An Appreciative Inquiry of Youths' Experiences in the National Service-Learning Program *Ocean Bridge*

by

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Abstract

Human actions may compromise the health and the social, ecological, and economic value of the ocean. In response, *Ocean Wise,* an ocean conservation organization*,* launched a national service-learning program, *Ocean Bridge*, to mentor 40 youths aged 18 to 30 in delivering ocean-related service projects to raise ocean literacy and instill a life-long commitment to ocean health. The purpose of this research was to evaluate *Ocean Bridge* by exploring the experiences of participants from the 2018 cohort. Qualitative semi-structured interviews informed by an Appreciative Inquiry methodology were applied to understand the youths' experiences. The results revealed community, personal growth, professional development, and pride as common themes of their experiences. The participants' responses also offered examples of when *Ocean Bridge* was at its best in advancing ocean literacy, improving ocean health, and inspiring a culture of service leading to recommendations for the future development and facilitation of *Ocean Bridge.*

Keywords: Appreciative Inquiry, environmental education, experiential education, marine education, mentorship, ocean conservation, ocean literacy, service-learning, stewardship, youth development

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Context and Significance of the Thesis

Human actions including oceanic pollution by microplastics and marine debris, overfishing, habitat destruction, and acidification are negatively impacting ocean health (Derraik, 2002; Worm et al., 2006; Lotze et al., 2006) and compromising the cultural, ecological and economic value of oceans (Costanza, 1999; Mendler de Suarez et al., 2014). Society must act to improve ocean health and one avenue to achieve this improvement is to increase people's ocean literacy and encourage behaviour change (Guest et al., 2015). Ocean literacy is described as

> an understanding of the ocean's influence on you – and your influence on the ocean. An ocean-literate person understands the Essential Principles and Fundamental Concepts about the ocean; can communicate about the ocean in a meaningful way; and is able to make informed and responsible decisions regarding the ocean and its resources. (National Oceanic and Atmospheric Administration [NOAA], 2020, p. 2)

Several studies have suggested service-learning as means to raise awareness of environmental issues and influence the adoption of environmentally responsible behaviours by participants and individuals to whom participants are closely connected (Coleman et al., 2017; Kaplan, 2000; National Academies of Sciences, Engineering and Medicine, 2018; Schneller, 2008; Schusler et al., 2009). Therefore, service-learning may also be a useful method to improve people's ocean literacy including their knowledge, communication, and actions regarding the ocean.

Development and Organizational Context of *Ocean Bridge*

On June 8, 2017, the *Vancouver Aquarium* launched a new overarching organization called *Ocean Wise*, with four key areas including Aquarium Management, Education,

Engagement, and Research (Vancouver Aquarium, 2017). In November 2017, *Ocean Wise* introduced *Ocean Bridge* as a new education program for youths and young professionals. *Ocean Bridge* is structured as an innovative national youth service-learning program focused on conserving the ocean. *Ocean Bridge* is also part of a national coalition of service-learning programs known as the Canada Service Corps which is working to "test new and innovative ways to engage young Canadians in service to their communities" (Government of Canada, n.d.).

Mission and Structure of the *Ocean Bridge* Program

The mission of *Ocean Bridge* is to improve ocean health and advance ocean literacy in Canada by inspiring youths and young professionals to adopt a culture of service for the ocean. Each *Ocean Bridge* cohort is comprised of forty youths, ages 18 to 30, selected as ambassadors from across the country, coast to coast to coast. In 2018 and 2019, *Ocean Wise* led one cohort per year and in 2020 the program expanded to four cohorts per year. The selected ambassadors commit to participation in three program elements designed to deliver on the *Ocean Bridge* mission: (1) community and capacity building through local service initiatives, mentorship, and distance learning opportunities, (2) an immersive service experience near a National Marine Conservation Area or Marine Protected Area known as the *Remote Learning Journey* and (3) a second immersive service experience based at one of Canada's leading nature education centers known as the *Urban Learning Journey*. A full description of each program element is provided in *Appendix A* and a timeline of program activities is provided in *Appendix B*.

Ocean Bridge launched its inaugural cohort in March 2018 with forty youths who represented communities from across Canada. During their eleven-month experience, the ambassadors participated in weekly mentorship calls with program staff, monthly national calls via video conference with guest hosts, and planned and delivered independent ocean service

projects for their local communities. The cohort travelled to Haida Gwaii, BC for their *Remote Learning Journey* and the Vancouver Aquarium in Vancouver, BC for their *Urban Learning Journey*. The *Ocean Bridge* ambassadors also participated in an optional 2-night place-based education trip to the Southern Gulf Islands following their *Urban Learning Journey*. Through the service projects delivered by the ambassadors during the learning journeys and throughout the year in their home communities, the 2018 *Ocean Bridge* cohort collectively engaged over 12,035 people in Canada in ocean conservation and education activities.

Personal Context of my Involvement with *Ocean Bridge* and Inspiration for the Thesis Research

I have worked at the intersection of ocean conservation and youth engagement for the entirety of my career beginning with my role as an *AquaCamps* educator at the Vancouver Aquarium. [1] It was in this role that I discovered a passion for training and coaching youths as they develop into young professionals in the environmental and stewardship sectors. For several years I had the responsibility and privilege to work directly with high school youths during their work experience placements in our *AquaCamps* programs. I worked closely with these youths to develop their leadership skills and capacity as environmental educators. My dedication to this work and ever-growing expertise and experience contributed to my professional development and I soon transitioned to the role of Children and Youth Programs Manager with the Vancouver Aquarium and subsequently *Ocean Wise*. In the manager role, I was able to design and lead several new youth initiatives including overnight experiential education retreats that provided me

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[1] AquaCamps are the Vancouver Aquarium's spring break and summer day camp programs for children ages 4 to 12. The AquaCamps program also provides volunteer work experience placements for youths ages 14 to 18.

with an opportunity to continually explore new strategies for effective youth engagement, connect more deeply with the youth participants, and to learn from their reflections. The experience I gained designing and leading youth programs ultimately led to my successful candidacy for the role of *Ocean Bridge* Program Manager, a position that was created when *Ocean Wise* received confirmation of funding to implement the *Ocean Bridge* program. With this new role came the biggest challenge I would face to date as an environmental educator and youth engagement specialist.

   Ocean Bridge was a completely new initiative for *Ocean Wise* and needed to be transformed from a concept into a reality. As the program manager, it was my responsibility to bring the *Ocean Bridge* program to life. The role required me to recruit a staff team and lead them as we refined the program design, created an online learning environment, built relationships with potential partners and collaborators in Haida Gwaii and across the country, and developed a participant recruitment strategy and selection process. Once these initial pieces were in place, *Ocean Bridge* was ready to launch and deliver on its mission of addressing ocean health and ocean literacy challenges in Canada through service-learning. The first cohort began their experience in March 2018 and completed the program end of January 2019.

   While participants were in the program, my role included guiding the program specialists as they facilitated online discussions, planned the national speaker series, and engaged in mentorship relationships with the participants. Additional aspects of the role included travelling to Haida Gwaii to build community connections and organize logistics for the *Remote Learning Journey* experience, coordinating two evaluation projects focused on *Ocean Bridge's* impact in communities and on participants, facilitating both learning journey experiences, acting as a mediator when youths encountered conflict within the program or with one another, engaging in

strategic planning for the future sustainability of the *Ocean Bridge* program, chairing a steering committee to advise on program development, representing *Ocean Bridge* as a member of the Canada Service Corps Coalition, and overseeing the finances, communications and general management of the program. Together with two program specialists, a communications coordinator, and forty *Ocean Bridge* ambassadors, we were able to engage over 12,035 Canadians in ocean literacy and conservation through the ambassadors' local service activities and events during the two learning journeys.

The strong sense of pride and deep commitment to the program I have developed through my experience leading the *Ocean Bridge* program is the driving force behind this research. I want to ensure the program continues to grow and evolve into the best version of itself guaranteeing that youths and young professionals for years to come have the opportunity to learn and be active stewards for the ocean as the youth ambassadors of the 2018 cohort did.

Research Objectives

The *Ocean Bridge* program is part of a national coalition of youth service programs called the Canada Service Corps. The first two years of the coalition's work is deemed a design phase to test and evaluate new and innovative youth engagement strategies. At the time this research project commenced, the *Ocean Bridge* program was one year into the two-year pilot phase, the first cohort of *Ocean Bridge* ambassadors had completed their eleven months of participation in the program and the second cohort had just begun their experience.

The *Ocean Bridge* program has recently expanded from one cohort of 40 youths per year to four cohorts each with 40 youths per year. With the program expanding and transitioning out of its pilot phase, program staff and management including myself, are interested in understanding the *Ocean Bridge* experience from the perspectives of the ambassadors. The

insights gathered from this study could provide valuable guidance at this critical point in the

evolution of the program. This research intends to understand the *Ocean Bridge* experience from

the participants' perspectives to ensure *Ocean Bridge* is positioned to best serve the ocean,

youths, and young professionals as it grows.

Study Purpose and Research Questions.

The purpose of this study was to provide an evaluation of the 2018 *Ocean Bridge*

program and inform future program design by exploring the experience of the program

participants using an Appreciative Inquiry approach. Specifically, I am interested in discovering

when participants from the 2018 *Ocean Bridge* cohort felt that the program was at its best and

how they envisioned the program to be at its best in the future. The following questions guided

this research.

(1) How do the youths describe their experiences as participants in the 2018 *Ocean
    Bridge* program?

(2) Do participants in the 2018 *Ocean Bridge* program identify and characterize some of
    their experiences as representations of *Ocean Bridge* at its best?

(3) Do the youth participants in the 2018 *Ocean Bridge* program offer possible changes
    to the program's experiences in order to allow it to best reflect the stated goals of
    advancing ocean literacy, improving ocean health, and inspiring a culture of service
    for the ocean?

The ocean needs immediate action to protect its social, economic, and ecological value.

Ocean Bridge is one response to the challenges facing the ocean and may provide a pathway

towards innovative and effective action for ocean conservation. I have developed this research

project to better understand the participants' experiences in the *Ocean Bridge* program to

facilitate the continued development of *Ocean Bridge* and ensure it is successful in its mission of advancing ocean literacy, improving ocean health, and inspiring a culture of service for the ocean.

Organization of the Thesis

In chapter two of this thesis, I provide a review of selected literature relevant to the *Ocean Bridge* program including an examination of research on environmental service-learning programs and mentorship programs. The review also explores the definition, development, and application of ocean literacy.

Chapter three presents the methodology for this thesis and explains the selection of Appreciative Inquiry as a foundation for the research design. The chapter describes the methods used in this study including participant selection, development of the interview guide, and the process for data collection and analysis. A discussion on the limitations, validity, and reliability, and ethical considerations for this study close the chapter.

The findings of the data analysis are presented in chapter four using select quotations from the interviews as supporting evidence. The chapter presents findings for each of the three guiding research questions and includes a presentation of key themes that emerged as representations of the participants' experiences, examples of *Ocean Bridge* at its best in advancing ocean literacy, improving ocean health and inspiring a culture of service, and the participants' visions for future *Ocean Bridge* programming.

Chapter five concludes this thesis with a discussion of the findings including the participants' experiences, key insights regarding *Ocean Bridge* at its best and future program development, and my recommendations to the *Ocean Bridge* program. The chapter also reflects

on the research methods, ways in which I would modify this research if I was to do it again and future research that is needed.

Finally, the Appendices provide context for this study with respect to program design and delivery. *Appendix A* presents a description of each *Ocean Bridge* program element, *Appendix B* outlines the timeline of activities for the 2018 *Ocean Bridge* cohort, *Appendix C* describes the application and selection process for youths to join the 2018 cohort, *Appendix D* provides the national call schedule, and *Appendix E* and *F* present the youth-led service projects and timeline of activities of the 2018 *Remote Learning Journey* and *Urban Learning Journey* respectively. The letter of invitation to potential research participants, research consent form, interview guide and codebook used for this study can also be found in the Appendices.

Chapter 2: Literature Review

This thesis is focused on examining *Ocean Bridge,* a service-learning program, in its attempt to achieve three main goals: (1) advance ocean literacy in Canada, (2) improve ocean health, and (3) inspire a culture of service for the ocean among participants. Therefore, the following review examines literature focused on environmental service-learning programs and their connection to environmentally responsible behaviour change and civic engagement as these are pathways through which *Ocean Bridge* aims to accomplish its goals. In addition, a review of key ocean literacy literature and publications is presented to explore the development of the ocean literacy definition, ocean literacy initiatives, and ways in which ocean literacy is being assessed. The primary way *Ocean Bridge* engaged participants throughout the eleven-month program was through a mentorship relationship between program staff and participants. Therefore, a review of mentorship practices in the environmental and youth development sectors is also presented. Finally, the development and application of Appreciative Inquiry are discussed as a foundation for the methodology and research design of this thesis.

Service-learning

Service-learning programs engage their participants in hands-on projects that tackle real community challenges and needs while supporting their participants' learning through reflective exercises. Research has shown several positive outcomes when youths participate in service-learning programs including reducing feelings of helplessness (Kaplan, 2000), increasing engagement in environmentally responsible behaviours (Knackmuhs et al., 2017, Schneller, 2008), and bettering participants' communities and development as democratic citizens (MacFall, 2012; Schusler et al., 2009; Lakin & Mahoney, 2006; Lemus et al., 2010). It is therefore conceivable that an ocean-centred service-learning program such as *Ocean Bridge*

could contribute to improved ocean health through participants' increased engagement in environmentally responsible behaviours and civic actions.

Environmentally Responsible Behaviours.

Environmental educators have long been challenged by the question of how to inspire learners to adopt environmentally responsible behaviours. A key barrier is encountered when participants in environmental education programs are left feeling helpless. Kaplan (2000) suggests that this can be counteracted when programs are designed to include participatory problem solving rather than an altruism-centred approach. To effectively facilitate the development of environmentally responsible behaviours through service-learning projects, programs should consider the role of youths in the program. Both Kaplan (2000) and Schusler et al. (2009) have emphasized that the participants should co-create the service projects. Specifically, "helping people understand the issues and inviting them to explore possible solutions" as opposed to telling people what to do, can act as a counter to helplessness and therefore support the development of environmentally responsible behaviours (Kaplan, 2000, p. 501).

Environmental education programs that have incorporated service-learning in an attempt to encourage participants to adopt environmentally responsible behaviours have been reported to see success (Knackmuhs et al., 2017, Schneller, 2008). Knackmuhs et al., (2017) interviewed participants as part of a phenomenological study of an eco-restoration project located in urban woodlands. The authors found that fourteen months after participating in the restoration project, not only did the participants' appreciation for and knowledge of the woodland spaces persist, but participants also intended to continue their engagement with the restoration efforts and take pro-environmental actions. Schneller (2008), using semi-structured interviews, studied middle school

students who were taking an environmental course in Mexico that required students to engage in service projects that complemented community efforts active in the region. The study revealed that at least two years after completing the program participants and their parents had developed and continued to demonstrate environmentally responsible behaviours such as waste management, composting and water conservation (Schneller, 2008).

Civic Engagement.

Another outcome of service-learning that could have a long-term effect on environmental health is found when participants become more engaged in civic affairs and issues and thereby influence policies and regulations. A survey of graduate students from a university environmental studies program that had a service-learning component embedded in its final year concluded that graduates developed an interest in public service, civic responsibility, and environmental stewardship (MacFall, 2012). Interviews with practitioners leading environmental education service-learning projects led Schusler et al., (2009) to conclude that such projects have positive environmental outcomes in the near-term, while the experience of identifying a community issue and acting to address it empowered youths to engage as democratic citizens for the long-term. In a 2006 study Lakin and Mahoney compared two urban elementary school classes that were participating in community service programs, one focused on animal welfare and the other focused on educating about child abuse, with classes that were not participating in the programs. Lakin and Mahoney (2006)'s analysis of responses from the treatment and control groups to pre- and post-intervention assessment surveys "measuring self-efficacy, sense of responsibility, intent to be involved in future community action and empathy" (p. 522), demonstrated that students in the treatment groups felt more empowered and developed a stronger sense of community than those in the control group and that the treatment group also demonstrated increased prosocial

attitudes. Last, in an evaluation of *QuikSCience*, an ocean-themed service-learning competition program for high school students, Lemus et al. (2010) concluded from interviews with both students and teachers that the experience enhanced the students' leadership and community engagement by providing space in which they could practice those skills.

Ocean Literacy

Literacy is described as the "ability to understand, make informed decisions, and act with respect to complex topics and issues facing society today." (McBride et al., 2013, p. 2). The concept of literacy has evolved from one's basic ability to read and write to the development of "a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society" (UNESCO Education Sector, 2004 p. 13). Recognizing that a spectrum of competencies may be represented within any determination of "literacy," many disciplines have developed frameworks to define and attempt to specify the knowledge and competencies required to be considered a literate citizen in the associated field (McBride et al., 2013). Examples of disciplinary literacy include computer literacy, mathematical literacy, cultural literacy, and environmental literacy.

Early work in environmental education was guided by the definition of literacy presented by Roth in 1968. Roth described the environmentally literate citizen as someone who is "perceptive of, understanding of and concerned about the quality of the natural and man-made environments that provide the necessities and luxuries of life" (p. 2). Roth's (1968) definition led to the development of curricula, literature, and assessments of environmental literacy. However, over time multiple variations including environmental literacy, ecoliteracy and ecological literacy emerged. Shifting and emergent definitions of the word "literacy" within the field of study present challenges in that, despite variance in definitions and conceptual intent, represented

ideologies are often used interchangeably (See Table 1; McBride et al., 2013). The development

of the ocean literacy framework adds yet another layer to the complex map of environmental

education.

Table 1

Defined Literacies in Environmental Education

Literacy	Description of a Literate Individual
Environmental literacy	"both individually and together with others, makes informed decisions concerning the environment; is willing to act on these decisions to improve the well-being of other individuals, societies, and the global environment; and participates in civic life. Those who are environmentally literate possess, to varying degrees, the knowledge and understanding of a wide range of environmental concepts, problems, and issues; a set of cognitive and affective dispositions; a set of cognitive skills and abilities; and the appropriate behavioural strategies to apply such knowledge and understanding in order to make sound and effective decisions in a range of environmental contexts." (North American Association of Environmental Education [NAAEE], 2000, pp. 3-4)
Ecological literacy	"has a clear perception and understanding of a system's dynamics and ruptures, as well as its past and alternate future trajectories. He or she understands the complexity of studied objects and phenomena, allowing for more enlightened decision-making." (McBride et al., 2013, p. 13)
Ecoliteracy	"prepared to be an effective member of sustainable society, with well-rounded abilities of head, heart, hands, and spirit, comprising an organic understanding of the world and participatory action within and with the environment." (McBride et al., 2013, p. 14)
Ocean literacy	"understands the Essential Principles and Fundamental Concepts about the functioning of the ocean; can communicate about the ocean in a meaningful way; and is able to make informed and responsible decisions regarding the ocean and its resources." (NOAA, 2020, p. 2)

The concept of ocean literacy aligns closely with other taxonomies of environmental

literacy, particularly in its emphasis on a literate citizen's ability to make informed and socially

responsible decisions. Appropriately, however, ocean literacy is specifically focused on the

ocean and resources provided by the sea. It could be argued, given that the ocean is part of the

environment, ocean literacy should be able to be achieved through general environmental literacy and is therefore redundant. However, as Gough (2017) describes, ocean curricula have been underrepresented in general environmental education curricula especially considering that the ocean covers more than half of the Earth's surface, supplies us with the majority of the oxygen we breathe, feeds much of the underdeveloped world and is home to the world's greatest species biodiversity. A healthy environment can not exist without a healthy ocean and the development of ocean literacy is essential to ensuring a sustainable and environmentally responsible future.

