to increasing sustainability initiatives on campus, but rarely have they included the student perspective. This knowledge gap was addressed as part of a study that utilized semi-structured interviews and concept checklists with 27 Canadian university students' unions' presidents to investigate their conceptualizations of sustainable development and sustainable universities. Thematic analysis utilizing an inductive approach was employed to discover key themes. While a number of themes emerged, one that was overarching as a general concern and both a barrier and incentive to a more sustainable university was university finances. This in turn is connected to students through enrolment and recruitment efforts as tuition represents a large proportion of university budgets. Participants believed students hold the greatest ability of all university stakeholders to promote sustainability on their campuses and when combined with their ability to impact university finances, the possible impact of empowered students to initiate change for more sustainable campuses is great. In order to harness this energy, this study makes recommendations to further enable students to

engage with and mobilize their university campuses and stakeholders. Even potential students could influence universities by demanding deeper commitments to sustainability. This research contributes to scholarly research by presenting the perspectives of an understudied, yet important, university stakeholder group regarding factors influencing campus sustainability and recommendations for student empowerment. This research was part of a larger SSHRC-funded study investigating university stakeholders' conceptualizations of sustainable development, sustainable universities and the role of universities in the journey towards a more sustainable future.

Keywords: stakeholder, university, students, barriers, incentives, empowerment, sustainability, sustainability in higher education

1. Introduction

Humans are facing a complex and challenging world with discordant interactions between people and their environment. Sustainability has evolved as a lens and goal through which to address such imbalances. There are many definitions and ideas associated with sustainability, with one of the most well-known being that of People, Planet, Profit [1] or the “three pillars” of economy, society, and environment [2, 3]. In order to introduce and apply the focus of sustainability to world problems, people need to first be educated about it, but there are many challenges to doing so.

Universities are particularly well placed to educate and influence future leaders regarding the sustainability lens and its importance. Unfortunately, while efforts to integrate education for sustainability at universities have been increasing lately, it is questionable whether change is occurring fast enough. Although it is heartening to see a growing number of Canadian four year universities belonging to sustainability in higher education (SHE) organizations like the Association for the Advancement of Sustainability in Higher Education [4] or signing international SHE declarations like the Talloires declaration, they still constitute less than half of the Canadian universities. While lack of engagement in these areas does not preclude universities from engaging in sustainability, such engagement is considered one of the most visible ways to commit to campus sustainability. This rate of integration of sustainability at universities could be due to a multitude of possible barriers including, but not limited to, misunderstandings or a lack of shared vision, a lack of sustainability champions, a lack of financial resources or competing priorities [5, 6, 7, 8, 9, 10, 11]. In order to move past these barriers, SHE advocates need to know, understand and be able to effectively address them.

Students have been helping to drive sustainability in higher education during the past decade. They have created national organizations (e.g. Sierra Youth Coalition, Sierra Student Coalition, Student Environmental Action Coalition), pushed for environmentally-friendly procurement policies (e.g. SYC's Papercut Campaign), promoted campus sustainability audits (e.g. SYC and the CSAF) [12], engaged in service-learning [13] and pushed for the creation of sustainability coordinator positions on campus (e.g. 14). Even though students are often seen as campus change agents and engaged in a number of related initiatives [15], their perspectives on sustainability in higher education are

understudied [16]. This demonstrates the existence of a knowledge gap regarding what students believe are factors impacting sustainability in higher education and how they relate to those factors perceived by other university stakeholders.

In order to begin to fill this knowledge gap, this research sought to investigate student leaders' perspectives regarding the challenges universities face to becoming more sustainable institutions. The research questions addressed are:

1. What barriers do students' unions' presidents perceive to be holding universities back from becoming more sustainable?
2. What factors do students' unions' presidents believe could influence their universities to become more sustainable?
3. What are the key perceived challenges in general facing universities over the next 10 years according to students' unions' presidents?
4. Is neoliberalism perceived by students' unions' presidents to influence sustainability in higher education? If so, in what way (positive or negative)?

As representatives of a major university stakeholder, students' unions' (SU) presidents' views about SHE are important to understand; yet little research has sought out their opinions or those of other students [29]. Through in-depth interviews, SU presidents across Canada provided their views in French or English regarding the above research questions. Said interviews occurred either in-person or through videoconferencing software. Thematic analysis of verbatim transcripts of these interviews was used to determine major and minor themes by question using a posteriori codes.

