Examining the Impact of the National Arts Centre's Climate Cycle Initiative on the Environmental Knowledge, Attitudes, and Professional Practices of Canadian Theatre Artists

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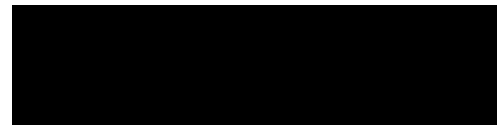
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Abstract

The current literature on the role of the Arts in sustainability suggests that environmental themes introduced in different forms of art (i.e. theatre, sculpture, music) can change the way people feel about environmental issues in a way that other forms of communication cannot. The Arts, therefore, can play a unique role in societal change toward a sustainable future. As part of its response to the escalating climate crisis, the National Arts Centre (NAC) English Theatre developed "The Cycle: Climate Change" (herein The Climate Cycle) which was designed to engage artists deeply with climate change and grapple with how the performing arts can respond. This study assesses the impact that this initiative had on the practices and policies of Canadian theatre artists that attended The Climate Cycle events, and the organizations that they represented. The Climate Cycle had two meetings: The Summit in Banff in 2018, and The Green Rooms in 2019. Using non-probabilistic sampling techniques, this study used both surveys and interviews to investigate the various impacts of the events. The first survey was sent out to all participants after they attended the first Climate Cycle event in Banff. A second survey was sent to participants after attending the Green Rooms event (with a targeted survey sent to artists who attended both events in order to gain insight into how the two events compared). Additionally, 6 participants were purposively chosen for interviews in order to delve deeper into the degree of impact the event had on their artistic practices and policies within their arts organizations . The survey and interview data were analyzed using *a posteriori* coding techniques for qualitative answers. The analysis of the data revealed a number of ways in which the artists were impacted by the Climate Cycle including: (1) instilling a sense of community amongst the participants; (2) encouraging the artists to continue their learning, and (3) undertaking various strategies to "green" their practices such as reducing touring and using alternative materials in set designs.

These results shed light on the conceptualizations of Canadian theatre artists and the role they

can play in changing culture towards environmental sustainability. Further, the results will be

helpful for organizations like the NAC who are looking to plan environmental-themed

programming for artists in the future.

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1. Introduction and Literature Review

1.1 Motivation and Context

The drastic and potentially irreversible effects of climate change have created a great sense of urgency globally. These effects include polar ice melting, sea level rise, increase in average surface temperature, increase in frequency and severity of storms, ocean acidification, increase in droughts and food shortages, and more (Allen et al., 2018). These impacts are a reality for many today and will continue to threaten the livelihoods of all living communities into the future. The root cause of these impacts is the emissions of greenhouse gases (Allen et al., 2018). In order to reverse and mitigate the worst impacts of climate change, certain steps must be taken such as using alternative, renewable energy sources; finding less resource intensive materials; investing in green enterprises; and much more (Hawken, 2018). Despite having complete guides to the world's most impactful solutions in terms of feasibility, economics, and overall impact (Hawken, 2018), there are still many barriers in place that are preventing these changes from occurring (Gifford, 2017; Lacroix and Gifford, 2017; Bouman and Steg, 2019). For instance, there are psychological and social barriers that prevent known solutions from being implemented. These psychological and social barriers are likely the result of a lack of emotional connection with nature, and/or the belief that society as a whole does not care about climate change (Bouman and Steg, 2019). Even in a society where individuals are seen to care about climate change and want to create change, systemic change is a difficult and wicked problem. Despite barriers, systemic change is essential for overcoming psychological and social barriers in order to allow individuals to actively participate in climate action.

While climate change is mostly seen as a scientific problem, the solutions are well-rooted in the social realm. A cultural shift is needed to change the way that climate change is perceived

and discussed. The Arts has the capacity to impact how people feel about different topics, and in some cases, change their behaviour (Dollar, 2012; Wali, 2002). For this reason, many studies advocate for the inclusion of the Arts in discussions surrounding climate change and the environment to inspire action in the general public that science often cannot (Pooley and O'Connor, 2000; Galafassi et al., 2018; Shrivastava et al., 2012; Wallen, 2003). The hope is that including the Arts in conversations surrounding solutions to climate change may change the way that individuals connect to climate issues on an emotional level, which could lead to behavioural change. One of the best examples of popular art that influenced people's feelings and behaviours towards the environment was the 1971 children's book and 2012 feature film *The Lorax* (Suess, 1971; Renaud, 2012). The book form of *The Lorax* has been studied by many scholars, analyzing the impact the story has on the ways that children respond to ideas about environmental degradation (Boggs et al., 2016; Marshall, 1996; Lowell, 2008). The book and the movie have both been attributed to instilling a sense of respect and revere for the environment in children that is crucial to them growing up to be environmentally conscious adults (Lowell, 2008).

Given the potential for the Arts to shift cultural norms toward pro-environmental behaviour, it is surprising that there is little research (with some notable exceptions: i.e. Yakamovich, 2019, etc) that has explored the role that artists and Arts organizations can play in tackling climate change. How do artists arrive at the point where they start to create environmental-themed art? What is their motivation behind doing so? While the benefits of these artworks are known (Pooley and O'Connor, 2000), it is now necessary to understand how to engage artists in a way that inspires them to create artworks that provoke cultural change and a shift to pro-environmental behaviours. This study contributes to the evolving body of literature in this burgeoning field of the Arts and environment, by examining how the artist participants in the

National Arts Centre's (NAC) the Climate Cycle initiative were affected in their participation in

order to gain a better understanding of how programs like these can inspire artists and Arts

organizations to play a role in cultural change toward a sustainable future.

Relevant Study Background: The National Arts Centre English Theatre Climate Cycle

       The NAC is a Canadian organization based in Algonquin Anishinaabe territory in the city

of Ottawa that brings together artists from a variety of performing arts including dance, theatre,

and music (NAC 2020). The Cycle initiative was a "trilogy of two-year research initiatives" that

sought to "gather practitioners around big ideas, and in theatrical terms engage with the concerns

of our contemporary society." (NAC 2020). The three segments were: Indigenous Body of Work

(2014-2015); Inclusion: Deaf, Disability, and Mad Arts (2016-2017); and Climate Change

(2019-2020) (NAC 2020). The third segment of The Cycle, Climate Change, aimed to re-

imagine Canadian theatre in a world shaped by climate change. It invited artists and

representatives from different Arts organizations to critically re-assess their role in

environmental action. The Climate Cycle took place over two formal meetings: the first was the

Summit in Banff ("the Summit") (2019), and the second was the Green Rooms (2020).

       The Summit was a "three-day conversation" in 2019 that took place in Banff, Alberta,

that focused on climate change and the carbon footprint of Canadian theatre (NAC 2020).

"Inspirers" (workshop leaders and facilitators) from Canada, the United States (US), and the

United Kingdom (UK) came to lead conversations and workshops about climate change with

cultural leaders (the participants) from across Canada (NAC 2020). The second event was the

Green Rooms, which was a three-day online event with cultural leaders and inspirers tuning in

from across Canada, the US, and the UK. This event was intended to take place in person, but

due to COVID-19 restrictions the event was re-imagined in an online setting. The inspirers at

both events came from a variety of backgrounds, including theatre, science, economics and community-driven activism. Participants in both events were given the opportunity to reflect on their own experiences and roles within their organizations, ask the inspirers and experts questions, and engage and collaborate with the other participants.

Definitions

Throughout this study, there will be references to "the Arts" and "eco-art." Any reference to the Arts will adhere to the following definition: The study, pursuit, or collaboration with any artistic form that aims to engage with an audience about any number of topics or ideas; these artistic forms include, but are not limited to, visual arts such as painting, sculpture, and drawing; performance arts such as theatre, music, and dance; textual arts such as creative writing; and graphic arts. Eco-art will refer to any artwork, as outlined in the Arts definition, that centres around environmental themes and topics. Specifically, this study will use the definition of eco-art as outlined by Blandy et al. (1998) that describes eco-art as an artwork of any medium and aesthetic that challenges social and political paradigms regarding human interaction with the environment. This definition separates eco-art from environmental art; environmental art differs from eco-art in that it uses the land as a medium for the artwork and does not have a strong focus on protecting and conserving the land (Blandy et al., 1998).

1.2 Introduction to the study

This study explored the impact that participating in the NAC Cycle Climate Change had on artists and, when relevant, the Arts organizations that they represented. This study administered 3 surveys and engaged in in-depth interviews with participants from both the Summit and the Green Rooms. The results from this study demonstrated the extent to which participation in the Climate Cycle impacted the artists' perceptions and behaviours. These results

may help in developing tools and ideas for future practitioners in this field in order to better

understand how the Arts can play a role in societal transformation and climate action. Further,

organizations like the NAC will know what is and is not an effective way of engaging different

arts communities if they decide to develop and run similar programs that target different Arts

disciplines.

The research question for this study is as follows: "To what extent did participation in the

NAC Climate Cycle events impact artists' behaviours and professional practices?"

This study is exploratory research, bound by retrospective temporal limits. Because all of

the data that was collected for this study deals with events that happened in the past (i.e. the first

survey on the Summit was distributed one year after the event; the survey and the interviews on

the Green Rooms was distributed 6-7 months after the event) the temporal bounds are

retrospective.

Summary of Approach

In order to answer the research question, this study was conducted by surveying and

interviewing participants from the Summit and the Green Rooms. All of the surveys and the

interview questions were designed in collaboration with Sarah Stanley and Chantal Bilodeau, the

co-directors of the Climate Cycle. The project was conducted in three phases: survey 1, survey 2,

and the interviews. Survey 1 was distributed in June 2020 to 18 participants who attended the

Summit that were selected using non-probabilistic sampling. The second survey had two

iterations: version A was sent to all attendees from The Green Rooms, and version B was sent to

the 18 participants who received survey 1. Both versions of survey 2 were distributed in late

November 2020. For the interviews, 10 participants were selected based on the survey results

and asked to participate in the interview portion of the study. Six of the participants agreed to

participate and were interviewed throughout January 2021 over Google Meet. All of the data of interest from the surveys and interviews was qualitative data, which was analyzed using manual *a posteriori* coding techniques (Saldana, 2008; Cope, 2010). By conducting these surveys and interviews, a better understanding of how this program was received can be used to inform future decision-makers regarding eco-art within Arts organizations and arts communities.

1.3 Literature Review

This study exists in the academic field where the Arts and climate science intersect. For this reason, a literature review of the current science on climate change, the historic impacts of the Arts on behaviour and cultural change, and finally a look into what eco-art is and how it can contribute to the field of sustainability was undertaken.

Climate change: Origins, Solutions, and Barriers to Solutions

The effects of climate change present a pressing problem to Canada and the rest of the world that needs to be addressed as soon as possible. Many studies have been conducted in the last 30 years that look at the origins of climate change, the impact that it has on global systems, and the detrimental effects that humans, animals, and other living organisms will and are already experiencing. These effects and impacts have been diligently documented in reports such as the International Panel on Climate Change's "Special Report Global Warming of 1.5°," and Natural Resources Canada's "Canada's Changing Climate Report" (Allen et al., 2018; Bush et al., 2019). These reports cover the impacts that exceeding 1.5C warming before 2100 could have on the planet such as sea level rise, loss of habitat, increase in average global surface temperatures, ocean acidification, increase in food shortages and droughts, etc. (Allen et al., 2018; Bush et al., 2019). The impacts of climate change are known, and require immediate action from individuals, governments, and corporations.

Due to the impending climate crisis, a series of actions as well as mitigation strategies are needed to adapt to this changing world. Steps to tackling climate change are outlined in Drawdown, an online database and guide to all of the known climate solutions today. Hawken (2017) ranks all of the solutions from most to least effective by considering the energy use reduction, the cost, and the technical feasibility. These solutions are divided into 9 categories in order to see what changes are the most effective in each sector: electricity; food, agriculture, and land use; industry; transportation; buildings; land sinks; coastal and ocean sinks; engineered sinks; and health and education. Drawdown is a very comprehensive and dynamic resource, as it is constantly being updated as new information becomes available. In addition, other research is being completed on effective climate action such as Wynes and Nicholas (2017)'s research on the most impactful individual actions on climate change. These impacts are: cutting out meat and animal products, not flying, having one less child, and not owning a car (Wynes and Nicholas, 2017). Based on Drawdown, and Wynes and Nicholas' (2017) research, it is clear what the necessary actions that need to be taken are.

Though both the impacts of climate change and the action necessary to combat it are known, there is an issue with moving society on a global scale to act and behave in the ways necessary for this change to occur. Many studies have been conducted that look at the psychological barriers that prevent people from acting in a pro-environmental manner. Gifford (2017) examined these barriers and acknowledges their impact on behaviour and calls for more research to overcoming them. Lacroix and Gifford (2017) attributed these barriers to differences in climate change risk perception; people who do not feel that they are being directly affected are unlikely to take action. Another study attributed these psychological barriers to the perceived interest of others (Bouman and Steg, 2019). This study posits that people do not believe that

those around them care about the environment, and therefore do not take any climate action

(Bouman and Steg, 2019). Though the research is clear in terms of what climate action is needed,

these psychological and social barriers are keeping individuals from acting.

The Impact of the Arts on Cultural Change and Behaviour

People connect to art emotionally, which influences individual behaviour as well as

government policy and action. There have been many examples of art shaping the behaviours,

attitudes, and perceptions of individuals. Art mobilizes people in incomparable ways. For

example, the phenomenon of the Deadheads, loyal fans to The Grateful Dead, exemplifies how

art (in this case, music) can shape the behaviour of large groups of people (Dollar, 2012).

"Deadheads" dutifully followed the band around on tour, and while doing so, developed certain

behaviours and traits that are specific to this group (Dollar, 2012). Another example is the ways

in which governments around the world have made it clear that they perceive art as something

powerful, and sometimes dangerous, through the censorship of information such as book

burning. The Banned and Challenged Classics (n.d) webpage is a database of all banned books

throughout history. Books were perceived as such a threat to society through their impact on

people's behaviour that they were banned from circulation and consumption. This is evidence of

the power that art has to both impact the behaviours and mindsets of society, but also art's

impact on government action and policy. The impact of art on behaviour has also been

investigated in Wali's (2002) study on how adult participation in the "informal arts" is an

integral aspect of communities, individual identity, and group solidarity. The study revealed that

communities based around art give people a sense of belonging, purpose, and fulfillment (Wali,

2002). Art has the capacity to overcome psychological and social barriers by bringing people

together over shared activities and interests. It would follow, then, that art about climate change

or the environment could have the capacity to bring people together in meaningful and dynamic ways, which leads to the main body of the literature.

Eco-Art and its Role in Climate Change

The Arts have the capacity to impact individuals on a personal level that can change people's behaviours and beliefs. Pooley and O'Connor (2000) found that attitudes towards the environment were connected to their thoughts, feelings, and beliefs. Shrivastava et al. (2012) found that engaging in an arts-based education should be used to establish passion in, and an emotional connection to, the natural environment. Reaching a similar conclusion, a study on participatory arts projects in Art Education for Sustainable Development (AESD) found that an Arts education could be used as a way for students to experiment with determining how to be more sustainable (Illeris, 2017). Incorporating eco-art into education and curricula allows students to reflect on their relationship with the environment. Perhaps because of the increase in literature suggesting that eco-art can impact climate action, there has been a recent increase in the number of eco-art projects in existence as artists try to connect with their audiences on a meaningful level about environmental topics (Galafassi et al., 2018).