In 2005, after seven years of development, a group of ocean scientists and educators released their framework for ocean literacy (Schoedinger et al., 2010). Ocean literacy was summarized as "understanding the ocean's influence on you and your influence on the ocean" (p.2) and further developed to describe an ocean literate person as someone who "understands the [seven] Essential Principles and Fundamental Concepts about the functioning of the ocean; can communicate about the ocean in a meaningful way; and is able to make informed and responsible decisions regarding the ocean and its resources" (NOAA, 2020, p. 2). The seven Essential Principles are:

1. The Earth has one big ocean with many features.
2. The ocean and life in the ocean shape the features of Earth.
3. The ocean is a major influence on weather and climate.
4. The ocean makes Earth habitable.
5. The ocean supports a great diversity of life and ecosystems.
6. The ocean and humans are inextricably interconnected.
7. The ocean is largely unexplored. (NOAA, 2020, p. 5)

These Essential Principles are further elaborated by 45 Fundamental Concepts and a

framework that specifies the knowledge, understanding, and competency a child should

demonstrate as they progress from Kindergarten through to Grade 12 (NOAA, 2020). While the

framework was developed in the context of the United States, it is in the process of being

adopted around the globe including by the European Union, Chile, Portugal, Japan, Belgium,

Australia, Fiji, Italy and Canada (NOAA, 2020; Canadian Ocean Literacy Coalition [COLC],

n.d.).

In 2018, the leading ocean education institutes and organizations across Canada formed

the Canadian Ocean Literacy Coalition (COLC) intending to strategically advance ocean literacy

in Canada (COLC, n.d.). In 2020, the COLC released its first national report, *Understanding*

Ocean Literacy in Canada, alongside a report presenting Canadian youths' perspectives and

recommendations for ocean literacy. The key insights identified by the COLC include

recognition that the term ocean literacy "has its roots in a Western science paradigm" (p. 6) and

risks "leaving out local, place-based, and Indigenous knowledge" (Glithero, 2020, p. 6). The

second key insight argued for an ocean curricular continuum that recognizes the

interconnectedness between land, water, ocean and sea ice especially because the majority of

Canada's population live inland away from coastal regions and have stronger connections to

waterways than to the ocean (Glithero, 2020). The last key insight from the COLC is the need to

align the educational efforts and messages about ocean, water, climate, and nature education

initiatives in recognition that none exists in isolation from the others (Glithero, 2020). This

insight speaks to the challenge faced by environmental educators resulting from the fact that the

various descriptions of the multiple literacies overlap in numerous ways and may generate

confusion and lead to duplication of efforts. The COLC held multiple youth workshops and

found that while there are issues with the ocean literacy framework, youths reported feeling that strengthening the relationship between Canadians and the ocean is critical for "our environmental, cultural and spiritual health" and could lead to Canadians becoming better "stewards of the ocean" (Roy, 2020, p. 1).

The *Ocean Bridge* program strives to achieve the goal of increasing ocean stewardship and advancing the ocean literacy of participants and Canadians through several educational pathways. While to date there has been no formal assessment of *Ocean Bridge* participants' increase in stewardly behaviour or the program in general, all educational programs are aligned with developing the following three key traits of an ocean literate citizen. An ocean literate citizen:

1. Understands the Essential Principles and Fundamental Concepts about the functioning of the ocean.
2. Can communicate about the ocean in a meaningful way.
3. Is able to make informed and responsible decisions regarding the ocean and its resources. (NOAA, 2020, p. 2)

The first trait of ocean literacy is developed by providing opportunities for participants to gain knowledge and understanding of the seven Essential Principles through video conference calls with guest speakers, facilitated group dialogues, and place-based education experiences during the learning journeys component of the *Ocean Bridge* program. Programmatic outcomes intend for participants to share their acquired knowledge with a broader audience through a variety of communication strategies including social media, traditional news outlets (radio, print, television), and youth-led outreach and education initiatives. Participants thereby develop their ability to meaningfully communicate about the ocean which is the second key trait of ocean

literacy. Finally, the service-learning nature of *Ocean Bridge* aims to achieve the third trait of an ocean literate citizen by encouraging participants to use the knowledge and awareness acquired through the program to make informed decisions, adopt environmentally responsible behaviours, and be active, engaged global citizens who care for the ocean.

Ocean literacy continues to be developed as a conceptual framework. Practitioners and academics have begun developing assessment tools and evaluating ocean literacy and ocean education programs. Fauville et al. (2019) developed an International Ocean Literacy Survey (IOLS) focused on measuring individuals' knowledge and understanding of the seven Essential Principles. The IOLS was originally developed in English, went through four rounds of content revision before being field-tested in 2019 and is now available in 13 additional languages (Chen et al., 2020). The research team developing the IOLS acknowledges that the survey focuses on one element of ocean literacy, an individuals understanding of the seven Essential Principles and 45 fundamental concepts, and that similar tools will need to be developed to assess an individual's ability to communicate meaningfully and to make responsible decisions regarding the ocean (Fauville et al., 2019).

Plankis and Marrero (2010) engaged in a mixed-methods case study to explore whether students demonstrated a change in competency associated with ocean literacy and measured their interest in adopting environmentally responsible behaviours as a result of participating in ocean literacy focused programs. Plankis and Marrero's analysis concluded that students are interested in the ocean and in behaving in an ocean-friendly way but have generally little knowledge about the ocean and low awareness of the urgency of associated issues. These findings were supported by a baseline investigation of the ocean literacy of students in Nova Scotia by Guest et al. (2015). Their study determined that Nova Scotian students were interested in learning about the

ocean and held high values for the ocean, but had limited ocean knowledge (Guest et al., 2015).

It was promising that even though some of the youths studied had low ocean literacy, they still

placed a high value on the ocean.

Research points to a significant need for further exploration of ocean literacy and best

practices to develop youths' ocean literacy. Ocean-related community service-learning programs

could be effective means to support the development of youths' interest in and value of the ocean

and advance their ocean literacy.

Mentorship

One of the main structural elements of the *Ocean Bridge* program is participants'

involvement throughout their experience in weekly one to one mentoring sessions provided by

program staff members. Erhabor (2018) makes an argument for greater integration of leadership

development in environmental education programs as a means to ensure effective leadership in

the environmental sector. This author also claims that mentoring relationships are an important

avenue through which this leadership development can be achieved. In a review of literature on

mentorship, I found that there is a considerable range of research exploring the role of

mentorship in university and college, pre-service teaching, and nursing. It is apparent, however,

that there is a gap in the literature concerning the role of mentorship in environmental education,

stewardship, service-learning activities, and the overall environmental sector (Erhabor, 2018).

In a critical review of literature on mentorship in academic settings, Crisp and Cruz

(2009) found there to be over 50 definitions of mentorship. While these definitions varied

greatly, the reviewers concluded that the literature supported three general observations about

mentorship: (1) mentoring relationships focus on the individual growth of the mentee; (2)

mentors provide professional development support, role modelling, and psychological support;

and (3) mentoring relationships are personal and reciprocal (p. 528). Milner (2005) separates

mentorship into two categories. First, informal mentorship, which is

> naturally occurring, supportive relationships students have with older and more
> experienced individuals such as parents, extended family members, neighbours,
> teachers, ministers, and others with whom students have regular contact. Informal
> mentoring involves the provision of general guidance and support and, in some
> instances, helping a student learn something new (Milner, 2005, p. 2).

The other type of mentorship described by Milner (2005) is formal mentoring which

> involves a structured and intentional approach to offering students those
> experiences and benefits similar to the ones provided by informal mentors. Such
> initiatives are often facilitated by an agency or program dedicated to this purpose
> and encompass both one-on-one relationships between an adult and the student, or
> an older more experienced peer and a younger peer, as well as small groups of
> students working with an adult or older peer on a particular goal. (p. 2).

Furthermore, Milner saw formal mentorship as typically one-on-one in nature, with

activities that are regularly scheduled. Formal mentorships are often only one element of a

program focused on youth development, civic engagement, or career exploration (Milner, 2005).

In the *National College Transition Network's* mentoring toolkit, Sharma (2015) builds on this

definition of formal mentorship and describes the following five characteristics of "responsible

and effective mentoring" (2015, p. 4). Mentoring:

1. Is a structured, one-to-one relationship and partnership focused on the needs
   of the mentored participant/mentee.
2. Fosters caring and supportive relationships.
3. Encourages individuals to develop to their fullest potential.
4. Helps an individual to develop his or her own vision of the future.
5. Is a strategy to develop active community partnerships. (2015, p. 4)

The wide array of definitions and application of mentorship in diverse contexts and communities of practice has led to equally plentiful and diverse observations regarding best practices for mentorship programs and experiences. Many studies of mentorship programs provide claims as to what made a particular mentorship program effective.

To understand the role of mentorship in supporting traditionally underserved students in achieving academic success Smell and Newman (2020) conducted a case study of the McNair Scholars Program at a public university. The program's multi-tiered mentorship strategy provides students with mentorship from an expert in the field, a peer, and a program staff member. Smell and Newman argue that the program is particularly effective because students receive support through three integrated channels working "together to foster different, yet necessary elements of cultural and social capital" (Smell & Newman, 2020, p. 36). The mentorship from experts in the field provides participants with connections to relevant professional networks and specific disciplinary knowledge, while the peer mentorship provides students with role models and "vicarious learning opportunities" (p.28) and the program staff guide students through their experience in the program (Smell & Newman, 2020).

While exploring mentorships in transformative learning in graduate-level education, Misawa and Mcclain (2019) found that "inclusive, open, and democratic (p. 58)" mentorship environments were necessary to encourage transformative learning for the mentees. These researchers also recognized that it is the mentor's responsibility to create a learning environment "where learners can feel more comfortable or freer to critically reflect on their own past experiences" (Misawa & Mcclain, 2019, p. 58).

In a mixed-methods study of a newly introduced university-based peer-mentorship program for Indigenous students, the researchers found that the development of programs should

be a participatory process that engages the students, staff, and administration (Rawana et al., 2015). Through a study of female professionals working in the water policy and research community Wolfe et al. (2013) found, that mentoring should align with needs identified by the participants and should take into consideration the type of mentorship the mentee seeks: vocational or psychosocial. Furthermore, the researchers propose leveraging mentorship experiences to facilitate the transmission of technical and qualitative knowledge between experienced and young professionals (Wolfe et al., 2013).

The outcomes of mentorship experiences are as varied as the ways in which mentorship is provided to participants. Slim-Topdjian and Pinto Zipp (2016) researched an experiential teacher training package where one group had mentorship included in their training and a second group did not receive mentorship. Although the sample size was small, the results of this study showed that the student teachers who received the mentorship experienced a more positive and successful training experience and demonstrated a more sustained implementation of the skills learned during the training (Slim-Topdjian & Pinto Zipp, 2016). Ernst and Erickson (2018) examined the role of mentorship in an environmental education program, *Lake Superior Rivers2Lake* (*R2L*)*,* which provides teachers with training and mentorship as they incorporate *R2L* in their curricula. The researchers found that mentorship allowed individualized support to meet each teacher's unique and changing needs throughout the year. Further, Ernst and Erickson (2018) found that teachers felt the encouragement and support they received made the mentorship effective. Mentorship has also been found to be important for creating pathways by which mentees find a sense of belonging in their communities of practice such as found in nursing (Vinales, 2015) and counselling (Murdock et al., 2013).

Summary

Service-learning, ocean literacy, and mentorship form the foundation of the *Ocean Bridge* program design. The above review of current service-learning and ocean literacy literature suggests that there is a strong alignment between the potential outcomes of service-learning programs and the characteristics of an ocean literate citizen, especially if the service-learning programs are focused on ocean conservation. This strong alignment is found where service-learning is differentiated from other volunteer or community service experiences by equally prioritizing the development and education experience for the participants with the service component being provided to the community. The *Ocean Bridge* program design incorporates opportunities for participants to deepen their knowledge and understanding of the Essential Principles of ocean literacy (the first characteristic of an ocean literate citizen) and to develop professional skills such as communication (the second characteristic of an ocean literate citizen). Furthermore, service-learning has been shown to be effective in leading participants to adopt environmentally responsible behaviours and to engage in civic participation which, when the ocean context is applied, are examples of an individual's ability to make responsible decisions about the ocean and ocean resources (the third characteristic of an ocean literate citizen). The review of current literature on mentorship in the environmental and youth fields, suggests that the inclusion of mentorship in the *Ocean Bridge* program may play an important role in guiding participants through their service-learning experiences and supporting them in achieving future successes in the ocean conservation sector. Therefore, *Ocean Bridge* may be well-positioned to accomplish its goals of improving ocean health, advancing ocean literacy, and inspiring a culture of service.

This thesis explores participants' experiences in the *Ocean Bridge* program with respect to its three objectives and contributes to filling the gap in the literature when it comes to the evaluation of ocean education initiatives and ocean-focused service-learning programs. In the following chapter, the methodology and methods used to design and conduct this research are described including a review of the literature related to the Appreciative Inquiry method that informed the design of this study.

Chapter 3: Research Methodology

Appreciative Inquiry

For this study, I applied a program evaluation using an Appreciative Inquiry (AI) approach which originates from the organizational development field as a means to identify and implement organizational and system change (Bushe & Marshak, 2009, Coghlan et al., 2003, Cooperrider et al., 2003, Cooperrider et al., 2008). Cooperrider and Whitney (2005) describe AI as

> the cooperative, coevolutionary search for the best in people, their organizations, and the world around them. It involves systemic discovery of what gives life to an organization or a community when it is most effective and most capable in economic, ecological, and human terms.

> In Appreciative Inquiry, intervention gives way to inquiry, imagination, and innovation. Instead of negation, criticism, and spiralling diagnosis, there is discovery, dream, and design. Appreciative Inquiry involves the art and practice of asking unconditionally positive questions that strengthen a system's capacity to apprehend, anticipate, and heighten positive potential. (Chapter 2, section Overview, para. 4)

As described by Bushe and Marshak (2009), the organizational development field has historically focused on diagnostic approaches to change, aiming to identify problems first and implement solutions to fix those problems. However, AI among other dialogic approaches has emerged as an alternative approach focused on creating a vision for what can be and developing an action plan to reach that vision. As a dialogic approach, AI is grounded in a social constructivist theory that recognizes that there are many realities rather than one ultimate truth to be discovered (Bushe & Marshak, 2009). As such, AI is generative and when implemented leads

to new ideas with the only limitation being imagination (Bushe & Marshak, 2009). It is this generativity that makes AI a valuable tool for envisioning the future of what a program can be (Bushe & Paranjpey, 2015).

In a study comparing dialogic approaches (AI and Synergenisis) with a diagnostic approach, Bushe and Paranjpey, (2015) found individuals participating in the AI and Synergenisis sessions were more highly engaged in the process and contributed more to the discussions. In contrast, the researchers found the participants in the problem-solving focused session became more frustrated as they focused on the problems leading them to disengage early. Furthermore, Bushe and Paranjpey (2015) found that the dialogic approaches fostered conversations that maintained relevancy throughout, while participants in the diagnostic sessions used them as an opportunity to bring forward many other concerns specific to them although not necessarily relevant to the inquiry.

The 4-D Model.

A primary AI model is termed the 4-D model which stands for Discovery, Dream, Design, and Destiny (Cooperrider et al., 2003). This model guides the inquiry from exploring what is currently working well to envisioning the future and implementing change. Cooperrider and Whitney (2005) describe the four phases of the 4-D AI approach as follows:

1. *Discovery*: Mobilizing the whole system by engaging all stakeholders in the articulation of strengths and best practices. Identifying "The best of what has been and what is."
2. *Dream*: Creating a clear results-oriented vision in relation to discovered potential and in relation to questions of higher purpose, such as, "What is the world calling us to become?"

3. *Design*: Creating possibility propositions of the ideal organization, articulating
    an organization design that people feel is capable of drawing upon and
    magnifying the positive core to realize the newly expressed dream.

4. *Destiny*: Strengthening the affirmative capability of the whole system,
    enabling it to build hope and sustain momentum for ongoing positive change
    and high performance. (Chapter 3, section Overview of the 4-D Cycle, para.
    3)

Appreciative Inquiry as an Evaluation Tool.

Modified versions of the AI approach have been applied to program evaluations with AI

considered to be most appropriate when the evaluation outcomes are intended to inform future

program design (Coghlan et al., 2003) and by organizations that see evaluation as a learning

process (Arenas, 2009). AI as an evaluation tool is unique in that instead of identifying problems

that need to be solved, it exposes what is working well and generates ideas based on those

successes. These insights are used as inspirations to envision the program at its best in the future

(Coghlan et al., 2003, Cooperrider et al., 2003, Cooperrider et al., 2008). MacCoy (2014)

provides a review of several studies that applied AI to evaluation and found that it is the

powerful questioning and reframing resulting in high participant engagement that makes it a

valuable evaluation process.

One example of AI used in program evaluation was done by Sandberg et al. (2017) who

chose to use an Appreciative Inquiry to evaluate outdoor recreation programs with the hope that

the outcomes would provide "common ideals to work toward rather than pitfalls to avoid" (p.

116). Kung et al. (2013) applied Appreciative Inquiry to their evaluation of a higher education

program and claim the approach led to the discovery of life-centric insights often missed by

traditional course evaluations.

Research Design

For this study, I have taken a modified approach to Cooperrider and Whitney's (2005) AI process focusing on the Discovery, Dream and Design phases, and leaving an invitation to *Ocean Wise* to carry out the Destiny, or implementation, phase. This research is well suited to an AI approach for several reasons discussed below.

First, AI's foundations in social constructivism and commitment to the existence of multiple realities will respect the diverse participants in the first *Ocean Bridge* cohort and encourage their equally diverse experiences to be reflected in the outcomes of this research. Second, the driving intention behind this research is to identify insights that will guide *Ocean Bridge* in future program development as it transitions out of the pilot phase and becomes an established service-learning program. Bushe and Marshak (2009) warn that AI is less successful when operating within a diagnostic, organizational development context, that is one focused on "changing behaviour and what people do" rather than the dialogic focus of "changing mindsets and what people think" (p. 357). Given the *Ocean Bridge* program's desire to discover how it can best serve youths, and to understand the *Ocean Bridge* experience from the various perspectives of participants, it is positioned to be more aligned with a dialogic approach to change. Furthermore, dialogic approaches such as AI, view human systems as meaning-making systems, that engage participants in the change process through shared visions, and use data collected to raise awareness of multiple perspectives and truths experienced within the system (Bushe & Marshak, 2009). Using AI for this research has the added value of providing a space for the participants of *Ocean Bridge's* initial cohort to reflect on, and make meaning of, their experiences while contributing to the future of the program.

Participant Selection

At the time this research project was initiated, the youths in the 2018 *Ocean Bridge*

cohort were the first and only group to have completed the program.[2] Given these facts, I used

convenience sampling to recruit research participants for this study. I followed the steps outlined

below to confirm youths' participation in the research.

Step 1: I first sent a letter of invitation to participate in the study (Appendix G), by email,

to all 38 youths who had completed the 2018 *Ocean Bridge* program and received

responses from twelve interested youths.[3]

Step 2: Next, I confirmed with the twelve interested youths that they had been selected as

research participants.

Step 3: Signed Research Consent Forms (Appendix H) were collected from the

confirmed research participants and interviews were subsequently scheduled with

each individual.

One of the twelve research participants was unavailable to be interviewed due to schedule

conflicts and therefore was withdrawn from the research project.