2. Background

As higher education institutions and universities in general are believed to have a great responsibility to engage in efforts to strive for a more sustainable world [17, 18, 19, 20, 21], a new academic field has emerged. Sustainability in higher education (SHE) is a subset of education scholarship [20] and a specialization within the field of sustainability [23]. This field covers the vast range of sustainability initiatives at and by universities related to research, teaching, partnerships or service, and operations. Through these efforts, universities are able to act as role models and educators for some of the leaders of tomorrow and the greater community.

As with all change, there are a variety of challenges that can make implementation difficult. A number of research studies (E.g. 11, 9, 10, 6) have investigated barriers to sustainability in higher education and found everything from communication concerns to financial barriers, people problems to disciplinary silos. The variety may be due to the fact that each campus is its own microcosm and affected by individual factors in addition to sectorial ones. By studying various barriers to sustainable universities, possible solutions may be found.

2.1. Barriers to Sustainability

Communication, attitudes and cultural models can negatively impact campus sustainability. Without building shared conceptualizations of an idea like sustainability, there may be failures to communicate clearly, often influenced by people's different conceptualizations or errors in information processing [5, 7]. As sustainability is relatively new to many people, it leaves much room for misunderstandings. Cultural models are simplified ways of how one views the world and its components that people tend to hang on to [24], which can cause resistance when sustainability initiatives challenge how things have always been done [25]. An example of this would be universities having large green lawns instead of a variety of indigenous plants.

Resources of all kinds can act as both a limiting factor and a stimulus for sustainability, depending on their availability and applicability. With the multi-pronged mandate of the university, resources - particularly time and finances - are in high demand and subject to competing priorities [9, 6, 26] of administration, faculty, staff and students. Additional resource barriers may include natural resources, knowledge or peoplepower.

2.2. Incentives for Sustainability

Although many barriers do exist, the use of incentives or positive factors may help encourage universities to overcome them. Often-mentioned incentives include demonstrable financial savings [27, 9], trying to keep up with other universities [8] and the value of campus sustainability champions [28, 8]. Financial savings are often the first way to exhort universities to engage in sustainability actions by reaching for "low-hanging fruit" or "greening the campus", which refers to implementing efficiencies within university operations that lead to results like reduced energy costs. Other important factors in motivating universities to engage in campus sustainability efforts are stakeholder pressure [8, 29] and pride in shared accomplishments and vision [9].

2.3. Neoliberalism and the Academy

A relatively recent ideology, neoliberalism has been embraced by a number of governments, including Canadian federal and provincial governments. Neoliberalism is characterized by the active promotion of the principles of individualisation, self-responsibility and self-government [30]. It has resulted in a push towards privatization or commercialization of state services, like healthcare, including the use of business management models in those that remain public or publically funded [30]. There is a general trend to "shift responsibility for education from the state to the individual and frame all citizens as consumers" [30, p. 26; 31]. The adoption of this perspective has influenced a change in university funding models and has trickled down into university administration's ethos.

The influence of neoliberalism on universities is a hotly debated topic. Some, such as Côté & Allahar [32] and Naidoo & Jamieson [33], believe that it has a detrimental effect upon relationships between stakeholders and on the mission and goals of the institutions. Others, such as Newman & Abrams [34] believe neoliberalism can have a positive effect on universities because it can allow stakeholders choice to support the institutions they prefer, such as those embracing sustainability. These contrasting perspectives lead to a question of how neoliberalism might impact SHE, whether it would have a positive or negative impact.

2.4. Students Involvement in Canadian SHE.

One of the stakeholder groups most associated with enacting change on university campuses is students. They provide a “critical mandate for change at their institutions” [15] and are the most dynamic campus group with their members in regular flux and their energy in abundance. Students have a history of acting as advocates or change agents, including anti-war and anti-apartheid movements [15]. As a group, students are freer to criticize a university than any employee [5] and as the university target group, hold a power with which no other group can compete [10, 5].