As already mentioned, eco-art is a broad term for art of any medium and aesthetic that challenges social and political paradigms regarding human interactions with the environment (Blandy et al., 1998). Eco-art emerged from the environmental art era from the late 1960's to the 1980's (Blandy et al., 1998). The range in eco-art projects can be seen through small production, local distribution works such as the Climate Change Theatre Action's work to produce climate-based plays by a variety of playwrights (CCTA, 2021), to blockbuster Hollywood films including *The Lorax* (2012) and *Wall-e* (2008). In addition to these examples, there are many

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more successful eco-art projects and collectives that have had positive impacts on their audiences.

The projects that have been completed are in a wide variety of arts disciplines, including music, street art, theatre, and the novel (Chaz, n.d; Bilodeau, 2015; Carson, 1962; Doll and Wright, 2020). Some of these projects have far-reaching and enormous impacts, such as Rachel Caron's (1962) novel *Silent Spring* that led to the banning of DDT. Others are more focused on how specific communities are impacted by climate change, such as Bilodeau's (2015) play *Sila*, a work that comments on how climate change, economics, and politics shape northern communities, with a specific focus on Inuit communities. There are also projects that exist outside traditional artistic boundaries such as street art. Chaz (n.d) has documented the reaction to environmental concerns in Bahia Blanca, Argentina through the use of street art murals. This project has shed light on the environmental issues in the city, engaging with the public and the local government (Chaz, n.d).

These projects show the capacity of eco-art to influence and impact people's behaviour by connecting with its audience on an emotional level. They inspired engagement of these topics by inviting people to think and talk about the environment. The efficacy of these projects has also led artists to establish collectives of eco-artists, whose goal is to harness this creative energy in order to produce more eco-art. Some of these collectives include ARTPORT, a collective that is "dedicated to raising awareness about climate change through the Arts" (Erni and Melster, 2016); the RSA Arts and ecology programme that seeks to address ways in which artists can contribute to living more sustainably through their practices (Parry, 2008); Fën, an arts collective dedicated to inspiring others to uptake sustainable and environmental action through their arts projects (Fën, 2020); and Artists and Climate Change, a blog run by The Arctic Circle that aims

to track and document different artistic practices that centre on climate themes (Artists and Climate Change, n.d). All of these initiatives and eco-art projects show the potential that lies in eco-art creation, and in engaging with artists on these themes.

Knowledge Gaps

The research investigating the effectiveness of eco-art on changing how people feel about and act on environmental issues has been explored, but little research done on creating space for the artists to explore these topics. In order to continue to support the creation and exploration of eco-art, space for artists must be created in which they are free to learn and create about the environment and the natural world. All of the examples cited feature artists who have already found their way to creating eco-art, but there is no information on artists and organizations who have had little to no exposure to climate science and research. There needs to be more work done between artists and scientists and professionals of other disciplines in order to keep this research moving forward (Roosen et al., 2017). Roosen et al. (2017) ask: "how can artworks encourage participation?" The literature demonstrates a gap where researchers can gain a better understanding of artists' own thoughts and perspectives of their role in the climate crisis, as well as how to create more impactful works. In order to do this, all artists, including artists who do not currently create eco-art, must be engaged and involved in these evolving conversations and projects. With the existing literature on the role of eco-art in transformative climate action, it is clear that a knowledge gap exists regarding the role that all artists play in combatting climate change. It is necessary to explore in depth artists' role in sustainable action through further research and collaboration across disciplines.

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Conclusion

From the literature presented above, it is clear that there is a need for further research to be done on the impact of the Arts on climate action; more specifically, that space needs to be created for artists to explore environmental topics. The impacts of climate change are impending, needing dire action to be taken by all individuals, governments, and corporations (Allen et al., 2018). The actions and mitigation strategies that are necessary are known and well-documented (Hawken, 2017), but there are psychological and social barriers preventing many people from acting in a pro-environmental manner (Lacriox & Glifford, 2017). The Arts has the capacity to influence the way that people relate to the world around them, as well as how they behave within their societies (Dollar, 2012; Wali, 2002). The effects of eco-art projects on audiences has been well studied and documented up to this point (Galafassi et al., 2018), but the current state of the literature lacks space for artists to voice their opinions, learn about climate change, and reassess how their practices play into this global problem. Building on the current literature of eco-art in Canada, this study will focus on the impacts of Canadian theatre organizations and how these artists and representatives see their role in climate action. This research will help to build a better understanding of the best ways in which to engage artists in discussions surrounding environmental sustainability and climate change, and the action necessary to challenge these problems.

2. Methods

2.1 Introduction

This project was conducted in collaboration with the NAC to investigate the impact of the NAC's Climate Cycle events on participants' behaviours and feelings toward climate change.

This project surveyed and interviewed the individuals who attended the NAC Climate Cycle

events (i.e. the Summit and the Green Rooms) about their experiences. The research question

that these methods aim to answer is: To what extent did participation in the NAC Climate Cycle

events impact artists' behaviour and professional practices? In order to answer this question,

three surveys and one set of interview questions were used to determine the overall impact of

these events on the participants. The first survey was distributed in May 2020 and focused on the

artist's experiences at the Summit as well as questions to help prepare for the Green Rooms

event. The second survey had two versions (one for those who attended both the Green Rooms

and the Summit, and one for those who only attended the Green Room's event) and was

distributed in late November 2020. The interviews took place throughout January 2021; 6 out of

the 10 individuals who were invited to participate in the interviews accepted.

2.2 Sampling size, population, and recruitment

This study consisted of three phases of data collection: survey 1, survey 2, and the

interviews. The sampling method and population for each phase had slight variations.

Survey 1

Survey 1 was distributed shortly before the Green Rooms in May 2020. The survey was

sent to 18 participants who were purposively selected using non-probabilistic sampling from the

group of participants who attended the Summit in 2019 in consultation with the organizers from

the NAC (Figure 1). There were no other inclusion criteria that were included. These 18

individuals were recruited through email by the NAC partners. Each participant received a link

to the Google form where they were shown a consent form, some background on the study, and

the survey itself (survey questions can be found in Appendix 1)

Survey 2

There were two iterations of survey 2 that were distributed: Version A was sent to every individual who only attended the Green Rooms event (i.e. they did not attend both the Summit and the Green Rooms), while Version B was sent to participants who attended the Summit (Figure 1). Both versions of survey 2 were distributed 6 months after The Green Rooms on November 29th, 2020. These were the only inclusion criteria, as the surveys hoped to receive as many responses as possible. These participants were recruited through email by the NAC staff, where they were also provided with the consent form, background on the study, and a link to the Google form (survey questions can be found in Appendix 1).

Interviews

The interviews focused on a sub-population of the respondents from Survey 2. Based on the results from both versions of survey 2, 10 participants were purposively selected using non-probabilistic sampling. These 10 individuals were selected based on their answers to the survey questions. The researchers believed these participants could explore some of their answers in more depth, and were thus selected for interview recruitment. They were recruited by the NAC staff through email, where information on consent and background on the study were also provided. In the end, 6 out of the 10 recruited individuals chose to participate in the interviews (Figure 1).

    2.3 Instrumentation

Survey 1

Survey 1 was sent to 18 individuals who attended the Summit who were purposively selected using non-probabilistic sampling (Figure 1). Survey 1 was designed by the research team in collaboration with the NAC partners. The questions on survey 1 can be found in

Appendix 1. Survey 1 consisted of a combination of closed or structured questions including single-response items, categorical-response items, Likert-type items, as well as open-ended questions (Payls and Atchison, 2014).

The first two questions on Survey 1 asked for the participant's name and the organization they represented in order to identify and assign them a unique identification number. Questions 3-8 were intended to gain insight into the state of the participant's knowledge on climate change before and after the event. This was done using two categorical-response questions to see what their state of knowledge on climate change was before and after the event, followed by a short-answer question about how attending the Summit impacted their level of knowledge. Questions 6 and 7 inquired what their organization's position on climate change was before and after the event. These questions aimed to understand how attending the Summit affected both the individual's level of climate change knowledge, and the importance of climate change within their organization.

Following these questions was a Likert-type question that asked the respondent to answer 9 sub-questions regarding what they took away from the event using the following categories: Strongly agree, Agree, Somewhat disagree, Disagree. These questions were designed to provide insight into how the event impacted their view of theatre in relation to climate change.
The last three questions were all open-ended questions regarding the participant's overall experience at the event. These were intended to reveal the impact that the event had on the participants' organization (i.e. whether they implemented any new environmental policies as a result, etc.), as well as on their own perspective on the Arts and sustainability. In question 11, the participants were asked what they believed to be the three greatest impacts of the event, which

will help gain insight into the what was effective about the event. Question 12 asked what they

believed to be the Summit's greatest strength.

Survey 2

For survey 2, there were two iterations of the survey: one was created to send to those

who attended the Summit and had responded to survey 1, and one for those who attended the

Green Rooms (Figure 1). This was done in order to determine who attended both events, and

who attended only one of the events. Both versions of this survey can be found in Appendix 1.

The survey 2 questions were also designed in collaboration with the organizers at the

NAC. Both versions of survey 2 were modified from survey 1 to include almost all of the same

questions. Unlike survey 1, these surveys included demographic questions (ethnic origin, gender,

and age range) in order to gain a better understanding of who attended the event, and who

decided to participate in the study. The categories for the demographic questions were taken

from the most recent Statistics Canada information (Statistics Canada, 2016). The first survey

did not have demographic questions as the participants were well-known to the research team.

Unlike the Summit, the Green Rooms was an open invitation event to scholars and artists,

making it necessary to collect demographic information at that point.

Survey 2 Version A

Survey 2 version A was sent to every individual who attended the Green Rooms (N=144)

who did not attend the Summit (Figure 1). Version A of the survey closely resembles survey 1

except that the questions ask the participants to reflect on the Green Rooms event instead of the

Summit. In addition, demographic questions were added at the beginning (ethnic origin, gender,

and age range) in order to gain a better understanding of who attended these events, and who was

participating in the study (Statistics Canada, 2016). In addition, question 5 was added which asks

what the participant's reason was for attending the Green Rooms. The last modification that was

made to this survey was the shift from asking about the participant's organization to asking about

the participant's artistic practice. The reason behind this is that many attendees of The Green

Rooms were there as individuals and not as organization representatives. These changes were

made to help gain insight into the motivation behind each participant's attendance at the Green

Rooms.

Survey 2 Version B

Survey 2 version B was sent to the same 18 individuals who were sent survey 1 (Figure

1). Survey 2 version B was distributed to the same individuals who were sent survey 1. This

survey was modified from version A for the Summit attendees in order to determine who

attended both of Climate Cycle events. Question 5 was modified on this form to ask what the

participant's reason was for attending the Summit. This question is followed by question 6,

which asks whether they attended the Green Rooms. Question 7 and 8 ask their reason for

attending or not attending the Green Rooms. Then, if the participant did not attend the Green

Rooms, they were told to submit the form. If they did participate, they were asked to continue the

rest of the form. The rest of the form from this point onwards is identical to version A.

Interviews

Out of the 10 individuals who were invited to participate in the interviews from the

results of survey 2, 6 individuals participated (Figure 1). The interview questions were designed

by the research team in consultation with the NAC staff. Eight open-ended questions were

created which were designed to attain a deeper understanding of the impact that the Green

Rooms had on each individual (interview questions can be found in Appendix 1). These

questions were left open-ended in order to allow each participant to answer the questions in

whatever way they wished. The number of participants to be interviewed was determined in consultation with the NAC staff, bearing in mind the amount of time available for this Honour's Thesis project, and the literature on the appropriate number of interviewees in a purposive phenomenological study (less than 10 interviews) (Moser and Korstjens, 2018).

2.4 Data collection

All of the data collection came from the results of both surveys and the interviews. Survey 1 was sent out to the 18 participants via email, with a link to the Google Form where the survey was created and hosted. The survey was sent out on May 18th, 2020, with a deadline of completion by May 22nd. The responses were hosted on Google Forms, and once all of the respondents had completed the survey, the data was downloaded into an Excel spreadsheet onto the researcher's personal computer for analysis. Once the data was downloaded into Excel, all of the participants were assigned unique identification numbers (i.e. Participant 1, Participant 2, etc.) in order to ensure anonymity.

Both versions of survey 2 were sent out via email on November 29th, 2020, with a deadline of completion by December 4th. The email contained the link to the Google Form where the survey was created. Version A was sent to all of the participants from The Green Rooms, and version B was sent to the same 18 participants who were sent survey 1. Both of the survey results were downloaded into an Excel spreadsheet for analysis onto the researcher's personal computer. Once the data had been downloaded into Excel, all of the participants were assigned unique identification numbers with the exception of the Banff participants, seeing as they already had ID numbers from survey 1.

The interviews were conducted throughout January and February 2021. Each interview took place over Google Meet, where the call was recorded and transcribed into a Word document

on the researcher's personal computer.. The participants will be referred to by their ID numbers,

which were assigned during the survey 2 data collection.

2.5 Data Analysis

All of the data that was analyzed in this study was qualitative data from the surveys and

the interviews. For this reason, all of the data in this study was analyzed using *a posteriori*

coding techniques (Saldaña, 2008; Cope, 2010). This analysis was done manually. Details

regarding the analysis of the study are shared below.

The Surveys

Survey 1 coded questions 5, 8, 10, 11, and 12 (Appendix 1); survey 2 version A coded

questions 8, 11, 13, and 14 (Appendix 1); and survey 2 version B was coded for questions 11, 14,

15, 16, and 27 (Appendix 1). Survey 1, 2A, and 2B were all coded using the same process:

1. An initial read through of all of the responses to the qualitative data questions from each survey was completed, during which notes were kept indicating common topics or ideas that were brought up by participants;
2. A second read-through of all of the qualitative question responses was completed, this time while highlighting the words that indicated the common themes;
3. The themes were finalized, and definitions were created for each one; and
4. The number of times themes came up in each question for each participant were recorded in an Excel spreadsheet.

Once all of the theme frequencies were collected in Excel, the number of times a theme was

mentioned by each participant in each question was calculated and recorded. Once this was

complete, the frequencies of each theme could be compared to one another.

The Interviews

All 6 of the interview questions (Appendix 1) were open-ended questions. The answers to

these questions were coded using the following process:

1. An initial play-back of the recording was listened to while transcribing and verifying what each respondent said;

2. An initial read-through of the written transcripts was completed during which notes were kept on the themes that were arising, using the same themes that were established in the coding of the surveys;
3. A second read-through of the transcripts was completed, this time highlighting the words that indicated where the common themes were; and
4. The number of times each theme came up in the interview for each participant was recorded in an Excel sheet.

Once all of the theme frequencies were collected in Excel, the number of times a theme was mentioned by each participant was calculated and recorded. Once this was complete, the frequencies of each theme could be compared to one another.

Comparison of data

Seeing as the surveys did not ask the same questions of the same population, no statistical comparison can be conducted. However, all of these results will be compared and discussed in relation to one another in order to highlight trends and themes that arose in the results that can lead to general conclusions about the impact of these events.

2.6 Validity and trustworthiness of the methods

Many steps and measures have been taken to ensure the trustworthiness and validity of these methods. All of the survey and interview questions that have been created were the result of collaboration between the research team and the members of the NAC team. These questions underwent multiple rounds of drafts, final edits, and pilot-testing. Throughout the process, an audit trail was kept to ensure that all steps that were taken during this project can be traced. This audit trail was available for reference throughout the study. Lastly, member checks with the participants were conducted throughout the project to ensure the findings of this study are accurate and credible. Member checks consisted of double checking with participants that their answers were correct, asking participants' permission before quoting their answers in the final

results, and sending the participants the results to validate the accuracy of the findings (Brit et al., 2016).

2.7 Ethics

The project adheres to the Tri-Council Research ethics criteria. It attained Dalhousie Review Ethics Board (REB) approval for both the survey portion and the interview portion of the project (the REB application for the interview portion can be found in Appendix 2). The participants of this study were provided with the appropriate consent forms, which were created according to the Dalhousie REB guidelines. This study posed little to no physical, psychological, or economic risk for the participants. The identities of the participants were kept anonymous throughout the study as each participant was assigned a unique ID number which was used to refer to them throughout the study.