Data Collection

Semi-structured individual interviews guided by AI methods were used to gather data on

the participating youth ambassador's experiences in *Ocean Bridge* and their vision for its future.

Because the research participants were located in communities across Canada the interviews

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[2] The youth application and selection process for the 2018 *Ocean Bridge* program began January 2018 prior to the conception of this research project. Appendix C provides details on the process by which youths came to be participants in the 2018 *Ocean Bridge* program.

[3] While the 2018 *Ocean Bridge* cohort began with 40 participants, two tragically lost their lives at the time this study began. For that reason, only 38 members of the cohort were sent invitations to participate in the study.

were conducted and recorded using video conferencing technology (Cisco WebEx). During the

interviews, I used techniques common to AI including appreciative questioning and reframing.

To develop the interview guide for this study, I used the framework presented by Cooperrider, et

al. (2008) which describes an AI interview guide as having three types of questions.

1. Opening questions.
   - Describe a "peak experience" or "high point."
   - What are the things valued most about:
       o Yourself?
       o The nature of your work?
       o Your organization?
2. Questions centring on three to five affirmative topic choices selected by the
   core team.
3. Concluding questions.
   - What are core factors that "give life" to organizing?
   - Operating at its "best from its strengths," where do you envision this
     organization to be five years from now? How can you and/or your team
     contribute to its success?
   - What are your three wishes to heighten the vitality and health of your
     organization? (Chapter 4, Key Steps in Data Collection section, para. 9)

To develop the opening and concluding questions I looked to the four foundational questions

(See Table 2; Chapter 2, Affirmative Topic Choice) from Cooperrider et al. (2008) and examples

from their Not-for-profit sample interview guide (Chapter 8, Sample Interview Guide - Not-for-

Profit). I then selected Culture of Service, Ocean Literacy, and Ocean Health as the topics to

explore in the body of the interview because these three topics represent the goals of the *Ocean*

Bridge program. To create the questions that explore the three main goals of *Ocean Bridge,* the

Encyclopedia of Positive Questions (Whitney et al., 2001) was used as a guide. All the questions

were modified to fit the context of this study and to ensure the interview elicited responses that made contact with *Ocean Bridge's* objectives of inspiring a culture of service, advancing ocean literacy, and improving ocean health. The following are the interview questions I developed and used for this study (See *Appendix I* for the full interview guide).

1. Describe your beginnings with *Ocean Bridge*. That is, what attracted you to *Ocean Bridge*, and what was your initial excitement or impression when you joined *Ocean Bridge*?

2. During your participation with *Ocean Bridge,* you probably experienced ups and downs, twists, and turns. For a moment, I would like you to think of a time that stands out to you as a high point with *Ocean Bridge* – a time when you were most alive and engaged. Tell me about this experience.

   - What was it about the experience that made it a highlight for you?

   - Did some particular people make this experience especially engaging? Why were they significant?

3. Thinking about the overall program, what were the things that made it most engaging for you? (For example, facilitation, design/structure, mentorship support, resources, network/relationships).

4. Let's talk a moment about some things you value deeply – specifically, the things you value about (1) yourself, (2) the nature of your *Ocean Bridge* service projects, and (3) the *Ocean Bridge* program.

   - Without being humble, what do you value most about yourself as a human being, a friend, a parent, a citizen?

- When you are feeling best about your *Ocean Bridge* service projects, what do you value about the task itself?

- What is it about *Ocean Bridge* that you value?

- What is the single most important thing *Ocean Bridge* has contributed to your life?

5. Culture of Service: When at its best, *Ocean Bridge* is a service-learning program that inspires youths and young professionals to embrace a culture of service and take action towards ocean conservation.

   - Tell me about a time during *Ocean Bridge* that you were highly engaged in a service project. What made this service experience radically different? What did you and others do to make it an engaging experience? What were the outcomes and benefits you experienced?

   - What does *Ocean Bridge* do best to encourage or inspire a culture of service among program participants?

6. Ocean Literacy: Central to the mission of *Ocean Bridge* is advancing ocean literacy in Canada both by providing opportunities for participants to develop their own ocean literacy and empowering participants to educate others about oceans through participant-led service activities.

   - Describe a time during your participation in *Ocean Bridge* when you believe you were learning something new and meaningful regarding oceans. What lessons can be drawn from your example? What does *Ocean Bridge* do best as it relates to building good learning opportunities?

- When do you feel *Ocean Bridge* was most effective in advancing the ocean literacy of others (i.e., people who were not one of the 40 participants)? What was happening? What made it successful or effective?

7. Ocean Health: The third key pillar of *Ocean Bridge* is affecting ocean health through service activities and demonstrating the important role National Marine Conservation Areas and Marine Protected Areas play in ocean conservation.

   - Think of the most memorable moment during *Ocean Bridge* where you felt you were positively influencing the health of oceans. Tell the story of what was happening. What was it that made this activity/project so successful and influential?

   - Describe a time during *Ocean Bridge* you felt was most effective in advancing your understanding of National Marine Conservation Areas and Marine Protected Areas. What made it such an effective learning moment? Who was involved? What was happening?

8. As *Ocean Bridge* transitions out of the pilot phase, it is important to know how to preserve the core of what *Ocean Bridge* does best and to let go of things that are no longer needed. In transforming *Ocean Bridge*, what are three things – core strengths, values, qualities – you want to see preserved and leveraged moving into the future?

9. Assume you go into a deep sleep tonight, one that lasts ten years. But while you are asleep, powerful, and positive changes take place, real miracles happen, and *Ocean Bridge* becomes what you want it to be. Now you awaken and participate in the *Ocean Bridge* program. It is 2029, and you are very proud of what you see. As you take in this

vision and look at the whole, what do you see happening that is new, changed, better, or effective and successful?

To contextualize the narratives gathered during the interviews, demographic information was collected during a pre-interview survey including whether the participant was from an urban or rural community, if they have lived in a coastal area, if they identify as Indigenous or as a member of a visible minority and what, if any, environmental education, volunteer or service programming they have previously participated in.

Table 2

Connection Between Appreciative Inquiry Interview Guide, Foundational Questions, This Study's Interview Questions, and the 4-D Model.

Cooperrider AI interview Guide	Foundational Questions	Interview Guide for this study	Connection to the 4-D model
Opening Questions			
		Describe your beginnings with *Ocean Bridge*. That is, what attracted you to *Ocean Bridge*, and what was your initial excitement or impression when you joined *Ocean Bridge*?	Discovery
Describe a "peak experience" or "high point."	What would you describe as being a high-point experience in your organization, a time when you were most alive and engaged?	During your participation with *Ocean Bridge*, you probably experienced ups and downs, twists, and turns. For a moment, I would like you to think of a time that stands out to you as a high point with *Ocean Bridge* – a time when you were most alive and engaged. Tell me about this experience.	Discovery
		Thinking about the overall program, what were the things that made it most engaging for you? (For example, facilitation, design/structure, mentorship support, resources, network/relationships).	Discovery
What are the things valued most about yourself? The nature of your work? Your organization?	Without being modest, what is it that you value most about yourself, your work, and your organization?	Let's talk a moment about some things you value deeply – specifically, the things you value about (1) yourself, (2) the nature of your *Ocean Bridge* service projects, and (3) the *Ocean Bridge* program. • Without being humble, what do you value most about yourself as a human being, a friend, a parent, a citizen? • When you are feeling best about your *Ocean Bridge* service projects, what do you value about the task itself?	Discovery

Cooperrider AI interview Guide	Foundational Questions	Interview Guide for this study	Connection to the 4-D model
		• What is it about *Ocean Bridge* that you value? • What is the single most important thing *Ocean Bridge* has contributed to your life?	
Topic Questions			
Questions centring on three to five affirmative topic choices selected by the core team.		**Culture of Service**: When at its best, *Ocean Bridge* is a service-learning program that inspires youths and young professionals to embrace a culture of service and take action towards ocean conservation. • Tell me about a time during *Ocean Bridge* that you were highly engaged in a service project. What made this service experience radically different? What did you and others do to make it an engaging experience? What were the outcomes and benefits you experienced? • What does *Ocean Bridge* do best to encourage or inspire a culture of service among program participants?	Discovery
		Ocean Literacy: Central to the mission of *Ocean Bridge* is advancing ocean literacy in Canada both by providing opportunities for participants to develop their own ocean literacy and empowering participants to educate others about oceans through participant-led service activities. • Describe a time during your participation in *Ocean Bridge* when you believe you were learning something new and meaningful regarding oceans. What lessons can be drawn from your example? What does *Ocean Bridge* do best as it relates to building good learning opportunities? • When do you feel *Ocean Bridge* was most effective in advancing the ocean literacy of others (i.e., people who were not one of the 40 participants)? What was happening? What made it successful or effective?	Discovery
		Ocean Health: The third key pillar of *Ocean Bridge* is affecting ocean health through service activities and demonstrating the important role National Marine Conservation Areas and Marine Protected Areas play in ocean conservation. • Think of the most memorable moment during *Ocean Bridge* where you felt you were positively influencing the health of oceans. Tell the story of what was happening. What was it that made this activity/project so successful and influential?	Discovery

Cooperrider AI interview Guide	Foundational Questions	Interview Guide for this study	Connection to the 4-D model
		• Describe a time during *Ocean Bridge* you felt was most effective in advancing your understanding of National Marine Conservation Areas and Marine Protected Areas. What made it such an effective learning moment? Who was involved? What was happening?	
Concluding Questions			
What are core factors that "give life" to organizing? What are your three wishes to heighten the vitality and health of your organization?	What are the core factors that give life to your organization— when it is at its best, without which the organization would cease to exist?	As *Ocean Bridge* transitions out of the pilot phase, it is important to know how to preserve the core of *Ocean Bridge* does best and to let go of things that are no longer needed. In transforming *Ocean Bridge*, what are three things – core strengths, values, qualities – you want to see preserved and leveraged moving into the future?	Design
Operating at its "best from its strengths," where do you envision this organization five years from now? How can you and/or your team contribute to its success?	What three wishes do you have now to enhance the health and vitality of your organization?	Assume you go into a deep sleep tonight, one that lasts ten years. But while you are asleep, powerful and positive changes take place, real miracles happen, and *Ocean Bridge* becomes what you want it to be. Now you awaken and participate in the *Ocean Bridge* program. It is 2029, and you are very proud of what you see. As you take in this vision and look at the whole, what do you see happening that is new, changed, better, or effective and successful?	Dream

Data Analysis

The recorded video interviews were transcribed to written text and analyzed using descriptive coding methods (Saldana, 2016). While transcribing and during the initial review of the written transcripts, I kept a record of preliminary impressions and codes and then I moved into the formal process of coding and recoding the interview transcripts. I used first cycle methods to assign codes and second cycle methods to categorize and refine the codes from the first cycle as described by Saldana (2016). As the codes were categorized, I looked for shared characteristics and identified patterns and themes to make meaning of the data (See Appendix J, Table A6; Saldana, 2016).

Limitations, Validity & Reliability

Thirty-eight youths from the 2018 *Ocean Bridge* program were invited to be interviewed, but the research was limited to the eleven youths that consented to participate in the study. While the eleven research participants represented a cross-section of the demographics represented in the 2018 *Ocean Bridge* cohort including whether they are from an urban or rural community, have lived in a coastal area, identify as Indigenous or member of a visible minority, age, and gender, the valued perspective of Northern youths is absent from this study. To protect their anonymity, and due to the small size of the cohort, these details of the participants' demographics and backgrounds have not been included in this presentation of the research. When invited to participate in the study, the 38 youths that completed the 2018 *Ocean Bridge* program were assured that their decision whether or not to participate in the study would not negatively affect their possible participation in future *Ocean Bridge* and Canada Service Corps activities.

The research participants live across Canada in both remote and urban communities and so the interviews needed to take place using video conferencing technology. This limited my ability to make observations of participants' nonverbal cues during the interviews. Additionally, I hosted a single interview with each research participant after they completed the program, and the interview questions were informed by AI rather than applying a complete 4-D AI cycle.

Responses to voluntary interviews will always have some biases because the interviewee may feel obliged to provide the researcher with what they view as a desired response. In this study, interview participants were given no cues as to the specific goals of the interviews. To ensure rigour, transcripts, coding analysis and conclusions drawn from the interview data were shared with the research participants who were then invited to provide comments and confirm whether the conclusions appropriately reflected what they believed they had communicated. Four

of the eleven research participants responded with remarks that they did not have feedback on the data analysis. Given the narrative nature of this study and the subjectivity of data analysis through coding, the study results were subject to influence by the perspectives of the research participants and myself as the sole interviewer and researcher. Therefore, I have described my background in environmental education and my personal connection to the *Ocean Bridge* program in chapter 1 of this thesis to provide the context from which conclusions of this study were drawn.

Ethical Considerations

This study commenced after ethical approval was received from the Royal Road University Ethics Review Board. Participants eligible to participate in this research were over the age of majority and were thus able to give Informed Consent before joining the study. The Research Consent Form (Appendix H) was reviewed and discussed with the participants prior to their consent being given. Participants were informed that they could opt-out of the study at any time and that doing so would not impact their further participation in the *Ocean Bridge* program or alumni activities. *Ocean Bridge* youths who identified as Indigenous would have been provided with appropriate consent forms to approach their Band Council or Nation administration for approval to participate in this study, however, none of the research participants required this.

I hosted the video conference interviews from either my private office at the Vancouver Aquarium or from the privacy of my home. The research participants were asked to join the conferences from private locations of their choosing. The interviews were recorded with the knowledge and consent of the participant. Data collected, including interview notes and recordings were stored on an external hard drive and kept along with any physical notes in a

locked drawer in the *Ocean Bridge* office at the Vancouver Aquarium. Upon conclusion of the study and acceptance of the thesis by the Royal Roads University library study, hard copies of data will be shredded and disposed of in *Ocean Wise's* confidential shredding receptacle; electronic copies of data will be deleted, and the hard drive reformatted. To protect participants' identities, they were instructed to select a pseudonym to which they are referred in the thesis and any subsequent reports or communications. Additionally, I have used gender-neutral pronouns throughout this thesis.

While I am the primary researcher, I also was the *Ocean Bridge* program manager during the 2018 program as well as through the beginning of this research. I have since transitioned to the role of Director of Youth with *Ocean Wise* and provide leadership to the *Ocean Bridge* program. My annual performance review does not include metrics assessing outcomes explored through this study. The purpose of this research was to inform future program design with respect to what changes could be applied to enable *Ocean Bridge* to be at its best. Given this purpose, it was in my best interest as both researcher and program director to uphold rigorous and ethical standards. I am also well-positioned to follow through and implement recommendations identified through this research.

Upon completion of the thesis, a report will be provided to *Ocean Wise* describing and summarizing any recommendations or insights resulting from the study that have implications for future *Ocean Bridge* program delivery. In the following chapter, the analysis of the data gathered through the methods described above is presented.

Chapter 4: Findings

This research was designed to provide insights into the experience of youths who participated in the *Ocean Bridge* program, to identify what the program is doing when it is at its best and to capture the participants' visions for the future of *Ocean Bridge*. Through the Appreciative Inquiry approach, I was able to acquire insights from the eleven youths that reflected their individual and shared experiences. Presented below are the findings for each of the research questions that were explored through this research.

(1) How do the youths describe their experiences as participants in the 2018 *Ocean Bridge* program?

(2) Do participants in the 2018 *Ocean Bridge* program identify and characterize some of their experiences as representations of *Ocean Bridge* at its best?

(3) Do the youth participants in the 2018 *Ocean Bridge* program offer possible changes to the program's experiences in order to allow it to best reflect the stated goals of advancing ocean literacy, improving ocean health, and inspiring a culture of service for the ocean?

2018 *Ocean Bridge* Program Context

Youths are engaged through three key elements of the *Ocean Bridge* program: (1) community and capacity building, (2) the *Remote Learning Journey* and (3) the *Urban Learning Journey*. To provide context for the participants' experiences, a description of each element and its subcomponents is described in *Appendix A* and an overview of the timeline and sequence of events for the 2018 program is presented in *Appendix B*. Furthermore, details of the youth-led service projects, experiential education activities, professional development opportunities and

other highlights from the learning journeys are available in *Appendix E* for the *Remote Learning Journey* and *Appendix F* for the *Urban Learning Journey.*

Participants' *Ocean Bridge* Experiences

The structure of the *Ocean Bridge* program means that youths have individualized experiences. Each participant identifies and develops their own local ocean service project and participates in different teams to plan service projects for the two learning journeys. While the collection of activities each participant engaged in was unique to the individual, an in-depth analysis of the conversations held with the research participants revealed several common themes across their experiences: (1) Community, (2) Personal Growth, (3) Professional Development, and (4) Pride (See Tables 3 and 4). Given the diverse nature of the youths' previous experiences and their personal contexts, pieces of some personal experiences were unique and did not align as closely or at all with the common themes identified.

Table 3

Frequency of Code Categories from Participant Interviews

Theme	Category	Frequency
Community		
	Friendship	14
	Support & Accountability	35
	Peer-to-Peer Learning	19
	Other	31
	Total	**99**
Personal Growth		
	Broadened Perspectives	34
	Self-awareness	12
	Confidence	11
	Other	9
	Total	**66**
Professional Development		31
	Total	**31**
Pride		57
	Total	**57**

Table 4

Themes Identified from Each Participant's Interview

Theme Category	Participant											Total
	Ariel	Seastar	Boleyn	Rose	Bill	Beau	Luna	Mollie	Sara	Chester	Lewis	
Community												
Friendship	X	X		X	X	X		X	X	X	X	**9**
Support & Accountability	X	X	X	X	X	X		X	X	X	X	**10**
Peer-to-Peer Learning	X	X		X	X	X	X	X	X		X	**9**
Other	X	X	X	X	X	X	X	X	X	X	X	**11**
Personal Growth												
Broadened Perspectives	X	X	X	X	X	X	X	X			X	**9**
Self-awareness			X				X	X	X			**4**
Confidence	X		X	X		X	X	X				**6**
Other	X		X			X	X	X	X	X		**7**
Professional Development	X	X	X	X	X	X	X	X	X	X	X	**11**
Pride	X	X	X	X	X	X	X	X	X	X	X	**11**

Community.

The strongest theme that emerged through the conversations with the youths was that *Ocean Bridge* gave them a community of peers that provided friendship, support, accountability, and opportunity for peer-to-peer learning. Through being a part of this community participants were able to see their collective impact and felt more empowered. For example, participant Chester found that "just knowing that there's people out there can give you hope". Beau's statement below also provides an example of the effect of being a part of the cohort.

> I was sad that we didn't pick up all the garbage, but I was happy that we did something and that it empowered us to continue to, you know, share that with people. I just remember feeling really connected to everyone and really alive, and like I could just do more that day.

Friendship. For the youths this was more than a community of peers, it was a community of friends and some described finding rare friendships and relationships that will last a lifetime.

This is evident in comments by Ariel, Seastar and Chester with each responding that the friendships and connections to people were the most important things *Ocean Bridge* contributed to their life. The following selection of sentiments from across the interviewees also supports the important role friendship played in the participants' experiences.

> …the fact that there were so many of us there that shared the experience and that connection that we made with everyone was really special. I've never really experienced in my life before…there's very few times in your life where you go through an experience like that with people and it really brings you together that close…I feel like now we're bonded for life or something (Beau).

> What I keep coming back to is that network of people that I've been able to establish and those connections through the year that we were together. It's nice to know that really from coast to coast in Canada there is a group of people that I know as a network but also as friends too. I feel like that was really, really encouraging to see (Lewis).