Students have been involved with sustainability in higher education (SHE) on university campuses as participants and change agents in Canada. Their ability to implement pilot projects, create green funds, impact procurement decisions and change operating standards has been well documented (E.g. 35, 36, 37, 38). The Sierra Youth Coalition, a branch of the not-for-profit environmental organization the Sierra Club of Canada, has been teaching and empowering Canadian university students about sustainability since 1998 [39]. Prior to AASHE’s STARS program, SYC’s CSAF was one of the most used SHE audit tools. In addition, the Canadian Federation of Students, one of Canada’s national university student advocacy groups, teamed up with the SYC and the David Suzuki Foundation for a “Students for Sustainability” campaign and national campus tour to promote a reduction in waste, commodification and emissions [40].

While students have played a major role in moving sustainability on Canadian university campuses forward thus far, their opinions are unfortunately under-represented in SHE research [16]. Since universities need to identify and overcome barriers to sustainability, and a major focus of education for sustainability is to empower students to become change agents [41], this study seeks to investigate barriers and possible incentives to campus sustainability from a students’ union president’s perspective and then provide recommendations as to how students themselves can endeavour to address them.

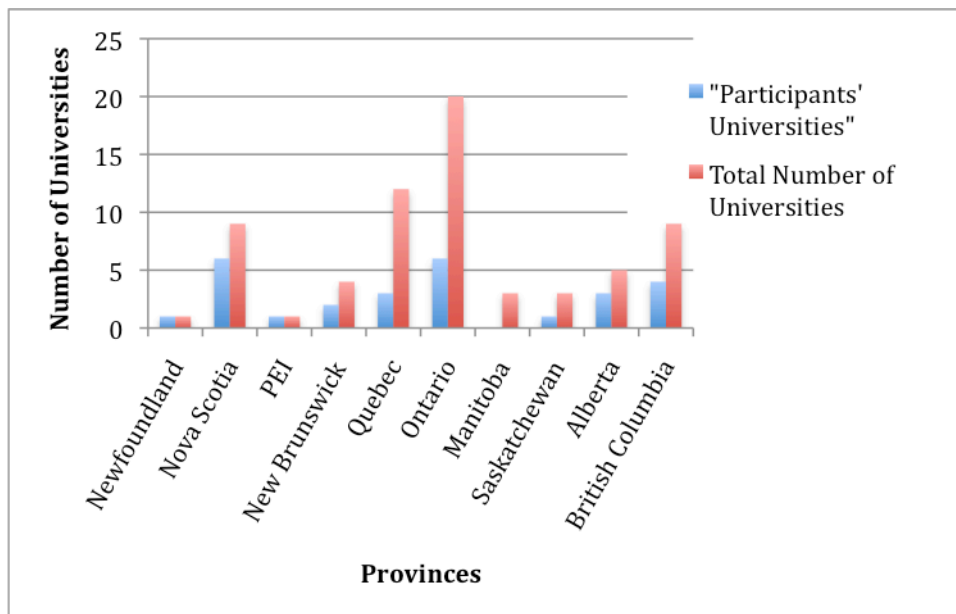
3. Methods

The purpose of this study was to better understand what challenges and incentives to becoming a sustainable institution perceived by student leaders. As such, the population for the study included all presidents of students’ unions’ (SUs) representing undergraduate students on the main campuses of public Canadian universities belonging to the Association of Universities and Colleges of Canada (AUCC) (n=65). Through email and telephone recruitment, 27 SU presidents (45.7% participation rate) agreed to participate with representation from 9 provinces in Canada (Figure 1).

Participants participated in semi-structured interviews (in French or English depending on their preference) about sustainable development and sustainable universities (Appendix A) and completed concept checklists on each topic, based on the nested mixed-method approach by Wright [26], which looked at Canadian universities’ presidents’ conceptualizations of sustainability. These interviews were then transcribed verbatim from audio recordings and member-checked for accuracy. Qualitative data coding and analysis of the interviews was completed using N’VIVO 9 (QSR International). The

language of the English respondents was used to generate codes and categories for all interviews that were then combined in major and minor themes [42] and analyzed by question using thematic analysis. Quantitative analyses were completed on demographic and checklist data, although as this paper focuses on questions concerning barriers and incentives, it will contain mainly qualitative results. For the overall study, each method (quantitative and qualitative) was dealt with separately and then integrated in the final stages of analysis. The general checklist results were compared and contrasted with the thematic analysis of the interview transcripts during analysis to determine similarities and differences, particularly for Questions 2 and 4 (Appendix A).