2.8 Limitations

This study was limited in its scope of the overarching impact of the Arts on climate action as it targeted a small population of Canadian theatre artists. Though this study provided insight into the impacts that a small event like the Climate Cycle can have on a subset of artists in a specific discipline, further research should be undertaken in other Arts disciplines to verify that this study's conclusions are founded. One of the major limitations of this study was the self-selection process of the participants; there was no incentive to complete the surveys or participate in the interviews, which may have skewed the data. More iterations of similar studies would help in validating the findings of this study. Another limitation is that this study consisted exclusively of qualitative data analysis which was done by hand by the researcher. Because of this, there is potential human bias in the coding of answers despite member-checks and an audit trail.
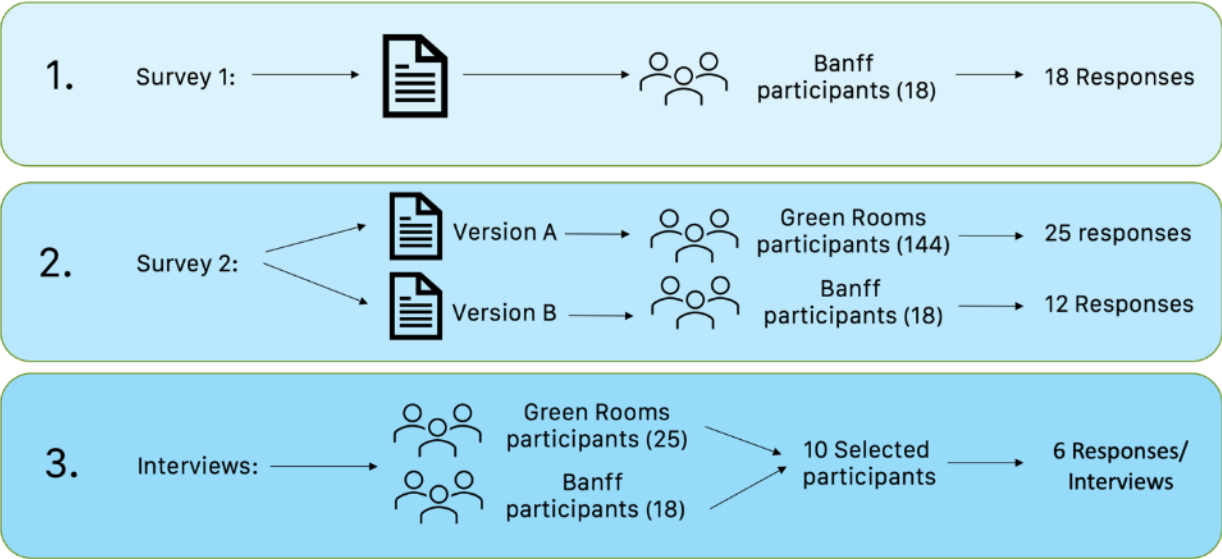
Figure 1: Diagram depicting the populations and distribution for each phase of the methods.

3. Results and Discussion

Overall, there were 43 participants in this study. Eighteen individuals were sent the first

survey; all 18 individuals responded (Figure 1). Survey 2 version A was sent to the 144 people

who attended the Green Rooms, which excluded any individuals who attended the Summit; 25

out of the 144 individuals responded (Figure 1). Survey 2 version B was sent to the same 18

participants who were sent survey 1; 12 of the 18 participants responded (Figure 1). However,

only 6 out of 12 participants who responded to Survey 2 Version B attended the Green Rooms in

addition to the Summit. Therefore, only these 6 responses will be included in the results and

discussion since the other 4 responses did not provide any additional information from the first

survey.

In the analysis of the survey and interview data, 13 themes arose that can be fit into three

categories: interpersonal themes, knowledge themes, and overlap themes (Table 1; Figure 2).

The interpersonal themes concern the relationships that the participants formed with one another,

and how they were impacted by these relationships. The interpersonal themes are community,

connections, motivation and inspiration, collaboration, and affirmation (Table 1; Figure 2). The

next set of themes refer to what the participants felt they learned and took away from the event in

terms of new knowledge. The emergent themes are awareness, intersectionality, eco grief, and no

change (Table 1; Figure 2). Lastly, there were four overlap themes that combined the

interpersonal aspects of the event with the knowledge aspects. These themes are knowledge

sharing, priority, change in arts focus, and organization-level changes (Table 1; Figure 2). Each

theme will be looked at in detail including examples for each theme, and an analysis of each

theme's significance. Table 1 contains the frequency of each theme in terms of how many

participants mentioned each theme in survey 1, both versions of survey 2, and the interviews.

The final column in Table 1, and the numbers listed in Figure 2, reflects the total number of

surveys and interviews that each theme was mentioned in.

Table 1: This table displays the number of surveys and interviews that mentioned each theme. The first three columns display the number of participants that mentioned each theme for survey 1, both versions of survey 2, and the interviews. The final column is the total number of surveys and interviews that mentioned each theme.

Category	Theme	# of participants that mentioned this theme in post-Banff survey (/18)	# of participants who mentioned this theme in post-Green Rooms surveys (/31)	# of participants who mentioned this theme in the interviews (/6)	total # of interviews and surveys that mentioned this theme (/55)*
Interpersonal	Community	17	27	6	50
	Inspiration and Motivation	8	17	2	27
	Connections	8	5	5	18
	Collaboration	4	4	6	14
	Affirmation	3	10	3	16
Knowledge	Intersectionality	5	15	4	24
	Awareness	10	18	4	32
	Eco Grief	2	4	2	8
	No change	1	11	0	12
Overlap	Priority	4	7	0	11
	Knowledge sharing	13	4	4	21
	Organization-level changes	15	8	2	25
	Change in arts focus	2	4	1	7

* The total number of surveys and interviews (55) does not equal the total number of participants (N=43) due to the fact that some participants answered multiple surveys or interviews. Therefore, there were more surveys and interviews conducted than there were participants.
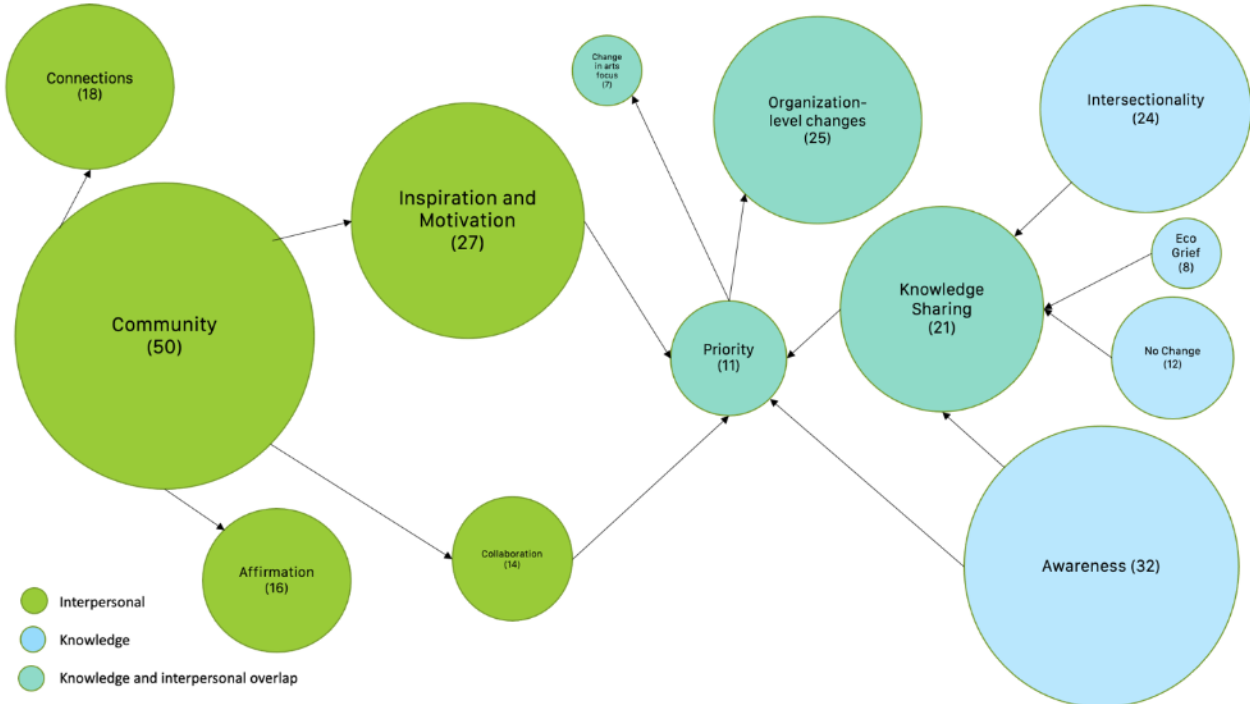
Figure 2: Coding tree displaying the relationships between the emergent themes, and how many surveys and interviews each theme was mentioned in (i.e. the number below theme name in brackets). The colours indicate the theme category that each bubble belongs to, as per the legend.

3.1 Interpersonal Themes

Community

"Community" was the post pervasive theme that emerged in the analysis of the survey and interview data. In the context of this study, when community was mentioned, the participants were referring to feelings of camaraderie, a sense of support and belonging, the benefit of hearing a diversity of voices and backgrounds, and creating shared experiences through the Climate Cycle event.

The data shows that one of the biggest "take-aways" from the events was simply being with the people who were present. These answers often implied a sense of belonging that suggest that the reason the other participants were so influential was because each individual felt like they were part of a larger movement. This was exemplified by Participant 1, who, when

answering what the top 3 impacts the Summit had, answered "Togetherness: Being in the room with so many influential and generous people."

This facet of community is explored further in other nuanced examples of the theme. While togetherness was a main take-away, other participants referenced specific feelings of camaraderie with the other participants. For example, Participant 11 said "The Camaraderie of knowing you are working with a lot of smart people from across the country and around the world to disseminate change" was one of the Summit's greatest strengths.

In addition, by creating shared experiences amongst the participants, they were given common ground to think about these topics, refer back to them, and return to the ideas at a later date together. By creating shared experiences, feelings of community became even more solidified and concrete. For example, Participant 2 stated "We have had a shared experience dealing with live art and climate change from which we can grow together" when responding to the impact that the Green Rooms had on their artistic practice. The data showed that having these shared experiences strengthened the sense of community that was felt by the participants.

The diversity of voices and backgrounds that were found at the Climate Cycle events was another facet of community that emerged in the data analysis. Many participants mentioned how incredible the speakers were, as well as the varying backgrounds of all of the participants. For example, Participant 16 stated that "It was great to hear from so many different sources and perspectives" when asked how the Climate Cycle impacted their understanding of climate change. Despite the fact that this question asked specifically about the impact of the event on their level of knowledge, they still brought their answer back to this idea that their experience was shaped by the diversity of voices present.

The prevalence of this theme is significant in understanding the impact that this event had not just on the participants, but on the future of eco-art and eco-art initiatives. The literature surrounding the Arts and the environment that specifically addresses barriers to meaningful climate action discuss the importance of community and a sense of belonging (Bouman and Steg, 2019; Lacroix and Gifford, 2017). The findings of Bouman and Steg (2019) suggest that individuals do not engage in climate action due to a perceived lack of interest in environmental action in those around them. This suggests that, in order to inspire meaningful action in people, a sense of community must be established. People will find the motivation and inspiration to act if those around them are engaging in these practices as well. In response to this study's research question of how participants' artistic practices were impacted by attending the Climate Cycle, this theme suggests that participants will be more likely to engage in climate-based work because of this newfound or bolstered sense of community.

Inspiration and Motivation

The themes inspiration and motivation that arose are very similar to each other, as they both relate to the impact that the presenters and other attendees had on the participants. Because of their similarities, they emerged as one combined theme in the analysis. In the context of this study, "inspiration" refers to feelings of admiration and/or awe in others, while "motivation" refers to an increased desire to create more eco-art, or to see projects-in-progress to completion. The main difference between these two "sister themes" is that motivation relates to specific actions that the participants discussed undertaking, while inspiration referred more generally to an emotional response to the work of others. Inspiration was referenced by the participants in a variety of ways: feeling inspired by the work that others have undertaken in the eco-art field, feeling inspired to engage in further learning, feeling inspired by the energy of others, and

feeling inspired to centre environmental themes and practices in their own work. Motivation, on

the other hand, referred more specifically to the increase in motivation to see a project to

completion, and being motivated to engage in new specific projects and learning. Inspiration and

motivation was the second most referenced theme.

Many participants referenced feelings of inspiration that came from a number of

sources. The first two were the direct result of those they were surrounded by: feeling inspired by

the energy of others, and by the work that others have undertaken. Participants referenced the

atmosphere of the event that was stimulated by the other participants. Participant 8 describes it

aptly: "The gathering of so many brilliant and engaged creative minds and folks in our industry

with the power to make the incremental changes within their own spheres of influence around

this issue. It was a potent group of people."

Similar to the energy, participants felt inspired by the work that others were producing.

Seeing others engage in this area of work was new to many participants. By being exposed to

others through this community, participants felt inspired to engage with environmental ideas and

practices in their own work. For example Participant 7 stated: "I really learned a lot from the

panelists and was inspired by Julie's Bicycle , to know that it was possible to make change and

tenable too. Before the Green Rooms I didn't see that there were many ways forward. Now I

do."

Feeling inspired to re-consider their artistic practices was similar to another expression of

inspiration in the data, which was feeling inspired to engage in further learning. The best

example from the surveys and interviews is a response from Participant 25: "Being able to hear

candidly from others the struggles they are facing and the creative efforts people are taking to

incorporate Climate and Social injustices into their art. The truth and humanity that presenters

and hosts shared made me feel better that I hadn't answered all of these questions yet for my own practice. This willingness to try and to do better each time has carried into my artistic practice and my work as an educator working with a neighbouring First Nation." This response highlights how this inspiration to engage in more of this work stemmed from the sense of community that they felt during the event. The knowledge that they are not alone in this pursuit and that others were pioneering the way inspired them to seek out more learning.

The last way that inspiration was represented in the data was the feelings of inspiration to centre environmentalism in their work. This was the main source of inspiration for many of the participants; participants described how they were now going to consider the carbon footprint of their practices in the future. For example, when asked what the greatest strength of the Green Rooms was, Participant 32 responded: "Inspiring me to find creative ways to gather and share as well as empowering me to consider a work's eco footprint before creating or choosing to participate."

Motivation, on the other hand, referenced specific actions that the participants were now motivated to undertake. The first example of how this was represented in the data is the motivation to complete a project that they had already thought through. This is best exemplified in Participant 38's interview data, where they stated: "my participation in the Green Rooms events maybe slightly accelerated my motivation to get it out there," with "it" referring to a project that they had had in mind prior to the event. The validation for their work that they received at the Green Rooms resulted in them feeling more motivated to see it to completion. They did not go into any detail about the particulars of their project, but signified that it centred on environmental themes.

In addition to motivating participants to complete their projects, the Climate Cycle also motivated participants to seek out specific new ways of thinking, and of new projects that they could involve themselves in. This is shown through Participant 30 in response to how the Green Rooms impacted their artistic practice: "a desire to use this and other work as a catalyst to r engage in big systems thinking." The key word here is "catalyst," which suggests an increase in motivation to "re-engage" in a specific way of conceptualizing and thinking about these issues.