> Creating a whole new network of amazing friends who also love the ocean and you probably share the experiences with, and especially some and the experience has been such a huge part of my life and so informative in different ways. Just to have those people that you can share that with…it's so hard to put it into words like what an incredible program it's been for me, to have those other people who just understand and who just get it, it's awesome (Mollie).

> …being able to meet all these people that share very similar mentalities and goals and who are also so different and have their own unique views and backgrounds was really majorly important…We've been out of the program for six months or something like that now roughly and we all are still connected. We still talk and all of us have made friends, some may be better than others and you're more engaged and connected to some than others… it's a really unique

network that will definitely continue on in the future and it will be an important

part of our service and careers and everything (Bill).

Support and accountability. In the relationships that the youths formed with one another,

they found support, inspiration, and accountability. Bill recalls that if they "had a question or

needed something, [they] could contact any one of them, and that goes the other way as well".

This was also echoed in the interviews with Seastar and Lewis.

> I love how it connects people from all across the country, I think it's so
> important…it's just so diverse and I feel like it really connected me with people
> that I know I'm going to be able to chat with my whole life and…network that I
> can get feedback on for different projects (Seastar).

> I feel like what kept that project going and engaging was the fact that we
> were all really supportive with each other and kind of focused on what we could
> do to keep that project moving forward (Lewis).

Sara went further to describe the support as being not only of a professional nature but of a very

personal nature as well. Sara shared

> the major plus with *Ocean Bridge* was that it became more than just service
> projects, but rather a family…we lean on each other professionally, but we've also
> leaned on each other in very emotional and vulnerable ways as well…that
> matters.

Peer-to-peer learning. Another way in which the community element enhanced the

participants' experiences was through providing opportunities for participants to learn from one

another in both formal and informal settings. Throughout the interviews, the participants

described some of their most effective and memorable learning moments as being led by their

peers. Seastar, Luna, Mollie and Sara all referenced learning about microplastics from one of

their peers either through a presentation given by a peer or through casual conversations throughout the program. Seastar demonstrates this while describing their most influential learning moment about the oceans.

> [Their] plastic talk that [they] did in Haida Gwaii, that was also so good. I didn't know at the time that plastics didn't break down, that they broke up and I was like, "What?".… So that was probably my biggest aha moment because you know, [they] just know [their] stuff.

Rose and Seastar also described the opportunities for one-on-one and small group dialogue on various topics as effective learning moments. As demonstrated in their comments below, these group conversations were a collaborative and supportive space for participants to share their diverse perspectives.

> …when we had those, like, little mini breakout group discussions, I found those were super interesting as well… everyone was pitching in or we would have been, like, ask the one who hasn't said anything and we are like, "What do you think?" it was very inviting and supportive. It was really engaging. And it really, made you think about things and think about the way that other people see them depending on, their background, where they're from…it was just very collaborative (Rose).

> I think having like individual or small group chats with people really made a difference. There were so many people who had, you know, backgrounds in different things, not even necessarily ocean-related, but it all kind of tied together in a sense, like, I'd sit down and chat with, [them] and [they] would just talk about all of [their] zero waste stuff and I'd always be learning when I was talking with [them] (Seastar).

Luna described learning from their peers as engaging because the cohort members "have similar interests, but mostly [they] all had something new to bring, so it was learning from each

other, and growing". For the participants with less experience, peer learning also provided an opportunity to learn from those who were further along in their education and careers. This view was demonstrated by Seastar.

> There were just so many inspirational people to be around like so many people who were much older than me who had already done a lot and I was just starting so getting to be around them in Haida Gwaii and just, you know, learning from them and hearing about all the different opportunities they've been involved in. I think that was the most exciting time for me was just feeding off of everyone's energy. Like I felt so pumped up all the time and that was so much fun.

Personal Growth.

The youths described a sense of personal growth as part of their experiences with *Ocean Bridge*. Specifically, youths felt that their perspectives and appreciation for diversity broadened and they expressed feeling more confident and self-aware.

Broadened perspectives. The diversity within the *Ocean Bridge* cohort and the strong community bond that was formed created space for participants to listen and even to challenge one another's perspectives on ocean issues. As Chester stated, "*Ocean Bridge* puts us in a situation where we could have the conversations and ideas flowing in a safe space, but also people were there to represent those ideas and those cultural aspects". Luna mirrored this claim while discussing the role of Indigenous hosts and youths throughout the program stating that the inclusivity of the program supported "breaking of the barrier between people across Canada and Indigenous community". They went on to say Indigenous participants, hosts and guest speakers were "not only seen but they got to lead activities and they got to influence us…that was very interesting because it wasn't only participating…they were invited, and they could be a part of the whole process…and that was very rich."

The opportunity to learn from various cohort members and hosts in safe spaces led participants Rose, Lewis, Beau and Seastar to feel that the program provided them with a better understanding of ocean conservation across Canada. Lewis captured this, stating

I feel like we had a really diverse cohort…I think that was really powerful to create kind of a clear picture of what ocean conservation in Canada can be and created rich discussions too around some of those issues that are being faced…although there are commonalities, there's also a lot of differences…I think it put that issue into perspective.

Seastar, Beau, and Bill's statements below provide further support of how the program broadened participants' perspectives of ocean issues and service.

[*Ocean Bridge*] brings people together but it also gives you a new perspective on things because you're not just looking through your eyes, you're looking through everyone else's eyes too…and you're seeing things in different ways, based on region, based on cultural background…those sorts of things. By meeting people from different places and from different backgrounds, I feel like I really gained a good understanding of the ocean from all kind of different points of view (Seastar).

I feel like my view of ocean service or just service, in general, was so narrow-minded because it was just in my community. So, whatever everyone's doing in my community, that's kind of what I do. But now I have a broader perspective because I'm seeing what's going on in the East Coast, the West Coast, Northern, this and that. So just being able to see what all these different communities are doing. And service can be so many different things, there's, you know, different needs for every community… understanding that service is just so different for everybody. That was really neat, and I think that was one of the big things (Beau).

We, in western science, I guess they would call it, could really benefit from also learning from Indigenous people and traditional knowledge and learning. I think that it needs to play a bigger role in science today…because it definitely gives you a new way of thinking and also a new appreciation of their culture (Bill).

Increased self-awareness and confidence. By exploring new perspectives and being challenged to step outside their comfort zones, participants also developed greater confidence and self-awareness. This was a common theme in the youths' responses to what they felt was the single most important thing *Ocean Bridge* contributed to their lives. Ariel found the "confidence boost and encouragement from other people in the program, that [they] could pursue these things [they] wanted to pursue" to be of primary importance and "that knowledge would not have been as useful if [they] didn't have that confidence to take it and roll with it".

Rose described confidence and capability as the single most important things *Ocean Bridge* contributed to their life. Through the program Rose was "able to realize that I have a lot of knowledge and I have an interesting perspective that people want to hear about" and as a result they are "less nervous at talks…[they] say yes to more opportunities" and has even won an award for best talk at a conference. Rose attributes this to *Ocean Bridge* claiming to "feel a lot more capable than when I started." Similarly, Beau shared

it's given me more courage and…I believe in myself a lot more now. Before, again, I was like, 'Why, you know, how can one person change the world? How can I do all these things?' But now I feel I'm more confident and I apply for things even though I might not be super qualified. I still apply for them because, you know, I think confidence shines through, it's a big thing and passion as well. So, I've noticed that the more I do, the more opportunities I also get. So just that confidence has just been really, really big in my life so far.

In the case of Beau, Sara, and Mollie the confidence and self-awareness achieved through their *Ocean Bridge* experience led to the pursuit of new education and career paths as shown in their remarks below.

The other thing is actually, that it kind of has given me a new perspective of life in general. And it's actually changed my path a lot because I remember when I applied for the program, I applied because I liked marine biology and I was interested in the issues. But now that I've done the program, I actually have a different way of thinking, like more social science-based (Beau).

I think if I have to focus on one thing is that it's allowed me and it continues even currently, to find myself, to really understand what my passions are and the things that I love and care about, what they look like both professionally, on a personal development level as well. So, I think it's definitely been more than just a program or just a thing that I did for a year…really helped me see that my passions can be my profession as well (Sara).

… sort of exposed me to all these different backgrounds that people come from but are either like studying things to do with the ocean and environment or are just super involved…for some reason when thinking about what I could apply for in university as my program, I always sort of wrote environment off like no, you can't do that Mollie and it helped me push to do a lot of things I didn't think I could do before like community service from scratch like grassroots stuff. So, having it challenge me to do new things like that also helped to push me towards something that I just sort of wrote off as a degree before. And it sort of solidified that love and passion for the environment and the oceans. It is the main reason behind why I want to do an environmental degree (Mollie).

Boleyn did not state that the program had built participants' self-awareness or confidence, but rather, through the program, they learned the importance of being self-aware. Boleyn

explained "you need to include who you are in everything you do because who you are is what makes it what you do. And even if you aren't including who you are in what your project is, other people are." Boleyn expanded on this concept stating, "you have to know who you are, and you have to make sure that who you are [is] integrated to everything, and you have to fight for who you are, and you have to fight for your space, and you have to carve out that space."

Professional Development.

Throughout the interviews, participants identified several ways in which they had experienced professional development during the program, including access to opportunities, support, and resources to step outside their comfort zone to try new things, and acquiring transferable and professional skills.

The youths attributed *Ocean Bridge* with directly providing them with professional development opportunities. As an example, Rose has "written blogs about the *Ocean Bridge* Haida Gwaii experience" and was invited to attend a national "round table discussion focused on marine debris". Other participants such as Beau used the confidence and self-awareness they developed during *Ocean Bridge* to pursue new opportunities. Below, Beau describes this outcome of their experience.

> It's opened up a lot of doors...I still would have had no guidance if I hadn't gotten into this program, I would have probably still been sad about not getting into Vet school and I would have been super lost with my life and felt like a failure. But now I realize that just because I didn't get into Vet school…doesn't mean I'm not a good person, I can't do anything with my life. I've realized that there's more important things than just grades. Connections matter, networking matters, so it's given me a lot of opportunities. I went to the Canada Youth Summit in Ottawa and I'm going to the Our Ocean Youth Summit in Oslo, in Norway in October, which is super cool. So, lots of opportunities.

For Mollie and Ariel, access to large institutions like the Vancouver Aquarium as well as materials and people through *Ocean Bridge* meant they could take on larger projects, reach wider audiences, and step outside their comfort zones to try new things as demonstrated in their statements below.

> Having the opportunity to do things in such a big institution was a really incredible experience and it was just really special to be able to do that…. I wouldn't have been able to do something like that without *Ocean Bridge*. *Ocean Bridge* made it possible to get all of those supplies and sort of the team organization to make that happen. The sort of reach that the Vancouver aquarium has for so many people to see it (Mollie).

> Having both the resources and the freedom to make it what I wanted…. When I needed someone to help with something it was there and I didn't feel nervous for asking…I was often unsure if it was a good idea or if people would like it…. The pressure or the stress kind of was not there because I knew that there was a pretty strong support network there to help me out throughout it (Ariel).

Sara supports Mollie and Ariel's claim and describes how the *Ocean Bridge* program created relationships and spaces in which participants could go after bold ideas knowing they had a supportive network behind them.

> It was a great team…I think this speaks to *Ocean Bridge* as a whole as well, each person really brought such a breadth of knowledge and passion ….We understood each other's strengths and weaknesses, but also push to make space for each other….It was a really cool space for us to build on our skills but also try a new skill because we were all just so supportive of each other and it was really special…and I don't find a lot of spaces like this where I can just have a big bold idea of like doing 14 events in a month, and someone will be like, "Yeah, for sure you should do that. Is there anything that we can do to help?" And I can

specifically ask for things and for someone to be there on the other end to be like, "Yes, we can totally do that for you. Um, anything else?" So, it's like there's just such a focus on action and support and you really don't get that elsewhere (Sara).

For some participants, the *Ocean Bridge* program created space and opportunity for the development of very practical professional skills. For example, Seastar stated that throughout the program they were able to work on their time management, bilingualism, leadership, and delegation. For Rose, leading shoreline cleanups as their local service, gave them very important insights into the citizen science data they work with as an academic and why there are gaps in the data. Rose shared

> I understood how citizen data is collected. When you're just looking at the data, you're like, "Why is it such a mess?" And then you go and then you understand and then you're like, "Okay, so this is why the data is kind of lacking in this area because it's very remote." I just got a better understanding and I feel like it made the science way better than if I just stayed on that academic side of things and didn't fully know what was going on actually on the ground.

Last, the *Ocean Bridge* program was viewed by the youths as advancing their careers. Boleyn identified that "what's so powerful about *Ocean Bridge* is my CV looks stunning". For Chester "having this *Ocean Bridge* momentum behind [them] and then having the opportunity to talk to different departments at the zoo meant that [they] had a foot in the door for getting a different job" which Chester was ultimately successful in achieving.

Pride.

Finally, the *Ocean Bridge* youths reported experiencing a sense of pride during and following their participation in the program. They reported pride in themselves for their accomplishments, and pride in the impact they were having as an individual and collectively on

ocean health. In some cases, youths were most proud when educating others as demonstrated in

Bill's comment below.

> Engaging and interacting and educating other people was kind of a highlight and
> where I felt the best about it…when I was actually interacting with the public or
> with other members of my cohort, and I was teaching them something and they
> were learning something, and they were actually becoming engaged about
> it…that's when I feel the best is when I'm actually helping to spread that kind of
> knowledge and teach people.

Similarly, what Beau valued most in doing their service was "seeing the kids light up and the

spark in their eyes…seeing someone's interest spark just like that based off of what you're

saying and your experiences."

Other youths were most proud when they could see the direct impact of their service on

the environment such as cleaning up marine debris from shorelines. For Rose, the feeling of

pride came from knowing that each piece removed made the environment a healthier and safer

place for animals.

> Physically removing [marine debris], feels like a really big deal, especially when
> it's like a fishing net, like something that is prime for entanglement of an animal.
> So, you feel really good about removing that and you're like, I maybe prevented a
> fish, a seal, something from getting caught in this and drowning or something or
> eating this and starving or whatever it is or seabirds eating it. You removed a big
> chunk of what was there so that the animals there, they have a little bit of a better
> chance.

While this demonstrates that the physical removal of marine debris was important to Rose, they

also described how sharing the experience and educating other people afterwards was an

opportunity to "carry that through and have it make a bigger impact than just that day." In

addition to Rose, Bill and Chester also expressed pride as they described the cleanup of North

Beach in Haida Gwaii.

> It was really successful, or it felt like it was really successful in terms of us like
> digging out the giant box from the sand and having to use the truck. Everyone's
> digging it out with their hands and things. And then also that we had a not quite so
> successful experience earlier on in the week where we had all these grand plans as
> well, and we just ended up without as much time and we couldn't end up taking
> as much as we wanted to. So, it felt like we'd kind of redeemed some of what felt
> like a failure from earlier on in the week to be able to pull it all together and
> actually execute it (Chester).

> It was just super real like your boots on the ground picking up trash.
> You're in this beautiful place that you've just learned all this culture, and history
> about, and you see this mass of plastic being there, and we had a lot of people out
> there with good infrastructure trucks and garbage bins to haul away, I just felt like
> we were really making a difference there, and it was like really exciting to be in
> that moment (Bill).

Expressions of pride also came through as several participants spoke about the successes

of service projects they had conceptualized and delivered independently or in collaboration with

their peers for their local communities or in the *Urban Learning Journey*. One example of this

came from Mollie as they described the artwork the group had displayed in the galleries at the

Vancouver Aquarium.

> It was a highlight for me because, well, I never imagined that something I created
> and co-organized would be up in the Vancouver Aquarium in such a big space.
> That's really, really cool. Even a year ago, I wouldn't have been able to imagine or
> sort of picture that happening.

Sara provides another example when describing their team's project to host an ocean literacy field trip for two elementary school classes in collaboration with a local Indigenous tour company.

> I think it made it a highlight because it definitely could have been the lowest of the low. But our attitude and our, I guess the team's refusal to let it be a failure, really made us push to make it a success. So, for me, it was the teamwork, the trust in each other. And then yeah, at the end of the day, the smiles on all of our faces. That's definitely what made it a highlight. So, it being a success but also, yes, it's over.

An example from Boleyn demonstrates the participants' pride in their service projects. Boleyn led the planning and delivery of two events in Vancouver, a Sustainable Fashion Show and a Francophone Ocean social event.

> The second highest point I'd say is the day after my two events in Vancouver, because I pulled it off and I was like, 'Oh, my God, this actually happened. This was actually done, they were both successes.' I think that boost of confidence, knowing that I could dare to do something that's very different that no one else would think of doing, and it could be a massive success, that was very powerful, I would say, very, very powerful.

Ocean Bridge at its Best

As youths shared their experiences with *Ocean Bridge*, the themes that emerged were very aligned with their descriptions of *Ocean Bridge* at its best. That is, the youths felt that *Ocean Bridge* was at its best in the presence of community connections, opportunities for personal and professional development, and personalized experiences. I explored the youths' insights on which program design elements of *Ocean Bridge* best supported these parts of the youths' experiences. In addition to program design, youths also shared their thoughts around

when *Ocean Bridge* was at its best at achieving its core goals of advancing ocean literacy, improving ocean health, and inspiring a culture of service. The youths provided examples for each of these goals with commonalities arising across many participants although some participant responses provided contradictions.

Elements Valued by Youths.

The youths were asked to describe the elements of *Ocean Bridge* that they would like to see preserved and leveraged as it moves into the future. Answers varied widely among the participants, but there are a few elements that were referenced frequently including the *Remote Learning Journey*, mentorship and support, sense of community, and diversity and inclusion (See Table 5).

Table 5

Three Things Youths Want to be Preserved in Future Ocean Bridge Programs

Participant	Core Strength, Value or Quality							
	Culture of Service	Mentorship & Support	Sense of Community	*Remote Learning Journey*	Experiential Education	Diversity & Inclusion	Indigenous Perspectives	Individuality & Freedom
Ariel		X	X		X			
Seastar		X		X		X		
Boleyn		X	X					X
Rose			X		X		X	X
Bill	X	X	X					
Beau				X		X	X	
Luna						X	X	
Mollie			X	X				
Sara	X			X	X			
Chester		X	X	X				
Lewis		X		X		X		
Frequency	**2**	**6**	**6**	**6**	**3**	**4**	**3**	**2**

Ocean Literacy.

The first key goal of *Ocean Bridge* is to advance the ocean literacy of participants and the broader Canadian public. Participants were asked to describe when they felt they learned something new and meaningful about the oceans during their *Ocean Bridge* experience as well as when they felt *Ocean Bridge* was at its best in advancing the ocean literacy of others (i.e., individuals not directly participating in the program).

The youths differed widely in their observations of when *Ocean Bridge* was at its best in advancing their ocean literacy. It became evident through the conversations that this was partly due to their diverse backgrounds and the broad age range. Some participants came into the program with several years of university education in ocean sciences while others were in the earlier stages of their education or in unrelated fields of study. Regardless of their educational experiences, most participants expressed views that they learned something new and meaningful about the oceans from their peers and Indigenous perspectives provided by other participants or community hosts. Learning experiences were also more meaningful when they were place-based and experiential. Table 6 provides a summary of the various ways in which participants advanced their ocean literacy throughout the program.