Figure 1. Comparison of the number of represented and non-represented universities in the study by province.



4. Results and Discussion

While there is a rich data set associated with the interviews of SU Presidents, this article will focus on the results of the interview questions regarding the major issues facing the university, and the challenges and barriers associated with becoming a sustainable university now and in the future.

4.1. Key issues facing this university over the next 10 years

The responses to this question provided an idea of issues that may compete with or complement sustainability efforts and initiatives in Canadian universities. While some issues were specific to a single institution, a number of sectorial themes emerged from participants' responses, including major themes of university finances, enrolment, infrastructure, sustainability, access to education, institutional issues, academics, research and personnel. Some minor themes mentioned by one or two people were mental health and student involvement.

The greatest issue in terms of emphasis and sheer numbers was university finances. Many student leaders expressed concern with decreasing funding from the provincial governments and one

mentioned problems with the federal education funding formula. The decreasing public funding was tied to university budgets problems, deficits, program cuts or “cut corners” – specifically cuts to student services and libraries. It was also linked to personnel issues, such as an increasing number part-time faculty and difficulties with paying pensions or wages:

« Well I'm sure you're getting this answer from everyone, about budgetary constraints, so one of our big problems is the university had their assets decreased dramatically and so things like paying pensions has been a huge issue so the budget has been really, really tight. And that's been reflected in cuts pretty much across the entire university. » (Participant 3)

The next greatest theme was university enrolment. While many cited decreasing enrolments and increasing recruitment as key issues, almost an equal number mentioned that the key issues on their campus were related to accommodating and supporting the increasing number of students on campus (campus growth).

« Definitely enrolments. Declining enrolment is a huge issue at, for every university in this province, but something that I think that we're going to have to deal with. » (Participant 6)

« Number one is high enrolment, there's always demand and then there's such high wait lists for students. It's just becoming a problem for the university to accommodate them. » (Participant 23)

This recognition of university finances and related factors as key continuing issues supports current reports of difficult financial realities facing Canadian universities. The Canadian Association of University Teachers (CAUT) [43] noted that on average, provincial transfers per full-time equivalent student to higher education have decreased in absolute dollars by 7.8% from 1993-2006, while enrolment has been increasing [44]. University funding is an issue often discussed by student leaders [45, 46, 47, 48] as it impacts tuition levels, student financial aid, quality of education and the student experience. In interviews with other university stakeholders [26, 49, 50], university funding, particularly the decreasing government funding, was also noted as the biggest issue facing universities. Enrolment, the growth and decline of which were linked to universities' financial health, was also of key importance to said stakeholders, although facilities management directors afforded it less importance [50]. This difference may be due to the fact that of these stakeholders, facilities management directors are the least impacted by enrolment fluctuations. Overall, the financial challenges facing universities is significant because “cut corners” can negatively impact universities' ability to deliver on their mandate and social contract, let alone impede SHE's progress.

Students were also quite concerned with sustainability as a key issue for their universities' futures. The inclusion of it may have been influenced by participants' knowledge of the research focus, to which least two alluded, although another specified that he believed it regardless.

« In terms of sustainability as well, keeping up, making sure there's a culture on campus and people keep sustainability at the forefront of their mind because it was a real grassroots movement, that it

came from the student body, and the moment that students stop showing interest is maybe the time when the university will stop showing interest as well. » (Participant 7)

While some references to sustainability were general, it was also discussed in terms of physical operations and infrastructure, emissions and campus environment. While sustainability was not as important to participants as to facilities management directors [50], it received more emphasis than it did from faculty leaders [49] or university administration [26]. This could be due to students' awareness that sustainability issues, such as climate change, will affect their futures. This concern is important because universities need to determine how to address such a concern while balancing additional priorities. It is also important as it demonstrates that SU presidents believe that universities have a role to play in working towards a more sustainable future.