Both motivation and inspiration are closely tied to community, because they are the result of the people they were surrounded by. Thinking again about the perceived psychological barriers to climate action, having not just a sense of community but feelings of inspiration and motivation are crucial to inspiring any sort of climate action. The community someone is surrounded by must not only be supportive and welcoming; it must instill a sense of inspiration and motivation for them to continue to learn, grow, and connect. Seeing as these events featured a mixture of professionals from different industries and backgrounds, the emergence of these themes also highlights the importance of inter-disciplinary work. In order to work against the gap between industries (Fischer et al., 2007), events that give artists and scientists the opportunity to work and collaborate with one another are crucial. Inspiration and motivation, especially within larger organizations, are the building blocks for meaningful change.

Connections

Connections referred in this study to the relationships and connections that were formed between participants as a result of the Climate Cycle. This is in some ways a precursor to the "collaboration" theme, seeing as these initial connections were necessary for the collaborations to occur. This theme is also very related to community, seeing as the connections that were forged were done so in the context of the community of the Climate Cycle. Participant 10 said

that the Summit "offered introductions to organizations addressing climate change and the people who run them." They valued the people who were present, but in terms of connections, they especially valued the facilitation of introductions, and the chance to interact with these individuals Another example of the value of the connections that were formed is apparent in Participant 17's response that: "Attendance at the Summit introduced [them] to a number of individuals and organizations who have centred their practice and sense of mission on being agents for affecting changes to public policy and industry practices related to climate crisis."

Like in community, the establishment of these relationships is extremely important in creating a sense of security and belonging amongst the individuals who will be able to enact change within this industry. Individuals working in Canadian theatre are more likely to engage in environmental-based work if they feel like others in their field are passionate about and active in the same type of work (Bouman and Steg 2019). By facilitating these connections, the Climate Cycle enabled some of this support.

Collaboration

Collaboration refers to the relationships that participants formed as a result of the Climate Cycle that led to the incubation of ideas and, in some cases, in creating new projects together. The collaboration of ideas was the coming together of various participants to share with one another their ideas for a common goal. This was captured well by Participant 12: "Forming new relationships and solidarity between organizations - both local and national- to tackle climate, and share strategies." Though not a lot of participants mentioned forming relationships with other participants that led to the creation of new, collaborative projects, participant 5 mentioned multiple times a connection that they made: "I met [redacted: name] and after that, I collaborated

with [them], and had I not gotten to know [them] at Banff, I probably wouldn't have had those connections."

The Climate Cycle had the potential to inspire a lot of collaborative projects. The connection that Participant 5 mentioned took place at the Summit, which was a more conducive environment to networking and collaboration because it was in person. The Green Rooms, due to its online restraints, did not have the same level of personal interaction that the Summit did. This may be why so few collaborations came out of the Green Rooms, and is something to keep in mind for practitioners planning similar events in the future.

Affirmation

In this study, affirmation referred to the re-affirming of one's previous beliefs relating to the role that the Arts play in climate action and project ideas that were in the works. Participant 24 said that their "belief that the Arts are an important part of changing culture toward pro-environmental behaviour was totally reinforced by this event." This example shows that Participant 24's previous beliefs about the Arts and climate action were re-affirmed by attending this event. Additionally, Participant 38 discussed a project idea they had been developing before the event that had environmental themes: "I came into the event already clear in believing that organizations have a lot that they can do, and so yeah, I was glad for The Green Room events overall as a way to public present some… material kind of arguing for this that will hopefully help influence and impact folks more widely." The event's impact on participants was to remind them that what they believed before this was in fact true.

This affirming of one's beliefs is significant in progressing artists' involvement in the climate change movement. Artists, scholars, and social innovators are often isolated from one another in their work (Marcuse, 2011). This isolation is the result of a lack of communication

and dialogue, and method of knowledge sharing (Marcuse, 2011). Affirmation as an emergent

theme is significant in understanding how, by having the opportunity to connect with other

artists, scientists, and Arts practitioners, participants' own pre-existing beliefs from when they

were working in isolation could be supported. Events like the Climate Cycle are necessary to

find communal methods for exchanging knowledge and information across disciplines in order to

connect the work of those who have previously worked in isolation.

3.2 **Knowledge Themes**

Intersectionality

Intersectionality in the context of this study refers to the new-found knowledge that

environmentalism and climate action exist within certain social structures, and for this reason,

marginalized groups of people are disproportionately affected by climate change impacts

(Intersectional Environmentalist, n.d). This theme was recorded whenever a participant talked

about their newfound awareness of the intersectional nature of climate action and their gratitude

that it was a central theme in the event. For example, Participant 12 felt that "personally coming

to more fully understanding environmental racism" was one of the Summit's greatest impacts.

Similarly, Participant 6 stated that "Seeing a crack open up around the conversation [on] class,

racism, impacts on the most vulnerable, and Indigenous people" was one the Green Rooms'

greatest impact on their artistic practices. Participant 29 also said that the Green Rooms' "ability

to pivot towards conversations that addressed systemic racism" was the event's overall greatest

strength.

Though this theme was mentioned in both of the surveys and the interviews, it became a

more frequently mentioned theme in the second survey. This might be the case for a number of

reasons. It is known through personal correspondence with the organizers that, as a result of the

recent surge in the Black Lives Matter movement in 2020, social issues and their connection to environmentalism and climate change became a more prominent focus at the Green Rooms than at the Summit. This is likely the reason there was an increased number of participants referring to intersectionality, with some participants even stating that the only events they attended were exclusively about the Black Lives Matter movement with seemingly no connection to the environment and climate change: "the session I attended really ended up being about anti-racism and anti-oppression, as it was on the heels of the murder of George Floyd" Participant 33 stated. This exemplifies how, in light of the political and social events at the time of the Green Rooms, the focus shifted from what it originally was during the Summit. That being said, it is also possible that the attendees of the Green Rooms were more impacted by this for a number of other reasons including their own backgrounds and events that were happening in their personal lives.

The importance of addressing the social inequities that are amplified by the impacts of climate change in eco-art are necessary for a number of reasons. Eco-art, as defined by Blandy et al. (1998), is inherently reflective of the social and political aspects of environmental degradation as it is about the science behind climate change. Therefore, including the social dimensions of climate change and how different communities are impacted is a necessity. There have been examples of artists exploring these themes in their art, including Chantal Bilodeau who, through her play "Sila" explores how northern communities are currently being impacted by climate change (Bilodeau, 2015). Eco-art is meant to have an impact on the ways in which audiences perceive environmental issues, so it should reflect a wholistic and inclusive portrait of what these issues really look like. In addition, the number of participants who went into the Climate Cycle with little knowledge and awareness about these issues suggests that these themes and topics should be incorporated into similar future events.

Awareness

In the context of this study, the theme "awareness" refers to a number of different realizations that highlighted the learning that participants discussed. A lot of the time, this newfound awareness involved a period of reflection into ideas they were already familiar with, or into their own pasts. The following three representations of awareness emerged: general awareness of climate change and environmental degradation, the impact that their past work and operations had on the environment, and the science behind climate change.

Participant 7 answered "I have learned more in the past two years than I knew in a lifetime of hearing about environmental action beforehand" in response to how the Summit had impacted their level of knowledge on climate change. This reflects how the Climate Cycle provided a space for learning and reflecting on past knowledge. Answering the same question, Participant 10 responded: "It provided some specific scientific context to expand my general knowledge of how global climate change is proceeding," showing how the event provided space for reflection, learning, and growth. In a similar vein, other participants found that they were able to reflect on the environmental impact of their past work and practices. Participant 3 said that "The summit has strongly influenced [their] future program direction with regard to performing arts, including program focus (artistic practices, climate and sustainability aesthetics, leadership, discussion, partnership across industries) and design (in consideration of carbon footprint and accessibility)" in response to how the Climate Cycle impacted their arts organizations.

In order to create eco-art, artists must be able to connect with the material. Participant 2 pointed out in their interview that, in order to learn about the science behind climate change and climate change impacts, artists need the facts: "What was great [was] to have actual scientists and activists and policy type people there talking about the reality of the situation as opposed to

EXAMINING THE IMPACT OF THE NATIONAL ARTS CENTRE'S CLIMATE CYCLE INTIATIVE ON THE
ENVIRONMENTAL KNOWLEDGE, ATTITUDES, AND PROFESSIONAL PRACTICES OF CANADIAN
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artists sort of adopting… the facts and maybe turning them into things that aren't quite as useful as just stating the facts." By having an event where the voices of both artists and scientists were heard by both scientists and artists, the participants were given an opportunity to learn about and explore these topics, leading to an increase in awareness. This impact is significant in moving forward with more eco-art, for if artists who are interested in engaging in this kind of work do not have access to the facts, it will be almost impossible to create effective eco-art. This again highlights the importance in cross-disciplinary work and interactions, as supported by Fischer et al (2007) and Frayling (1993-4).

Eco grief

Though not the most prominent theme in terms of the number of participants who referenced it, "eco grief" was a main take away in 7 of the surveys and interviews. Eco grief was recorded when participants explicitly referenced "eco grief," "environmental melancholia," or "climate grief." Eco grief was one of the themes that was covered at the Climate Cycle as a way to find the strength necessary to emotionally face climate change. Participant 23 defined it succinctly: "I learned about solastalgia and environmental melancholia - and the co-relation between these emotional states/traumas and a sense/recognition of hopelessness that can easily diminish one's ability to take action. That hope is not an action. That it still may be possible to create a situation NOW that will allow for hope in the FUTURE for future generations."

The responses that referenced eco grief listed it as a major take-away because they had not heard of it before, or because they were grateful that it was now a concept they had at their disposal as they embarked in future works. As an example of the newfound knowledge on eco grief, Participant 31 said: "I was really interested to hear about Climate Grief as a spur to action." In terms of gratitude, Participant 5 in their interview stated: "the actual themes were

great because they had an eco grief person there, they had a really good climate scientist, they

had young people…" making it clear that they were grateful to have that voice present.

Like intersectionality, this theme highlights an important area of potential future research

or programming for arts organizations like the NAC. Though this was not as prevalent a theme

as others, this overlapping area of eco grief, eco-art, and environmentalism is worth exploring in

further detail. Recent research points towards eco grief as a way to minimize the distance

between human beings and the natural world as a way to engage in healing (Malcolm, 2020).

Other research asks questions about how eco grief will be confronted in the coming years as

people struggle with the burden of knowing the earth is in decline (Verlie et al., 2020). This is a

fairly new area of research and could prove to be relevant in future eco-art and eco-art initiatives.

No Change

Unlike every other theme that emerged in this study, this theme indicates a lack of

impact. No change referred to either their knowledge on climate change, or the importance that

climate change plays in their artistic practices. For example, all six of the participants who

answered survey 2 version B indicated there was no change in their personal artistic practices or

the operations of their organizations as the result of attending the Green Rooms. For example,

Participant 6 answered "For me, they were an extension of the conversations we were having in

Banff."

In addition to the responses from survey 2 version B, 6 of the participants from survey 2

version A also indicated there was no change in their knowledge on climate change or the

importance that climate change plays in their artistic practices. For example Participant 31 stated

simply that the Green Rooms "didn't change it," referring to the importance of climate change in

their artistic practices.

The no change responses that emerged from survey 2 version B can likely be explained by the fact that all 5 of the participants attended both the Summit and the Green Rooms, where they would have covered similar topics in both events. Therefore, when asked how the Green Rooms impacted their climate change knowledge and artistic practices, it would follow that their responses should reflect that they were more impacted by attending the Summit. However, Participant 31 and four other participants who only attended the Green Rooms found that there was no resulting impact on their position on climate change with respect to their artistic practices. This could be due to a number of reasons, especially considering that none of these participants provided any insight into why it was that they were not affected. This highlights another potential area of research into the types of topics and events that organizations like the NAC should cover at similar future events to ensure that all attendees come away feeling like they have been positively impacted.

3.3 Overlap Themes

Priority

This theme in the context of the study referred to an increase in priority that climate change and environmental themes play in an artist's individual artistic practice, or within their organizations. Participant 9 described how the Summit affected the level of priority that is given to environmental themes in their work in their response: "Since the conference we have discussed our role in climate change issues. This has been on an operational, creative and future planning level. We are focused on staying current, showing leadership and making decisions that take into consideration the climate."

Though this is one of the less frequently mentioned themes in this study, it is useful to gain a baseline understanding of how many participants came away from the Climate Cycle with

this impact. If similar events are run in the future, the number of participants who prioritize the environment in their work as a result of the event can be compared to the Climate Cycle to see if it was more effective or less effective at making the environment a bigger priority.

Knowledge Sharing

This theme referred to when participants shared the information that they learned at the Climate Cycle. This included sharing information through word of mouth to other groups of artists, starting conversations within their organizations, as well as in written form such as in a report.

The different forms of sharing what was learned at the Climate Cycle can be seen in the following examples. Participant 23 in their interview discussed how they were "just talking about the climate change cycle with students at [the school they teach at], second year [theatre] students… it was wonderful to be able to talk to these young people… and to have them thinking about the environment in their own practices." This exemplifies how the information that was learned at the Climate Cycle was passed directly on to a group of young theatre students. Participant 5 talked in their interview about a report they wrote that detailed what they learned at the Climate Cycle: "I wrote a [25 page] report for the [organization I work for] based on everything I had learned, and that circulated to our management team and to some of our staff." Lastly, Participant 16 mentioned that one of the impacts that the Summit had on their organization's operations were the new "internal conversations" that were the result of the Climate Cycle. These three examples highlight the three ways in which participants shared the information they had learned to their own communities and organizations.

Knowledge sharing is a theme that provides specific impacts that the Climate Cycle had on participants. Following the Climate Cycle events, the participants undertook specific actions

to share this information with their communities. This theme highlights a very important impact, because it proves that the Climate Cycle facilitated the spread of information beyond the scope of the event. It shows that, if the event is effective at leading its participants through topics and discussions, they will leave with the knowledge base and interest to continue to share what they learned. The importance of engaging people in topics surrounding sustainability has been studied and identified as one of the most important aspects of cultural change (Ornetzeder and Rohracher, 2005). The emergence of this theme suggests that the Climate Cycle events played a role in inspiring discussions around the Arts and sustainability among the participants and their own respective communities. Since communication on these topics is important in stimulating cultural change in sustainability, more events like the Climate Cycle are important in continuing to promote conversations and knowledge sharing among artists and Arts practitioners.

Organization-level changes

Organization-level changes referred to non-arts related changes to either an artist's practice or an organization's practices. This term included changes in programming to include more eco-art and eco-artists, creating environmental task forces within organizations, re-considering the carbon footprint of touring and set design and alternatives to traditional methods ("internal operations"), and including environmental goals in their next strategic plans.

The change in programming for an arts organization means that the organization now seeks out more eco-artists who can engage with this type of work. This can be seen in Participant 10's response: "The summit encouraged me to read more widely not only about these topics, but also about how artists and arts orgs are addressing them...which led to us commissioning 5 short works for 2021." Participant 10 immediately implemented programming-based changes within their organization as a result of the Climate Cycle. Participants also mentioned the formation of

environmental task forces, as well as incorporating the environment into their next strategic plan:

"We started an environmental task force and started to weave environmental considerations into

the creation of our new strat plan" (Participant 11). Lastly, the majority of organization-level

changes that participants reported on were changes to internal operations, which Participant 15

captured in their response: "we now budget for carbon offset, we were considering a ban on air

travel for 500KM outside of Toronto, we are more conscious with regards to reusing materials

for sets, the office culture promotes composting, recycling and moving away from plastic."

