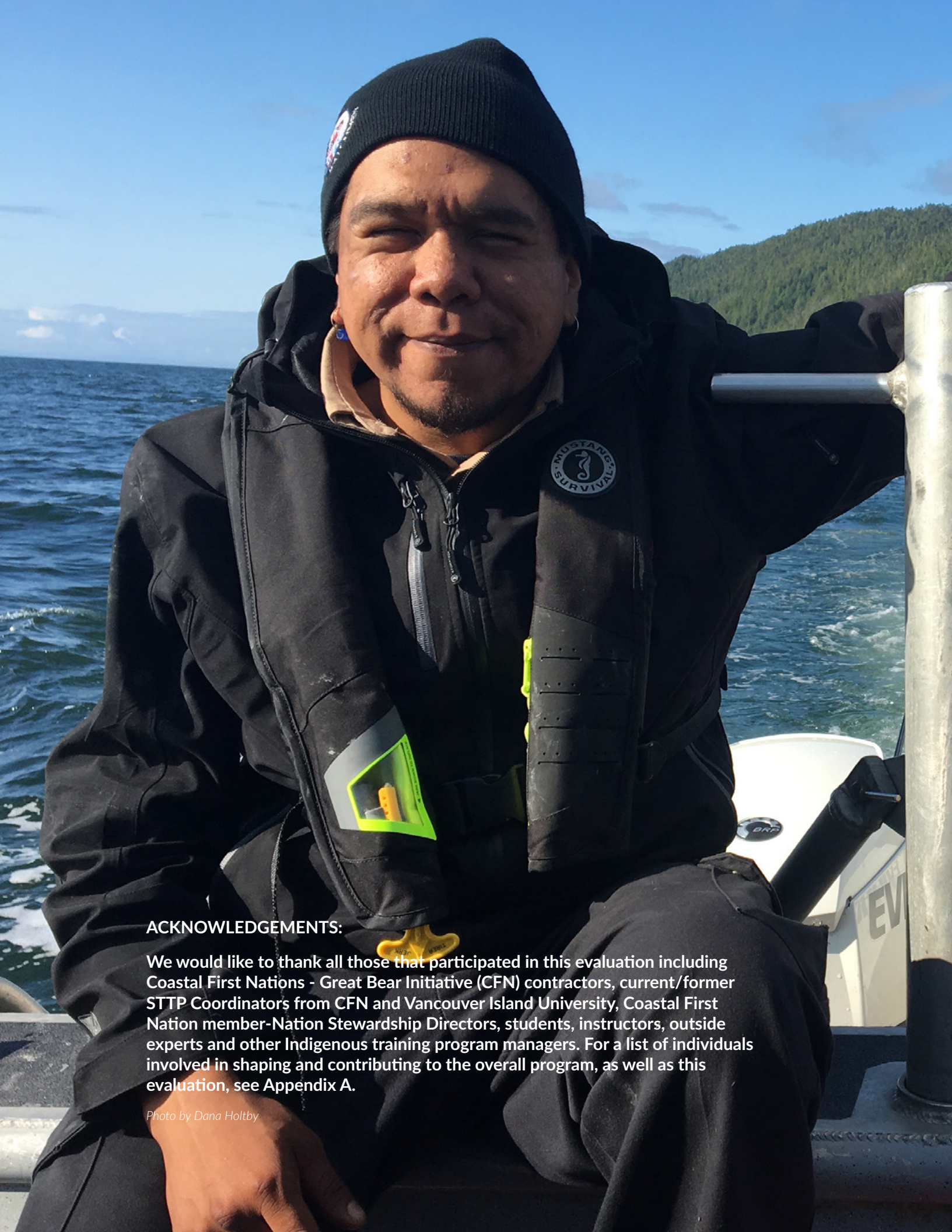


Making a Positive Difference

"WALKING AWAY WITH A GOOD MIND AND A GOOD SPIRIT"

Evaluation of the Stewardship Technicians Training Program





ACKNOWLEDGEMENTS:

We would like to thank all those that participated in this evaluation including Coastal First Nations - Great Bear Initiative (CFN) contractors, current/former STTP Coordinators from CFN and Vancouver Island University, Coastal First Nation member-Nation Stewardship Directors, students, instructors, outside experts and other Indigenous training program managers. For a list of individuals involved in shaping and contributing to the overall program, as well as this evaluation, see Appendix A.

Photo by Dana Holtby

Contents

EXECUTIVE SUMMARY	4
Summary of Findings	5
Summary of Considerations	5
Next Steps	5
INTRODUCTION	6
Purpose	7
Phase 1: Evaluation Scope (October 2019 – November 2019)	7
Phase 2: Evaluation Understanding (November 2019 – March 2020)	9
Phase 3: Evaluation Framework and Data Collection (January 2020 – May 2020)	9
Phase 4: Analysis & Reporting (March 2020 – June 2020)	9
STTP Program Description	11
STTP Background	13
KEY FINDINGS	17
Outcomes	18
Delivery	33
Design	58
KEY CONSIDERATIONS	66
CONCLUSION & NEXT STEPS	82
REFERENCES	83
APPENDICES	84
A. Key Individuals	85
B. Design Checklist	86
C. Case Studies	88



Executive Summary

For thousands of years Coastal First Nations have maintained and protected their territories and the quality of life in their communities. Today, part of this stewardship responsibility is the training of community members as Guardians and stewardship technicians through the Stewardship Technician Training Program (STTP). This program provides integrated technical and leadership training to meet coastal First Nation's needs throughout the North Coast, Haida Gwaii and Central Coast. STTP first began as a pilot project (2012-2014) and was followed by 3 cohorts of students (2015-2019). Each of these 3 cohorts comprised 15-20 students who attended courses over a 2-year period. The 3rd cohort of students graduated in April 2019. In October 2019, EcoPlan International began to work with Coastal First Nations (CFN) to conduct an evaluation of STTP.

The evaluation found that STTP did an excellent job of delivering on the primary goal of transferring *Stewardship Knowledge and Skills*, as well as significantly contributing to *Employability; Personal Wellbeing; Self-Improvement; Coastal Networks; and Guardian and Technician Credibility and Respect*. Even if CFN continued to offer the program with no changes, it would continue to play an impactful role in coastal stewardship and be an exemplary Indigenous training program. However, there are opportunities to enhance the program and to structure continual program improvement.

The key findings and considerations from the evaluation are provided below. Results are based on analysis from surveys, workshops, and interviews with program coordinators from both VIU and CFN, students, instructors, Stewardship Managers and Coordinators, as well as subject matter experts. Case studies and relevant literature also contributed to the analysis.

The evaluation led to ten key findings and six considerations. The findings reflect the comprehensive scope of the evaluation and are broken into three areas of analysis: Outcomes, Delivery, Design.

“This training reinforces what we do as Guardian Watchmen and instills more pride in the work we do. It lifts us up to continue to protect our territories”

- STTP Student

SUMMARY OF FINDINGS

Outcomes	1. STTP is a successful and important program that produced six major outcomes: (1) Stewardship Knowledge and Skills (2) Employability (3) Personal Wellbeing (4) Self-Improvement (5) Coastal Networks (6) Credibility and Respect. STTP made a significant contribution to all six of those outcomes.
	2. For STTP graduates, the most valued program outcome was the gain in leadership ability. Significantly, each of the STTP outcomes was selected as 'Most Important' by a part of the student body. This demonstrates that a range of outcomes are required to meet the unique needs of individual students.
Delivery	3. Course Content: STTP courses successfully provided the knowledge and skills needed to perform coastal stewardship activities. However, there are opportunities to improve current courses, revisit course offerings, and address skill gaps.
	4. Courses: STTP was rated Excellent to Exceptional for 85% of the course indicators. Only one area was identified as needing attention: culturally sensitive instruction.
	5. Student Success: STTP presented students with a positive academic experience and a high degree of success in the program. Student preparedness, clear expectations around program demands and content, and student wellness were barriers to student success.
	6. Program Structure: STTP is a very well-structured program. Students found the quality of the coordinators, cohort size, and the culturally appropriate learning environment to be exceptional. STTP performed less well in two areas: coordination between instructors; and program accessibility.
	7. Career Development Support: STTP provides transferable academic credits which are important to students and inspire further academic learning and career opportunities; but post-graduate support needs attention.
	8. Program Reputation and Networks: STTP has a strong reputation and has helped students create strong personal and organizational networks.
	9. Design Process and Delivery: The process for designing STTP was adequate to good, with the notable exception of generating a vision and objective. The program was mostly delivered as designed and was responsive to ongoing and emerging needs.
	10. STTP's tremendous success is fragile. Its long-term sustainability is threatened by four main factors: over reliance on STTP Coordinators; wide range of student academic levels and wellness needs; limited pool of potential CFN Guardians and technicians; and funding.

The following six Considerations flow from the Findings. They are listed as considerations and not recommendations as they need to be contextualized within clear Vision and Objectives and against resource trade-offs (staff capacity, financing). These considerations should be examined in future planning and design efforts.

SUMMARY OF CONSIDERATIONS

1. Develop a sustainability plan.
2. Adapt a more structured approach to Program Design. Use the Design Checklist Tool to support a more comprehensive design process. Special attention is needed in Step 4: Development of a clear vision and articulated set of objectives.
3. Improve STTP recruitment and admissions process. Provide better student support before entering the program, during the program, and after the program.
4. Develop a more culturally sensitive approach inclusive of trauma informed learning and specific learning needs.
5. Improve program instruction.
6. Regularly revisit and refine course content and relevancy.

NEXT STEPS

The next steps for STTP will be to integrate these findings and considerations into ongoing program development, as well as into the broader CFN planning processes.



Introduction

Photo by Elodie Button

PURPOSE

In the fall of 2019, the Coastal Stewardship Network (CSN), a program of Coastal First Nations - Great Bear Initiative (CFN), began an evaluation of their Stewardship Technician Training Program (STTP). After multiple years of offering the program, and many requests to continue training, CFN¹ decided to conduct a formal evaluation of the three student cohorts that took the two-year program between 2015-2019. The purpose of this evaluation is to:

- inform future design and delivery of STTP;
- share the STTP story with stewardship departments, participating communities, and funders;
- and provide information for other on-the-land/on-the-water training programs, communities or institutions currently conducting, or interested in creating, Indigenous stewardship training programs.