4.2. What barriers prevent your university from engaging in sustainability initiatives?

These SU leaders identified a number of barriers keeping their universities from prioritizing sustainability. Participants believed the greatest barrier to university sustainability was a lack of financial resources. It was almost always the first barrier cited and in cases where very few barriers were listed it was always included. It was discussed in terms of not enough funding in general being a problem, as well as the universities being underfunded or the lack of government funding. An interesting aspect of said barrier and institutional barriers was the lack of control with service contracts or a resistance to changing these contracts:

« We're trying to get all the bottled water vending machines out of the university centre. But there are lease agreements and the university is making a certain amount of money off those vending machines, so I think that money is an important factor and they don't want to get rid of something that is a revenue generator, so that is, like, that's a barrier that we face a lot. » (Participant 26)

Additionally, stakeholder attitudes, institutional issues and government priorities were major themes in the responses. Participants often listed different negative attitudes towards sustainability as a major barrier. These included an unwillingness or resistance to implementing sustainability, due sometimes to distrust or fear of something new or because they did not value the concept. Alternatively, these attitudes may be related to institutional barriers as people may view sustainability as outside the role of the university and its mission. Apathy on campus from a number of stakeholders was also cited as a major barrier, often in terms of how hard it can be to mobilize people.

« So, I mean, so for the universities to, to, to move towards being a sustainable university, um, you know, the, the biggest obstacle is themselves and it'll take a culture shift, um, within universities, um, to, you know, to open up a lot of those avenues for people, cause it's, it's not that, um, you know, in a lot of cases, the, the students of the university and, you know, a lot of professors and faculty, and, you know, there's groups at the universities that wanna move towards this, um, but there's also a lot of resistance from other areas within the universities because they either, you know, don't get it, it makes someone's life too difficult, it doesn't fall in line necessarily with, um, the strategic plan, uh, that they have um, or it's just seen as something, you know, extraneous to the main vision of the university,

which is to educate young minds. Um, so, it's, I mean, the biggest obstacle to a university doing this is the university itself. » (Participant 1)

This research reconfirmed the role of finances and stakeholder attitudes as key barriers to campus sustainability [51, 52, 9, 10, 6, 26, 49, 50). With finances already stretched thin due to enrolment changes and decreasing government funding, universities may often find it difficult to prioritize sustainability initiatives over other operation and programming. This issue has been addressed in some cases by the creation of revolving green funds to finance capital eco-efficiency projects (E.g. Harvard's Green Revolving Fund). When financial concerns are combined with negative or apathetic attitudes towards sustainability, the existence of these two barriers can make implementing SHE incredibly difficult. As one participant put it "I think the budget restrictions [...] is [sic]...definitely an obstacle, but also an excuse that people can kind of lean on whenever it comes to resisting something that might cost a little bit more money, so I think that's definitely the key." It is important to identify if these barriers are both in place at an institution and determine which appears to be best to address first or whether they should be addressed in tandem.

The lack of university stakeholders' buy-in, campus sustainability role models and shared understanding of sustainability and related knowledge were also seen as barriers. A lack of agreed upon definition or shared understanding of sustainability was a barrier to making progress. It was felt that this made it even more difficult to coordinate and collaborate between university stakeholders when they had potentially different understandings.

*« So, just everyone being on the same page with what sustainability actually means and how to get there, that's a huge, **huge** barrier everyone in the world seems to need to overcome, so, or be on the same page anyway. » (Participant 25)*

This lack of a shared conceptualization of sustainability and a lack of campus sustainability leaders are also known to be major barriers to SHE [9, 7, 10, 8, 6]. The lack of shared conceptualizations of sustainability in higher education is an issue that many have tried to address in recent years [53, 54, 55, 49, 50), as when these are lacking between people of different backgrounds, resistance may occur due to misunderstandings [56]. By confirming that student leaders also consider lacking a shared understanding of sustainability a problem, the importance of beginning any SHE course of action with a localized stakeholder discussion of SHE and with regular communication throughout the process to minimize future problems is validated.

A number of sub-themes were identified under institutional barriers. They included university priorities, size, type, culture, growth, design, service contracts and commodification, most of which were only identified by one or two participants, but were still important. Institutional culture was a major sub-theme that touched on issues of traditionalism and fragmentation or silos. Some of these barriers, such as fragmentation and university culture have previously been identified by Kurland [9], Nicolaidis [10], Thomas [57] and Velazquez *et al.*, [6]. The notation of such barriers emphasizes the importance of a localized approach to addressing each universities barrier, including sectorial ones, instead of a "one-size fits all" approach.