The change in organization-level practices is significant in understanding how the

participants took what they learned and applied it to their own behaviours and practices. This

theme has the capacity to lead to further and more in-depth research. For example, despite many

references to the presentations of guests who discussed the carbon footprint of theatre

companies, some participants still left feeling unsure about what they could do to contribute to

climate action within their own internal practices. For example, Participant 7 in their interview

stated that they "would have loved to actually spend a little bit of time on practical green

solutions… it would have been great to go away with a toolkit of things that we could

implement." These responses suggest that participants would greatly appreciate and benefit from

more conversations on the practical actions they could undertake in their operations in order to

reduce their carbon footprints. This is an area of research that could be further explored in order

to help theatre artists "green" their practices, as well as non-theatre artists.

Change in Arts practice

Like change in organization's practice, change in Arts practice referred to a shift in how

the participant now approaches their artistic practices as a result of the Climate Cycle. The

difference between change in organization-level practices and change in Arts practice is that the

Arts practice looks more specifically at new eco-art projects. Examples of this theme ranged from specific plans for projects, to promising to start including environmental topics in their body of work. Participant 29 responded that "Kendra's talk about the role of artists inspired me to think more about how I could prioritize climate change in my work." This is an example of a participant considering centring environmental themes into their own artistic practices. Other participants referenced real projects that are now underway that were inspired by the Climate Cycle. Participant 7 mentioned in their interview that they plan "to do an entire symposium around climate change," and Participant 23 talked about how "the content and focus of inquiry has shifted in a few specific projects I have been working on - nature and the environment have become an intrinsic interrogation for each of them." Though Participant 23 did not go into detail about these projects, they made it clear that these projects are now underway.

During the planning stages of this study, this theme was projected to be more frequent in the data. The reason it was referenced far less than other themes, especially organization-level changes, may be due to the specific content of the presentations at the Climate Cycle. For example, an organization called "Julie's Bicycle" presented at the Summit that many participants mentioned being memorable in Survey 1. The presenter from Julie's Bicycle talked about ways in which theatre companies could reduce their carbon footprints by reducing touring, reconsidering set design, etc. This presentation likely left a large impact on the participants, hence why so many of them came out of the event wanting to implement policy changes to "green" (i.e. make more environmentally friendly) their operations. Another reason this theme may not have been as frequent as expected is that some artists do not see as much value in the creation of eco-art or have not figured out a way to effectively incorporate environmental themes into their work. Participant 2 in their interview talked about some barriers to the creation of eco-

art, discussing how non-theatre-goers do not desire to go to the theatre to be "talked down to and

preached at by issue-based plays." They discussed alternative ways of engaging audiences

outside of a theatre setting because then no one is "making people pay to come and listen to you

lecture at them." This process of figuring out more effective ways to connect with audiences on

these themes is one potential reason that not many participants were impacted in a way that

inspired them create eco-art following the Climate Cycle. This is another area for potential

further research: what are the most effective ways to engage non-theatre-going audiences in

climate-based plays?

4. Conclusion

4.1 Overview of findings

This study aimed to answer the research question: "To what extent did participation in the

NAC Climate Cycle events impact artists' behaviour and professional practices?" In order to

assess these impacts, the participants were surveyed and interviewed about their experiences and

how their own individual artistic practices were impacted. The surveys and interviews collected

data from 43 participants who attended either or both of the Climate Cycle events (i.e. the

Summit and the Green Rooms). The responses from the surveys and interviews revealed 13

themes. The top 6 most prevalent themes were: community, awareness, inspiration and

motivation, intersectionality, organization-level changes, and knowledge sharing. All six of these

themes highlight the ways in which participants were most impacted by these events. The themes

community and inspiration showed how participants were positively impacted by the people they

found themselves surrounded by; community looking more-so at the sense of belonging and

support they felt, while inspiration and motivation dealt more with feelings of awe and

encouragement to engage in more environmental-based work after seeing the work that others in the community were undertaking. Awareness and intersectionality showed the participants' main take-aways from the Climate Cycle and how their learning was impacted by attending. This newfound or bolstered sense of community combined with their newfound knowledge encouraged participants to take this information back to their own organizations and communities to enact change, as shown in the themes knowledge sharing and organization-level change. Instilling a sense of community within this sub-sect of the Canadian theatre scene will help foster the energy required to shift the thinking in the larger industry in order to overcome the barriers to climate action as identified by Bouman and Steg (2019) and Lacroix and Gifford (2017).

4.2 Implications and Recommendations

This study will contribute to the growing body of literature on the impact of the Arts on pro-environmental behaviours and climate action by understanding how an event like the Climate Cycle can impact artists and arts practitioners, as well as future researchers in this field. The impacts that these events had on participants are significant in understanding how they did or did not incite pro-environmental behaviour, and what this means for future climate-based events targeted towards artists.

For researchers

There were multiple ideas that emerged from this study that will help inform future researchers in this field. Throughout the study, some unexpected themes arose that would be helpful to address in future research including:

- The role that eco-grief can play in climate action with theatre artists;
- How to diversify eco-art audiences and increase the impact of eco art; and

- Examining and determining the best practices for theatre artists and organizations to more effectively "green" their practices.

Even though none of these ideas assisted in answering the research question, they came up frequently in the results, suggesting that these areas of research would be worthwhile areas for further research. Participants expressed interest in these topics, suggesting that research into these ideas would be beneficial for themselves, as well as other Canadian theatre artists and Arts organizations.

For arts organizations and practitioners

This study can also benefit Arts organizations that wish to run and plan similar events to the Climate Cycle in the future. Many of the participants in their responses indicated what they liked about the event, as well as what they wished was included in the programming. The most common topics that the participants desired were:

- Further learning on the intersectionality of environmentalism;

- Eco grief; and

- The carbon footprint of theatre practices.

Overall, this study suggests that engaging in an event like the Climate Cycle is necessary in order to provide artists with the opportunity to explore these topics and conversations with other artists, scientists, and members of their communities. As seen throughout this study, the biggest takeaway for participants was the sense of community that was established, which calls on organizations to continue to facilitate these interactions and exchanges through further events. In terms of impacting the artists' behaviours and practices, some participants did come away from the Climate Cycle with new initiatives and project ideas; however, this impact was not nearly as universal as the feeling of community that was established. If Arts organizations and

practitioners are hoping to have more post-event deliverables (i.e. new eco-art projects), then an alternative method should be employed to engage the participants where new projects and project ideas are the main focus.

For artists

This study will serve as a mechanism to begin a larger dialogue amongst artists about incorporating environmental themes into their work, as well as sustainability policies into their practices. Based on the responses from the Climate Cycle participants, this event provided an opportunity to take a step back from their practices in order to re-evaluate and re-frame the impact and focus of their work. Moving forward, artists will take the following recommendations away from this study:

- Continue to attend learning events on topics concerning the Arts and climate change;

- Reach out to other artists who are engaging in environmental work in the Arts; and

- Reflect on the impact that their own practices have on the environment.

These recommendations are based on the results of the study, and overall encourage further conversations and collaboration between artists and scientists in order to solve the complex problem of climate change.

Works Cited

Allen, M.R., O.P. Dube, Solecki, W., Aragón-Durand, F., Cramer, W., Humphreys, S., Kainuma, M.,

Kala, J., Mahowald, N., Mulugetta, Y., Perez, R., Wairiu, M., & Zickfeld, K. (2018). Framing

and Context. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global

warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission

pathways, in the context of strengthening the global response to the threat of climate change,

sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., Zhai, P.,

Pörtner, H. O., Roberts, D., Skea, J., Shukla, P. R., Pirani, A., Moufouma-Okia, W., Péan, C.,

Pidcock, R., Connors, S., Matthews, J. B. R., Chen, Y., Zhou, X., Gomis, X. I., Lonnoy, E.,

Maycock, T., Tignor, M., and Waterfield, T. (eds.)]. In Press.

Artists and Climate Change (n.d). Building earth Connections (Blog).

https://artistsandclimatechange.com/

Banned & Challenged Books (n.d). Banned & Challenged Classics.

http://www.ala.org/advocacy/bbooks/frequentlychallengedbooks/classics

Bilodeau, C. (2015). *Sila*. Talonbooks.

Bilodeau, C. (2020). HIT ME WHERE IT HURTS: The Intersection of Theater and Climate Change.

In C. Henseler (Ed.), *Extraordinary Partnerships: How the Arts and Humanities are

Transforming America*, 216-232.

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member Checking: A Tool to

Enhance Trustworthiness or Merely a Nod to Validation? *Qualitative Health Research*,

26(13), 1802–1811. https://doi.org/10.1177/1049732316654870

Blandy, D., Congdon, KG., & Krug, DH. (1998). Art, Ecological Restoration, and Art Education.

Studies in Art Education, 39(3), 230-243.

Boggs, GL., Wilson, NS., Ackland, RT., Danna, S., & Grant, KB. (2016). BEYOND THE LORAX:

　　　Examining Children's Books on Climate Change. *The Reading Teacher*, 69(6), 665-675.

Bouman, T., & Steg, L. (2019). Motivating Society-wide Pro-environmental Change. *One Earth*, 1(1),

　　　27–30. https://doi.org/10.1016/j.oneear.2019.08.002

Bush, E., Gillett, N., Bonsal, B., Cohen, S., Derksen, C., Flato, G., Greenan, B., Shepherd, M., &

　　　Zhang, X. (2019). Executive Summary of Canada's Changing Climate Report. Natural

　　　Resources Canada.

Carson, R. (1962). *Silent Spring*. Houghton Mifflin.

Chaz, E. H. (n.d.). *Art and Politics in Environmental Conflicts in Argentina*.

Climate Change Theatre Action (CCTA). (2019). *CCTA*. Climate Change Theatre Action,

　　　http://www.climatechangetheatreaction.com/ccta-2019/

Cope, M. (2010). Part III: 'Interpreting and Communicating' Qualitative Research. In 3rd Ed. *Coding*

　　　Qualitative Data, 281-294.

D'Art (2014.). The Arts and environmental sustainability: an international overview. D'Art Report

　　　34b.

Dollar (2012). Mapping the Deadhead social science trip. *Oregon State University-Cascadesa*.

Ernie, C., & Melster, A.-M. (2016). Art as Language of Transformation. *CSPA Quarterly*, No. 13, On

　　　Social Equity.

Fën. (2020). Ecological Arts Collective. https://www.fen.earth/

Fischer, J., Manning, A. D., Steffen, W., Rose, D. B., Daniell, K., Felton, A., Garnett, S., Gilna, B.,

　　　Heinsohn, R., Lindenmayer, D. B., MacDonald, B., Mills, F., Newell, B., Reid, J., Robin, L.,

　　　Sherren, K., & Wade, A. (2007). Mind the sustainability gap. *Trends in Ecology & Evolution*,

　　　22(12), 621–624. https://doi.org/10.1016/j.tree.2007.08.016

Frayling, C. (1993-4). Research in Art and Design. *Royal College of Art Research Papers*, 1(1), 1-5.

Galafassi, D., Kagan, S., Milkoreit, M., Heras, M., Bilodeau, C., Bourke, S. J., Merrie, A., Guerrero,

L., Pétursdóttir, G., & Tàbara, J. D. (2018). 'Raising the temperature': The arts on a warming

planet. *Current Opinion in Environmental Sustainability*, 31, 71–79.

https://doi.org/10.1016/j.cosust.2017.12.010

Gifford, R. (2011). Psychological Barriers That Limit Climate Change Mitigation and Adaptation.

American Psychologist, 66(4), 290-302.

Graham, M. A. (2007). Art, Ecology and Art Education: Locating Art Education in a Critical Place-

Based Pedagogy. *Studies in Art Education*, 48(4), 375-391.

Griswold, E. (2012). How 'Silent Spring' Ignited the Environmental Movement. *The New York Times*

Magazine.

Hawken, P. (2017). *Drawdown: The most comprehensive plan ever proposed to reverse global*

warming. New York, New York: Penguin Books.

Hutton, E. (2012). Being in the land: a sculptural investigation of ecology. [Doctoral dissertation,

National University of Galway, Ireland; The Burren College of Art.]

http://hdl.handle.net/103795128

Illeris, H. (2017). Subjectivation, togetherness, environment. Potentials of participatory art for Art

Education for Sustainable Development (AESD). *Information - Nordic Journal of Art and*

Research, 6(1). https://doi.org/10.7577/information.v6i1.2166

Intersectional Environmentalist. n.d. Discover Topics.

https://www.intersectionalenvironmentalist.com/topics

Kerr, D. S. (2018.). CLIMATE, CULTURE AND MUSIC: COPING IN THE ANTHROPOCENE.

University of Tasmania Law Review, 37(3), 1-19.

Kerr, S., & Parker, C. (2019). Making Climate Real: Climate Consciousness, Culture and Music.

King's Law Journal, 30(2), 185–193. https://doi.org/10.1080/09615768.2019.1645428

Lacroix, K., & Gifford, R. (2018). Psychological Barriers to Energy Conservation Behavior: The Role

of Worldviews and Climate Change Risk Perception. *Environment and Behavior*, 50(7), 749-

780.

Lam, S., Ngcobo, G., Persekian, J., Thompson, N., Witzke, A. S., & Tate, L. (2013). Art, Ecology and

Institutions: A Conversation with Artists and Curators. *Third Text*, 27(1), 141–150.

https://doi.org/10.1080/09528822.2013.753196

Lowell, C. (2008). Beyond "The Lorax?" the Greening of the American Curriculum. *The Phi Delta

Kappan*, 90(3), 218-222.

Malcolm, H. (2020). Grieving the Earth as Prayer. *The Ecumenical Review*, 72(4), 581-595.

https://doi-org.ezproxy.library.dal.ca/10.1111/erev.12548.

Marcuse, J. (2011). Arts for Social Change. *Creative Arts in Research for Community and Cultural

Change.* Cheryl McLean and Rober Kelly (eds.), Detselig Temron Press, Alberta Canada.

Marshall, IS. (1996). The Lorax and the Ecopolice. *Interdisciplinary Studies in Literature and

Environment*, 2(2), 85-92.

Meledandri, C. & Healy, J (Producers), & Renaud, C. (Director). (2012). *The Lorax* [Film].

Illumination, Universal Pictures, Dentsu Inc.

Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3:

Sampling, data collection and analysis. *The European journal of general practice*, 24(1),

9–18. https://doi.org/10.1080/13814788.2017.1375091

National Aeronautics and Space Administration [NASA]. (2020). Global Climate Change: Vital Signs

of the Planet. https://climate.nasa.gov/

Ornetzeder, M. and Rohracher, H. (2005). Social learning, innovation and sustainable technology.

Handbook of Sustainability Research, Filho, W.L. (Ed.), Peter Lang, Frankfurt, 147-76.

Parry, F. (2008). Art and Ecology: Art can be Green. *The Art Book*, 15(3), 71–71.

https://doi.org/10.1111/j.1467-8357.2008.00980.x

Payls, P. & Atchison, C. (2014). *Research Decisions: Quantitative, Qualitative, and Mixed Methods*

Approaches. 5th ed., Nelson.

Pooley, J. A., & O'Connor, M. (2000). Environmental Education and Attitudes: Emotions and Beliefs

are What is Needed. *Environment and Behavior*, 32(5), 711–723.

https://doi.org/10.1177/0013916500325007

Publicover, J. L., Wright, T. S., Baur, S., & Duinker, P. N. (2019). Engaging with Environmental

Issues as a Musician: Career Perspectives from the Musicians of the Playlist for the Planet.

Popular Music and Society, 42(2), 167–187. https://doi.org/10.1080/03007766.2018.1426367

Saldana, J. (2008). One. An Introduction to Codes and Coding. In 3rd Ed, *The Coding Manual for*

Qualitative Researchers, 1-31.

Seuss, D. (1971). *The Lorax*. Penguin Random House.