CFN decided to conduct a participatory co-evaluation of STTP to bring forward the program and students' successes and learnings. EcoPlan International (EPI) was hired to provide an outside perspective, and for their experience and expertise in program evaluation and working with coastal First Nations. The evaluation relied on experience and learnings from academic literature and case studies, and reflects the perspective of stewardship offices, students, coordinators, partner institutions, and program instructors. This collaborative approach requires significant commitment, time, and effort but leads to the collection of better information, improved

understanding of the data, and better uptake of findings.² CFN and EPI developed the following phased evaluation approach:

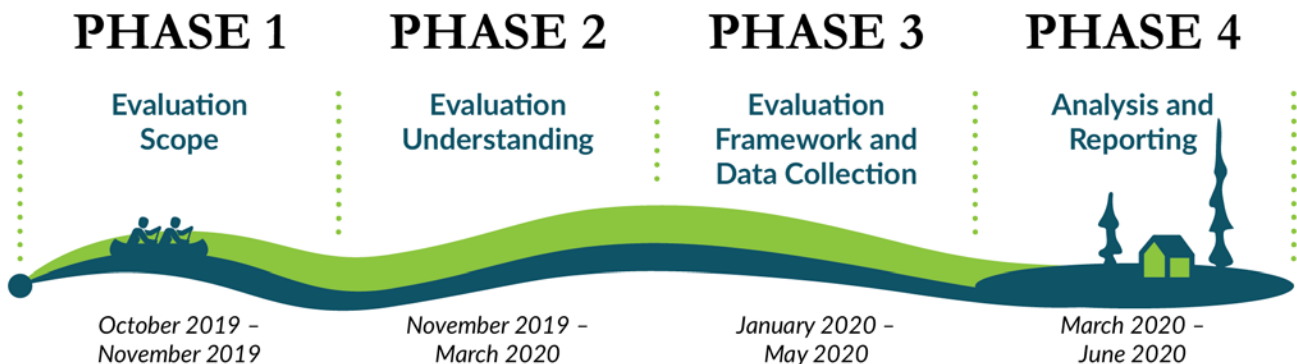
PHASE 1: Evaluation Scope

(October 2019 – November 2019)

This phase confirmed the focus of the evaluation to be the three STTP cohorts between 2015-2019. However, an understanding of the CFN/ Northwest Community College training program and the STTP pilot were reviewed for context. As a participatory evaluation, those involved were identified, methods were developed to access their knowledge, and timelines were established. The agreed to scope of the evaluation is summarized below.

- *Focus:* Three student cohorts that undertook the two-year program between 2015-2019.
- *Research and analysis:* Program history and context, design, delivery, outcomes and future considerations.
- *Participation:* students of the three cohorts (including those that left the program early), instructors, First Nation stewardship managers and coordinators, and STTP Coordinators (CFN, VIU).
- *Evaluation methods:* Document and literature review, case studies, interviews (in-person/ phone/video), in-person workshops (card sort prioritization, group discussion), surveys (on-line/paper).

FIGURE 1: A four phased approach was used to conduct this evaluation



1 The Coastal Stewardship Network is the CFN-GBI program responsible for the STTP, however for simplicity and readability this report will primarily refer to CFN.
2 For example, see: Guijt, I. (2014). Participatory Approaches, Methodological Briefs: Impact Evaluation 5, UNICEF Office of Research, Florence.



What does

Success

look like?

I want to connect to my cultural roots

I want to be an example for others in my community

I want to become a better note-taker

I want to improve my observation skills

PHASE 2: Evaluation Understanding

(November 2019 – March 2020)

The first phase was to determine the parameters of program evaluation. History and context are important. They drive the theory of change STTP is pursuing. What are the issues and how will the intervention address them? Who are the affected and interested groups? What is STTP – in other words what is being evaluated? The context and background that influence the emergence and evolution of STTP matter as the complex interactions across time and people affect the training response and outcomes – all of which affects how it is evaluated. Evaluation understanding explores the backdrop to the training design, or how the theory of change is defined, and how it can best meet the identified needs. It affects the delivery: was it implemented as designed? Why or why not? Did it adapt to new issues? How well did it perform? How well did it deliver? Outcomes then create a new story: how well did STTP achieve its stated objectives? What were the other consequences attributable to the program (intended and unintended; positive and negative)? This all leads to the considerations to improve future STTP program delivery. And this all needs to be understood within the context or

the circumstances that form the setting for STTP. We ultimately landed on an evaluation framework to test the program, relative to the outcome and delivery indicators.

PHASE 3: Evaluation Framework and Data

Collection (January 2020 – May 2020)

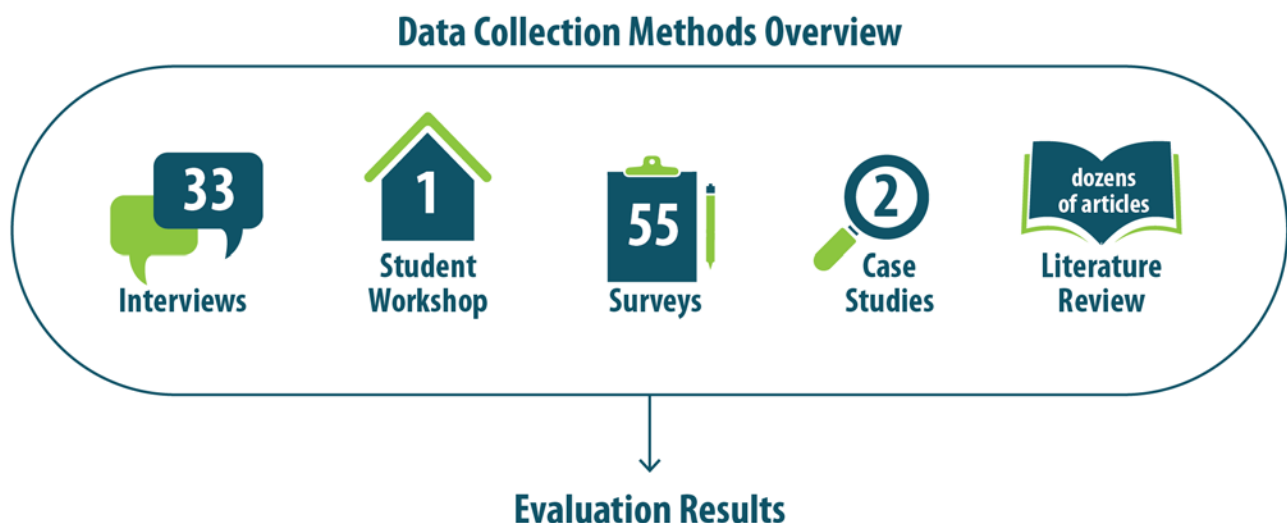
The framework and data needed to undertake the evaluation required reviewing program documents and interviewing key individuals involved with STTP and Coastal First Nations stewardship. This included coordinators, instructors, students, and people involved in the program's background story, as well as stewardship staff and directors. Additional field experts with Indigenous program or subject matter experience were also interviewed to gain an understanding of best practices and key lessons that could be applied to STTP. The figure below provides an overview of data collection methods³.

PHASE 4: Analysis & Reporting

(March 2020 – June 2020)

The evaluation results came from qualitative and quantitative analysis based on an evaluation framework composed of 15 outcome indicators

FIGURE 2: Data Collection Methods Overview



3 History and context interviews: 5 interviews. STTP Coordinators (CFN and VIU) Interviews: 3 interviews. Student Workshops: 1 Group discussion, card sort prioritization. Student Interviews: 11 Interviews. Student Long Detailed Survey (completion rate varied by question): 18 Survey responses (87% response rate) [Cohort 1 = 3 Students, Cohort 2 = 11 Students, Cohort 3 = 4 Students; Gender: Female = 4, Male = 11, Self-Identify = 1]. Student Short Validation Survey (completion rate varied by question): 27 Survey responses (69% response rate) [Cohort 1 = 6, Cohort 2 = 10, Cohort 3 = 11; Gender: Female = 12, Male = 14, Self-Identify = 1]. Instructor Interviews: 8 Interviews. Instructor Survey: 15 Survey Responses (94% response rate). Coastal First Nation Stewardship Managers and Coordinators: 5 Interviews. Subject matter experts: 1 interview. Case Study: 2 Case Studies. Literature Review: Dozens of articles.



and 45 delivery indicators. Indicator performance was compared using validated data on a common assessment rubric, or scoring guide, that includes both a qualitative descriptor and a quantitative score. The quantitative scores were primarily derived from an algorithm calculated from indicator specific survey-based Likert responses⁴ and validated with interviews. Where no survey response was available, literature research or interviews were relied upon. The performance scoring guide is show in Table 1 below.

TABLE 1: Performance Scoring Guide

Average Score	Description	Definition
.90 -1.0	Exceptional	Exceptional and of the highest quality, exceeding expectations
.80-.90	Excellent	The highest quality, with little to no room for improvement opportunities
.70-.79	Good	Appropriate quality, with some room for improvement opportunities
.60-.69	Adequate	Meets a basic standard with opportunities to improve.
<.60	Needs Attention	Issues exist that require consideration and response

Where survey data was used, a second score was calculated to provide insight into the level of agreement, a way to flag sub-group issues and minimize problems with aggregation. Level of agreement shows how much students agreed or disagreed in their opinions about each course ranking. If a course has a *Low* level of agreement, most students did not have a similar opinion on a particular course’s impact. Inversely, if the level of agreement was *High*, most students’ opinions were similar. An *Exceptional* level of agreement was given if over 90% of the students agreed.⁵ Results are included in this report and in supporting documents.

4 These were calculated on a 0-4 scale (e.g., 0=strongly disagree / 4= strongly agree), summed, and divided by the total potential in order to derive an aggregated and comparable score.
 5 Level of agreement was calculated using the following algorithm: If over 70% of the student’s agreed on a specific response, that score was used and equated to a ‘High’ or ‘Exceptional’ rank. If less than 70%, a second analysis was conducted to assess the polarization of responses – in other words to see if the difference was due to a more polarized “Agree” vs. “Disagree” divergence, or due to an “Strongly Agree” vs. “Agree difference.” This second check combined the Agree responses and divided by the total.

STTP PROGRAM DESCRIPTION

So, what is being evaluated? This evaluation focused on the three STTP cohorts that participated in the two-year program between 2015 and 2019. This includes over 50 participants from 12 different First Nation communities. Cohort 1 completed its training in March 2017, Cohort 2 in March 2018 and Cohort 3 in April 2019. STTP is also providing limited post-program professional development courses.

STTP provides applied stewardship training for First Nations throughout BC's Central and North Coast and Haida Gwaii. It is a collaboration between Coastal First Nations – Great Bear Initiative and Vancouver Island University. It is delivered in a community-based cohort model, alternating between the Central Coast, North Coast, and Haida Gwaii. STTP aims to provide applicable and tangible skills required to work in the growing field of resource stewardship. STTP supports those interested in or already working as Coastal Guardian Watchmen, fisheries technicians, heritage surveyors, environmental monitors, and other resource management field staff. Instructors with extensive field knowledge teach in the classroom and the field, and CFN Training Coordinators are present throughout the program to provide additional support for students.