4.3. *Will there be different barriers and challenges in the future?*

When asked about different barriers and challenges to university sustainability in the future, many participants identified some new ones, but others felt current ones would be maintained or reduced. The barriers expected to remain included finances, growth, academic culture and related attitudes, and the commodification of campus sustainability.

« I was just saying that, like, the kind of barriers that we have are the kind of barriers that will never totally go away, like financial barriers and, like, lack of will power. » (Participant 3)

This belief that many barriers would continue to exist echoed Wright's [26] and Wright & Wilton's [50] findings. This is important because it demonstrates that by addressing current barriers that universities may greatly diminish the number of barriers they will have to face in the future.

Other major themes that emerged were administrative barriers, a lack of resources and a fundamental shift. These last two themes were related because participants believed a major change such as a lack of natural resources, time or a fundamental environmental change, would become a barrier.

« Maybe in the future, well, I mean depletion of natural resources is a huge issue and maybe by that time we won't be able to do, it'll be too late, maybe. And, maybe the barrier will be that...we just can't find sustainable practices that are viable. » (Participant 6)

This idea of a fundamental change is important because it demonstrates that some SU presidents recognize resources as being limited and see the potential for humanity to doom itself by ignoring this fact. This is an issue that Wackenagel & Rees [58] illuminated with their work on ecological footprints.

In addition, minor themes of difficulties navigating greater sustainability partnerships, communication, and a lack of demand for sustainability on campus were discussed. The fact that communication difficulties received little emphasis was a surprise since they have often been found to be a barrier to campus sustainability [11, 59, 10]. Perhaps this reflects a belief that communication regarding sustainability in higher education is improving and thus will no longer be a barrier to implementing SHE projects.

4.4. *What factors would make becoming a leader in sustainability the top priority for your university?*

Participants were able to identify a number of factors that would entice their universities to prioritize being a leader in sustainability. Participants suggested financial incentives, government initiatives, regulations, sustainability role models, buy-in from various university stakeholders, and increases in university standing tied to sustainability. Additionally, some participants thought that better education of campus stakeholders about sustainability or adding it into the universities' vision would improve campus efforts.

As previously noted, finances are considered a significant barrier to SHE. If universities were offered financial incentives, even through university standing which could lead to increased funding through enrolment, SU presidents believe this would encourage an increase in SHE initiatives. Financial incentives were also a key SHE motivator identified by Kurland [9], McNeil [54], Wright & Horst [49], Wright & Wilton [50]. This is important because this is a barrier that could be influenced by external actors, such as governments, publishers of university rankings or granting agencies.

Targeted student pressure for campus sustainability was believed to have great power to influence their institutions. After reviewing sustainability barriers, participants felt they could encourage their institutions to become sustainability leaders; there are a number of ways in which students themselves could provide encouragement, provided apathy was dispelled.

Participant 1 provided a current example noting that "...a big push from students has been we want local, sustainable, healthy food options and the university's heard that and the university's told their food service provider to, to do that as much as possible".

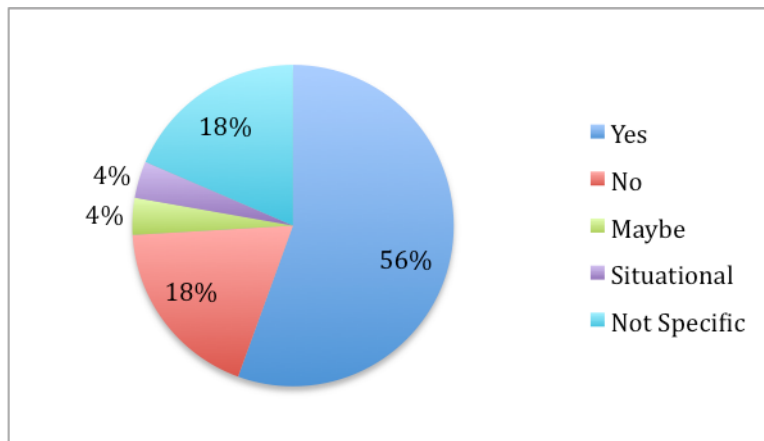
Students' greater bargaining power was attributed to the greater financial impact tuition and fees now have on university operating budgets due to decreasing support from all levels of government [43].