Table 6

Youths' Most Meaningful Learning Experiences in Ocean Bridge

The reason learning experience was meaningful	Example Quote
Learning from Indigenous perspectives	
Learning from Elders and storytelling	"I think first of all that she was an Indigenous person and was sharing her experience living in that area. Like she was telling that story from, a very first-hand perspective which I think you don't often get when you're used to reading scientific papers or whatever. It's a very different way of learning and I think that storytelling has so much value to it, and that's not something I've been exposed to a lot. Hearing or getting exposed to it there was really awesome. And that made it so much more personal and it made it a lot more human for me." (Ariel)

The reason learning experience was meaningful	Example Quote
Connecting the theoretical to real live impact on cultures and communities	"I've taken environmental science courses. I knew theoretically, 'Oh, acidification. Oh, this, oh, that.' But when someone personifies and is like, 'Here's how it affects me, here's how it affects my people, here's how it affects my culture,' then it switches it from being sort of theoretical conceptual problem that's happening to 'This affects us.'…that was a very, sort of, powerful, ocean literacy moment for me." (Boleyn)
Broadening perspectives and gaining a new appreciation for diversity	"I didn't really learn anything scientific that I didn't really know…things that I did learn were things that were more cultural and sort of Indigenous learning in Haida Gwaii…I think that people who go through university degrees and things should be exposed to some of that because it definitely gives you a new way of thinking and also a new appreciation of their culture." (Bill)
Peer-to-peer knowledge exchange	
Informal conversations with peers with diverse expertise and experience	"I think having like individual or small group chats with people really made a difference. Like, there were so many people who had backgrounds in different things, not even necessarily ocean-related, but it all kind of tied together in a sense... everyone kind of has their niche and it's just really cool that I was able to tap into that and to learn the whole thing from everyone. And I feel like that really helped like just being surrounded by people who are a bit older and who had a bit more experience than I did really made me more literate." (Seastar)
Creating a safe space for youths to share different perspectives	"I think the cultural experiences that we had and those opportunities were really amazing as well. Like it was something that I didn't really have a good understanding of. So, having people from all different backgrounds who could add input… *Ocean Bridge* put us in a situation where we could have the conversations and ideas flowing in a safe space, but also that people were there to, I guess, like represent those ideas and those cultural aspects…that was all really amazing." (Chester)
Place-based learning	"One of the main things I think, was the location of it…we're sitting in like a little garage building…It was very, like, a formal presentation and felt like a university course. But the difference of that was that right after we were done, we could actually just turn around and walk down the hill at East Point, and actually go and see the spot where, you know, all the Orcas are spotted from land. And I think that was huge, because not only did I actually learn about it, and kind of pop it in my brain but I was actually there at a spot that it's very impactful...and you're like, 'Wow, I'm actually right there right now' So that was really cool." (Beau)
Experiential learning	"I definitely learned the most when it was sort of hands-on in the space in the place learning. So, the cleanups or the invasive plant species removal, those were sort of the most engaging to me because I have an experience to connect with them which not only sort of provides me with that hard knowledge but also the emotional knowledge of like looking at all the plastic on North Beach for example and getting super sad and angry and also inspired about that. So yeah, having those experiences." (Mollie)

The youths described *Ocean Bridge* as being most effective at advancing the ocean literacy of others outside the *Ocean Bridge* program through the collective impact of the participants' local service projects and the group projects delivered on the *Urban Learning*

Journey. For example, Ariel felt that their local service project in a landlocked community was not "the hugest of impacts but it was definitely a piece of the puzzle of just exposing people to those issues and making it something that comes up in their day-to-day life." The collective impact became more evident for Lewis during the Vancouver expedition

> because you don't see everyone else's projects but when we're in our urban setting, being able to see the volume of people that were coming to each person's projects…I think you saw a bit more of the reach that we're having within the community and within the area. So, I felt like that was where it felt like we were having a big impact on reaching more people that were outside of our program.

Several youths identified the service projects delivered during the Vancouver Expedition as having the most impact on advancing the ocean literacy of others. The diverse nature of the cohort led to projects equally as unique enabling the cohort to engage wide and diverse audiences.

> We had all different kinds of events. The ocean health fair where you just have all these booths and we're chit-chatting to people and…the coding one, teaching kids coding seems very awesome and about ocean literacy and all that. The ocean fashion show I feel like was a really cool thing because…it was, like, a totally different audience of people who loved fashion and were like, "Hey, the ocean is super important and so we're having, like, sustainable ocean fashion show" (Rose).

> We did a ton of stuff in Vancouver like so many projects, everyone was so busy and it was crazy but I think then was a great time for us to connect with communities and to share with them what we had learned, whether it was through the art installation that [Mollie] and I headed, or if it was through, the plog-a-thon and the ocean health fair or if it was the coding workshop, like there were so many different ways for kids to learn and there were interdisciplinary ways too, so

it wasn't just all science, it wasn't arts, you know, it was everything…So, there was something for everyone, which I thought was kind of cool (Seastar).

Ocean Health.

The second key goal of *Ocean Bridge* is to improve the health of the ocean. Youths were asked to identify when, during their *Ocean Bridge* experiences, they felt they were having the most significant impact on ocean health. Several participants first referenced boots-on-the-ground shoreline cleanup experiences from the *Remote Learning Journey*, *Urban Learning Journey* or their local service initiatives as examples of when they felt they were truly bettering the health of the ocean. For example, Bill stated that "pretty much every time I did a beach cleanup that was the feeling that you get, that you're helping the ocean's health by removing pollution".

The two cleanups that took place in Haida Gwaii during the *Remote Learning Journey*, the North Beach cleanup and the Lepas Bay cleanup, were identified as being particularly impactful. Youths provided several reasons for why they felt these cleanups were effective in improving ocean health including the physical removal of marine debris, the potential long-term impact it is having on them as individuals, and the ripple effect possible through sharing their experiences (Table 7).

Table 7

*Reasons Remote Learning Journey Shoreline Cleanups Were Identified as Most Impactful
Service Experience for Ocean Health*

Outcomes of Cleanups	Example Quote
The immediate impact on the environment	
Amount of debris removed	"the way that North Beach is set up like oceanographically, it's a catchment for drifting debris that comes from all over the world...We were able to just get so much more trash off the beach and that was probably the most impactful for the ocean's health is that one." (Bill)
Protecting wildlife	"I may be prevented a fish, a seal, something from getting caught in this and drowning or eating this and starving or whatever it is, or seabirds eating it. You removed a big chunk of what was there so that the animals there, they have a little bit of a better chance." (Rose)
Long term impact on *Ocean Bridge* youths	
Changing own behaviour as a consumer; making more environmentally responsible decisions	"I think yes, we're doing the cleanup, but the sad side to it is, we're just relocating the garbage to landfill and so it was more impactful for me and where I know that I have changed as a consumer and from the things that I've learnt." (Sara)
Raising awareness of the impact one's choices have on the environment; empowering participants to take action	"I knew plastic was in the ocean, I didn't know how problematic it was. I didn't know how it would affect so much ocean life, but also human life and our health.... I felt I do have an impact, but I can have an impact. By changing my lifestyle, I would affect the ocean, ocean health.... it's just so everywhere, plastic. It's almost impossible to think of how to get off plastics. And then you see the impact. But also, while seeing the impact, you talk about the solutions. And so, it makes it feel less impossible." (Luna)
Ripple effect	
Engaging the public through storytelling, photos and education activities	"we had, the experience and the photos so we could go back and tell other people about it. So, even though it was just a day or two on the beach, we could carry that through and have it make a bigger impact than just that day, which was a big impact in and of itself." (Rose)
Influencing family and friends to change behaviour and make environmentally responsible choices	"It's been affecting my family's mind… they are seeing the problem and they're seeing solutions, they want to deal with it…it makes them conscious about their everyday choices...*Ocean Bridge* became part of my identity at some point, they themselves would also search for information about the ocean or ecology just to relate to me and then send me posts and talk to me about it. And so that's been terrific." (Luna)
Influencing industry to offer environmental options and solutions	"So last year, actually, after Haida Gwaii...my mom owns a grocery store in town, and so I convinced her to ditch plastic bags… we really took an opportunity to try and change our grocery store into being as sustainable as it could be. So, having paper bags, reusable bags, changing out the light bulbs to more sustainable ones. I think the most successful thing for us was actually the amount of food waste that we cut back on...And now we're trying to work with the companies that send us our shipments for products because the way that they get shipped, they're wrapped in so many layers of saran wrap…we're just working that out right now." (Sara)

For Lewis, the North Beach cleanup was particularly significant to ocean health because of the beach's "connections to local culture and resources". That is, North Beach is a local harvesting area for seafood such as razor clams and a place frequented by community members. Similarly, Rose felt the Lepas Bay cleanup was of great importance, because of its proximity to a cultural village site.

> It was also a tangible connection to the ocean because this village site it right on the ocean because of all the resources that it's provided, it made sense to be here with lots of fish and lots of shellfish and all that (Rose).

While Mollie felt the Haida Gwaii cleanups were of some importance, they stated that it was the shoreline cleanups in which they participated and also led at home that were more effective at improving ocean health. They describe the reason as

> I was like flying six or seven hours just to get there to do the cleanup. So, I think the local shoreline cleanups…that's what I thought was having so much impact on the health of the oceans because I was bringing together community members under a common goal and we were focusing on our local area which is something very tangible… it makes more of an impact on you… and also learning from those sort of where our most common marine debris comes from.

In addition to the shoreline cleanups, the youths felt they could also have a positive impact on ocean health through the outreach and education activities they delivered to the public. These youths believed that these initiatives likely influenced members of the public to change their behaviour and make more ocean-friendly choices as a result. Bill explains

> every time you do teach somebody, and about ocean literacy and improve their knowledge, you are also affecting the ocean's health because those people are probably going to take some actions in their life that will benefit the ocean.

Beau describes how they believe education can have a ripple effect leading to an even greater outcome while re-counting the *AquaVan Takeover* project they led in Vancouver during the *Urban Learning Journey*.

> We might not have seen the impact on ocean health right away, those kids are from a coastal area and I think that they're going to go and spread that to their friends and families and end up adopting those changes... it's just going to be a very gradual ocean health change, but it's going to be a bit bigger. It's not just one activity or one project that's done, it's a whole community impact.

Chester shared a similar experience to Beau through the outreach projects of which they were part of including the group project, *Ocean Health Fair*, delivered during the Urban Expedition and their local service project, *BioFacts*, which was an outreach booth hosted in their hometown. Chester explained that it is the collective impact of each individual who makes environmentally conscious choices with their statement "that's a lot of people out there and as the quote goes, it's only one plastic straw said 8 billion people". Lastly, Ariel's focus when it comes to Ocean Health is contributing to a culture shift. They described harnessing the power of social media to make cleanups and other ocean-friendly choices as "a part of what people are seeing often, and then it becomes the status quo."

Culture of Service.

The final main objective of *Ocean Bridge* is to inspire a culture of service among its participants. To explore this, participants were asked to describe a time they were highly engaged in a service project and what made it radically different from other service experiences. Some youths described their experience in Haida Gwaii participating in the North Beach shoreline cleanup, others described their team service project delivered during the *Urban Learning*

Journey to Vancouver, and a few youths described their local service projects. Many reasons

were provided for why these experiences were highly engaging from working as part of the team

to having the freedom to make the project their own. The youths' responses demonstrate that

engaging service experiences vary greatly depending on the individual. Table 8 provides a few

examples of the service experiences the youths described and what made them radically different

for that participant from other service experiences.

Table 8

Youths' Responses to what Makes Service Projects Highly Engaging

Reason service was engaging	Example Quote
Creates a shared experience with peers and friends	Bill describes the North Beach cleanup in Haida Gwaii. "You haven't built relationships with the people around you... it's not quite as empowering and memorable. Whereas the North Beach cleanup at the end we felt so good and excited about it together as a team and afterwards we are able to talk to each other about it and we all share that memory…that's what made it different."
The service activity has a connection to place	Sara describes the North Beach Cleanup in Haida Gwaii. "Especially in a place where we had been living for a week and we're using it like our little playground and then to do a cleanup there, I think that really symbolized a lot for me in terms of our homes and how we take care of them"
Participants ideate, plan and deliver the service projects themselves	Mollie describes her various local service activities including a stand at a local farmers market, film screening events and shoreline cleanups. "That was the first time that I was doing service projects and volunteering very grassroots from scratch that I was totally organizing myself…it was really exciting to be able to see all those things coming to fruition, that I was planning and seeing so many community members engaged as well."
Presence and trust of a strong support network	Ariel describes leading the Nautical Library event in Vancouver. "Having the resources and freedom to make it what you wanted…the stress was not there because I knew that there was a pretty strong support network there to help me out".
Freedom to inject own personality into service projects	Boleyn describes the fashion show and Francophone evening event they led in Vancouver. "The Vancouver projects were very much me…I think that's the difference in those projects and every other project I've done…I very much put myself out there…to do something different and interesting that would capture someone like me."
Being able to connect with people and understand how the service will impact them	Luna describes the North Beach Cleanup in Haida Gwaii. "It was when we cleaned the beaches…because we had a mission. We also met the people that we would be affecting, or we would be influencing by doing that kind of service. So that also gave us a proximity of the impact that we would have."

Reason service was engaging	Example Quote
Being a part of a program that can provide credibility and support	Chester describes their local service project, a *Biofacts* outreach booth. "Having my own local service project was really great and having this idea and kind of what *Ocean Bridge* wants from this itself that gave it more purpose and could give it more structure than perhaps I would have been able to by myself. It suddenly gave it momentum behind it as something that was going to push it forward more and having *Ocean Bridge* name out for it as well just gave it so much more meaning as well. It was like, look, here's the thing that's not just me, it's me and all these other people. And so here is a better reason as to why you should look at me to be doing this."
Opportunity to share their own passion with others through an experience	Lewis describes the *Ocean Literacy through an Indigenous lens* field trip hosted in Vancouver. "That one was-was working with the, First Nation, and bringing in some school children from Burnaby to expose them to Indigenous perspectives on the ocean and why ocean conservation is important and why the oceans are important to them in general and I found that was really engaging to see those youth on the water. I find it always exciting to see something that you're passionate about and then trying to engage youth in and then to see them kind of reciprocate and even almost build upon that excitement."

To share when they were most engaged in a service activity, the youths were asked to describe what they thought *Ocean Bridge* does best to inspire a culture of service among its participants. Seven of the eleven interviewees identified either the regular mentorship calls with staff or the guidance and support offered throughout the program in their response. In Seastar's experience the mentors were able to "really inspire passion, and like foster awesomeness in you." While Lewis appreciated having that time "to bounce ideas off someone and have someone help you problem solve and troubleshoot some of those things when you're more on your own in your own community doing those local service projects."

Several youths identified the freedom and flexibility within the program to be creative and to pursue their own ideas to be important ingredients for inspiring a culture of service. Ariel was particularly encouraged by the flexibility of the program which allowed for a balance between the goal of the organization and "participants [with] their own agenda" being allowed and empowered "to do what we wanted to do". This made *Ocean Bridge* more engaging than other volunteer experiences as described below by Ariel.

It's where they don't want to engage because they're like, "Oh, I have to do this thing, I don't really care about it." and it's, like, something you care about as the ultimate goal, I think that was what got me really engaged in kind of changing the very typical, volunteering stereotype.

Boleyn also valued the freedom within *Ocean Bridge* and found it to be an inspiring and empowering experience.

[For] people who are really passionate, who are looking to do something and just need a platform, and *Ocean Bridge* provides a really great platform. So, I'd say *Ocean Bridge* is phenomenal at giving a voice, a platform to people who have the energy and the desire to do something.

Boleyn continued to caution that this may not be as effective for individuals who are not already passionate or actively looking for engagement opportunities.

Several youths discussed how it was the respect for and presence of diversity throughout the program that inspired them to engage in service. In Luna's experience, *Ocean Bridge* was effective by creating a safe and inviting space for diverse perspectives.

It was introducing to take action within the cultural perspective. I think that that's what really made us feel comfortable to learn more about it and get engaged and also the woman that had the Indigenous background who could teach us things and I think that that made them feel comfortable, or like a huge difference.

For Beau and Mollie, *Ocean Bridge* provided an opportunity to expand their views of service through connecting with diverse people from across the country. Beau admits that before the program their "view of ocean service or just service in general, was so narrow-minded because it was just in my community." Mollie shared a similar sentiment regarding learning from their peers and the communities they visited.

I became inspired to create all this ocean service, was seeing all the cool things that other people were doing. I think that group work of creating service for the different expeditions beforehand with each other and with community members in places we were travelling to, because for me, I'm always very inspired to work with a group where you have so many cool different ideas and perspectives, so that was very inspiring. And then also just hearing from these individuals what they were doing for their own community service inspired me to not only sort of strive for more in what I was doing but also giving cool ideas and opportunities to look at things differently.

Last, several youths shared how the opportunity to visit the remote beaches in Haida Gwaii and see the marine debris catchments firsthand motivated them to do more for the ocean. The following are several descriptions of how this experience influenced the youths to take further action, change their behaviour and educate others.

It's just really hard to sit in a classroom and hear about these things. But actually, being there is such a big difference because now that we've actually been there, it's kind of great thing, this is a real place, it's not too far, we're all connected. It really reinforces the fact that we're all connected to the ocean because even though I live so far away, my impact still impacts their community. So just actually being here and hearing from the community members (Beau).

It was just so crazy how 40 people, 40 plus people could come together and make such a big difference. And I think that was really crazy for me and it was also crazy going on the remote beach cleanup and seeing all that trash and not being able to take it all back....And I think that was kind of heartbreaking for most of us to see that, you know, there are some things that we can't fix, which is really devastating and I think it was kind of a reality check for a lot of us too do as much as we can, but to know that we're just a small group of people, we need to branch out. We need more people involved to make a difference (Seastar).

The cleanups on the whole really just put like vivid imagery and memories to statistics that I come across in research and stuff…. And that really emphasize the importance of getting people out there and participating in things like that because it does drive home more when you're the one who's picking up garbage from a shoreline versus reading about someone who's done it (Sara).

It facilitates that culture of learning because you want to do so much more of it. So, you want to go back to wherever you are after the trip, and just help do more cleanups to help out your local system. …and it opens up your eyes once you go to a remote place like this, you're like, 'It's like this everywhere.' You know its different items in the city, it's different items in different areas, it's different amounts and sizes, but this is a problem everywhere. Whether it's on the sidewalks where it will eventually go into drains into the ocean or it's on the beach itself. You just want to do more to help out. Like it kind of hits your button here and you're like, I have to do more of this…it also makes me want to like change your habits because I think before this, I had a lot of plastic habits that I didn't really think too much about. And then removing those items on the shoreline or seeing how big of a deal the plastics are… you make more and more steps to limit your plastic use, because you're like, 'I don't want to contribute to that mess' I have to do what I can, whether that's cleaning up or just like putting the reusables wherever I can (Rose).

Even though I'd seen that before and done beach clean-ups, I still have never seen anything that bad in terms of the pollution. We all see the images on the internet of these beaches that look like that, but it's very uncommon for you to actually, encounter that in the real unless you're going out and seeking that…That was really kind of mind-blowing (Bill).

Vision for *Ocean Bridge*

The third research question guiding this study asked whether the participants in *Ocean Bridge* offered possible changes to the experiences of the *Ocean Bridge* program to allow the program to best reflect its goals. The participants were asked to imagine they are ten years in the future and participating in *Ocean Bridge* again and to describe what they noticed that was new, better, different, effective, and successful. Several interviewees found this question to be difficult and stated that they would not change the program and that it is exactly as it should be. However, with encouragement, participants offered changes or conceptualizations of evolutions they would like to see regarding the program structure, program content, reach and impact of the program, and alumni engagement (See Table 9).