Training needs are linked to the broader and evolving coastal stewardship context that includes major policy developments (e.g., coastal marine use plan) and organizational developments (the formation of the Coastal Guardian Watchmen Network, CGWN). With many coastal First Nation communities involved, training needs vary from ecological monitoring to enforcement of Indigenous laws and authority. In 2015 STTP was envisioned to meet “the need for an integrated, consistent program that can train community members to meet the anticipated demand within their offices for new stewardship technicians throughout the North Coast, Haida Gwaii and Central Coast.”⁶

The program includes core staffing; partnerships; identifying and recruiting students, pre-screening and prerequisites; outlining the theory of change and the learning/teaching model; identifying courses; course timing /logistics; student support, tutoring and mentorship; post-graduate follow-up.

The origins of STTP can be traced to the 2000 Coastal First Nations Declaration.⁷ Over the next 20 years stewardship training on the coast evolved until STTP came to life in 2013 as a pilot program, and has been a training priority of CFN-GBI's Coastal Stewardship Network for the last five years. (see Figure 3 for historical timeline). The following section describes this history.

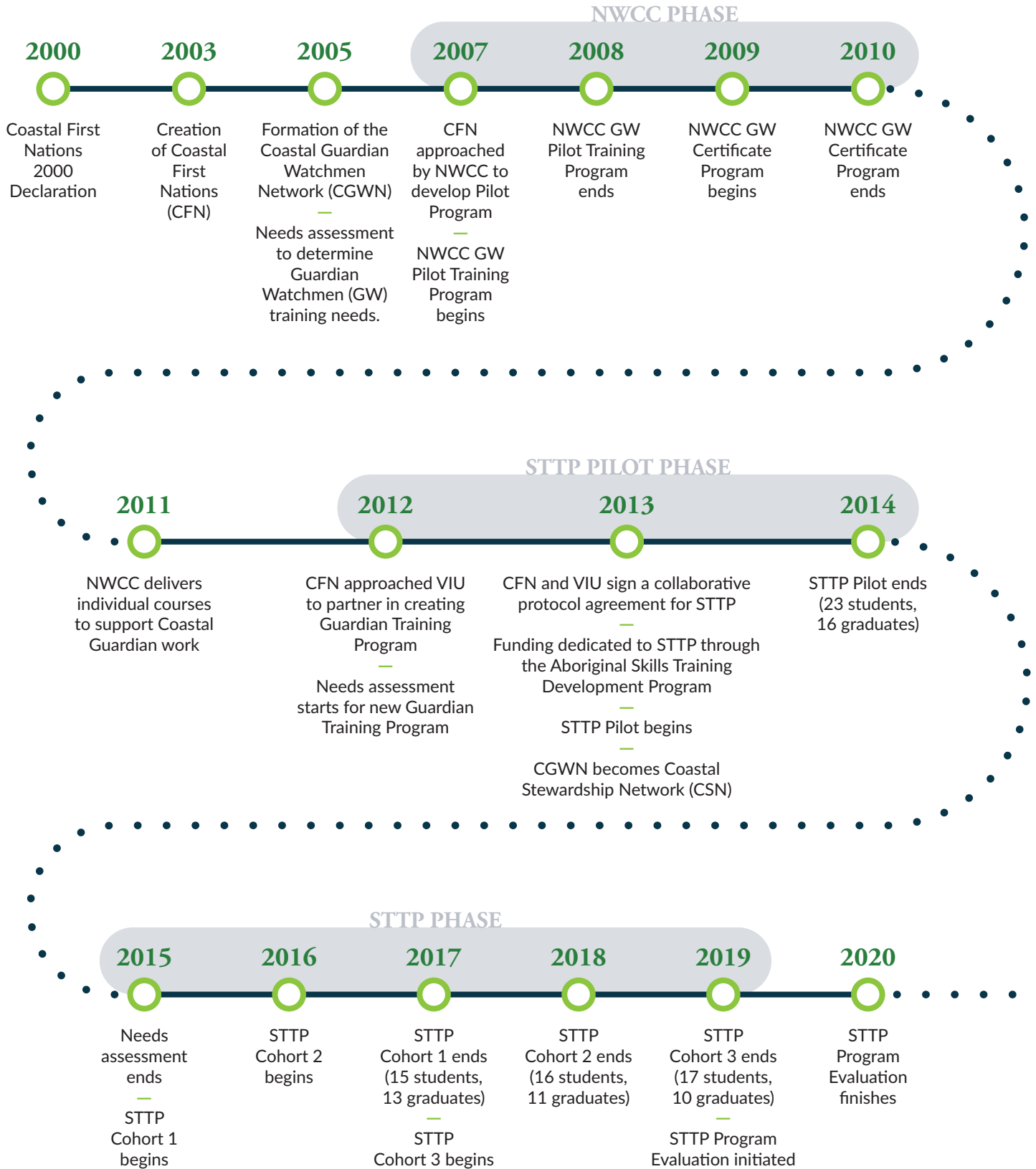


Photo by Dana Holtby

6 2015 CFN-VIU Aboriginal Skills Training Development Program funding application

7 See declaration at: <https://coastalfirstnations.ca/our-communities/cfn-declaration/>

FIGURE 3: Coastal First Nation’s Stewardship Program Timeline



STTP BACKGROUND

In the mid to late 1990s intensifying resource use and development spurred First Nations along the Central and North Coast of British Columbia to reassert their systems of stewardship to manage and protect their land and waters. Alongside this, First Nations shared common goals of building their capacity to develop sustainable economies and increase employment for their members. To achieve these goals, First Nations formed resource stewardship offices, out of which they conducted research and monitoring, developed and implemented land and marine plans, and supported economic development including aquaculture, fisheries, forestry, non-timber forest products, and eco-tourism. The growth of First Nation stewardship offices on the Coast created large demand for trained First Nation stewardship technicians. With the support of non-governmental organizations, coastal First Nations formed the Coastal Guardian Watchmen Network (CGWN) in 2005, a regional initiative, later supported by CFN, to provide resources and capacity support to monitor, steward, promote shared learning, and protect coastal territories.

The formation of the Coastal Guardian Watchmen Network was propelled by a common desire to collaborate on and formalize GW training. Furthermore, this enhanced training was seen not only as a way to develop GW technical skills, but as a critical step in legitimizing their role, and creating a GW profession. In response to training needs, a committee was formed⁸, community needs were assessed and aspirational design alternatives were generated. Several academic institutional partners were considered, and Northwest Community College (NWCC) was chosen for their experience with Indigenous communities and existing course options. In 2007/2008 a Coastal Guardian Watchmen Certificate program was piloted with NWCC in Kitimat and in Haida Gwaii. In response to feedback from participants changes were made to the program and the full certificate program was delivered in Prince Rupert beginning in November 2009.

Capacity and flexibility of NWCC was the biggest limitation to achieving the full training vision of the committee, not funding. Courses were based largely on what NWCC could provide. Some of

the desired delivery methods were rejected due to the limitations of NWCC (e.g., there was a desire for courses to be provided in-community and for students to spend less time away from home). Ultimately, ten courses, seven certificates, and 24 credits were offered over the course of four modules delivered in three-week blocks (see Table 2). A cohort-model of learning was used for students, and most courses were field-based with Indigenous curriculum integrated into the programming.

TABLE 2: NWCC Guardian Watchman Program 2009-2010

Module 1 – Safety	
1. Safety Course	
<i>Bear Awareness</i>	Nov 7
<i>Wilderness Safety & Survival</i>	Nov 8 & 9
<i>Marine Emergency Duties MED A3</i>	Nov 16
<i>Restricted Radio Operator ROC-M</i>	Nov 17 & 18
<i>Marine Basic First Aid</i>	Nov 24 & 25
<i>OFA Level 1</i>	Nov 21
<i>Transportation Endorsement</i>	Nov 22
<i>Small Vessel Operator (SVOP)</i>	TBA
<i>Note Module 1: Courses were delivered through Continuing Education – student registered for only those courses for which they did not hold current valid certification. Students received credit for the courses upon submission of proof (photocopy) of current certification(s).</i>	
Module 2 – Natural Resources & Ecology (8 credits)	
2. Guardian Watchman Stewardship	Nov 26 – Dec 4
3. Forest Ecology	Dec 7 – Dec 15
4. Maps, Charts, GPS	Jan 4 – Jan 8
Module 3 – Cultural Knowledge & Interpretation (8 credits)	
5. Traditional/Local Knowledge	Jan 11 – Jan 19
6. BC Cultural Stewardship	Jan 20 – Jan 28
7. Ethnobotany	Feb 1 – Feb 5
Module 4 – Monitoring and Compliance (8 credits)	
8. Guardian Monitoring and compliance	Feb 15 – Feb 23
9. Guardian Watchman Technical Skills	Feb 24 – Mar 4
10. Guardian Office Skills	Mar 8 – Mar 12

Note Module 2 – 4: Students were directed to apply to the normal college processes including a Guardian Watchmen Personal Profile for those not meeting recommended Grade 10 entry

⁸ Made up of representatives from non-governmental organizations and coastal First Nations, Sierra Club was an instrumental partner at the time and their participation was led by Claire Hutton.



“This comes back to the evolution of everything on the coast... We were navigating and meeting the needs and expectations of a lot of people”

- Past CFN program coordinator

Following the NWCC training there was not a clearly identified need for an on-going GW certificate training program. Coordinators at CFN said that the NWCC had trained most of the existing Guardian Watchmen at the time, and turnover in GW might make it difficult to fill another cohort. Consequently, after the NWCC Guardian Watchman Program was completed in 2010, there were two years where individual nations, Haida in particular, engaged NWCC to conduct individual nation specific courses on an 'as needed' basis.

The next round of coordinated stewardship technician training in 2012 was motivated by a number of factors. In 2012 land and marine use plans were being developed, and their implementation fell under the management of the Nations' stewardship offices. These agreements and plans led to new funding opportunities and stewardship office expansion, including more GW with increasingly complex roles. All these factors motivated a new round of training to increase the technical knowledge and skills of GW. The design process and decisions for advancing the training program were facilitated by CFN staff who brought information forward to the participating communities' land and resource managers or Stewardship Directors, who had recently formed a Stewardship Director's Committee to increase coordination amongst offices. The formal advisory committee that supported the NWCC design

process did not continue with the STTP, but the process that called on Stewardship Directors as needed functioned well.

Early in the process, STTP core staff identified existing and potential partners and how they might be involved. STTP was developed based on direction and input from Stewardship Directors, Guardian Watchmen and other stewardship staff of GBI member First Nation communities: Wuikinuxv, Heiltsuk, Nuxalk, Kitasoo-Xai'xais, Gitga'at, Metlakatla, Council of the Haida Nation, Skidegate Band Council, and Old Masset Village Council. Through dialogue with North Coast Skeena Stewardship Society it was identified early on that there was interest from other First Nations on the North Coast to participate in the program, including Gitxaala, Kitselas, and Kitsumkalum.