Unlike faculty leaders [49] students' unions' presidents' thought their own cohort (students) had the greatest ability to promote sustainability, which faculty leaders also stated. Prospective students could identify sustainability initiatives as important in choosing their university, while current students could lobby their administration for changes. This focus on student desires as incentive supports the finding of Richardson & Lynes [8] and Shriberg [29] that stakeholder pressure is considered an incentive. This is important because it demonstrates that if students feel empowered and understand the importance of SHE that these students' unions' presidents feel that they are able to enact change.

4.4. Do you believe that the recent trend of universities viewing students as "customers" influences sustainability on your campus? If so, in what way?

This question provided the opportunity to learn more about students' thoughts regarding the neo-liberal idea of "students as customers", including if and how it impacted their universities. Most participants believed that campus sustainability efforts were influenced by the idea (Figure 3). The majority of participants felt that viewing students as customers instead of as learners was a poor idea in general or that would negatively impact campus life. At the same time, many of participants also noted potential benefits for sustainability due to this relationship.

Figure 3: Canadian students' unions' presidents' responses to if the idea of "students as customers" affects sustainability on their campuses by percentage.



A number of themes arose from the responses to this question. Participants discussed student influence, the commodification of sustainability, the financial focus at universities, superficial sustainability, accountability, feelings of the university community, and university promotion of consumerism. The greatest theme to emerge was that of perceived student influence in campus sustainability. This influence even extended to prospective students. This theme tied into the second greatest theme, university finances, as students' power as customers was linked to universities adapting to what they believe students want in order to recruit and retain them. The commodification of sustainability was linked with doing so for improved ratings, reputations or enrolments, all of which also tied in to superficial sustainability and university finances. The connection between university finance, student choice and campus sustainability was thus found to be considered both positive and negative compared to Newman & Abrams' [34] barrier perspective. Concerns were raised about how the university viewing itself as a business and students as customers placed the emphasis on institutional finances instead of education, quality or campus life, a shift noted in neoliberal ideology [30]. Some participants felt this focus on the financial exchange caused a change in campus dynamics, negatively affecting the community fabric of universities. Participants felt that it reduced the respect between various stakeholders, particularly between students and administration, and the feeling of inclusion, all issues hypothesized as results of consumerism and corporatization by Naidoo & Jamieson [33].

« So if customers wanted, customers being students, wanted to go to a sustainable university then there would be a push for more universities to become sustainable. But I believe, ultimately, looking at people as customers really puts an emphasis on the finances of it, and I think that's not the most important part. I think the most important part is the quality of the education and I think that sustainability is beneficial to that in all ways. » (Participant 2)

These negative feelings regarding students as customers and the commercialization of SHE are important for universities to understand when approaching stakeholder relations, marketing and SHE initiatives. Students should be engaged as respected and integral pieces of the university community fabric in order to feel connected to the institution and project, and consulted on how to deepen SHE efforts on campus beyond any possibility of "greenwashing".

5. Conclusions

This research sought to give voice to the perspective of an under-represented, but important, university stakeholder regarding challenges and incentives to universities becoming sustainable. As students' unions' presidents are the official spokespersons for university students and have better insight into university structure, governance and operations than most students, their insights were requested.

It demonstrates that Canadian students' unions' presidents recognize a number of barriers and positive factors that affect campus sustainability efforts. Some of the most notable included finances, shared conceptualizations, stakeholder attitudes and influence. This study illustrated a perspective emphasizing the importance of stakeholders, finances and enrolment upon universities to both sustainability initiatives and overall. Whether as campus sustainability role models, through the peoplepower to make projects happen or through market pressure, university community stakeholders hold enormous power over the progress of campus sustainability, particularly students. This latter group interacts with both enrolment and financial pressure to further impact universities in diverse fashions, both positive and negative. Financial pressures are said to particularly impact SHE and while related savings have spurred some adoption, the requirement of large financial inputs appears to hold up implementation of SHE initiatives.

The assertion that students were the stakeholder group with the greatest ability to influence forward momentum on campus sustainability efforts was a crucial finding. This demonstrates that student leaders believe that universities are receptive to students' demands and are also using it to their benefit in terms of recruitment, although there were concerns with the potential for greenwashing or using superficial sustainability to market themselves. This related to concerns about the potential negative influence of neoliberalism in SHE and the emphasis upon funding over community building, although the possibility to use such a focus to pressure universities to integrate more sustainable thought and initiatives was also discussed.