Shrivastava, P., Ivanaj, V., & Ivanaj, S. (2012). Sustainable development and the arts. *International*

Journal of Technology Management, 60(1/2), 23. https://doi.org/10.1504/IJTM.2012.049104

Statistics Canada. (2016). *Ethnic Origin Reference Guide, Census of Population, 2016*. Statistics

Canada, https://www12.statcan.gc.ca/census-recensement/2016/ref/guides/008/98-500-

x2016008-eng.cfm

Tsehtik, M. (n.d). Examining Pedagogical Approaches In Eco-Art Education. [Reflection Paper for

ENVI 5048]. Dalhousie University.

Verlie, B., Clark, E., Jarrett, T., Supriyono, E. (2020). Educator's experiences and strategies for

responding to ecological distress. *Australian Journal of Environmental Education*. DOI:

10.1017/aee.2020.34.

Wali, A., Severson, R., & Longoni, M. (2002). FINDING COHESION, CAPACITY AND OTHER

CULTURAL BENEFITS IN UNEXPECTED PLACES. *The Chicago Center for Arts Policy at

Columbia College*.

Wallen, R. (2003). Of Story and Place: Communicating Ecological Principles through Art. *Leonardo*,

36(3), 179–185. https://doi.org/10.1162/002409403321921370

Wright, T., & Liang, Y. (2019). Examining the Scholarly Literature: A Bibliometric Study of Journal

Articles Related to Sustainability and the Arts. *Sustainability*, 11(3780), 1-10.

https://doi.org/10.3390/su11143780

Wynes, S., & Nicholas, K. A. (2017). The climate mitigation gap: Education and government

recommendations miss the most effective individual actions. *Environmental Research Letters*,

12(7), 074024. https://doi.org/10.1088/1748-9326/aa7541

Appendix 1
Survey and Interview Questions

Survey 1

1. Name
2. Organization that you represented at the Summit in Banff, and will be representing at the Green Rooms (2020):
3. Looking back to just BEFORE the Summit in Banff in 2019, part of the two year NAC English Theatre's Climate Cycle: The Earth is Watching... Let's Act, which of the following statements best represented your knowledge regarding climate change issues then:
    a. I had a full understanding of climate change issues
    b. I had a fairly good understanding of climate change issues I had some knowledge of climate change issues
    c. I had some knowledge of climate change issues
    d. I had little to no knowledge of climate change issues
4. Today, in May 2020, which of the following statements best represents your CURRENT knowledge regarding climate change issues:
    a. I have a full understanding of climate change issues
    b. I have a fairly good understanding of climate change issues
    c. I have some knowledge of climate change issues
    d. I have little to no knowledge of climate change issues
5. To what degree, and in what ways, did your participation in the Summit of 2019 impact your current knowledge of climate change issues? Please answer in your own words (please try to limit your response to 100 words if possible):
6. Looking back to just before the Summit in Banff in 2019, which of the following statements best represented your organization's position on climate change:
    a. My organization viewed climate change as a top priority to consider in all of our undertakings
    b. My organization viewed climate change as one of our major priorities to consider in our work
    c. My organization viewed climate change as somewhat important to consider in our work
    d. My organization did not consider climate change in all of our work
7. Which of the following statements best represents your organizations current position on climate change:
    a. My organization views climate change as a top priority to consider in all of our undertakings
    b. My organization views climate change as one of our major priorities to consider in our work
    c. My organization views climate change as somewhat important to consider in our work
    d. My organization does not consider climate change in all of our work

8. To what degree, and in what ways, did your participation in the Summit in Banff in 2019 impact your organization's current position on climate change? Please answer in your own words (please limit your response to 100 words if possible):

9. Fill in the following table:

Statement	Strongly Agree	Agree	Somewhat Disagree	Disagree
a. My participation in the Climate Cycle Summit changed the way I think about the Arts sector and the role of theatre in the face of climate change.				
b. My participation in the Climate Cycle Summit empowered me to tackle climate change issues within my organization				
c. I feel more hopeful about the future as a result of my participation in The Summit.				
d. As a result of my participation in the Summit, my organization now considers the ecological footprint that Canadian theatre leaves (i.e. touring, set and costume design, construction, etc.) more than we did in the past.				
e. As a result of my participation in the Summit, my organization considers issues related to Canadian indigenous people in our practices, policies, engagement and/or artistic practices, more than we did in the past.				
f. As a result of my participation in the Summit, my organization considers environmental racism in our practices, policies, engagement and/or artistic practices, more than we did in the past.				
g. As a result of my participation in the Summit, my organization considers the role of youth in our practices, policies,				

enagement and/or artistic practices, more than we did in the past.				
h. As a result of my participation in the Summit, my organization considers accessibility in our practices, policies, engagement and/or artistic practices, more than we did in the past.				
i. As a result of my participation in the Summit my organization considers the environment in our internal physical operations (i.e. compositing programs, recycling programs, incentives for sustainable commuting) more than we did in the past.				

10. With respect to question 9(i) above, if your organization considers the environment in its internal operations more than it did in the past, please describe those considerations here (i.e. started a compost program, incentives for sustainable commuting, etc.).

11. For the next three questions, please rank and explain the top 3 impacts the Summit has had on your work within your Arts organization (practices, policies, engagement, artistic practices, etc.). For each impact, please explain in your own words what this has meant within your organization (please try to limit each response to 100 words if possible).
    a. #1 Greatest Impact (explain in your own words):
    b. #2 Greatest Impact (explain in your own words):
    c. #3 Greatest Impact (explain in your own words):

12. In your opinion, what were the greatest strengths of the Summit? Please answer in your own words (please try to limit your response to 100 words if possible):

Survey 2 Version A

1. Name
2. Age Range
    a. <21
    b. 21-25
    c. 26-30
    d. 31-35
    e. 36-40
    f. 41-45
    g. 46-50
    h. 51-55
    i. 56-60
    j. 61-65
    k. 66-70

   l. 71+

*The following demographic questions and their categories are based on the most up-to-date Statistics Canada information. This information has been included to gain a better understanding of who participated in The Cycle.

3. Ethnic Origin (select all that apply)
 a. North American Indigenous origins
 b. Other North American origins
 c. European origins
 d. Caribbean origins
 e. Latin, Central, and South American origins
 f. African origins
 g. Asian origins
 h. Oceania origins
 i. Prefer not to say
4. Gender identity
 a. Female gender
 b. Male gender
 c. Gender diverse
 d. Prefer not to say
5. What were the reasons for your attendance at The Green Rooms? (Select all that apply)
 a. I was paid to attend
 b. My organization wanted me to attend
 c. I was interested in the subject matter
 d. N/A
 e. Other:
6. Looking back at just BEFORE The Green Rooms event in July 2020, which of the following statements best represented your knowledge regarding climate change issues then?
 a. I had a full understanding of climate change issues
 b. I had a fairly good understanding of climate change issues
 c. I had some knowledge of climate change issues
 d. I had little to no knowledge of climate change issues
7. Today, in the fall of 2020, which of the following statements best represents your CURRENT knowledge regarding climate change issues?
 a. I have a full understanding of climate change issues
 b. I have a fairly good understanding of climate change issues
 c. I have some knowledge of climate change issues
 d. I have little to no knowledge of climate change issues
8. To what degree, and in what ways, did your participation in The Green Rooms impact your current knowledge of climate change issues? Please answer in your own words (please limit your response to 100 words if possible):
9. Looking back to just before The Green Rooms, which of the following statements best represented the importance of climate change in your artistic practices?
 a. I viewed climate change as a top priority to consider in all of my work
 b. I viewed climate change as one of the major priorities to consider in my work

      c. I viewed climate change as somewhat important in my work

      d. I did not consider climate change in any of my work

10. Today, which of the following best represents the importance of climate change in your artistic practices?

      a. I view climate change as a top priority to consider in all of my

      b. I view climate change as one of the major priorities to consider in my work

      c. I view climate change as somewhat important in my work

      d. I do not consider climate change in any of my work

11. To what degree, and in what ways, did your participation in The Green Rooms impact your current position on climate change with respect to your own artistic practices? Please answer in your own words (please limit your response to 100 words if possible):

12. Please fill in the following table:

Statement	Strongly Agree	Agree	Somewhat Disagree	Disagree
a. My participation in The Green Rooms has changed the way I think about the Arts sector and the role of theatre in the face of climate change.				
b. My participation in The Green Rooms has empowered me to tackle climate change issues within my artistic practice..				
c. I felt more hopeful about the future as a result of my participation in The Green Rooms				
d. As a result of my participation in The Green Rooms, I now consider the ecological footprint that Canadian theatre leaves (i.e. touring, set and costume design, construction, etc.) more than we did in the past.				
e. As a result of my participation in The Green Rooms, I consider issues related to Canadian Indigenous people in my artistic practice, policies, and engagement, more than I did in the past.				
f. As a result of my participation in The Green Rooms I now consider environmental racism in my artistic practice, policies,				

and engagement more than I did in the past.				
g. As a result of my participation in The Green Rooms, I consider the role of youth in my artistic practice, policies, and engagement more than I did in the past.				
h. As a result of my participation in The Green Rooms, I consider accessibility in my artistic practice, policies, and engagement more than I did in the past.				
i. As a result of my participation in The Green Rooms I consider the environment in the administrative aspects of my practice (i.e. travel, materials, etc.) more than I did in the past.				

13. For the next three questions, please rank and explain in your own words, the top 3 impacts The Green Rooms has had on your artistic practice (please try to limit each response to 100 words if possible):
    a. #1 Greatest Impact (explain in your own words):
    b. #2 Greatest Impact (explain in your own words):
    c. #3 Greatest Impact (explain in your own words):
14. In your opinion, what were the greatest strengths of The Green Rooms event? Please answer in your own words (please try to limit your response to 100 words if possible):

Survey 2 Version B

1. Name
2. Age Range
    a. <21
    b. 21-25
    c. 26-30
    d. 31-35
    e. 36-40
    f. 41-45
    g. 46-50
    h. 51-55
    i. 56-60
    j. 61-65
    k. 66-70
    l. 71+

*The following demographic questions and their categories are based on the most up-to-date Statistics Canada information. This information has been included to gain a better understanding of who participated in The Cycle.

3. Ethnic Origin (select all that apply)
    a. North American Indigenous origins
    b. Other North American origins
    c. European origins
    d. Caribbean origins
    e. Latin, Central, and South American origins
    f. African origins
    g. Asian origins
    h. Oceania origins
    i. Prefer not to say
4. Gender identity
    a. Female gender
    b. Male gender
    c. Gender diverse
    d. Prefer not to say
5. While we are focusing on the Green Rooms Event in this survey, we would first like to understand the reasons for your attendance at the Climate Cycle's Summit in Banff event in 2019 (select all that apply):
    a. I was paid to attend
    b. My organization wanted me to attend
    c. I was interested in the subject matter
    d. N/A
    e. Other:
6. Did you attend the Climate Cycle's "The Green Rooms" event in June 2020?
    a. Yes
    b. No
7. If you attended The Green Rooms, what were the reasons for your attendance? (select all that apply):
    a. I was paid to attend
    b. My organization wanted me to attend
    c. I was interested in the subject matter
    d. N/A
    e. Other:
8. If you didn't attend The Green Rooms, what were the reasons? (select all that apply):
    a. I was paid to attend
    b. My organization wanted me to attend
    c. I was interested in the subject matter
    d. N/A
    e. Other:

The rest of the questions in this survey are for those who attended The Green Rooms event. If you did not attend, you have completed the form and may press submit. Thank you for your

participation in this survey. If you DID attend The Green Rooms, please complete the rest of the questions:

    A. I attended the Green Rooms and will continue with the rest of the survey

    B. I did not attend The Green Rooms and will now submit this survey (scroll to the bottom)

9. Looking back at just BEFORE The Green Rooms event in July 2020, which of the following statements best represented your knowledge regarding climate change issues then?
    a. I had a full understanding of climate change issues
    b. I had a fairly good understanding of climate change issues
    c. I had some knowledge of climate change issues
    d. I had little to no knowledge of climate change issues

10. Today, in December 2020, which of the following statements best represents your CURRENT knowledge regarding climate change issues?
    a. I have a full understanding of climate change issues
    b. I have a fairly good understanding of climate change issues
    c. I have some knowledge of climate change issues
    d. I have little to no knowledge of climate change issues

11. To what degree, and in what ways, did your participation in The Green Rooms impact your current knowledge of climate change issues? Please answer in your own words (please limit your response to 100 words if possible):

12. Looking back to just before The Green Rooms, which of the following statements best represented your organization's position on climate change?
    a. My organization viewed climate change as a top priority to consider in all of our undertakings
    b. My organization viewed climate change as one of our major priorities to consider in our work
    c. My organization viewed climate change as somewhat important to our work
    d. My organization did not consider climate change in all of our work

13. Which of the following best represents your organization's current position on climate change?
    a. My organization views climate change as a top priority to consider in all of our undertakings
    b. My organization views climate change as one of our major priorities to consider in our work
    c. My organization views climate change as somewhat important to our work
    d. My organization does not consider climate change in all of our work

14. To what degree, and in what ways, did your participation in The Green Rooms impact your organization's current position on climate change? Please answer in your own words (please limit your response to 100 words if possible):

15. Please fill in the following table:

Statement	Strongly Agree	Agree	Somewhat Disagree	Disagree
a. My participation in The Green Rooms has changed the way I				

think about the Arts sector and the role of theatre in the face of climate change.				
b. My participation in The Green Rooms has empowered me to tackle climate change issues within my artistic practice..				
c. I felt more hopeful about the future as a result of my participation in The Green Rooms				
d. As a result of my participation in The Green Rooms, I now consider the ecological footprint that Canadian theatre leaves (i.e. touring, set and costume design, construction, etc.) more than we did in the past.				
e. As a result of my participation in The Green Rooms, I consider issues related to Canadian Indigenous people in my artistic practice, policies, and engagement, more than I did in the past.				
f. As a result of my participation in The Green Rooms I now consider environmental racism in my artistic practice, policies, and engagement more than I did in the past.				
g. As a result of my participation in The Green Rooms, I consider the role of youth in my artistic practice, policies, and engagement more than I did in the past.				
h. As a result of my participation in The Green Rooms, I consider accessibility in my artistic practice, policies, and engagement more than I did in the past.				
i. As a result of my participation in The Green Rooms I consider				

the environment in the administrative aspects of my practice (i.e. travel, materials, etc.) more than I did in the past.				

16. With respect to question 15(i) above, if your organization considers the environment in its internal operations more than it did in the past, please describe those considerations here (i.e. started a compost program, incentives of sustainable commuting, etc.):

17. For the next three questions, please rank and explain in your own words, the top 3 impacts The Green Rooms has had on your artistic practice (please try to limit each response to 100 words if possible):
    a. #1 Greatest Impact (explain in your own words):
    b. #2 Greatest Impact (explain in your own words):
    c. #3 Greatest Impact (explain in your own words):

18. In your opinion, what were the greatest strengths of The Green Rooms event? Please answer in your own words (please try to limit your response to 100 words if possible):

Interview Questions

1. Could you start off by telling me a bit about your background as an artists and the work that you've done (if any) that's related to climate change before you participated in the Cycle?

2. Tell me about your participation in the Climate Cycle: How were you positively impacted by this experience? Are there any key memories that come to mind?

3. Was there anything that you were hoping the Climate Cycle would cover but didn't? (prompt: topics, networking, workshops, etc.)

4. In what ways, if any, did attending the Climate Cycle events affect how you think about the way that theatre artists can contribute to combatting climate change?

5. In what ways, if any, did attending the Climate Cycle events impact your thinking on the role that theatre organizations in general can play in creating a sustainable future?

6. In what ways, if any, did attending the Climate Cycle events impact your arts organization's thinking about, and/or practices related to climate change (prompt: policies, practices)
    a. Follow-up: is there anything in the works for your organization that haven't been implemented yet?