By 2012, CFN had experience with stewardship technical training, primarily through the NWCC trainings in 2008-2010. Interviews indicate that evaluations of this program were conducted, but we were not able to connect with NWCC to obtain records for this review. Further, documentation states that “each year a training survey was undertaken to determine the priorities of our member First Nations and develop and implement a training and professional development plan that includes offerings for stewardship technicians (including Guardian Watchmen), managers, planners, and directors.”

The most promising training funding opportunity at the time was the Provincially funded Aboriginal Community-Based Partnership Program (ACBPP). This program required CFN to partner with an accredited university. The ACBPP's goal was to build partnerships between Public Post-Secondary Institutions and Aboriginal communities to improve access to post-secondary education and training within Indigenous communities. Based on interviews, Simon Fraser University (SFU), University of Victoria (UVic), BCIT, and Vancouver Island University (VIU) were all considered by CFN as institutional partners. The experience with NWCC suggested they would not be the right fit for this new STTP. Reasons included their limited capacity to provide desired courses and flexibility (delivery methods, developing new courses) as well as a change in key staff at NWCC who did not connect with First Nations stewardship leaders.

A primary consideration for VIU was that they were known to several coastal First Nations, they had considerable experience providing educational opportunities for Indigenous people and they had the flexibility, adaptability, and accessibility required for a program like STTP. For example, VIU already had relevant courses from the Resource Management Officer Technology (RMOT) and the Natural Resource Extension (NRE) programs. Both these programs were recognized by provincial and federal natural resource enforcement programs and were seen to enhance the recognition of GW authority. Furthermore, VIU held a mandate for community-based partnerships and to engage Indigenous Nations, which was unique at the time. They were also responsive to CFN needs by helping to develop new courses and by partnering with institutions such as BCIT to deliver industry accredited certificates. Interviews suggest that working with VIU was also opportunistic, as positive personal relationships were in place with Sheila Cooper, Vancouver Island University's Indigenous Community Engagement Coordinator, who had an established track record with coastal First Nations. So, in the fall of 2012, CFN approached VIU to partner with them. While the partnership between CFN and VIU has been effective in delivering STTP (in no small part due to the commitment and skills of key individuals), it is not clear what the trade-offs were in contrast

to other institutions, or if additional partnerships with other institutions might be able to enhance or contribute in different ways.¹⁰

In September of 2012 an assessment of "Stewardship Training Needs" was conducted with Resource Managers and Stewardship Directors of Coastal First Nations member-Nations. This new iteration of STTP was informed by an online needs assessment performed by CFN staff engaging GW, managers and Stewardship Directors from each of the Nations. They were surveyed regarding course content and course delivery methods and helped establish some of the important opportunities, constraints and issues (both training and non-training related) that would need to be addressed in the design process. Two streams of training were identified as priorities – 1) training/professional development for existing managers/directors and 2) training for existing and/or new on-the-ground resource technicians (which is the focus of this evaluation). Directors prioritized short term technical training topics through a voting system, shown below in Table 3.

TABLE 3: Summary: Stewardship Director Technical Training Needs Assessment Workshop (Sept 2012)

Priority Topics
<i>(numbers indicate priority votes by Stewardship Directors)</i>
Office & Computer Skills – 2
Field Investigations & Note-Taking – 3
Enforcement & Professional Conduct – 3
Communications & Conflict Resolution – 3
First Aid & Outdoor Survival – 1
Marine Safety & Boat Mechanic Repairs – 3
Cultural & Archaeological Assessment – 4
Data Collection & Methods – 3
Aboriginal Resource Management –
Fisheries – 1
EBM LUO Implementation –
Proposed Technical Training Format
• Four to six one-week modules
• Delivery rotating through communities
• Modules add up to certificate or stand alone, important they ladder
• Field-based and hands-on with instructors that have strong experience and context re. FN and the coast

10 Note: for example, Dechinta Centre for Research and Learning in the NWT partners with 3 institutions: Faculty of Native Studies-University of Alberta; Institute for Critical Indigenous Studies- UBC; and, UArctic

Additional recommendations were given such as, “Instructors must have experience and context working with First Nation communities so they understand reality of work” and “Training must be in-person, hands-on and field-based (where appropriate).” Preference for the format of training was 1 to 1.5-week modules spread out throughout the year, preferably in the off season (generally winter and early spring) with the possibility of some modules being delivered in season.

In January 2013, VIU and CFN submitted a funding application through the ACBPP. Program coordinators indicated that while applying to government programs required meeting program requirements and priorities, these mostly aligned with CFN goals and did not have undue influence on CFN’s technical training approach. Upon having their application approved, VIU and CFN signed

a Service Agreement that described each parties’ responsibilities in completing the STTP program project and fulfilling funder requirements.

In 2015, building on the 2013-14 Pilot, CFN and VIU designed an STTP project, outlined in their 2015 proposal to the Aboriginal Skills Training Development Program to meet “...the need for an integrated, consistent program that can train community members to meet the anticipated demand within their offices for new stewardship technicians throughout the North Coast, Haida Gwaii and Central Coast.” A list and description of the courses that STTP delivered to all three student cohorts is outlined in Table 4. As the program was developed CFN worked with the Nanwakolas Council to offer STTP to their members. However that work, and the program that has developed since, is outside the scope of this evaluation.

TABLE 4: STTP Course Names and Descriptions (2015)

Course Name	Description
Compliance Communications and Resource Monitoring	Gain knowledge of environmental legislation, improve communication skills, and learn safety protocols for conducting field checks to monitor compliance.
Intro to Parks and Protected Areas	Examine park systems, management, facilities, and engagement of visitors and resource users. The module includes the BCIT Parks Administration exam.
Intro to Land and Marine Stewardship Case Studies	Intro to a range of First Nations resource management and protection topics from local experts, including marine and terrestrial wildlife habitat management and protection, ecosystem-based management, and marine plan implementation.
Indigenous Portfolio	Assess prior learning experiences through the development of a personalized portfolio and resume that will be built on throughout the training program.
Cultural Awareness	Students will explore their personal relationship with First Nations culture; explore First Nations stewardship principles in the context of scientific and traditional knowledge; build their understandings of Indigenous laws, governance, history, colonialism, resistance and adaptation to changes in Indigenous economics.
Small Motors Servicing and Electrical System	Introduction to the operation and maintenance of small two- and four stroke engines. Includes troubleshooting and field repair.
Archeology and Culturally Modified Tree Inventory	Learn how to undertake archeological inventories that contribute to management plans for cultural and heritage protection.
Interpersonal Communications and Leadership Skills Development	Interpersonal communication and leadership skills for working well on field crews, including personality types and leadership styles, well functioning teams, dealing with difficult people, and conflict resolution.
Essential Field Skills	Learn and improve skills such as taking field notes, using field equipment, following safety protocols, collecting data, reading maps, and navigating.
Water Monitoring Skills	Water quality surveying and sediment and invertebrate sampling field procedures for both freshwater and marine sampling.
Land Monitoring Skills	Standard vegetation, soil and wildlife sampling and monitoring field skills for forestry and other terrestrial applications.
Fish and Fish Habitat Skills	Includes fish identification, fish habitat assessments and field measurements, field hydrology, fish inventory methods and biological sampling.
Construction Site Monitoring	Standard environmental monitoring for construction sites, including site planning, erosion control, in-water construction and environmental project field skills.

Note: courses were adapted over the delivery period to better meet program objectives and student needs



Key Findings

Findings are presented in three parts: Outcomes, Program Delivery and Program Design.

Outcomes

EVALUATION RESULTS

The following findings summarize outcomes on coastal stewardship, participating First Nation communities and on students' lives resulting from STTP.

FINDING #1

STTP is a successful and important program that produced six major outcomes: Stewardship Knowledge and Skills; Employability; Personal Wellbeing; Self-Improvement; Coastal Networks; Credibility and Respect.

STTP made a significant contribution to all six of those outcomes.

Through the transfer of stewardship knowledge and skills to Guardians, other stewardship technicians and interested community members – STTP’s delivery to Cohorts 1 through 3 achieved its primary goal of contributing to culturally appropriate Coastal First Nation stewardship.

This vision of stewardship upholds the ecological, social and spiritual values of Coastal First Nations, and includes the protection of ancestral territories and economic health for communities. It requires partnership with government, industry, environmental organizations and other sectors and the recognition of First Nations’ inherent right to manage and make decisions for the health of their lands and resources. STTP successfully provides core training needed for Coastal First Nations to pursue this vision of stewardship.

This finding was validated by both Stewardship Directors, managers and coordinators and graduates who all agreed on STTP’s importance to coastal First Nation stewardship. For example, Vanessa Bellis, who is the Fisheries Program Manager supervising Guardians for the Council

of the Haida Nation confirmed “STTP is a great program, it provides the needed professional growth for our staff and the networking was excellent.” One Cohort 3 Student emphatically stated: “I have learned that the need for this training is huge for First Nations peoples.” This graduate’s statement is reflected in the survey results: 60% of the graduates stated that STTP was *critically important* to building their stewardship skills.

This central outcome is the result of impressive program delivery. A total of 77% of the performance scores for STTP’s 45 indicators indicate that STTP performed *Good to Exceptional* by graduates and instructors for a university field program. Of note are the number of indicators that received a score in the *Exceptional* (16%) or *Excellent* (37%) range with the remainder receiving a score of *Good* (23%). Only 12% of the delivery indicators suggest a need for immediate attention and another 12% were identified as *Adequate*, suggesting some opportunities for improvement.

FIGURE 4: STTP’s role in to building the necessary technical and leadership skills to perform stewardship work

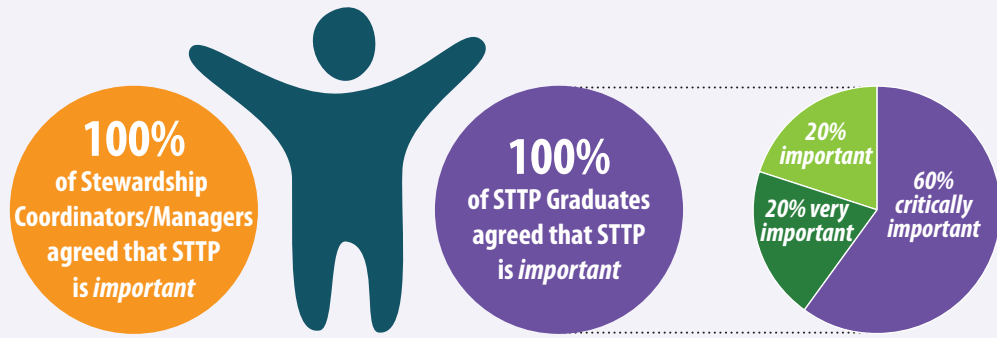


FIGURE 5: STTP Program Delivery Overview (based on 45 indicators)



Instructors confirmed the success of the program:

“The program is amazing - in community delivery is great and was developed by community request” - Tania Smethurst, Portfolio Course Instructor.