This study lends strength to the SHE literature on barriers to university sustainability, specifically that a lack of finances, stakeholder buy-in, sustainability champions, a shared understanding of sustainability and disciplinary silos can make implementing campus sustainability programming difficult [9, 10, 57, 6]. Previous research by McNeil [54], Sylvestre [55], Wright [26], Wright & Horst [49], Wright & Wilton [50] and Velazquez *et al.* [6] has illustrated the importance that other stakeholders also place on such areas. It also supports Wright & Horst [49] finding that students are the university stakeholder group believed to have the greatest power to initiate change and that stakeholder pressure is key [8, 29]. Even with all of these barriers, SU presidents remained positive while discussing opportunities for SHE. One key difference between these results and the literature [32, 34] is that while neoliberalism and the commodification of sustainability in higher education were far from viewed as positive, many SU presidents did note that it could afford students greater opportunity to pressure universities to implement sustainability initiatives.

This study adds to the SHE literature by providing new insights in a couple of areas. One key area is through the students' unions' presidents' perspectives on barriers and incentives. While many echo results previously found in the literature, this is one of the few studies to confirm similarities between what challenges and positive influences student leaders perceive and those of other university stakeholders. It contributes to current research on the challenges universities face overall in continuing to implement their mandates by illustrating student leaders' view of what they encounter. Finally, it sheds some light on the perceived influence of neoliberalism on campus sustainability. It also demonstrates that student leaders are concerned about the commercialization and superficial use of the term "sustainability" in higher education. This illustrates a need for universities to use the term with care and to ensure that they are initiating robust practices to avoid greenwashing or appearing to pose as an institution that cares about sustainability only insofar as its marketing and recruitment prospects.

While it is important to try to prepare for well-known barriers to campus sustainability, campus stakeholders must also turn inward and review the institutional and community makeup, processes and operations in order to determine additional barriers in their higher education microcosm.

5.1. Recommendations

5.1.1. Students' Unions

The results of this research demonstrate that SU presidents believe that students have the ability to pressure universities for greater sustainability in higher education. It is through students' unions that students have access to collective resources and shared capacity for change. They are able to support the implementation of larger engagement and educational campaigns than student societies alone and have the ability to connect student leaders of all backgrounds. The following are ways in which students' unions could help empower their members to engage in sustainability efforts on campus:

- Educate and advise students about how to move initiatives through administrative processes and red tape
- Create funding mechanisms for sustainability initiatives through existing funds or the creation of a new levy (see [60] for examples)
- Support initiatives that engage campus stakeholders in discussions about sustainability and visioning what that might mean in the local campus context
- Advocate for the inclusion of sustainability within institutional documents, including those that would affect external service providers

5.1.2. Future Students

Although current students represent existing members of the university, with the financial crunch that universities are currently experiencing [43], a significant amount of energy and finances often supports recruitment efforts. There is already evidence that universities are beginning to reorient themselves to utilize sustainability for recruitment purposes as more potential students consider it an important part of selecting an institution [61].

- Potential students could influence campus sustainability by demanding demonstrated deeper commitments to sustainability from universities. This could be done through direct contact with universities or through indirect methods such as rankings.

A number of barriers and competing priorities to sustainability in Canadian universities exist, both now and in the future. Although these may sometimes seem overwhelming given the slow progress, there is reason to remain hopeful. As society and students have become more familiar with the term and ideas behind sustainability, university stakeholders have recognized their responsibility to be a part of the change [54, 55, 49, 50]. Although some barriers will continue to be difficult for sustainability advocates to navigate, they are not insurmountable.

While students are believed by their leaders and others [49] to be capable of energizing the progress of sustainability in higher education, it is important to note that all university stakeholders must be involved in moving campus sustainability forward. A localized approach to analyzing barriers and incentives, particularly to developing a shared conceptualization of sustainability, appears to be key. While these results cannot be generalized to other university stakeholders or the broader student population, the significant overlap between the perceived barriers and incentives to SHE by SU presidents' suggests that there may be ways to address these overall barriers while engaging with multiple stakeholders. The majority of this paper's recommendations can and should be considered applicable to other members of the campus community, whether through organizing or participating in them.

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Conflict of Interest

The authors declare no conflict of interest.

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