7. Changing culture is difficult and something that takes a lot of work. Could you contemplate what challenges currently exist for theatre artists and theatre arts organizations in creating a community of practice that focuses their work on climate change issues? (prompts: need to be paid for work? Need to have someone organize for them? Is it more difficult receiving grants for this work? Do your audiences desire different content? Official international organizations? More conferences?)

8. Thank you so much for your time – before we end, is there anything else about the Climate Cycle that you want to talk about?

Appendix 2

REB Application: Forms and Documents

Letter of Invitation

Hello!

We're contacting you today because of your participation in the NAC Green Rooms event. You have already filled out a survey, but we are also inviting people to take part in short interview about their participation in the Climate Cycle Green Room event and would like to invite you to be interviewed.

The research team believes that by interviewing you and other participants in the Green Room event, a more in-depth understanding of the impact that the Climate Cycle Green Rooms had on some of the participating artists and to better understand the participants conceptualizations of the role that Canadian theatre can play in combatting climate change. We would be very interested in hearing your thoughts on this.

If you agree, we will arrange a Zoom-call and a member of our research team will interview you for about a half an hour. With your consent, the interview will be recorded and transcribed in order to be analyzed. These interview questions will be open-ended, allowing you to explore whatever themes or topics you believe are relevant. You will also be provided with the main questions prior to the interview, so that you may review them and think about how you would like to answer them.

These interviews will take place throughout January 2021. Should you choose to participate, you will be among 7-10 participants being interviewed.

If this sounds like something you would like to be part of, please let the research team know by emailing chiarafw@dal.ca and tarah.wright@dal.ca or by responding to us and we'll pass your information along.

Thank you!

Sarah Stanley and Chantal Bilodeau

Pre-Interview Consent Script

Ms. Ferrero-Wong (Interviewer): "Hello and thank you again for volunteering to participate in our research project. As mentioned in our earlier emails, this interview will take approximately half an hour to complete. It will consist of approximately 6-10 interviews questions which you are free to answer in whatever depth you desire. After today, your name will never be used in discussing this study or in any publications and reports that are produced as a result of this research. You will be assigned a unique identification number with which you will be referred to (for example Participant 1). "

"Before we begin, would you please provide your verbal consent to being part of this study (at this point you also need to say yes or no)?.

Pause for participant to respond and for response to be noted in study log.

"Now I will ask for verbal consent to having this interview recorded. Please note that the recordings will only be listened to by me for the purpose of transcribing your answers (at this point you just need to say yes I consent to being recorded or no I do not consent to being recorded)"

Pause for participant to respond and for response to be noted in study log.

 "Finally, if at any time you wish to withdraw from the study, you are free to do so. Any at any time if you have questions or concerns you can pose them to me or my supervisor Dr. Tarah Wright"

As long as consents are obtained, then recording will begin at this point

Letter of Support

December 7,2020

To whom it may concern,

My name is Sarah Garton Stanley and I work with the National Arts Centre (NAC) in Ottawa, Ontario. I have been working with Dr. Wright and Ms. Ferrero-Wong as they plan this Honour's Thesis project. To date, I have enjoyed working with this research team and look forward to seeing their results. I am writing in support of Ms. Ferrero-Wong's application to the Research Ethics Board to make it clear that I fully support the work that she is undertaking for her Honour's thesis. Understanding the relationship between the arts and sustainability is a crucial step towards fighting climate change. I look forward to seeing what trends and results this study reveals at the time of its completion.

All my best from here to there,

Sarah Garton Stanley
Associate Artistic Director, English Theatre
sarah.stanley@nac-cna.ca

Consent Form

DALHOUSIE UNIVERSITY

CONSENT FORM

Project title: Exploring the Role of Canadian Theatre in Climate Action

Lead researcher:
Chiara Ferrero-Wong, Dalhousie University, BSc in Environmental Science and English
chiarafw@dal.ca, 647-447-1947

Other researchers
Dr. Tarah Wright, Dalhousie University Department of Earth and Environmental Sciences
tarah.wright@dal.ca

Introduction
We invite you to take part in a study that seeks to better understand the impact that the National
Arts Centre (NAC)'s Climate Cycle had on individual participants' environmental knowledge,
attitudes and professional practices. This project is being conducted through the Education for
Sustainability Research Group at Dalhousie under the Director of Dr. Tarah Wright. Below you
will find information on the project including the potential benefits you may receive as a result of
your participation, and any associated risk, discomfort, or inconvenience you may experience as
a result of your participation. If you have any questions about the research, please do not hesitate
to direct them to Dr. Wright (Tarah.wright@dal.ca) or Ms. Chiara Ferrero-Wong (Research
Assistant) at any point during the project.

Purpose and Outline of the Research Study
This study explores how participating in the NAC English Theatre's two-year program "Climate
Cycle: The Earth is Watching…" affected the participants that attended the event. The Climate
Cycle involved two formal meetings; the first was titled "The Summit" that took place in Banff
in 2018, and the second was titled "The Green Rooms," which took place in June 2020 in an
online environment due to COVID-19 restrictions. This study is part of a larger collaboration
between the Education for Sustainability Research Group at Dalhousie University with the NAC,
investigating the impacts of the Climate Cycle on participants and their affiliated organizations.
This portion of the study will involve in-depth interviews with participants who attended The
Green Rooms event in June 2020, in order to gain a better understanding of how participants
were impacted by attending this event.

Who Can Take Part in the Research Study
You may participate in this study if you attended and participated in the NAC Climate Cycle
Green Rooms event in June 2020.

What You Will Be Asked to Do
If you choose to participate in this study, it will involve a single Zoom meeting that will last approximately 30 minutes. During this meeting, you will be asked 6-10 open-ended questions about your experience at the Green Rooms event. You will receive the questions at least 1 week before the Zoom call in order for you to be able to contemplate your answers.   Also, if you so choose, you will be invited to review your meeting transcript after the meeting, and will be invited to modify it should you desire.

Possible Benefits, Risks and Discomforts
Benefits: By participating in this study, you will help the NAC gain a more in-depth understanding of the impact of the Climate Cycle, which may assist in future programming and outreach. In addition, by participating in this study, you may benefit through the facilitated reflection on your time with the Green Rooms, and on your own artistic practices. This may help you re-evaluate how climate change plays a role in your own work.

Risks: The risks associated with this study are minimal, where the only known risks in participating are being bored or fatigued. Should you need it, you will offered breaks and time to think before giving your answers.

Compensation / Reimbursement
There will be no compensation or reimbursement for participating in this study.

How your information will be protected:
Privacy: The knowledge of your participation in the study will only be known only to two members of the Education for Sustainability Research Team (Ms. Ferrero-Wong and Dr. Wright), as well as Ms. Sarah Stanley of the NAC, and Chantal Bilodeau. The transcripts of your interview, and the interview itself, will only be available to be viewed by Ms. Ferrero-Wong and Dr. Wright.

Confidentiality: You will be assigned a unique identification number at the time of the interview . Only Ms. Ferrero-Wong and Dr. Wright will have access to your ID number. The transcripts from your interview will be coded using only your ID number, and your name will never be used in any subsequent study publications and/or reports.   Your identity will therefore remain confidential to the research team. The only known limit is if something comes up in the interviews that is of a legal concern and which we are then compelled by law to report. This is highly unlikely.

In addition, if the research team thinks a quote from your transcript would enhance our reporting on the results of the study, you will be asked for you permission before being quoted and only your ID number will be used in the use of the quote. All transcripts and coded data will be kept on a password-protected computer, in an encrypted file.   Finally, we are very happy to share our findings of the study. If you would like to see the final results of the study and any subsequent reports, the research team can provide you with these.

Once all reports have been completed, the data (i.e. transcripts and recordings) will be destroyed.

This will occur sometime in June 2021 after the project is expected to be complete.

If You Decide to Stop Participating
Should you wish to stop your participation in the study, you are free to do so at any point before, during, or after the interview, but should be done before any reports are developed (approximately March-June 2021). Should this be the case, please inform Ms. Ferrero-Wong and Dr. Wright through email. No explanation is required for your decision to withdraw. If you decide to stop participating during or after your interview, you can decide whether you want any of the information that you have provided up to that point to be removed, or if you will still allow that information to be used.

How to Obtain Results
Should you wish to have the study results, please let Ms. Ferrero-Wong and Dr. Wright know at any point through email. Once the study has been complete, we will send you the results.

Questions
Should you have any questions throughout the study, you may direct them at Ms. Ferrero-Wong (647-447-1947; chiarafw@dal.ca) and/or Dr. Wright (tarah.wright@dal.ca). Should any updated information about your participation in the study become available, the research team will inform you .

Should you have any concerns you wish to voice to Dalhousie University, you may contact Research ethics (902-494-3423; ethics@dal.ca) and reference REB file #######.

Informed Consent
Your informed consent will be asked for verbally before starting the interview over Zoom. You will be asked to consent to being recorded, and having your answers analyzed and used in the final report. As mentioned previously, your name will never be used in the study, as you will be referred to by your unique identification number in any publications that result from this study.

REB Application Form

DALHOUSIE UNIVERSITY

RESEARCH ETHICS BOARDS
APPLICATION FORM

Prospective Research

This form should only be used if new data will be collected. For research involving only secondary use of existing information (such as health records, student records, survey data or biological materials), use the REB Application Form – Secondary Use of Information for Research.

This form should be completed using the Guidance for Submitting an Application for Research Ethics Review.

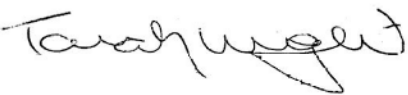SECTION 1. ADMINISTRATIVE INFORMATION   [File No: office only]

Indicate the preferred Research Ethics Board to review this research:
[ ] Health Sciences OR [x] Social Sciences and Humanities

Project Title:
Examining the Impact of the National Arts Centre Climate Cycle Initiative on the Environmental Knowledge, Attitude, and Professional Practices of Canadian Theatre Artists.

1.1 Research team information					
Lead researcher (at Dalhousie)	Name	Chiara Ferrero-Wong			
	Email (@dal)	chiarafw@dal.ca	Phone		647-447-1947
	Banner #	B00737952	Academic Unit		???
Co-investigator names, affiliations, and email addresses					
Contact person for this submission (if not lead researcher)	Name				
	Email			Phone	
Study start date			Study end date		

1.2 For student submissions (including medical residents and postdoctoral fellows)			
Degree program	Environmental science and English		
Supervisor name and department	Dr. Tarah Wright, Department of Earth and Environmental Science		
Supervisor Email (@dal)	tarah.wright@dal.ca	Phone	
Department/unit ethics review (if applicable). Undergraduate minimal risk research only.			
Attestation: [x] I am responsible for the unit-level research ethics review of this project and it has been approved. Authorizing name: Tarah Wright, Environmental Science Honours Thesis Coordinator *(signature)* Date: December 7, 2020			

1.3 Other reviews		
Other ethics review (if any) for this research	Where?	
	Status?	
Scholarly/scientific peer review (if any)		
Is this a variation on, or extension of, a previously approved Dal REB submission?	[x] No [ ] Yes Dal REB file #_____	
If yes, describe which components of the current submission are the same as the previously approved submission (list section numbers), and which components are different from the previously approved submission (list section numbers). You may also use highlighting to clearly indicate revised text.		

1.4 Funding		[x] Not Applicable
Funding (list on consent form)	Agency	
	Award Number	
	Institution where funds are/will be held	[ ] Dalhousie University [ ] Other: _____

1.5 Attestation(s). The appropriate boxes must be checked for the submission to be accepted by the REB
[x] I am the lead researcher (at Dalhousie) named in section 1.1. I agree to conduct this research following the principles of the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (<u>TCPS</u>) and consistent with the University <u>Policy on the Ethical Conduct of Research Involving Humans</u>. I have completed the TCPS Course on Research Ethics (<u>CORE</u>) online tutorial. [x] Yes   [ ] No For Supervisors (of student / learner research projects): [x] I am the supervisor named in section 1.2. I have reviewed this submission, including the scholarly merit of the research, and believe it is sound and appropriate. I take responsibility for ensuring this research is conducted following the principles of the <u>TCPS</u> and University <u>Policy</u>. I have completed the TCPS Course on Research Ethics (<u>CORE</u>) online tutorial. [ ] Yes   [ ] No

SECTION 2. PROJECT DESCRIPTION

2.1 Lay summary
2.1.1 In plain language, describe the rationale, purpose, study population and methods to be used. Include a summary of background information or literature to contextualize the study. What new knowledge, or public or scientific benefit is anticipated? [maximum 500 words] Chiara Ferrero-Wong will be conducting an Honours research project under the supervision of Dr. Tarah Wright from Dalhousie's Environmental and Earth Sciences Department, and in collaboration with the National Arts Centre (NAC) in Ottawa Canada. The research team (Ms. Ferrero-Wong and Dr. Wright) will be exploring how participating in the NAC English Theatre's two-year program titled "Climate Cycle: The Earth is Watching…" affected the participants environmental knowledge, attitudes and professional practices. The Climate Cycle involved two formal meetings of invited artists. The first event was titled "The Summit", and took place in Banff in 2018. The second event was titled "The Green Rooms," which took place in June 2020 in an online environment due to COVID-19 restrictions. In each case, the purpose of the events were designed in order for participants to take a "deep-dive into the facts of our climate crisis, and grappled with how the performing arts can respond". This study is part of a larger collaboration with the NAC, investigating the impacts of these events on participants. This portion of the study will involve in-depth interviews with a cohort of participants who attended The Green Rooms in order to gain a better understanding of how these individuals were impacted by attending the Climate Cycle events. The participants in this study will be purposively selected using a non-probabilistic sampling method based on their participation in the Climate Cycle events and as identified by the NAC consultative team. In addition, the interview questions were designed collaboratively by Ms.

Ferrero-Wong and Dr. Wright and in consultation with the NAC team. The interviews will be conducted approximately 7 months after The Green Rooms event using an online video call platform (i.e. Zoom). The interviews will be transcribed and analyzed using a posteriori coding techniques. This project will help the NAC to get a better understanding of the impact that the Climate Cycle initiative had on some of the participating artists, better understand the participants' conceptualization of the role that Canadian theatre can play in combatting climate change, and potentially what the most effective ways are to engage artists in these conversations.

[ ] This is a pilot study.
[ ] This is a fully developed study.

2.1.2 Phased review. If a phased review is being requested, describe why this is appropriate for this study, and which phase(s) are included for approval in this application. Refer to the guidance document before requesting a phased review.

[x] Not applicable

2.2 Research question
State the research question(s) or research objective(s). This study asks, to what extent did participation in the NAC Climate Cycle's "The Green Rooms" event impact artists knowledge, attitudes, and professional practices. Further, the study attempts to better understand artists' conceptualization of the role that Canadian theatre can play in combatting climate change.

2.3 Recruitment
2.3.1 Identify the study population. Describe and justify any inclusion / exclusion criteria. Also describe how many participants are needed and how this was determined.
The study population are the attendees of the NAC's Climate Cycle Green Rooms event (n=~130 participants). The researchers will invite 7-10 individuals to participate in this study based on recommendations from the NAC staff of who will be available and willing to speak with the research team, and who attended the events in a more fulsome manner (note: due to the on-line nature of the Green Rooms event, there were many participants who only joined for 1 or 2 sessions. We are more interested in speaking with people who attended the event in full). The number of participants to be interviewed was determined in consultation with the NAC staff, bearing in mind the amount of time available for this Honour's Thesis project, and the literature that demonstrates this is an appropriate number of interviewees in a purposive phenomenological study (Moser et al., 2018)
Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. The European journal of general practice, 24(1), 9–18. https://doi.org/10.1080/13814788.2017.1375091
2.3.2 Describe recruitment plans and append recruitment instruments. Describe who will be doing the recruitment and what actions they will take, including any screening procedures.