Several additional outcomes were identified beyond the primary purpose of STTP of providing *culturally appropriate coastal stewardship* knowledge and skills. Graduates of STTP have become healthier citizens as well as being able to find and maintain employment and adapt to labor market changes within the dynamic coastal economy. Finding 2 breaks down the outcome findings.

In addition to the primary purpose of contributing to culturally appropriate coastal stewardship through the transfer of stewardship knowledge and skills, graduates of STTP become:

- healthier citizens with improvement in **personal wellbeing**;
- inspired to continue with the **self-improvement** through on-going training and learning that STTP initiated;
- better able to find and maintain employment and are more resilient within the dynamic coastal economy improving **employability**;
- recognized as respected professionals through the **credibility** the STTP training provides; and,
- part of a **growing network** on the coast that influences region wide responsiveness to change, improves information sharing and the raises the quality of decisions.

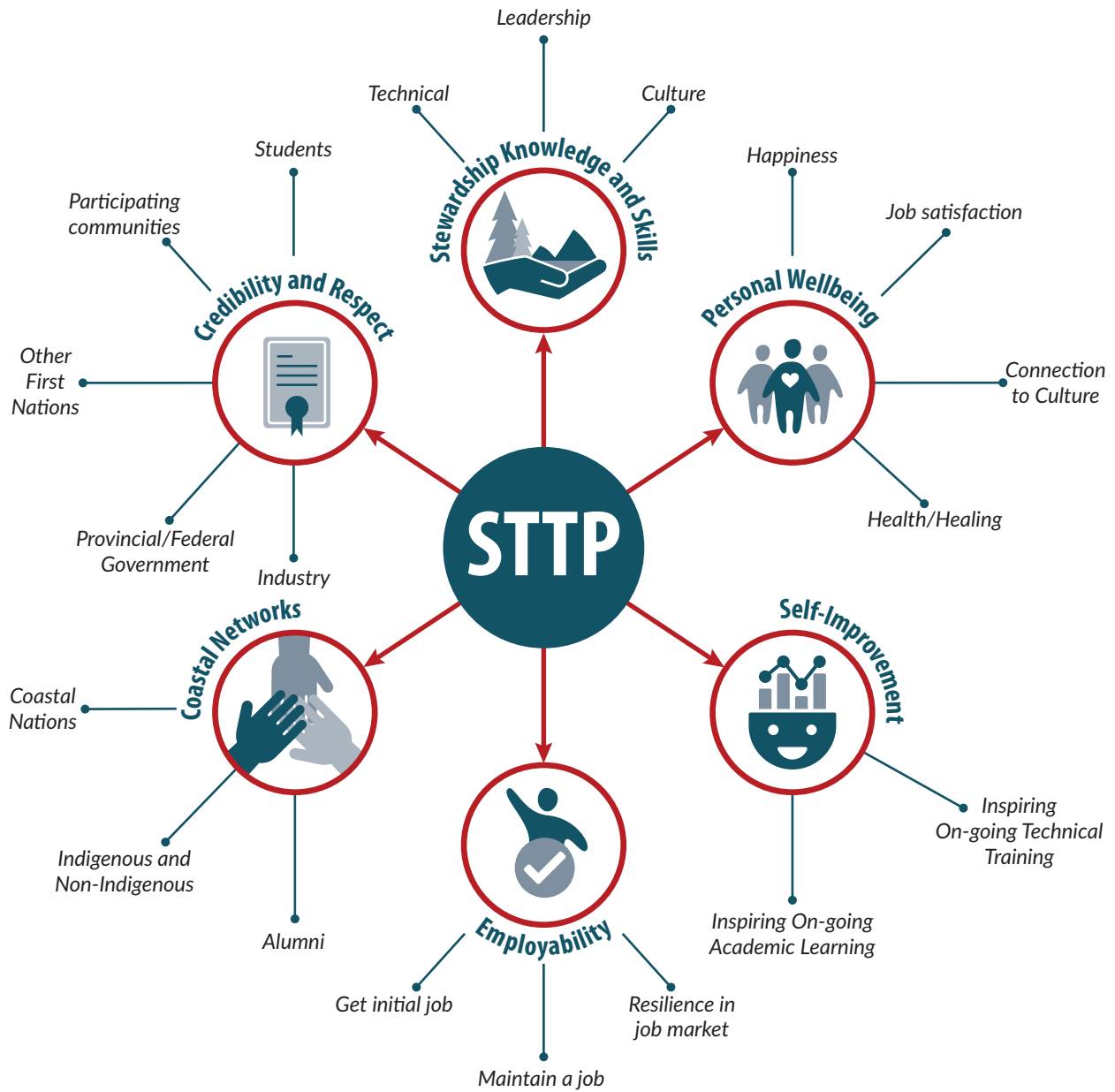
These outcomes are having immediate impacts, and are anticipated to positively influence coastal environmental, social, institutional and economic spheres over the long term. No adverse or negative impacts were identified.

These findings were organized into an outcome framework with six fundamental outcomes defined by 20 indicators to measure performance. These indicators were generated from key informant interviews and formed the basis for structured surveys that allowed for outcome measurement. The outcome framework is shown in Figure 6.

“This training has been very beneficial, and I feel it’s a good refresher if you’re new or you’ve been in it for a while as a Guardian Watchman.”







-STTP Graduate

FIGURE 6: STTP Evaluation Outcome Framework



To gain insight into the impact STTP is having on students across the range of outcomes, students from all 3 cohorts were asked to estimate each indicator’s current level of achievement and the contribution STTP has made to that level of achievement. Table 5 shows the aggregated results as well as the level of agreement across respondents. These results are outstanding, with students pegging the current level of achievement as *Good* or *Excellent* in 85% of the indicators (11 out of 13), attributing a *Significant* amount of these gains to STTP.

TABLE 5: STTP Contributions to Achievement Levels – STTP Student Perspective

Outcome	Achievement	Agreement	STTP Contribution	Agreement	
 Stewardship Knowledge and Skills	Job Preparedness	Good	Moderate	Significant	Exceptional
	Leadership Abilities	Excellent	High	Significant	High
 Employability	Workplace Confidence	Exceptional	High	Significant	High
	Labor force Readiness	Good	High	Significant	High
 Personal Wellbeing	Connection to Culture	Excellent	High	Some	Low
	Happiness and Job Satisfaction	Excellent	High	Significant	High
 Self-Improvement	STTP Inspired On-going Technical Training	Good	High	Significant	High
	STTP Inspired On-going Academic Learning	Good	Moderate	Significant	Moderate
 Coastal Networks	Coastal First Nation Cooperation	Excellent	Moderate	Significant	Moderate
 Credibility and Respect	Government	Needs Attention	Low	Significant	Moderate
	Industry	Good	Moderate	Significant	Moderate
	General Public	Good	Moderate	Significant	Moderate
	Home Community	Good	Moderate	Significant	Moderate

“STTP provided great skills training!”

- STTP Graduate



STEWARDSHIP KNOWLEDGE AND SKILLS

STTP significantly increased students' leadership and technical skill levels, regardless of skill level when entering the program.



Job Preparedness/Technical Skills

An outcome indicator that merits emphasizing is *Job Preparedness*, which requires having the necessary technical skills to do stewardship work. All students felt prepared to do their work upon graduating STTP, with a remarkable 38% feeling *Extremely well* prepared and 37% feeling *Very well* prepared. A student that assessed themselves as *Extremely well* prepared identified with the statement: "I gained skills and knowledge that was above and beyond what I expected. I felt extremely well prepared for future work or for my job at the time as a stewardship technician / guardian." This was also the only outcome that had an *Exceptional* level of agreement crediting STTP as the primary reason they felt prepared to do the important stewardship work on the Coast.

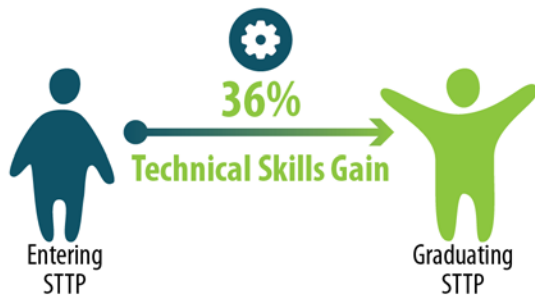
How well prepared do you feel you are to do your job [after completing STTP]?



STTP Contribution = Significant

When students were asked how much change they attribute to STTP in terms of their technical stewardship skills and knowledge, on average they identified a 36% positive change in technical skills gain. STTP has benefits for students with existing technical skills looking to advance in their work, as well as students newly entering the field of stewardship.

FIGURE 7: Technical Skills Gain



“I took this so that I could further my experiences and my career, especially in field work, and it definitely strengthened that a lot.”

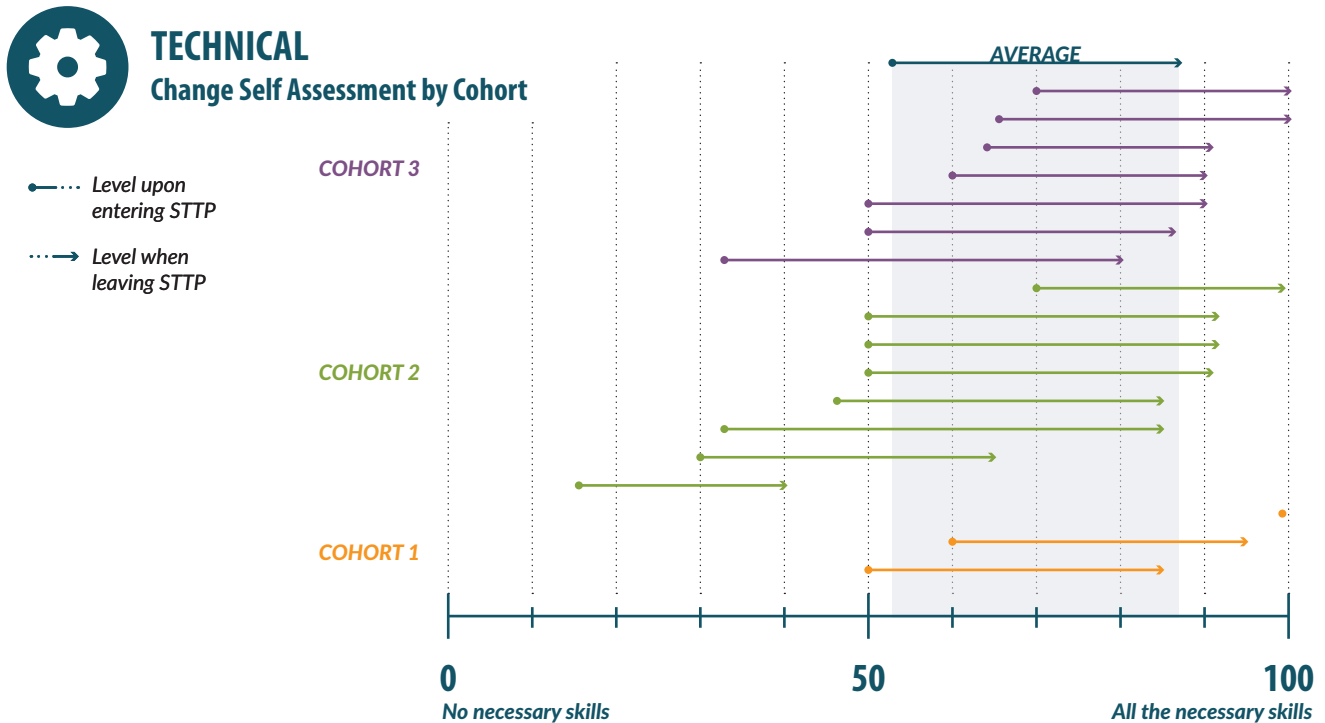
- STTP Student

“This training reinforces what we do as Guardian Watchmen and instills more pride in the work we do. It lifts us up to continue to protect our territories and really instills in us the importance of Guardian Watchmen. Knowledge has been shared with us and now it is our job to teach others- which is what we do as stewards.”