Table 9

Youths' Visions for Ocean Bridge Ten Years in the Future

Name	Program Structure	Program Content	Reach & Impact	Alumni Engagement	Other
Ariel	Keep it national with diverse participants from across Canada Add local or regional divisions *Ocean Bridge* clubs at schools	Include freshwater systems like Lake Winnipeg or North Ottawa River Share experiences with people coming from a less privileged background (ex. lack of clean water)	Broader reach but maintain community feeling		The program is well recognized by the public
Seastar	The original program remains the same Keep the cohorts small Expeditions to more regions in Canada		More participants in the program International component		
Boleyn	Truly bilingual (English and French) Trilingual (English, French, and Inuktitut) Supporting Diversity Integrate summit/conference opportunities into the program	Connection to leaders in the community Discussion of social issues Encouraging creativity			*Ocean Wise* Business cards and Emails
Rose	Longer-Term projects Lots of opportunities	Participate in policy/influence policy Encouraging creativity	Making a difference on the ground Engaging lots of people/large reach		The program is well recognized by the public
Bill	Keep the cohorts small	Connection to leaders in the community	More participants in the program		The program is well recognized by the public

Name	Program Structure	Program Content	Reach & Impact	Alumni Engagement	Other
		More intentional skills development	Evaluation and communication of impact/reach International component		
Beau	More Organized Expeditions to more regions in Canada More time to develop projects or more effective use of time	Connection with other groups (ex. PM Youth Council) Participate in policy/influence policy Participate in the establishment of Marine Protected Areas Connect (influence) with government at all levels	Bigger program International component		The program is well recognized by the public
Luna	*Ocean Bridge* Clubs in universities/high schools The original program remains the same		Engaging lots of people/large reach		Being *Ocean Wise* is part of the Canadian Identity
Mollie	Create the same sense of community from the remote trip during the urban trip Carbon offsetting			Alumni engagement program	
Sara	The original program remains the same Emphasis on mentorship Emphasis on connectivity	Passing local service on to new members	Connection between cohorts International component	Alumni engagement program	The program is well recognized by the public
Chester	Up to date with technology		Engaging lots of people/large reach		

Name	Program Structure	Program Content	Reach & Impact	Alumni Engagement	Other
	The original program remains the same				
Lewis	Conference attendance	More workshops from peers and other organizations	Sustaining action and service	Continued support beyond the program	
	Regional groups/team projects/meetups			Alumni engagement program	
				Alumni mentorship	

The youths' visions for *Ocean Bridge* ten years in the future differed from one another, but a few key points were consistent and clear. Participants did not want to see the core of the program altered and voiced that the learning journeys, mentorship and the cohort model need to be maintained. A few youths expressed that certain elements such as the mentorship and national calls would benefit from modifications to better serve more experienced youths in the program. Rather than make any major changes to the *Ocean Bridge* program, the interviewees would like to see the program enhanced through the addition of new programs or opportunities such as regional *Ocean Bridge* clubs, international cohorts and exchanges, and alumni activities. They also imagine participants playing a more prominent role within the program through intentional peer-to-peer knowledge exchange within and across cohorts including alumni as well.

Chapter 5: Discussion & Conclusion

The *Ocean Bridge* participants came from diverse backgrounds and lived experiences, and each followed their own unique path while in the program. Although they participated in different service projects and activities, participants shared the sentiment that the experience was meaningful and contributed positively to their lives by providing them with a shared community, space to explore and express their personal identities, opportunities to develop professional skills and a sense of pride. As *Ocean Bridge* expands programming to engage more young Canadians, it is important to maintain the salient features that allowed these important and sometimes transformative experiences to take place and that position *Ocean Bridge* for success in its mission of advancing ocean literacy, improving ocean health and inspiring a culture of service among young Canadians. This thesis research set out to understand youths' experiences as participants of the *Ocean Bridge* program using an Appreciative Inquiry approach with the ultimate intent to inform future program design. I used three guiding questions to accomplish this study.

(1) How did the youths describe their experiences as participants in the 2018 *Ocean Bridge* program?

(2) Did the participants in the 2018 *Ocean Bridge* program identify and characterize some of their experiences as representations of *Ocean Bridge* at its best?

(3) Did the youth participants in the 2018 *Ocean Bridge* program offer possible changes to the program's experiences in order to allow it to best reflect the stated goals of advancing ocean literacy, improving ocean health, and inspiring a culture of service for the ocean?

Participant Experience

The research results found that for many of the youths, participation in the *Ocean Bridge* 2018 program was a memorable and positive, as well as a transformative experience. Through the program, the participants found a community of peers representing diverse perspectives and demographics who also shared a passion for the ocean and a desire to take action to protect it. Through the strength of this community, participants were able to open themselves to be vulnerable and to transform as individuals. Sara captured their transformative experience in *Ocean Bridge* with the following sentiment.

> …it's allowed me, and it continues even currently, to find myself, to really understand what my passions are and the things that I love and care about, what they look like both professionally, on a personal development level as well. So, I think it's definitely been more than just a program or just a thing that I did for a year. (Sara)

In today's society, it can be difficult to find a community and form the strong bonds that the youths described as being a part of their *Ocean Bridge* experiences. I can argue that the presence of these community relationships is one of, if not the most, essential attributes of the program. Membership in the 2018 cohort provided the youths with a sense of belonging and validation. Through their membership the participants found themselves surrounded by and connected to peers with shared values and passions. When it came to the youth-created service projects, their peers and mentors provided encouragement and support rather than judgements. It was my observation that the validation youths felt from their community peers empowered them to be daring in pursuit of their chosen service projects. They were enabled to try new approaches to ocean service and take risks knowing they had the support of their mentors and peers. As

Boleyn describes, "allowing everyone to express themselves…allowing everyone to feel supported in putting themselves and who they are and their identities into practice it can lead to some very interesting and innovative ideas." In addition, by trying new things and stepping outside their comfort zones, the youths were presented with opportunities for transformative experiences.

The community that formed within the 2018 program also created a safe space where participants could challenge their own perspectives and those of others. The youths learned from their peers, and especially from those who came to the program with very diverse lived experiences and relationships to the ocean. The participants broadened their knowledge of ocean issues by learning from peers across the country who were taking action to better the Pacific, Atlantic and Arctic oceans as well as the waterways that flow to each. Participants from coastal communities learned of the challenges faced by those advocating for the ocean in landlocked communities where human impacts and influences on the ocean can seem distant or sometimes to be completely absent. Indigenous participants and hosts shared their cultural connections to water, opening their peer's minds to more interconnected ways of thinking about ocean literacy and ocean health. As Lewis described, the exposure to diverse perspectives through *Ocean Bridge*

> was really powerful to create kind of a clear picture of what ocean conservation in Canada can be and created rich discussions too around some of those issues that are being faced…although there are commonalities, there's also a lot of differences…I think it put that issue into perspective.

Ultimately, this exchange of knowledge within the youth community created a collective and holistic understanding of the ocean that I believe the participants will carry with them beyond their experiences in the program.

Last, the *Ocean Bridge* community provided an opportunity for youths to hear and see other youths' projects and discover the possible impacts on the ocean through education and hands-on activities. Recognition of the impacts attained through the collective projects of the cohort's members provided the youths with strong examples of the potential impacts that can be achieved through collaborative efforts. They discovered that they were no longer alone in their work to protect the ocean and came to appreciate that their small personal projects were a part of a much larger movement and effort. This awareness seems to have offered the youths further validation for the work that they had undertaken and to provide them with strong motivation to continue in their efforts.

Ocean Bridge at its Best

Ocean Bridge's stated objectives are to advance ocean literacy, improve ocean health and inspire a culture of service for the ocean among young Canadians. Achievement of these objectives will define *Ocean Bridge* at its best. However, I argue that for the program truly to be at its best it must create a learning environment in which youths can have transformative experiences and find the sense of community described above. These two outcomes were shown through this study to be integral to the participants' experiences.

One of the key attributes of *Ocean Bridge* that led to positive and transformative experiences for the participants was that diversity and inclusion informed the program's design and delivery. Throughout, from participant selection to learning journey experiences, to service project guidelines, respect for diversity was a priority. The diversity of the cohort, and that of the

hosts and presenters who were invited into the program to share their knowledge, created a rich learning environment from which the participants' understandings of our connection to the ocean could expand.

> [*Ocean Bridge*] brings people together but it also gives you a new perspective on things because you're not just looking through your eyes, you're looking through everyone else's eyes too…and you're seeing things in different ways, based on region, based on cultural background…those sorts of things. By meeting people from different places and from different backgrounds, I feel like I really gained a good understanding of the ocean from all kind of different points of view (Seastar).

Ocean Bridge participants were also encouraged to listen to Indigenous knowledge keepers, Elders and Indigenous fellow participants as leaders and experts in the ocean community. By modelling this acceptance and acknowledging diverse perspectives as being essential for effective ocean conservation, participants came to realize that their views were also valuable and that their peers wanted to hear from them as well.

In addition to modelling respect for diversity, providing space for the formation of deep connections and relationships was essential to the program's success in building the community that was so influential to the participants' experiences. Three months into the program the ten-day learning journey to Haida Gwaii provided this space as a result of a few key features. The ten-days were filled with opportunities for youths to have real, meaningful conversations with one another through the availability and structure of time and the absence of access to the internet and social media. The trip was also characterized by a series of shared high points, such as the North Beach cleanup where the youths came together as a team to remove over 2000 lbs. of waste from the shorelines and shared low points, such as the Lepas Bay cleanup where they

witnessed the devastating extent of marine pollution. The power of the shared experience in Haida Gwaii is exemplified by Beau's reflection on the Lepas Bay cleanup below.

> I was sad that we didn't pick up all the garbage, but I was happy that we did something and that it empowered us to continue to, you know, share that with people. I just remember feeling really connected to everyone and really alive, and like I could just do more that day.

To be successful in achieving its key objectives, the program needed to maintain youth engagement throughout the duration of the program. This was made possible through the immersive learning journeys and encouragement of youth-led service projects. For many of the youths, the *Remote Learning Journey* to Haida Gwaii was seen as a once in a lifetime opportunity and it initially drew them to the program. Then, they formed deep bonds with their peers through the shared lived experience of that learning journey and found themselves to be accountable to one another and eager to meet again. The cohort provided them with inspiration and motivation through the local service component of the program. When it came time to co-create service projects for the *Urban Learning Journey*, the youths were highly engaged in the planning process because it was an opportunity to reunite with friends and deliver those service activities while in Vancouver.

Throughout the program, *Ocean Bridge* also encouraged continued participant engagement by supporting youths as they took the lead in their service activities. Participants conceptualized, planned and delivered service initiatives both independently and in teams with the only caveat being that the project must in some way connect to ocean literacy or ocean health. The flexible definition of service and flexible requirements on how these projects address ocean literacy and ocean health, paired with the support and resources provided by *Ocean*

Bridge, were important elements in engaging and empowering youths. Sara describes below how rare it can be to find this kind of experience.

> I don't find a lot of spaces like this where I can just have a big bold idea of like doing 14 events in a month and someone will be like, "Yeah, for sure you should do that. Is there anything that we can do to help?"… there's just such a focus on action and support and you really don't get that elsewhere.

Rather than being told to do a specific project, the youths chose projects that they wanted to accomplish and about which they were passionate. The youths understood their projects' relevance to their communities and could connect their projects to their personal and professional development goals. By being so personally invested in their projects the participants were led to the deep engagement needed to ensure the success of their projects.

Further Program Development

The conversations with participants of the 2018 *Ocean Bridge* program indicated that it was clearly seen as a successful program that had created very meaningful and, in some cases, transformative experiences. While the overall program was quite well received and considered successful, there are ways in which it could improve to become a better version of itself. Throughout this research process, I have reflected on the conversations I held with the research participants. I listened as they shared moments of high engagement during their *Ocean Bridge* experiences and as they described their visions for the program moving forward. After reflecting on and analyzing the insights and stories shared by the participants, I have drawn several conclusions regarding how *Ocean Bridge* can evolve. The following are the key opportunities for improvement I identified through this research.

Mentorship.

The youths highly valued the mentorship component of the *Ocean Bridge* program as a source of accountability, encouragement, and support. Mollie's sentiment below describing mentorship sessions was evident in the responses from many of the interviewed participants.

> They keep you accountable, keep ideas flowing. Just to be able to have that weekly check-in and touch base, I thought that was really important and they were always really inspiring and encouraging but challenging in a good amount as well to sort of push me forward to do my best (Mollie).

However, a few youths specified that while they valued the weekly check-in nature of the calls, their expectations of the mentorship they would receive in the program were not met. As Bill stated "the mentorship calls definitely need to be kept" but they expected that the mentor would be able to provide guidance and expertise in the areas Bill wanted to develop such as social media outreach. With forty unique participants, the range of skills youths were interested in developing was quite broad and outside the expertise of the *Ocean Bridge* program staff. Therefore, future iterations of the *Ocean Bridge* program would benefit from continuing to provide the regular one-to-one mentorship sessions that participants valued so highly for the accountability, encouragement, and support they provide, but with a few modifications and additions to enhance the mentorship experience. Throughout the recruitment process and at the outset of the program, clear communication of what to expect from the mentorship sessions should be shared with potential participants. Program staff should also discuss with potential participants what their expectations are of the mentorship so an honest conversation can take place during the application process as to whether *Ocean Bridge* is positioned to meet the participants' needs and expectations. To leverage the mentorship component of the *Ocean Bridge*

program, the regular one-to-one sessions should be used to explore each participant's desire for

personal and professional development or their need to develop a specific skill followed by the

establishment of a plan to support them in achieving that particular goal. If the *Ocean Bridge*

staff assigned to the participant lacks the specific expertise to support the participant in achieving

the defined goal, I recommend that the *Ocean Bridge* staff utilize their expansive network within

the ocean conservation and stewardship community to identify alumni or other individuals with

the expertise to be an effective mentor for the participant. Sessions with an expert mentor should

be an addition to or a part of the regular one-to-one sessions with the Ocean Bridge program staff

and be structured on a case-by-case basis concerning frequency, time period and format.

Peer-to-Peer Knowledge Exchange.

In the 2018 *Ocean Bridge* program, youth participants identified peer-to-peer knowledge

exchange through informal conversations, guided group discussions and formal presentations as

some of their most meaningful learning experiences. This insight is of particular interest because

formal opportunities for participants to present to their peers or to lead sessions and workshops

were not part of the original *Ocean Bridge* program design but rather emerged throughout the

first year of the program often through the initiatives of participants. For example, three of the

National calls were led by members of the 2018 cohort (see Appendix D) who expressed interest

in presenting to their peers about one of their areas of expertise. During the remote learning

journey, one participant offered to present to the group on plastic pollution, others offered to host

workshops on the ocean literacy principles, and on sustainability and privilege for the group, and

due to the cancellation of a public event youths presented to their peers on ocean conservation

issues from across Canada instead of presenting to the community (see Appendix E, Table A4).

The youths also valued the informal knowledge exchange that occurred while making

conversation with their peers in the evenings, on walks and during downtime. In the comments below Seastar captures the value of learning from peers.

> I think having individual or small group chats with people really made a difference. There were so many people who had, you know, backgrounds in different things, not even necessarily ocean-related, but it all kind of tied together in a sense. I'd sit down and chat with [a participant], she would just talk about all of her zero-waste stuff and I'd always be learning when I was talking with [her]…Everyone kind of has their niche and it's just really cool that I was able to tap into that and to learn the whole thing from everyone. And I feel that really helped, just being surrounded by people who are a bit older and who had a bit more experience than I did really made me more literate.

Given that the youths found learning from their peers to be most memorable and effective at advancing their ocean literacy, I will advise the *Ocean Bridge* program to be intentional in creating these spaces for peer-to-peer knowledge exchanges in future programs. Facilitating peer-to-peer knowledge exchange can be achieved in several ways. One approach would be to have youth participants lead national calls as subject matter experts. These national calls will provide opportunities for participants to develop their knowledge and understanding of the ocean while the youth presenters develop their abilities to communicate meaningfully about the ocean. Another way to create space for youths to share knowledge with one another would be to introduce virtual group discussions using video conference technology. The national calls are structured in a lecture or presentation format and can have up to forty youths present making meaningful dialogue a challenge to facilitate. Introducing small group or break out calls could provide an environment that fosters dialogue to occur amongst participants. These small group discussions could take place in the week following a national call and provide participants with

the opportunity to discuss the topic presented in the national call. I would expect small group

video calls to promote engagement during the distance portion of the *Ocean Bridge* program by

leveraging the bonds formed between participants during the *Remote Learning Journey*. While

Bill describes national calls as an area of improvement for *Ocean Bridge* below, they also

highlight the need for peer-to-peer interactions and the calls as a potential opportunity for this to

happen.

> The national calls for sure can be tweaked and be done better. But that needs to
> happen because we need to interact with each other throughout the year other than
> just on the two trips. There's got to be more interaction going on between
> people…we were going to be doing these monthly national calls with each other.
> And I had this picture of this really, really successful, conference call where
> everyone's chatting with each other and feeding off each other which maybe that
> was an overestimate or whatever, but it wasn't like that. But I think that type of
> experience is really important, a core piece to keep.

Alumni Program.

Finally, based on my observations I propose that *Ocean Bridge* should develop a formal

strategy for alumni engagement. This could allow the community that is developed among the

youths during the program to be sustained for years to come. By offering the alumni

opportunities to reconnect with their peers, *Ocean Bridge* could keep them engaged in ocean

service activities well beyond their time as participants and further contribute to the program's

goal of inspiring a culture of service among young Canadians.

Based on insights provided by youths through this study, an alumni program should

provide continued access to professional development and networking opportunities such as

conferences. After full participation in the *Ocean Bridge* program, youths are equipped to be

effective ambassadors for *Ocean Wise*, the conservation organization to which *Ocean Bridge* belongs because they will have developed an understanding of and ability to communicate about the important work *Ocean Wise* does through its other conservation initiatives such as the *Great Canadian Shoreline Cleanup*, *Ocean Wise Seafood Program* and various research projects. Therefore, opportunities for *Ocean Bridge* alumni to represent *Ocean Wise* at conferences and other events could be mutually beneficial by both supporting the alumni's career development and expanding awareness of *Ocean Wise*'s conservation work. The role of *Ocean Bridge* should be to make youths aware of relevant conferences and networks and create pathways that ensure youths have the opportunity to attend, present and connect with people and organizations that align with their personal and professional goals. One example in which *Ocean Wise* has already demonstrated capacity for providing alumni opportunities to youths is the 2019 Nature Champions Summit for which *Ocean Bridge* was asked by the Ministry of Environment and Climate Change Canada to identify youths to deliver a presentation on ocean conservation and host the youth component. A second example was seen when *Ocean Bridge* arranged for alumni to host a session on meaningful youth engagement in conservation at the Canadian Commission for the International Union for Conservation of Nature's annual general meeting in 2020. Attending conferences or other events can come with financial barriers for many young people due to the cost of registration, accommodation, transport, and meals as well as the possible need to take time off work. To ensure equitable access to these opportunities, *Ocean Bridge* should support youths financially to attend conferences when youths are doing so as *Ocean Bridge* ambassadors representing *Ocean Wise*.

An alumni program should also foster cross-cohort connections with opportunities for alumni to give back to the program of which they are so appreciative. This would also result in

added capacity for the program with alumni leading national calls, mentoring new participants, and supporting the recruitment of future youth participants. The geographic representation of *Ocean Bridge* alumni may also be a useful resource in supporting new participants. Alumni could be encouraged to attend service projects hosted in their communities by new youth members and alumni could bring youths from across cohorts together for regional meetups to strengthen the *Ocean Bridge* network. This would offer youths a local support system in communities where program staff are not based. While the COVID-19 pandemic has led to widespread familiarity, greater access to better quality video conferencing technology, and therefore a better experience for virtual networks, internet access continues to be a barrier for already marginalized youths without access to the internet or a computer. In addition, for northern youths, internet costs remain incredibly high. My experience working with *Ocean Bridge* ambassadors during the COVID-19 pandemic is that youths are experiencing webinar fatigue and have a strong desire to connect with people in person. Therefore, activating alumni as local support systems for current participants could be a key element in ensuring an accessible and engaging program for youths across the country coast to coast to coast.