The participants for this project will be recruited by email via the NAC staff who will introduce the study and the research team. Further the email will contain an overview of the study, what the goals are for the interviews, and will clearly outline information regarding privacy, consent, and how the data collected will be used. A copy of the letter is attached in Appendix 1.

2.3.3 If you require permission, cooperation, or participation from a community, organization or company to recruit your participants, describe the agreement obtained from the relevant group(s). Attach correspondence indicating their cooperation and/or support (required). Describe any other community consent or support needed to conduct this research. (If the research involves Indigenous communities complete section 2.11).
[ ] Not applicable

2.4 Informed consent process

2.4.1 Describe the informed consent process:
   A) How, when and by whom will the study information be conveyed to prospective participants? How will the researcher ensure prospective participants are fully informed?
   In the initial email to participants, all information regarding consent will be included. If the individual chooses not to participate in the interviews, their information will not be disclosed anywhere. If they do decide to participate, they will be informed of how their data will be used and they will be asked to consent to this use. All of this information will be outlined and included in a consent form that each participant will be given to review, This form includes information about how the participant's data will be used, including the use of their participant ID number (i.e. not their name) in all reportings of the study, when and how they can withdraw from the study, as well as consenting to have their interviews recorded for the purposes of transcription.
   B) Describe how consent will be documented (e.g. written signature, audio-recorded, etc).
Before beginning the interview, the participant will be asked for verbal informed consent to being recorded and being part of the study. The consent script can be found in Appendix 1.
[x] Append copies of all consent information that will be used (e.g. written consent document, oral consent script, assent document/script, etc).
Note: If the research will involve third party consent (with or without participant assent), and/or ongoing consent, ensure these are described above.

2.4.2 Discuss how participants will be given the opportunity to withdraw their participation (and/or their data) and any time (or content) limitations on this. If participants will not have opportunity to withdraw their participation and/or their data explain why.
Participants will be allowed to withdraw from the study at any time before the interviews, during the interviews and/or during data analysis. This will be clearly outlined in the consent form.

2.4.3 If an alteration/exception to the requirement to seek prior informed consent is sought, address the criteria in TCPS article 3.7A. If the alteration involves deception or nondisclosure, also complete section 2.4.4.
[x] Not applicable

2.4.4 Describe and justify any use of deception or nondisclosure and explain how participants will
      be debriefed.
[x] Not applicable

2.5 Methods, data collection and analysis

2.5.1
A) Where will the research be conducted?
Interview will take place in a secure online platform (e.g. Zoom) where they will be given a meeting
      identification number and a password.
B) What will participants be asked to do?
Participants will be asked a series of open-ended question which they will be asked to answer to the
      best of their abilities. (see attached script in Appendix 1)
C) What data will be collected using what research instruments? (Note that privacy and
      confidentiality of data will be covered in section 2.6)
Data will be collected via interviews which will be recorded and transcribed into a Word document.
The software program N'Vivo 9 may be used to analyze and index the interview data using a
posteriori coding as needed.

D) How much of the participant's time will participation in the study require?
The interviews will take approximately 30 minutes (based on pilot testing of the questions amongst
      the research team).
[x] Append copies of all research instruments (questionnaires, focus group questions, standardized
measures, etc)
[ ] This is a clinical trial (physical or mental health intervention) – ensure section 2.12 is completed

2.5.2 Briefly describe the data analysis plan. Indicate how the proposed data analyses address the
      study's primary objectives or research questions.
The qualitative data obtained in the interviews will be transcribed and then analyzed sing a
posteriori coding techniques. This will allow the team to determine any patterns, trends, and themes
that arise from the interviews. By analyzing the data in this way, the overall impact of this event on
the participants can be better understood.

2.5.3 Describe any compensation that will be given to participants and how this will be handled for
      participants who do not complete the study. Discuss any expenses participants are likely to
      incur and whether/how these will be reimbursed.
No compensation will be given to the participants of this study.

2.6 Privacy and confidentiality

2.6.1

A) Describe who will have knowledge of participants' identities.

The research team (Ms. Ferrero-Wong and Dr. Wright and the 2 NAC partners) will be the only
people who have knowledge of all participants' identities. Only Ms. Ferrero-Wong and Dr.
Wright will have access to the transcripts of the participants' interviews, and will be the only
people who analyze the data.

B) Describe the level of identifiability of the study data (anonymous, anonymized, de-
identified/coded, identifying) (see TCPS Chapter 5A – types of information for definitions).

Each participant will receive a unique participant number (i.e. Participant 1, Participant 2, etc.) and
will identified as such in the analysis of the data, and any subsequent publications and reports. None
of the publications and reports will contain identifying details (such as personal anecdotes or their
place of employment) that could identify them.

C) Specify which members of the research team (or others) will have access to participants' data
and for what purpose.

Ms. Ferrero-Wong and Dr. Wright will be the only people with access to the participants' data. This
access is granted in order to allow data analysis to be done by Ms. Ferrero-Wong, and for Dr.
Wright to complete and validate the analysis.

D) Describe measures to ensure privacy and confidentiality of study documents and participant data
during the data collection and analysis phase. [Note that plans for long term storage will be
covered in 2.6.2]

- Address: handling of documents/data during data collection; transportation or transfer of
documents/data; storage of documents/data (during the study).
- If a key-code will be maintained, describe how it will be kept secure.
- For electronic data, describe electronic data security measures, including file encryption
and/or password protection as applicable.
- For hard copy documents, describe physical security measures (specify location).

The data will exist on Ms. Ferrero-Wong's computer, which is protected by a password which only
she knows. In this way, no one else will be able to access the data during its storage. In addition
to existing on this password protected computer, the files will also be password protected. Only
Ms. Ferrero-Wong will have access to this password. Dr. Tarah Wright will be able to view the
data through the use of screen share functions on video calling platforms to verify the analysis
(e.g. Zoom), but the data itself will not be transferred off of Ms. Ferrero-Wong's computer.

[ ] This research involves personal health records (ensure section 2.13 is completed)

2.6.2 Describe plans for data retention and long-term storage (i.e. how long data will be retained, in
what form and where). Will the data eventually be destroyed or irreversibly anonymized? If
so, what procedures will be used for this? Discuss any plans for future use of the data or
materials beyond the study currently being reviewed.

All copies of original data will be destroyed in June 2021 (after the defense of the Primary
Applicant's Honours thesis defense). There are no plans for future use of the data.

[ ] This research will be deposited in a data repository (ensure section 2.14 is completed)

2.6.3

Describe if/how participant confidentiality will be protected when research results are reported:

A) For quantitative results - In what form will study data be disseminated?

[ ] Only aggregate data will be presented

[ ] Individual de-identified, anonymized or anonymous data will be presented

[ ] Other. If "other", briefly describe dissemination plans with regard to identifiability of data.

[x] Not applicable, only qualitative data will be presented

B) For qualitative results - Will identifiable data be used in research presentations/publications? If participants will be quoted, address consent for this and indicate whether quotes will be identifiable or attributed.

Any quotes used to support the presentation of the analyzed data and subsequent codes will be attributed to a respondent's Participant number. In all cases, the participants will be contacted to discuss the use of quotes before the final report is shared publicly. Frequent member checks will be conducted throughout the project to ensure the validity, accuracy, and credibility of the results.

[ ] Not applicable, only quantitative data will be presented

2.6.4 Address any limits on confidentiality, such as a legal duty to report abuse or neglect of a child or adult in need of protection, and how these will be handled. Ensure these are clear in the consent documents. (See the guidance document for more information on legal duties and professional codes of ethics).

[x] Not applicable

2.6.5 Will any information that may reasonably be expected to identify an individual (alone or in combination with other available information) be accessible outside Canada? And/or, will you be using any electronic tool (e.g. survey company, software, data repository) to help you collect, manage, store, share, or analyze personally identifiable data that makes the data accessible from outside Canada?

[x] No

[ ] Yes. If yes, refer to the University Policy for the Protection of Personal Information from Access Outside Canada, and describe how you comply with the policy (such as securing participant consent and/or securing approval from the Vice President Research and Innovation).

2.7 Risk and benefit analysis

2.7.1 Discuss what risks or discomforts are anticipated for participants, how likely risks are and how risks will be mitigated. Address any particular ethical vulnerability of your study population. Risks to privacy from use of identifying information should be addressed. If applicable, address third party or community risk. (If the research involves Indigenous communities also complete section 2.11) There is no perceived risk to the participants. Participants are not required to share information that they do not wish to share. There is no physical risk, seeing as these interviews are being conducted in an online environment. Participating in this study will also not be a financial burden or cause the participants to suffer psychologically.
2.7.2 Identify any direct benefits of participation to participants (other than compensation), and any indirect benefits of the study (e.g. contribution to new knowledge). By giving the participants space to reflect on their own experiences, they may come to realize things they may have not before, which could positively impact the way they see their work. This could include the realization that their practices could be more conscious of the environment, or that they want to re-focus their work to include themes on climate change, etc. They will also benefit indirectly, because this research aims to help improve the engagement of artists in discussions on environmental topics.

2.8 Provision of results to participants and dissemination plans.
2.8.1 The TCPS encourages researchers to share study results with participants in appropriate formats. Describe your plans to share study results with participants and discuss the process and format. The participants will be given the option of reading the final paper and report once it has been completed. They will be asked post-interview if they would like the paper to be shared with them.
2.8.2 If applicable, describe how participants will be informed of any material incidental findings – a discovery about a participant made in the course of research (screening or data collection) that is outside the objectives of the study, that has implications for participant welfare (health, psychological or social). See TCPS Article 3.4 for more information. [x] Not applicable
2.8.3 Describe plans for dissemination of the research findings (e.g. conference presentations, journal articles, public lectures etc.). This is an undergraduate Honours' thesis, and as such, it will be defended in April 2021. In addition, the preliminary results will be presented at the Science Atlantic Conference in March 2021 as well. This paper will also be shared with the creative team at the NAC.

2.9   Research Team

2.9.1 Describe the role and duties of all research team members (including students, RA's and supervisors) in relation to the overall study.   Ms. Ferrero-Wong will be the head researcher on this study, under the supervision and leadership of Dr. Wright. Ms. Ferrero-Wong and Dr. Wright make up the entirety of the research team. All of the data collection, analysis, and presentation will be completed by the research team. This project will be completed in collaboration with Chantal Bilodeau and Sarah Stanley from the NAC, who make up the creative team. The creative team will help in approving the interview questions, and will provide the research team with the necessary information on the NAC Climate Cycle's participants. They will also be the liaison between the participants of the study, and the research team.
2.9.2 Briefly identify any previous experience or special qualifications represented on the team relevant to the proposed study (e.g. professional or clinical expertise, research methods, experience with the study population, statistics expertise, etc.).   Ms. Ferrero-Wong is a fifth year Environmental Science and English student at Dalhousie and has been involved in other academic research projects. This research project exists at the intersection of both of her fields of study, making her the qualified candidate to undertake this research. Dr. Wright's research is heavily involved in education, the arts, and climate change. She has published multiple papers on how best to inspire cultural change through the use of education and specifically arts education. This area of research falls within her expertise. The creative team is made up of two professional theatrical artists. Sarah Stanley and Chantal Bilodeau, who have created artistic works that center on environmental themes. They are familiar with the landscape of Canadian theatre, and thus are qualified to assist in this research project.

2.10 Conflict of interest
Describe whether any dual role or conflict of interest exists for any member of the research team in relation to potential study participants (e.g. TA, fellow student, teaching or clinical relationship), and/or study sponsors, and how this will be handled.   [x] Not applicable

2.11 Research involving Indigenous peoples   Consult TCPS Articles 9.1 and 9.2 in determining whether this section is applicable to your research.   [x] Not applicable – go to 2.12
2.11.1 If the proposed research is expected to involve people who are Indigenous, describe the plan for community engagement (per TCPS Articles 9.1 and 9.2). If community engagement is not sought, explain why the research does not require it, referencing TCPS article 9.2.

2.11.2 State whether ethical approval has been or will be sought from <u>Mi'kmaw Ethics Watch</u> and if not, why the research does not fall under their purview. If the research falls under the purview of other Indigenous ethics groups, state whether ethical approval has been or will be sought.

2.11.3 Describe plans for returning results to the community and any intellectual property rights agreements negotiated with the community with regard to data ownership (see also 2.11.4 if applicable). Append applicable research agreements.

2.11.4 Does this research incorporate OCAP (Ownership, Control, Access, and Possession) principles as described in TCPS <u>Article 9.8</u>?
[ ] Yes. Explain how.
[ ] No. Explain why not.

2.12 Clinical trials
[x] Not applicable – go to 2.13

2.12.1 Will the proposed clinical trial be registered?
[ ] No. Explain why not.
[ ] Yes. Indicate where it was/will be registered and provide the registration number.

2.12.2 If a novel intervention or treatment is being examined, describe standard treatment or intervention, to indicate a situation of clinical equipoise exists (TCPS <u>Chapter 11</u>). If placebo is used with a control group rather than standard treatment, please justify.

2.12.3 Clearly identify the known effects of any product or device under investigation, approved uses, safety information and possible contraindications. Indicate how the proposed study use differs from approved uses.
[ ] Not applicable

2.12.4 Discuss any plans for blinding/randomization.

2.12.5 What plans are in place for safety monitoring and reporting of new information to participants, the REB, other team members, sponsors, and the clinical trial registry (refer to TCPS Articles 11.6, 11.7, 11.8)? These should address plans for removing participants for safety reasons, and early stopping/unblinding/amendment of the trial. What risks may arise for participants through early trial closure, and how will these be addressed? Are there any options for continued access to interventions shown to be beneficial?

2.13 Use of personal health information
[x] Not applicable

2.13.1 Research using health information may be subject to Nova Scotia's Personal Health Information Act. Describe the personal health information (definition explained in the guidance document) required and the information sources, and explain why the research cannot reasonably be accomplished without the use of that information. Describe how the personal health information will be used, and in the most de-identified form possible.

2.13.2 Will there be any linking of separate health data sets as part of this research?
[ ] No
[ ] Yes

If yes:
A) Why is the linkage necessary?
B) Describe how the linkage will be conducted (it is helpful to append a flow diagram)
C) Does that linkage increase the identifiability of the participants?

2.13.3 Describe reasonably foreseeable risks to privacy due to the use of personal health information and how these will be mitigated.

2.14 Data Repositories
[x] Not applicable

2.14.1 Identify and describe the data repository in which the research data will be deposited. What is its focus, who are its target users, who can access deposited data and under what circumstances? For how long will the data be kept in the repository?

2.14.2 Describe the data set to be released to the repository. If there is personal and/or sensitive information in the data, describe how you will prepare the data for submission to the repository and mitigate risks to privacy. Identify all fields that will be included in the final data set (include as an appendix).
2.14.3 Is agreeing to have one's data deposited a requirement for participation in the study? If yes, provide a justification. If no, indicate how participants can opt in or out.

SECTION 3. APPENDICES

Appendices Checklist. Append all relevant material to this application in the order they will be used. This may include:
[ ] List of References
[ ] Permission letters (e.g. Indigenous Band Council, School Board, Director of a long-term care facility)
[ ] Research agreements (required for research involving Indigenous communities)
[ ] Support/cooperation correspondence
[x] Recruitment documents (posters, oral scripts, online postings, invitations to participate, etc.)
[ ] Screening documents
[x] Consent/assent documents or scripts
[x] Research instruments (questionnaires, interview or focus group questions, etc.)
[ ] Debriefing forms
[ ] List of data fields included in data repository

Consent Form Templates
Sample consent forms are provided on the Research Ethics website and may be used in conjunction with the information in the Guidance document to help you develop your consent form.