- STTP Student

A more detailed analysis of 18 students organized by cohort highlights that all students benefited, regardless of prior technical skills or experience. Graduates were asked to assess where they felt their technical skills were before they entered the program. They were then asked to assess where they felt their technical skills were upon completing the program. Some individuals gained more than others, but due to STTP, all students moved significantly closer to the end point of having all the necessary skills and knowledge to do Guardian or other technical stewardship work. Three students were so confident upon graduation as to feel they did have all the necessary technical skills by the time they graduated.

FIGURE 8: Technical Change Self Assessment by Cohort



Leadership

STTP produces leaders. Students were asked to describe their leadership abilities upon graduating STTP using two end points to frame the questions. At the low end was a description of “Shy, not willing to share my knowledge with others, focused on me and my issues only” and at the high end leadership was described as “I am extremely competent, able to communication well, able to motivate others.” An astonishing 40% indicated they felt *Extremely Confident* and another 50% said *Very Confident*. Only 10% said *Adequately Confident*. There was a high level of agreement that this is due to STTP, with 70% indicating STTP contributed *A lot* or *Tremendous* (10%) amount to this skill level.

How would you describe your own leadership abilities [after completing STTP]?



STTP Contribution = Significant

This result held up regardless of the skill level the students had when they began STTP. The program shows it has benefits for students with existing leadership skills looking to advance in

their work, as well as students entering the field of stewardship. Graduates were asked to assess where they felt their leadership were before the program. They were then asked to assess where they felt their leadership and technical skills were upon completing the program.

FIGURE 9: Leadership Skills Gain



On average, students from each cohort indicated a 27% positive change in leadership. Figure 9 is a visual overview of this positive change.

Similar to technical skill gains, this result held up regardless of the leadership skill level the students had when they began STTP. The program shows it has benefits for students with existing leadership skills looking to advance in their work, as well as students entering the field of stewardship with lower levels of confidence.

FIGURE 10: Technical Change Self Assessment by Cohort



LEADERSHIP
Change Self Assessment by Cohort

- Level upon entering STTP
- Level when leaving STTP

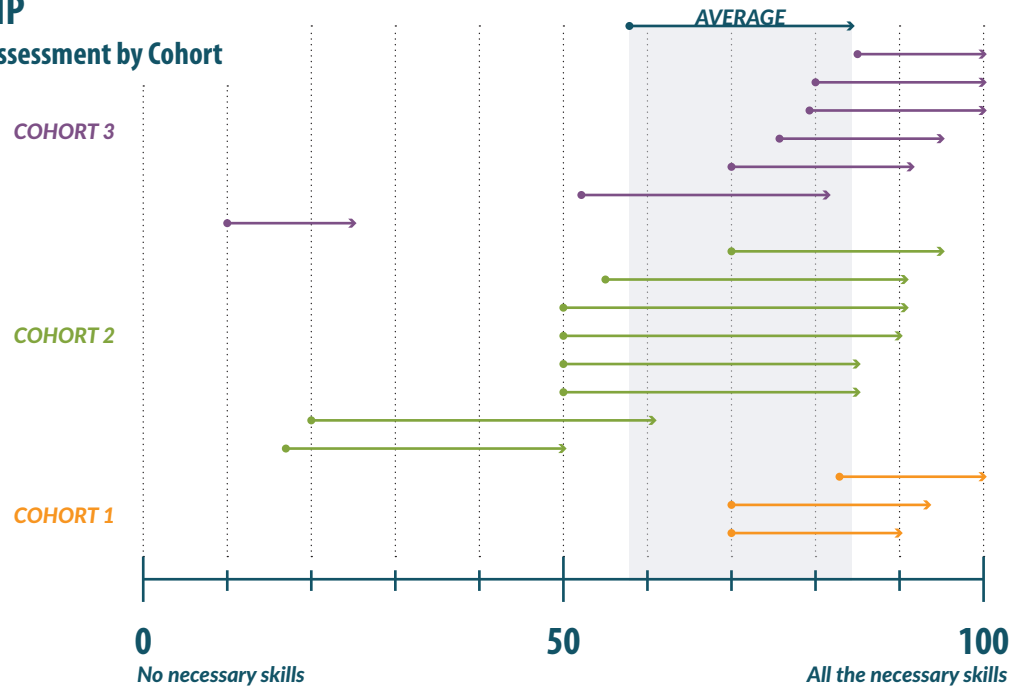


Photo by Elodie Button



EMPLOYABILITY

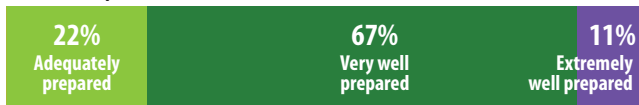
Workplace Confidence

Students felt they achieved an 'Exceptional' level in the critical area of workplace confidence and had a high level of agreement – attributing most of this achievement to STTP. This is even more impressive considering that student responses represent seven different communities where they are asked to do a wide variety of work. Furthermore, students enter the program with different backgrounds, skill levels, and areas of expertise.

“I have lots of confidence, I know my voice, and am easily able to apply critical thinking skills”

- STTP Student

How well prepared are you to pursue job opportunities in your community or on the coast?



STTP Contribution = Significant

What do you feel you have learned in the program?

“To be more confident in the workplace!”

- STTP Student

“Confidence, leadership, writing skills, good reading criteria in all courses”

- STTP Student

Labor market readiness

Students felt good about their labor market readiness and attributed this primarily to STTP, with 60% stating that they felt *Very Prepared* and ready to take on job opportunities, or if they were employed, they felt STTP skills and knowledge fully supported their job.

“What this course has been teaching me is fundamental for the work I want to be doing in Bella Coola and my territory. It’s teaching me that I have to protect it and cherish it like a child, because if we take care of her, she will take care of us.”

- STTP Student

“While I am unsure of my goals going forward, I know all the training from this program will greatly help my skills, and knowledge professionally, and personally.”

- STTP Student



PERSONAL WELLBEING

Connection to Culture

A total of 50% of the students felt *Extremely Connected* to their culture. They are constantly practicing their culture and traditions, felt strongly connected to their identity and history, spend lots of time on the land and know their territory. Another 30% felt a *Great connection*. However, this was the only area where STTP only contributed only *Some* to this current level of achievement, and there was a low level of agreement regarding that score.

How connected do you feel to your culture?



STTP Contribution = Some

Further analysis indicates that the students were split with 40% feeling that STTP only contributed *A Little* and another 40% feeling STTP contributed *A Lot*, 20% said *Some*. This suggests there is more of a need in this area for some individuals than others. In response to the Cultural Awareness course, where cultural connection was the primary focus, some students praised the depth to which it connected students to their culture, one student stated “...the course was able to bring out truth, whether it was anger, hurt, love, confusion, students were able to get through it together”. Not all students agreed, one student felt that the course was “...an uncomfortable subject that isn’t critical for work...” and another student saying they “already had a lot of knowledge from previous work / school”.

Interviews with students revealed their varied experience with their culture prior to STTP, for some students, STTP was critical in helping them connect with their culture, and for others, STTP was not as valuable for their cultural connection.

Happiness and Job Satisfaction

A total of 88% of students said they felt emotionally, spiritually, and mentally healthy; and they felt strongly resilient against social pressures and the ill effects of modern life. STTP played a major role in achieving this high level of well-being, with 70% of respondents saying it contributes over 65% of this level.

As a guardian/stewardship technician, how happy and satisfied do you feel?



STTP Contribution = Significant

What do you feel you have learned in the program?

“How to step back and take things less personally. How to see the coastal perspective and how I belong to the whole. How to be open to change and things which are beyond our control.”

- STTP Graduate



SELF-IMPROVEMENT

Self-improvement is important for personal growth and contributes to employability and general wellbeing. It allows individuals to continuously

develop the skills and discipline to nurture curiosity. It requires inspiration and often changes in behavior and motivation. One of STTP's intentions is to inspire ongoing academic learning and technical training. On both accounts, STTP does well. There is a higher level of agreement regarding technical training than academic learning, but that is not a surprise as most students are interested in technical stewardship. 90% agreed that STTP inspired them and gave them the confidence to pursue continued academic learning (e.g., other courses at VIU, NWCC, other post-secondary institutions) or technical training (e.g., search and rescue, swift water training, bear awareness, first aid, etc.) after completing the program.

STTP inspired confidence to pursue continued academic learning or technical training



STTP Contribution = Significant

“As an instructor for the fish and fish habitat module, I have directly witnessed the transformation that takes place when students learn something that can be related to a personal experience or from traditional knowledge. The experience the STTP provides is obviously empowering for the students, opening doors to a future of amazing experiences and lifelong curiosity of the natural world.”

- Lora Tryon, Environmental Technician Certificate Instructor

“Two main goals for me are taking STTP year 2 and Aboriginal Ecotourism training program for further education with VIU!”

- STTP Student

“I have learned I can push and motivate myself more to succeed.”