Recommendations

Through the rich conversations held during this research and reflection on those conversations, I am able to make several observations about the attributes that supported *Ocean Bridge* in providing the experiences previously described by participants as being valued and to define opportunities for *Ocean Bridge* to become even better. Following is a summary of my recommendations for *Ocean Bridge* to consider in planning and implementing future program delivery.

1. Maintain the cohort model with no more the 40 individuals per cohort and with diverse representation from across demographics and geographic areas as a priority in the recruitment and selection of participants.

2. The *Remote Learning Journey* should be grounded in place-based education and local ocean conservation issues. This includes prioritizing working with local Indigenous knowledge keepers to provide a holistic perspective of ocean health and literacy.

3. Bring youths together for the *Remote Learning Journey* early in the program experience and prioritize time during the trip for community building. The connections youths build with one another during the *Remote Learning Journey* can lead to accountability and maintained engagement throughout the remainder of the program.

4. Hold the *Remote Learning Journey* early in the program, and the *Urban Learning Journey* at the very end of the program. This will allow for bonds between youths to form early while ensuring youths are fully committed through to the end of the program. The *Urban Learning Journey* can also signify the end of the program allowing for a shared celebration and recognition of the participants' accomplishments.

5. Continue to allow participants to be creative and innovative as to the nature of their local service projects and *Urban Learning Journey* service projects. This will encourage participants to have a personal interest and investment in their local service projects, enable *Ocean Bridge* to engage new and diverse audiences

in ocean conservation, and create space for the formation of novel solutions to the challenges facing ocean conservation.

6. To ensure accessibility for youths, especially youths from marginalized and underserved communities, set expectations of participation with everyone to align with their capacity and to recognize the various ways in which *Ocean Bridge* ambassadors can contribute and engage. Once established with each participant, it is recommended that these conversations are revisited to allow for adjustments as a participant's circumstances change. Flexible engagement could mean communicating through email rather than video conferences, recognizing peer-to-peer knowledge sharing within the program as a form of service, reducing the number of one-to-one calls from weekly to monthly, providing remote engagement opportunities should participants not be able to attend an in-person learning journey etc. Furthermore, all local service projects should be valued for the contribution made by the participant rather than for the perceived success, public reach, or impact of the project.

7. Continue with regular one to one video or mentorship calls with a program staff member to provide participants with encouragement, accountability, support, and open communication throughout the program. The consistent connection between participant and staff enables staff to recognize when a participant needs additional support or modifications to the program design to ensure an individualized experience that encourages participants to step outside their comfort zone to grow, without pushing them so far that they disengage.

8. Facilitate connections between youth participants and alumni or other professionals who have the expertise, desire, and ability to provide further mentorship to youths in specific interest areas.

9. Create space for youths and alumni to exchange knowledge with one another by:

    a. inviting youths and alumni to host national calls as subject matter experts.

    b. hosting small group discussions each month during the program.

10. Develop long-term service projects to which subsequent cohorts could contribute and carry forward. This could provide meaningful alumni engagement opportunities, increase connection across cohorts and lead to more impactful outcomes for ocean conservation to which *Ocean Bridge* ambassadors can feel pride in having contributed.

11. Provide service opportunities with potential for long-term impacts such as might be found through informing environment and climate policy decisions.

12. Create an alumni program that:

    a. encourages cross-cohort collaboration and connections,

    b. supports longer-term service projects led by alumni,

    c. provides further professional development and networking including opportunities to participate in international conferences,

    d. facilitates the participation of alumni in current *Ocean Bridge* programming as mentors and as guest speakers for national calls and,

    e. facilitates the participation of alumni as a local representative or guide, and potentially as a contract staff, for remote and urban expeditions that take place in their home community.

Reflection on Research Methods

As I have reflected on the research process and methods used in this study, I notice several missed opportunities that could have strengthened the experience for the research participants, and myself as the researcher, and enhanced the outcomes of the research. First, I would have liked to include facilitation and management staff as research participants to acquire a more holistic understanding of the *Ocean Bridge* experience and to identify where staff and participant perspectives on the program are in sync and where their observations and experiences deviate.[4]

For the interview process, I found the questions elicited meaningful responses from the participants although I would slightly modify how I facilitated the interviews to allow myself to engage more in a dialogue with the participants. I believe that there was much left unsaid that could have been uncovered had I asked follow-up questions and encouraged participants to elaborate further on their responses. Better yet, if I were to recreate this study with a future cohort of *Ocean Bridge* participants, I would like to build the Appreciative Inquiry process into the program as an on-going evaluation and reflection exercise. During the *Urban Learning Journey* at the end of the program, I would introduce the participants to Appreciative Inquiry and hold an interview matrix during which the participants would have the opportunity to share their experiences, collectively identify key themes, interpret the data and recognize significant outlier data that should be included. I believe this would allow for a more participatory process and an increased number of research participants.

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[4] The staff team that worked with the 2018 cohort included a program manager, two program specialists and a communications specialist, all of whom worked solely on the *Ocean Bridge* program at *Ocean Wise*. This team received guidance from the VP of Education and Youth as well as a steering committee made up of external advisors.

Future Research

This study aimed to understand the *Ocean Bridge* program through the experiences described by the participants. However, the study was not designed to test claims regarding whether the program was indeed effective in advancing the ocean literacy of participants and others, improving the health of the ocean, or instilling a long-term commitment to service among young Canadians.

It would be valuable to have future research assess participants' ocean literacy before and after the program to determine the depth to which they are advancing their ocean literacy during the program. An international ocean literacy survey developed by Fauville et al. (2018) could be used to assess participants' understanding and knowledge of the seven Essential Principles and 45 Fundamental Concepts that are claimed to ground ocean literacy. However, a more comprehensive assessment could be developed to understand participants' abilities to communicate and make responsible decisions regarding the oceans. In this thesis research, some participants explained how their *Ocean Bridge* experiences influenced changes in their behaviour and how they made choices considered more responsible for the ocean. A longitudinal study over several years would be beneficial to develop an understanding as to whether these behavioural changes were ingrained in their daily lives, or if, with more distance from the actual program experiences, the youths reverted to their previous behaviours.

Beyond the participants, the *Ocean Bridge* program has the potential to have a large influence on people and communities through the service projects that youths develop and deliver in their home communities as well as during the two learning journeys. Future research should explore how the communities perceive the services carried out through the *Ocean Bridge* program. That is, to determine whether the program and its service activities are valued by the

communities or are perceived to be a burden. This study could also provide insights regarding what attributes make for a successful and meaningful service experience for both the participants and the communities.

Finally, to truly understand if *Ocean Bridge* is meeting its objectives of advancing ocean literacy and improving ocean health, and the extent to which these objectives are attained, research on the impacts the youths' service projects are having on the ocean literacy of others or the health of the ocean would be essential. Given the unique and diverse nature of the youth-led service projects, this research would likely require a series of studies each tailored to the service projects and the specific objectives they aimed to achieve.

Conclusion

The ocean is in peril as it faces challenges from unsustainable fishing to ocean acidification, habitat destruction, pollution, and climate change. To address these challenges, we need to be able to consider ocean issues from various perspectives and to develop innovative, creative, and diverse solutions. As a response, *Ocean Wise* introduced the *Ocean Bridge* initiative to empower youths to take actions that directly or indirectly could improve the health of the ocean. The experiences shared by youths through this research demonstrate the strong potential of *Ocean Bridge* to achieve these outcomes. With thoughtful reflection on the program's successes and challenges in these early stages of its development, the potential could translate into a successful and long-lasting program that makes a real difference for the ocean.

As the Director of Youth at *Ocean Wise*, I am in a leadership role to guide the *Ocean Bridge* program as it expands its reach to engage more youths and young professionals from across Canada in ocean conservation. I intended to undertake this thesis research as a means to begin to understand the experiences created for youths through *Ocean Bridge*. The research has

provided me with insights into the experiences, both shared and personal, of the youth participants from the 2018 *Ocean Bridge* program. The project has also indicated directions that I and the program team should continue to take, as well as what we could do differently to allow the program to evolve into something even better for the youths and the ocean. More important, and on a much more personal level, this research has shown me how powerful *Ocean Bridge* can be and the influence it can have on individual lives. With this knowledge, I am more committed to my work as a youth engagement professional and aware of the responsibility I carry in this role.

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Appendix A: Description of *Ocean Bridge* Program Components

The *Ocean Bridge* program is comprised of three key elements: (1) community and capacity building, (2) the *Remote Learning Journey* and (3) the *Urban Learning Journey*. Table A1 provides a detailed description of each of these three elements and their subcomponents.

Table A1

Descriptions of Ocean Bridge Program Components

Program Element	Description
Community & Capacity Building	"Through regular video conference sessions and an interactive online environment, youth connect as a national team and with the broader community of ocean conservation. The team identifies priorities for their extended service expeditions working with members of the community they will be travelling to ensuring collaborative co-creation of their service projects. As individuals, youth receive weekly mentorship and coaching sessions from Ocean Wise educators and experts, building their capacity as ocean leaders in their home communities" (Ocean Wise, n.d., para 2).
National Calls	Once a month, *Ocean Bridge* ambassadors gather virtually across the country using video conferencing technology for a webinar featuring a guest speaker. Topics may include ocean health, ocean literacy, project planning, Indigenous perspectives, and sustainability. See Appendix D for a complete schedule of the 2018 national call topics and speakers.
One to One Mentorship	Each *Ocean Bridge* ambassador is partnered with one of *Ocean Bridge*'s Program Specialists and connects with this program specialist each week for a one-to-one mentorship session. These sessions continue throughout the entire *Ocean Bridge* program and focus on guiding ambassadors as they set goals and plan ocean service activities for their respective communities. The mentorship calls also provide general program updates and prepare youth for the learning journeys.
Online Learning Environment	The online learning environment, https://education.ocean.org/oceanbridge/, is a virtual space for participants to host and participate in online discussions with one another, share photos and videos of their service projects, access resources, post reflections and collaborate as they plan service activities for the learning journeys. The public can access some of the online learning environment, but the discussion forum and reflections space are only accessible by those in the *Ocean Bridge* community including staff, alumni, and current participants.
Local service projects	Each *Ocean Bridge* ambassador is expected to serve their community and the ocean by dedicating 120 hours to ocean health or ocean literacy in their home community. Participants are encouraged to be creative and innovative with their ideas and in their approach, to engage other youth in their projects, and to communicate about their project using social media and other media outlets. *Ocean Bridge* program specialists provide guidance and support to participants during their one-to-one mentorship sessions. *Ocean Bridge* participants can develop their service project independently, can work collaboratively on projects with other *Ocean Bridge* participants or can choose to join pre-

Program Element	Description
	existing volunteer initiatives led by *Ocean Wise* or other organizations active in their community.
Remote Learning Journey	"During the spring, *Ocean Bridge* youth participate in a 10-day immersive wilderness expedition delivering a marine conservation service project of their design. The national team spends the months leading up to this extended service co-creating their project with the local community and each other. By living, working, and reflecting as a team in an iconic natural setting, youth will develop social capital, respect for diversity and a heightened sense of responsibility and pride." (Ocean Wise, n.d., para. 3). The 2018 cohort travelled to Haida Gwaii, BC from May 20 to 30th for their *Remote Learning Journey*. See Appendix E for a full description of activities during the 2018 *Remote Learning Journey*.
Urban Learning Journey	"This immersive element brings the national *Ocean Bridge* team together in the fall at a leading nature connection institution in one of Canada's most populous urban centers. During this 5-day urban expedition, *Ocean Bridge* youth deliver education outreach activities created by them to engage their peers in ocean conservation. Youth will share their skills and stories in their words and in ways that are meaningful to them." (Ocean Wise, n.d., para. 4). The 2018 cohort was based at the Vancouver Aquarium in Vancouver, BC from October 10 to 16th for their *Urban Learning Journey*. See Appendix F for a full description of events during the 2018 *Urban Learning Journey*.

Appendix B: *Ocean Bridge* 2018 Program Timeline

Ocean Bridge participants from the 2018 cohort began their experience in March 2018 and were engaged in mentorship, service activities, experiential and virtual education programming through to January 2018. Table A2 below provides an overview of the timeline of activities across the various program elements.

Table A2

2018 Ocean Bridge Program Timeline

Date	Community & Capacity Building		Remote Learning Journey	Urban Learning Journey
	Mentorship & Local Service Projects	National Calls		
March 2018	2018 *Ocean Bridge* program commenced on March 1, 2018			
April 2018	April to January: Ongoing 1:1 weekly mentorship calls via video or teleconference between *Ocean Bridge* ambassador and their Program Specialist. Youths work at their own pace over 10 months to identify, plan and deliver a local ocean service project or series of projects and dedicate 120 hours to ocean health and literacy.	March 24: Orientation & Community Agreements April 23 & 24: Cultural Understandings: Canada April 29: Cultural Understandings: Haida Gwaii	April to May: Ambassadors work virtually in project teams to plan the service projects they will deliver during the *Remote Learning Journey*.	
May 2018			May 20 – 31: Forty youth ambassadors participate in the 10-day *Remote Learning Journey* on Haida Gwaii in BC and carry out the team projects they developed in preparation for the trip. This is the first-time youth participants and staff meet in person.	
June 2018		June 27: Marine Conservation Areas in Canada June 29: Non-Formal Education 101		
July 2018		July 4 & 5: #RisingYouth Grants Program		July: 2018 cohort members propose ideas for *Urban Learning Journey*

Date	Community & Capacity Building		Remote Learning Journey	Urban Learning Journey
	Mentorship & Local Service Projects	National Calls		
August 2018		July 11: Youth Engagement for Marine Protected Areas August 15 & 16: Ocean Wise Seafood Program August 20: Microplastics		service projects and form project teams. August to September: Project teams work virtually to develop and put into action a work plan, budget, and communications strategy for their chosen *Urban Learning Journey* service project.
September 2018		September 4: Systems Thinking by Design September 25: Science Communication		
October 2018			October 17-19: 2-night optional sailing excursion to proposed Southern Gulf Islands Marine Conservation Area Reserve.	October 10-16: Project teams deliver service projects during the 5-day *Urban Learning Journey* in Vancouver, BC with 40 youth ambassadors.
November 2018				
December 2018		December 10: Sustainability in Practice		
January 2018		January 31: Next Steps		
	2018 *Ocean Bridge* Program Concludes on January 31, 2019			

The 2018 *Ocean Bridge* program concluded on January 31, 2019. Participants received a yearbook and certificate of participation to commemorate their eleven months of service for the ocean.

Appendix C: Recruitment of Youths for *Ocean Bridge* 2018

Recruitment for the first *Ocean Bridge* cohort was launched in January 2018. Youths from across Canada were informed about the *Ocean Bridge* program and encourage to apply to the 2018 program through social media posts on the Ocean Wise and Parks Life Facebook, Instagram and Twitter channels. Recruitment and application details were also sent to other youth-serving agencies and conservation organizations with a request that they share the *Ocean Bridge* application with youths and young professionals in their networks. These organizations were also invited to nominate youths from their network who they felt would be well suited to the program.

The youths applied to participate in *Ocean Bridge* by submitting an expression of interest and completing an online application form in January 2018. A variety of formats were accepted as expressions of interest including written letters, art pieces, videos, and phone interviews. *Ocean Bridge* is committed to representing the social, economic, and geographic diversity of Canada, and half of the spaces were reserved for youths from northern or rural communities. Each province and territory were allocated spaces based on their proportion of the national population and adjustments were made to allow more youths from typically underrepresented communities to participate. British Columbia and Nova Scotia had a disproportionately high number of applications compared to their populations and therefore were given seats that might have been allocated to Ontario and Quebec had seats been allocated solely on provincial population sizes. Similarly, the number of applications from females was disproportionately higher than the number of applications from males and so females were allocated more seats than males. Three *Ocean Wise* staff working on the *Ocean Bridge* program reviewed each application and at first selected youths who would contribute to a diverse and representative cohort. The remaining spaces were filled by reviewing expressions of interest from each province and selecting those applicants who demonstrated passion for ocean health and expressed a desire and the capacity to volunteer their time for ocean service activities. Being the pilot year of the program, youth-serving agencies and conservation organizations were also invited to nominate youths they felt would be excellent participants. These agency nominations were taken into consideration during the review of their nominees' applications.

Appendix D: *Ocean Bridge* 2018 National Calls

During the eleven-month program, national calls were hosted to engage participants in a range of ocean literary, conservation, and professional development topics as described in Table A3.

Table A3

2018 National Call Schedule

Date	Call Topic	Speaker
March 24, 2018	Orientation to *Ocean Bridge* and Community Agreements	Nicole Straughan, *Ocean Wise*
April 23 &24, 2018	Cultural Understandings - Canada	Micah Messent, BC Parks & *Ocean Bridge*
April 29, 2018	Cultural Understandings - Haida Gwaii	Barbara Wilson, Haida Gwaii Community Member
June 27, 2018	Marine Conservation Areas in Canada	Francine Mercier, Parks Canada
June 29, 2018	Non-formal Education Basics	Nicole Straughan, *Ocean Wise*
July 4 & 5, 2018	#RisingYouth Grants program	Aicha Allaoui & Jamal Teckleweld, TakingITGlobal
July 11, 2018	Youth Engagement in Marine Protected Areas	Da Chen, *Ocean Bridge* Ambassador
August 15 & 16, 2018	*Ocean Wise* Seafood	Jade-Alexandra Trottier & Alasdair Lindop, *Ocean Wise*
August 20, 2018	Microplastics	Stephen Chastain, *Ocean Wise*
September 4, 2018	Systems Thinking by design	Danielle Moore, Colby Deighton & Da Chen, *Ocean Bridge* Ambassadors
September 25, 2018	Science Communication	Alan Shapiro, *Science Slam Canada,* and *LitScience*
December 10, 2018	Sustainability in Practice	Alexis Scoon, *Ocean Wise*
January 31, 2019	Next Steps	Megan Harvey, Parks Canada Youth Ambassador

Appendix E: 2018 *Remote Learning Journey* Projects & Schedule

The 2018 *Remote Learning Journey* to Haida Gwaii, BC, took place from May 20 to 31. The *Ocean Bridge* ambassadors formed five project teams and collaborated with local community organizations and members with support from *Ocean Bridge* staff to plan the following service projects to be delivered while on the trip.

1. Project A: Traditional Knowledge & Storytelling
   - Haida language orientation session
   - "Humans of New York" style storytelling and interview project
   - Visit the Watchmen sites in Gwaii Haanas
   - Post-trip creation of an ocean conservation storybook inspired by the time in Haida Gwaii
2. Project B: Marine Debris
   - Remote cleanup at Lepas Bay
   - Remote cleanup at North Beach
3. Project C: Citizen Science
   - Invasive plant species workshop and removal
   - Data collection and sorting of debris from shoreline cleanups
4. Project D: Ocean Education
   - Host Ocean Literacy workshop for cohort
   - Prepare Rediscovery youth camp in Gwaii Haanas for the summer season (Cancelled due to high winds as only accessible by boat)
5. Project E: Community Engagement
   - Host community outreach BBQ with local youths at Hiellen Longhouse and North Beach
   - Present on ocean conservation for speaker series in Skidegate and Masset

The youth-led service projects described above were delivered alongside place-based, experiential education programming over 10 days. Table A4 provides an overview of the complete schedule.