- STTP Student



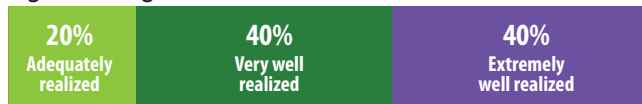


COASTAL FIRST NATION NETWORK BENEFITS

Students were asked about Network Benefits -- how fully realized they felt the benefits of First Nations working together

along the coast are – students indicated that coastal First Nation network benefits are *Excellent*. A total of 40% of respondents said these benefits were *Extremely well realized*, defined as openness with information and management techniques, excellent coordination and communication, a high level of trust between groups, and many First Nations participating. Another 40% felt they were *Very Realized*. There is a *Moderate Level of Agreement* in terms of STTP’s contribution. Half of the students felt the role of STTP in contributing to these networks was *A lot* or *Tremendous*, while the other 50% felt it was *Some*. This result is not surprising given that the program introduces students from many Nations up and down the coast. It is positive that these students now have these connections and will build on them as professional and personal networks continue to grow.

How fully realized are the benefits of First Nations working together along the coast?



STTP Contribution = Significant

“Community connectedness both with community at home and in workplace situations. Being open minded with other working capacities who work in the similar fields as ourselves.”

- STTP Student



“Many of these students met for the first time and have developed lifelong friendships and a professional network of Guardian Watchmen and Stewardship Technicians”

- Greg Klimes, Compliance Communication and Resource Monitoring Instructor

Photo by Lena Collins

“STTP has changed me as a whole. I have learned to be respectful, how to be assertive, how to take charge, when to listen, and when to direct. I learned where our ancestors came from and where we are going today. The greatest thing I learned is how smart, strong, and capable we all are as First Nations and Indigenous people. I can go home with a toolbox full and know the potential we have to make our communities great and protect our precious resources”

- STTP Student



STEWARDSHIP TECHNICIANS AND GUARDIANS CREDIBILITY AND RESPECT

Overall, students felt STTP contributed positively to Guardians and technicians' level of credibility and respect received from Industry, General Public, Government and Home Community. This is an important measure because it indicates the a level of external validation of their stewardship work and helps with their ability to do their job. It establishes trust from the public, encourages Guardians to take on new roles, and improves partnerships.

One group that scored poorly is Government. While there was a range of responses recorded, many students (62.5%) feel the credibility and respect they received from the Provincial and Federal Government is only *Adequate* or less and is in need of attention. However, there was a Low level of agreement on this indicator among students, with many (37.5%) feeling the level of credibility and respect received from the government was *Great*. Feedback on these findings indicate there are likely many factors contributing to these responses and further research may be warranted to understand them.

From your perspective as a STTP student, how credible and respected are Stewardship Technicians and Guardians?

HOME COMMUNITY



GENERAL PUBLIC



INDUSTRY



GOVERNMENT



STTP Contribution = Significant

FINDING #2

For STTP graduates the most valued program outcome was the gain in leadership ability.

Significantly, each of the STTP outcomes was selected as 'most important' by a part of the student body. This demonstrates that a range of outcomes are needed to meet the unique needs of individual students.

All students acknowledged STTP as a valuable program. To understand why, graduates were asked to rank what they found to be the most important outcomes. Student ranked the gains made in each outcome in terms of the importance to them as professional stewards. So, when asked to rank the most valuable outcomes of the STTP program, as opposed to how much change they experienced, 34% of STTP graduates ranked gains achieved in *Leadership Ability* as the most highly valued outcome. *Technical Skills* ranked second with 18% of the graduates ranking this outcome as the most highly valued.

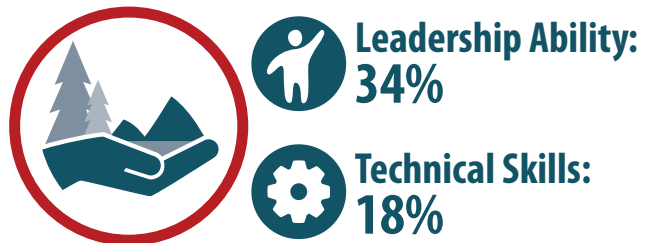
This result is important because it provides insight into what gains are important to students, rather than just the gains themselves. In other words, while STTP contributes more technical knowledge and skills to the students than leadership, it is these smaller gains in leadership that graduates appreciate the most – valued almost twice as much.

The value of leadership skills are reflected in many of the student's comments:

"This training reinforces what we do as Guardian Watchmen and instills more pride in the work we do. It lifts us up to continue to protect our territories and really instills in us the importance of Guardian Watchmen. Knowledge has been shared with us and now it is our job to teach others- which is what we do as stewards."

- STTP Graduate

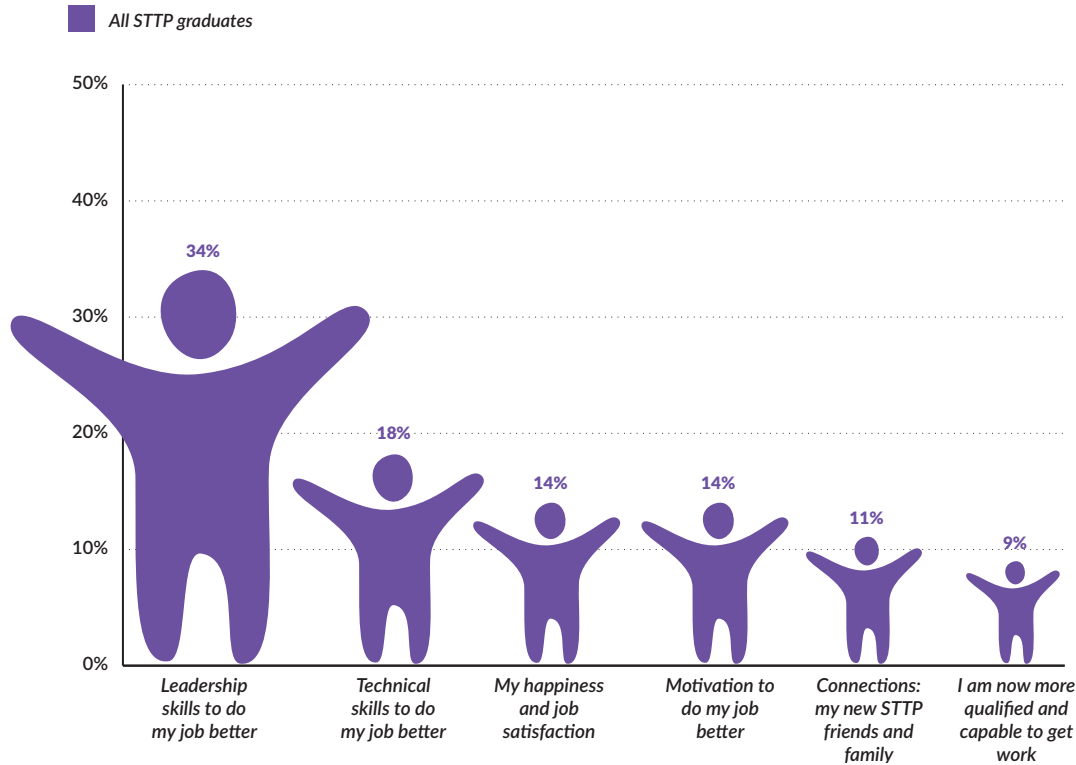
Number of STTP graduates identifying this outcome as the most highly valued program outcome:



The results are shown in Figure 11. As reviewed in Finding #1, most students felt the most important outcome was the transfer leadership and technical and skills “to do my job better.” Other students valued the changes STTP made in the area of increased “happiness and job satisfaction” followed by “motivation to do my job better”. Students then ranked networking and connections made through STTP – “my new STTP family and friends” and, lastly, employability (not surprising since many students already had jobs in stewardship offices).

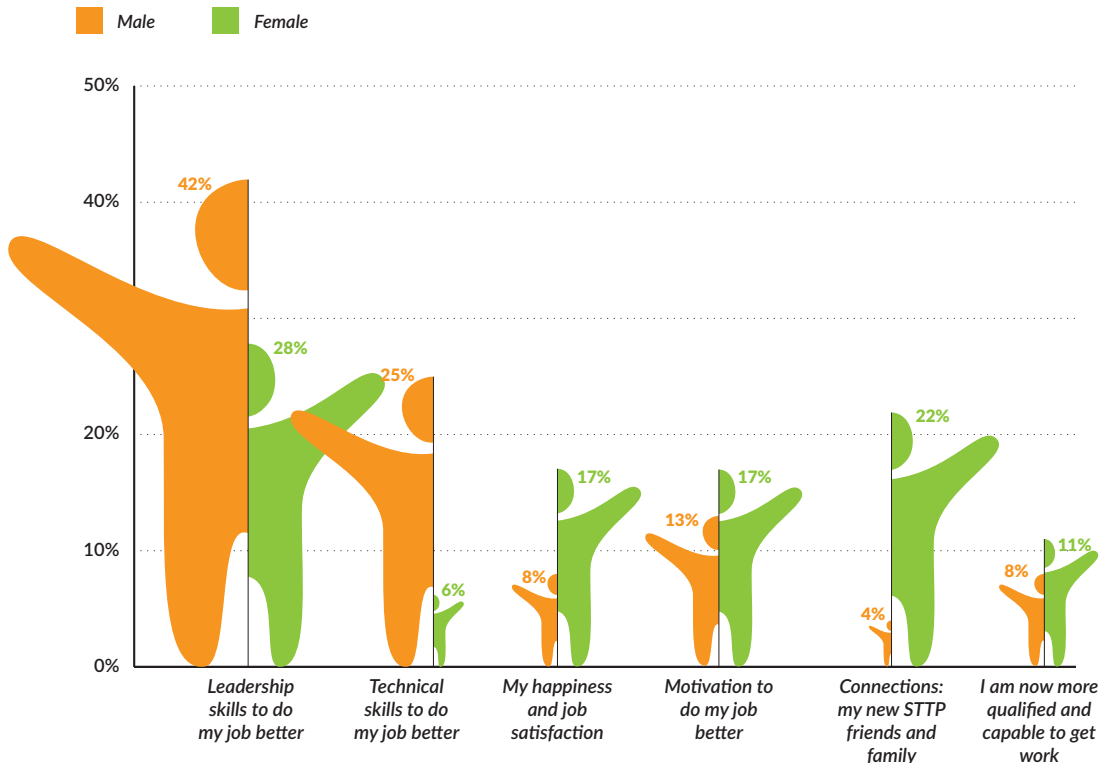
What merits highlighting is that each of the single outcomes were ranked as ‘most highly valued’ by at least some of the graduates, as shown in Figure 11 below. In other words, the results demonstrate the diverse nature of students’ needs in the training program and the effectiveness of STTP in responding to these needs.

FIGURE 11: As a graduate of STTP, what was the most important outcome for you?



An important difference emerges when the results are analyzed by gender: Networking and Technical Skills change places while all other ranking remain consistent. Female graduates ranked “Networking - my new STTP family and friends” as the second most important outcome while male graduates ranked it last. On the other hand, male graduates ranked “Technical skills to do my job better” as the second most important outcome while female graduates ranked it last. These results demonstrate the diversity of needs students have and the range of benefits STTP provides.