Table A4

Schedule of Remote Learning Journey Activities

Date	Key Activities
May 20, 2018	• Youths arrive in Haida Gwaii • Site & safety orientation
May 21, 2018	• Official Welcome and razor clam digging with Chief Duffy Edgars at North Beach • Establish community agreements • Host community outreach BBQ at Hiellen Longhouse • Get-to-know-you and team building activities on the beach

Date	Key Activities
	• Debrief & Reflection
May 22, 2018	• Cultural site tour at Kiusta • Remote clean-up at T'aalan Stl'ang (Lepas Bay) • Debrief & Reflection
May 23, 2018	• Youth-led Ocean Literacy Principles workshop • Youth-led workshop on sustainability and privilege • Teamwork & communication activities at the beach • Debrief & Reflection
May 24, 2018	• Gwaii Haanas orientation session and preparation • Visit the Haida Heritage Center • Debrief & Reflection
May 25, 2018	• The trip into Gwaii Haanas cancelled due to high winds • Replacement activity: day hike to Pesuta Shipwreck • Debrief & Reflection
May 26, 2018	• Day tour of the inlet including cultural sites • Family style fresh Dungeness crab dinner • Debrief & Reflection
May 27, 2018	• World Café discussion on challenges and opportunities in leading ocean service at home and beyond • Speed dating team building activity • Youth-led presentation on microplastics • Presentation by Haida Elder on Sea Otter reintroductions and management • Debrief & Reflection
May 28, 2018	• North Beach shoreline cleanup • Ocean connection storytelling interviews with community members • Public speaking event cancelled, replaced with peer-to-peer knowledge share around the campfire • Debrief & Reflection
May 29, 2018	• Intertidal transect survey with BC Parks • Haida Language lesson with Skidegate Haida Immersion Program • Invasive plant species removal from coastal sand dune ecosystem with BC Parks • Tour of carving studio with Haida artist Christian White • Community dinner at Longhouse • Debrief & Reflection
May 30, 2018	• Youths travel home

Appendix F: 2018 *Urban Learning Journey* Projects & Schedule

The 2018 urban learning Journey was based out of the Vancouver Aquarium in Vancouver, BC from October 11 to 16, 2018. The *Ocean Bridge* ambassadors worked collectively to plan and deliver ten education and outreach service activities. Table A5 provides a description of each project and the timeline for the 5-day trip.

Table A5

Schedule and Description of Urban Learning Journey Projects

Service Project	Date & Location	Event Descriptions
Nautical Library: a night of ocean autobiographies	Oct. 11 At the Vancouver Aquarium	An evening of ocean optimism and knowledge exchange at the Vancouver Aquarium where talented and diverse storytellers will form a human library. Open to aspiring leaders and ocean lovers, this event will offer participants a chance to read each member's "book cover" to find a person they would like to borrow for an enriching conversation.
AquaVan takeover	Oct. 12 At a local elementary school	*Ocean Bridge* youth will take over the Ocean Wise AquaVan, offering hands-on interaction with sea creatures and artifacts at Greater Vancouver schools. Inspired by their remote shoreline cleanup experience in Haida Gwaii, *Ocean Bridge* youth have created a program to share their story.
Parlons océans	Oct. 12 At the Vancouver Aquarium	At Parlons océans, the youth will play a screening of the documentary "Le plastique menace sur les océans," then host ocean trivia and discussions. This event will be hosted in French and is open to ages 15+.
Seawall Plog-a-thon	Oct. 13 Vancouver Aquarium Plaza and the Stanley Park seawall	*Ocean Bridge* youth will be hosting a plog-a-thon — where participants will jog while picking up litter — around Stanley Park. This Great Canadian Shoreline Cleanup event will begin and end at the Aquarium.
Ocean Health Fair	Oct. 13 Vancouver Aquarium Plaza	The Ocean Health Fair will take place on the Aquarium Plaza and feature hands-on stations with artifacts, ocean art activities for children, tips and tricks on living a reduced-waste lifestyle, ocean games as well as upcycling art activities. The AquaVan will also be offering an opportunity to get up-close and interact with marine life.
Ocean Arcade	Oct. 13 Vancouver Aquarium Classroom	In partnership with Canada Learning Code, *Ocean Bridge* youth will guide participants (children ages 8-13 and their parents) in a workshop environment – targeted at beginner coders – while they identify an ocean issue and build a game around it.
Promenades sur l'eau	Oct. 13 Vancouver Aquarium Galleries	Promenades sur l'eau/Walks on Water fashion show will showcase six Canadian designers who are inspired by the ocean and are using materials that are sustainably and ethically sourced.

Service Project	Date & Location	Event Descriptions
Ocean literacy through an Indigenous lens	Oct. 15 Port Moody and the Burrard Inlet	In this session focusing on ocean literacy through an Indigenous lens, a group of *Ocean Bridge* youth will work with two elementary school classes from Surrey, travelling to Port Moody where they will go on a voyageur canoe with Takaya Tours.
Ocean art installations	Daily Oct 12 to 15 Vancouver Aquarium Galleries	Two art installations created by the *Ocean Bridge* youth will be displayed at the Vancouver Aquarium. One is a visual demonstrating the service work the cohort has engaged in throughout the year and the second is a national art project highlighting what the ocean means to Canadians from coast to coast to coast.
Ocean Bridge outreach	Daily Oct 12 to 15 Vancouver Aquarium Galleries	The *Ocean Bridge* youth will be present at the Vancouver Aquarium to interact with visitors and share their personal experiences from this past year.

Note. All event descriptions are from the October 4th, 2018 post on https://education.ocean.org/oceanbridge/announcements/ titled *Ocean Bridge Makes Wave in Vancouver.*

During the urban learning journey, *Ocean Bridge* ambassadors also participated in activities organized by staff for *Ocean Bridge* youths only. First was a workshop with Crista Valentino from CoalitionWILD on the topic of turning ideas into action and connecting local impact to the global context. The second was an open space session to allow the youth ambassadors to have in-person conversations on topics of their choosing. *Ocean Bridge* staff and steering committee members invited professionals from across marine sectors including educators, researchers, and explorers to join the *Ocean Bridge* ambassadors for an evening cruise and exclusive networking event in False Creek.

Appendix G: Letter of Invitation

Hello [ENTER NAME OF PARTICIPANT],

I would like to personally thank you for your dedication to the *Ocean Bridge* program last year and for your commitment to conserving the Oceans. As you may be aware, I am currently a Master's student in the Environmental Education and Communications program (MAEEC) at Royal Roads University and I have been approved by Royal Roads and *Ocean Wise* to carry out research exploring the experiences of participants from the 2018 *Ocean Bridge* cohort. I believe you can provide valuable feedback and insights which will help guide the future of *Ocean Bridge* and would like to invite you to participate in my research project. Before agreeing to participate, please review the following details and attached consent form.

The purpose of this study is to evaluate the *Ocean Bridge* program and inform future program design. Specifically, I am interested in understanding when program participants, such as yourself, felt *Ocean Bridge* was at its best during the 2018 program and how you envision *Ocean Bridge* at its best in the future.

Participation in this research will involve participating in a 1-hour interview which, with your permission, will be recorded. I will ask you to reflect on how you came to be involved with *Ocean Bridge*, what your experience in the program was, when you felt *Ocean Bridge* was at its best and what you envision for *Ocean Bridge* in the future. Follow-up questions may be asked to explore your reflections, experiences, and opinions more deeply. The interview will be hosted using video conference technology such as WebEx and/or Zoom and with your permission will be recorded. You will be given the opportunity to review a written transcript of the interview to confirm that it reflects what you believe you communicated. Recordings and transcriptions will be stored securely on a password-protected external hard drive, locked in a private and secure filing cabinet, along with any hard copies of data, in the *Ocean Bridge* office. Your identity will be protected in the written transcripts and the video recordings will be reviewed only by me as researcher and will be erased on completion of the project. Your real name will not be used during the video recording.

Your participation in this research is voluntary. If you choose to participate, you are free to withdraw at any time without any affects for your future participation in *Ocean Bridge* or *Ocean Wise* activities and opportunities. Upon withdrawal, on your instruction, all records and data pertaining to your involvement in the research will be destroyed.

This research will be used to meet the thesis requirements of the MA in Environmental Education & Communication and to produce a report for *Ocean Wise* outlining recommendations and/or insights, which can result in strengthening future *Ocean Bridge* program delivery.

Thank you for your consideration to participate. If you have any questions regarding this research, I encourage you to contact my supervisor or myself at any time. Should you prefer to speak with someone outside the research group to verify the authenticity of this research project please contact the MAEEC program head, Hilary Leighton.

To confirm your participation in this research study, please review and sign the attached research consent form and return to [Email Address] by [INSERT DATE].

Sincerely,

Primary Investigator
Nicole Straughan
MA Candidate, Environmental Education & Communication
[Email Address]
[Phone Number]

Research Supervisor
Dr. Milton McClaren
[Email Address]
[Phone Number]

MAEEC Program Head
Dr. Hilary Leighton
[Email Address]
[Phone Number]

Appendix H: Consent Form

Research Consent Form

Principle Investigator: Ms. Nicole Ann Straughan   Supervisor: Dr. Milt McClaren
Telephone: [Phone Number]   Telephone: [Phone Number]
Email: [Email Address]   Email: [Email Address]

Title of Thesis: An Appreciative Inquiry of Youths Experiences in the National Youth Service-Learning Program *Ocean Bridge*

This consent form, a copy of which will be given to you, indicates that you have agreed to participate in a semi-structured interview as a part of Nicole Straughan's thesis which will be used to fulfill her graduation requirements for the Master of Arts in Environmental Education & Communication at Royal Roads University. The details of this study and Ms. Straughan's credentials can be affirmed by contacting Dr. Milt McClaren at [PHONE] or [Email Address]. Questions can also be addressed to Dr. Hilary Leighton, Program Head, Master of Arts in Environmental Education and Communication program at Royal Roads University, [PHONE], or [Email Address].

The purpose of this study is to evaluate the *Ocean Bridge* program and inform future program design by exploring the experience of program participants using an appreciative inquiry approach.

Participation in this research requires participation in a 1-hour interview. The interview questions will ask you to reflect on how you came to be involved with *Ocean Bridge*, what your experience in the program was, when you felt *Ocean Bridge* was at its best and what you envision for *Ocean Bridge* in the future. Follow-up questions may be asked to explore your reflections, experiences, and opinions deeper. The interview will be hosted using video conference technology including WebEx and/or Zoom and will be recorded then transcribed. You will be given the opportunity to review a transcript of the interview to confirm it reflects what you believe you communicated. Through WebEx, data will be stored on US servers and therefore US authorities are legally entitled to access that information under the Patriot Act.

There will be no risk to you, the participant, during the duration of the research. You will choose a pseudonym at the start of the interview, which will be used in written documentation to protect your privacy and anonymity. For the duration of the research study, electronic data including recordings of the interviews will be password protected and stored on the researcher's hard drive. Any hard copies will be stored in a secured, private filing cabinet in the *Ocean Bridge* office.

This research will be used to meet the thesis requirements of the MA in Environmental Education & Communication and to produce a report for *Ocean Wise* describing and summarizing any recommendations or insights resulting from the study that have implications for future *Ocean Bridge* program delivery. The completed thesis will be published and held at the Royal Roads University Library.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participation as a subject. Whether you choose to participate or not will have no effect upon your participation in future *Ocean Bridge* and *Ocean Wise* opportunities. You, the participant, are free to withdraw from the study at any time. Continued participation should be as informed as the initial consent, so you should feel free to ask for clarification or new information throughout the participation.

_____
Participant Name

_____   _____
Signature   Date (YY/MM/DD)

Questions/Concerns? Please Contact:

Primary Investigator
Nicole Straughan
MA Candidate, Environmental Education & Communication
[Email Address]
[Phone Number]

Research Supervisor
Dr. Milton McClaren
[Email Address]
[Phone Number]

MAEEC Program Head
Dr. Hilary Leighton
[Email Address]
[Phone Number]

Appendix I: Interview Guide

Introduction

Thank you for making the time to meet with me today and for your participation in this research project. Before we begin, I would like to review the consent form with you.

[REVIEW CONSENT FORM]

Do you have any questions regarding the consent form?

[CONFIRM CONSENT FORM HAS BEEN SIGNED]

I would also like to remind you that you may withdraw from the study at any time and that this conversation will be recorded. Do I have your permission to record this interview? [BEGIN RECORDING]

Today we will have a conversation guided by questions I have prepared to better understand your experience in the *Ocean Bridge* program, and I anticipate it will take about 1 hour. To ensure your privacy and anonymity, I would like you to choose a pseudonym which is the name I will use to refer to you in the study. What would you like your pseudonym to be?

Do you have any questions before we begin?

Context Survey

1. Would you describe yourself as being from an urban or rural community?

2. Have you lived in a coastal area?

3. Do you identify as indigenous or as a member of a visible minority?

4. Prior to *Ocean Bridge* did you participate in environmental education, volunteer, or service programs? If so, what programs?

Appreciative Inquiry Interview

Opening Questions

1. Describe your beginnings with *Ocean Bridge*. That is, what attracted you to *Ocean Bridge* and what was your initial excitement or impression when you joined *Ocean Bridge*?

2. During your participation with *Ocean Bridge*, you probably experienced ups and downs, twists, and turns. For a moment, I would like you to think of a time that stands out to you

as a high point with *Ocean Bridge* – a time when you were most alive and engaged. Tell me about this experience.

    a. *What was it about the experience that made it a highlight for you?*
    b. *Did some particular people make this experience especially engaging? Why were they significant?*

3. Thinking about the overall program, what were the things that made it most engaging for you? (For example, facilitation, design/structure, mentorship support, resources, network/relationships)

4. Let's talk a moment about some things you value deeply – specifically, the things you value about (1) yourself, (2) the nature of your *Ocean Bridge* service projects, and (3) the *Ocean Bridge* program.

- *Without being humble, what do you value most about yourself as a human being, a friend, a parent, a citizen?*
- *When you are feeling best about your Ocean Bridge service projects, what do you value about the task itself?*
- *What is it about Ocean Bridge that you value?*
- *What is the single most important thing Ocean Bridge has contributed to your life?*

Topic Questions

5. **Culture of Service:** When at its best, *Ocean Bridge* is a service-learning program that inspires youth and young professionals to embrace a culture of service and take action towards ocean conservation.

- *Tell me about a time during Ocean Bridge that you were highly engaged in a service project. What made this service experience radically different? What did you and others do to make it an engaging experience? What were the outcomes and benefits you experienced?*
- *What does Ocean Bridge do best to encourage or inspire a culture of service among program participants?*

6. **Ocean Literacy:** Central to the mission of *Ocean Bridge* is advancing ocean literacy in Canada both by providing opportunities for participants to develop their own ocean literacy and empowering participants to educate others about oceans through participant-led service activities.

- *Describe a time during your participation in Ocean Bridge when you believe you were learning something new and meaningful regarding oceans. What lessons can be drawn from your example? What does Ocean Bridge do best as it relates to building good learning opportunities?*
- *When do you feel Ocean Bridge was most effective in advancing the ocean literacy of others (i.e., people who were not one of the 40 participants)? What was happening? What made it successful or effective?*

7. **Ocean Health:** The third key pillar of *Ocean Bridge* is affecting ocean health through service activities and demonstrating the important role National Marine Conservation Areas and Marine Protected Areas play in ocean conservation.

   - *Think of the most memorable moment during Ocean Bridge where you felt you were positively influencing the health of oceans. Tell the story of what was happening. What was it that made this activity/project so successful and influential?*
   - *Describe a time during Ocean Bridge you felt was most effective in advancing your understanding of National Marine Conservation Areas and Marine Protected Areas. What made it such an effective learning moment? Who was involved? What was happening?*

Concluding Questions

8. As *Ocean Bridge* transitions out of the pilot phase, it is important to know how to preserve the core of *Ocean Bridge* does best and to let go of things that are no longer needed. In transforming *Ocean Bridge*, what are three things – core strengths, values, qualities – you want to see preserved and leveraged moving into the future?

9. Assume you go into a deep sleep tonight, one that lasts ten years. But while you are asleep, powerful, and positive changes take place, real miracles happen, and *Ocean Bridge* becomes what you want it to be. Now you awaken and participate in the *Ocean Bridge* program. It is 2029, and you are very proud of what you see. As you take in this vision and look at the whole, what do you see happening that is new, changed, better, or effective and successful?

Closing Statement
Are there any topics you would like to have me include that we have not yet covered?
Thank you for taking the time to chat with me today and for your valuable insights. Do you have any further questions for me?

Appendix J: Code Book

Table A6

Organization of Codes from Interviews with Participants into Categories and Themes

Themes	Categories	Codes
Community		
	Friendship	
		Cohort members
		Friendship
	Other	
		Cohort model
		Community
		Community building
		Connecting with inspiring people
		Diverse cohort
		Sense of community
		Shared experience
		Shared goal
		Team
		Teamwork
	Peer-to-Peer Learning	
		Conversation
		Dialogue
		Listening
		Peer to peer
		Share expertise
	Support & Accountability	
		Accountability
		Encouragement
		Mentorship
		Momentum
		Resources & support
		Teamwork
Personal Growth		
	Broadened Perspectives	
		Broadened perspective
		Connecting with/learning from locals
		Discover something new
		Diverse learning experiences
		Diverse perspectives
		Diversity
		Expanded understanding
		Experience learning about water and
		Indigenous connection
		Geographic diversity
		Indigenous Perspectives
		Interconnectedness
		Interdisciplinary
		Intergenerational
		Engaging can be fun
		Perspective
	Confidence	
		Confidence
		Empowerment
	Other	
		Challenge to step out of comfort zone
		Connected to Nature
		Inspires service
		Learning about a new ocean
		Ocean Bridge became a part of Identity

Themes	Categories	Codes
Pride	Self-awareness	Ocean literate
		Overcome challenges
		Role model
		Grounding self
		Identity
		Purpose
		Self-awareness
		Taking risks
	Impact	
		2,000lbs of garbage
		Behaviour change (Personal and Others)
		Cleanup
		Collective impact
		Community engagement
		Education workshop
		Good for community
		Influencing/educating others
		Making a difference
		Ripple effect
		Spark interest
		Talking to public
	Pride	
		Empowered
		Engagement from community/audience
		Meaningful
		Overcoming challenges
		Pride
Professional Development	Leadership	
		Leadership
	Network	
		Connect with Steering Committee
		Connection to organizations
		Network connections
	Other	
		Opportunities
		Better understanding of citizen science
		Capacity building
		Connection to work
		Credence
		Resume building
	Skill Building	
		Collecting data
		Communication
		Environmental communication
		Planning
		Published writing
		Skill building
Program Design	Experiential Education	
		Cleanup
		Emotional connection
		Experiential/Hands-on
		Human element
		Immersive experiences
		New experiences
		See firsthand
		Wildlife encounter
	Other	
		Francophone engagement
		Passionate ambassadors
		Platform for passionate people

Themes	Categories	Codes
		Sharing story
		Storytelling
	Place-Based	
		Connection to culture
		Connection to local community
		Connection to place
		Place
		Place-based
		Remote community
	Program Design	
		Connecting knowledge and people
		Flexible engagement levels
		Formal education opportunities
		Fun
		Inclusivity
		Informal setting
		Interdisciplinary
		Invitation
		National call
		No technology/Wi-Fi
		Video calls
	Service Projects	
		At Vancouver Aquarium
		Community outreach
		Connection to passion
		Creative
		Diverse projects
		Diverse/Broad/New audience
		Expanding reach
		Flexibility
		Social media
		Youth-led