FIGURE 12: Most important outcomes, by gender



Delivery

EVALUATION RESULTS

The following findings summarize the performance of the delivery of STTP in 7 key areas:

- 1. Course Content*
- 2. Course Delivery*
- 3. Program Structure*
- 4. Student Success*
- 5. Program Reputation*
- 6. Networks*
- 7. Career Development Support*

Additionally, we reviewed course content, conducting an evaluation of 14 courses, to determine how well the skills and lessons taught aligned with the skill and knowledge needs of Coastal First Nations.

In this section, we describe the delivery of STTP, and identify gaps in course content, and possible areas of improvement in program structure.

FINDING #3

Course Content: STTP courses successfully provided the knowledge and skills needed to perform coastal stewardship activities.

However, there is opportunity to improve current courses, revisit course offerings and address skill gaps

A fundamental challenge for course selection is identifying the core stewardship knowledge and skills needed for Coastal First Nations member-Nations, as each community is unique with different stewardship training requirements. Previous-CFN Coordinator Sandra Thomson articulated the challenge referencing STTP's initial design phase: "This comes back to the evolution of everything on the coast... We were navigating and meeting the needs and expectations of a lot of people." STTP did well to address this challenge.

Finding #8 explores how well STTP's course selection contributed to the primary goal of core stewardship knowledge and skills, and what gaps exist. This evaluation of courses was done in two parts. First, each course was evaluated for how well the current course content positively impacts technical stewardship work based on student assessments and instructor insights.

Second, a detailed course content and skills gap analysis was conducted. In this analysis, a total of 77 stewardship technician skills across 13 skill areas were reviewed to determine how well current course content responds to CFN stewardship training needs.¹¹

COURSE IMPACT ON TECHNICAL STEWARDSHIP WORK

A summary of the student assessment of each course is provided in Table 6, followed by a more systematic review. The table below breaks down the students' responses into three categories: Performance provides a qualitative description which describes the performance score, calculated by averaging quantified responses on how well the course contributed to the students' stewardship work. Level of agreement indicates the degree to which students agreed or disagreed

"It is challenging to address every community's needs, but STTP worked well and is a good program"

- Vanessa Bella, CHN Fisheries Manager

on the performance. If a course has a low level of agreement, students did not have a similar experience regarding the value of the course on their work. Inversely, if the level of agreement was high, most students agreed on the identified impact. Considered together, these indicators help distinguish how courses generally performed across the range of students. This flags where changes might be made to individual courses, to overall course offerings or to program structure.

Of the fourteen courses offered, only the *Interpersonal Communication and Leadership Skills* course received a score of *Excellent* with high student agreement. Half of the courses (7) received a score of *Good*, with a mix of *High to Moderate* agreement. Four courses received an *Adequate* review. However, three of them had a low level of agreement among the students indicating that students had a wide range of experiences with the courses: *Construction Site Monitoring*, *Small Motors Servicing & Electrical Systems* and *Intro to Parks and Protected Area Management*. These three courses warrant attention in future iterations of STTP. Finally, two courses, *Portfolio Course* and *Electrofishing* performed poorly and had a low level of agreement indicating these courses *Need Attention* in future iterations of STTP.

11 Skill categories were developed for CFN/TNC's Guardian Watchmen Business Case (2016) through interviews, surveys, and workshops. These skills and skill areas were then modified by CFN for this evaluation based on recent information on stewardship skills.

A common theme throughout the assessment is the effect location had on courses. Students indicated that more rural in-community learning was more effective, rather than in larger communities such as Prince Rupert. Instructors observed that location affected learning, with attendance being better in more remote locations like Hakai vs. Prince Rupert where more distractions occur for students.

TABLE 6: Student Course Assessment ¹²
How did these courses impact your professional work (Guardian, technician, other)?

Course	Performance	Score	Level of Agreement
Portfolio Course	Needs Attention	0.54	Low
Electrofishing	Needs Attention	0.55	Low
Construction Site Monitoring	Adequate	0.62	Low
Small Motors Servicing and Electrical Systems	Adequate	0.63	Low
Intro to Parks and Protected Area Management	Adequate	0.66	Low
Water Monitoring Skills	Adequate	0.69	Moderate
Land Monitoring Skills	Good	0.72	Moderate
Archaeology & Culturally Modified Tree (CMT) Inventory	Good	0.73	Moderate
Advanced Compliance Monitoring Skills	Good	0.75	Moderate
Intro to Land and Marine Stewardship Case Studies	Good	0.76	Moderate
Fish and Fish Habitat Monitoring Skills	Good	0.76	Moderate
Cultural Awareness	Good	0.77	High
Essential Field Skills	Good	0.79	High
Interpersonal Communications and Leadership Skills	Excellent	0.81	High

A review of each course is provided below and considers the student evaluations, insights from students and course instructor interview and an analysis of how well these courses met the technical stewardship skill requirements.

TABLE 7: Course Evaluation Review

Course	Content Delivered	Score
Portfolio Course Needs Attention	Wellbeing, leadership and teamwork, presentation skills, confidence building and communication skills	<ul style="list-style-type: none"> Some students found that the course should be condensed into a 4-5 day period, others felt the course could benefit from being longer. Students felt that this course was not applicable to future jobs or work in the field. Instructors suggested reworking the course to extend its delivery to be the entire length of the program, which would allow for portfolio-building opportunities and deeper training of portfolio relevant skills. Instructors also mentioned that some students did not understand why this course was part of the STTP and why they were required to take this course.
Electrofishing Needs Attention	Basic / intermediate notetaking and data entry, safety protocols and procedures, teamwork in field settings, operation of electrofishing machines for sampling	<ul style="list-style-type: none"> Of interest to some students, but overall, it received a poor performance score. Not seen as contributing to many of the students' work resulting in a low level of agreement This course needs attention, as students indicated that it was only applicable to some water-based technician work, the material was poorly presented and difficult to understand, and they did not use it in their work after the program.

¹² Students answered this question on a five-point Likert scale of strongly disagree, disagree, somewhat, agree, and strongly agree (for the in-depth survey) and a four-point Likert scale of strongly disagree, disagree, somewhat, and strongly agree (for the shorter validation survey). These two Likert scores were combined and weighted to provide the performance score.

<p>Construction Site Monitoring</p> <p>Adequate</p>	<p>Basic / intermediate notetaking and data management skills, safety protocols and procedures, teamwork in field settings, construction site management and monitoring (soil erosion, environmental impacts)</p>	<ul style="list-style-type: none"> • Across both surveys, student had a Low level of agreement on this courses impact suggesting this course might warrant attention. • Students felt that the course helped to analyze the impacts of industry and offered good skills training in field work. • Some students felt that the course content was not relevant to their work. • The instructor for this course said that attendance was difficult to maintain. They suggested different incentives should be considered for student attendance (e.g., attendance not just a grade score but incentivizing students through other means).
<p>Small Motors Servicing and Electrical Systems</p> <p>Adequate</p>	<p>Basic numeracy around electrical current calculations, basic repairs and systems of motors</p>	<ul style="list-style-type: none"> • Across both surveys, student had a Low level of agreement on this course's impact suggesting this it might warrant attention. • There was a wide range of opinions on this course. • Some students said that this course provided new, applicable, and hands on knowledge that is useful for their work on the water with good instruction. • Students also said this course was hard to fit into one week of learning (not enough time to learn everything). • Some students felt that it was only applicable to Guardians working on the water and that the course instructor was unprepared. • One Student from Cohort 2 commented, <i>"the small motors course, I almost didn't take anything away from it because it just went by so quick. We've had motor troubles on the water and I recently got stuck on the water by myself and I didn't know what to do. I didn't remember how to troubleshoot. That course, it is amazing knowledge to have, but it just went by so quick"</i>. • Another student commented on the need to update the course to be more relevant to the motors they are using in their work, <i>"I'd like to see more motor courses, it was just a short course. Now we're dealing with computerized motors in our work. So, I'd like to get a course on—the brain of the motor—the diagnostic system"</i> – Cohort 2 Student.
<p>Intro to Parks and Protected Area Management (Two Components)</p> <p>Adequate</p>	<p>Component 1: VIU accredited RMOT Introduction to Parks and Parks Administration</p> <p>Students learned about different park designations, presentation and interpretation skills, and park user interaction</p> <p>Component 2: BCIT Parks Law and Its Administration</p> <p>Students learned about the Parks Act, different governing bodies, and the elements and procedures of law enforcement within a park environment</p>	<ul style="list-style-type: none"> • Across both surveys, students had a Low level of agreement on this course's impact suggesting this course might warrant attention. • Students said that the course was applicable to their work and it helped with future jobs and academic pursuits. • Students said that there was a limited time frame to learn the materials in the course and what was learned was not relevant for some students' work. • Additionally, some students felt that the course was not applicable to the way things were done in their territory. • One Student from Cohort 3 commented, when asked about program improvement, <i>"-the Western knowledge as opposed to the Native knowledge are two totally different things. I thought there was too much Western knowledge as opposed to Native knowledge. How people do things—like that Parks course was a great course, don't get me wrong, but the way they do things is totally different than the way we approach things in our home land"</i>.

<p>Water Monitoring Skills Adequate</p>	<p>Basic and intermediate note taking and data management skills, safety protocols and procedures, teamwork in field settings, water sampling, measurement, and species identification, as well as gaining species at risk knowledge</p>	<ul style="list-style-type: none"> • Across both surveys, students had a <i>Moderate</i> level of agreement on this course's impact. • Students said that the content they learned was helpful for building an understanding of water monitoring, and that the skills were applicable and relevant to their work. • The instructor mentioned that marine science and its associated practical experience is completely lacking from the Natural Resource Extension Program (NREN) component of the program. • Examples of marine science instruction include: marine wildlife monitoring, oil spill monitoring (and related activities), marine pollution monitoring, eelgrass/saltmarsh restoration and monitoring, marine invertebrate ID, etc.
<p>Land Monitoring Skills Good</p>	<p>Basic and intermediate note taking and data management skills, safety protocols and procedures, teamwork in field settings, soil sampling, identifying trees as well as marine and terrestrial wildlife</p>	<ul style="list-style-type: none"> • Across both surveys, students had a <i>Moderate</i> level of agreement on this course's impact. • Students said that the course helped recognize the changes and impacts on vulnerable resources and that the skills learned were applicable to their work. • The instructor noted that updated water monitoring equipment that reflects what students will use in their work should be considered.
<p>Archaeology and Culturally Modified Tree (CMT) Inventory Good</p>	<p>Trains students in the importance of cultural and archaeological sites, artifact and village site identification, language and place name recording and mapping, learning about the connections between archaeology and their national sovereignty.</p>	<ul style="list-style-type: none"> • Across both surveys, students had a <i>Moderate</i> level of agreement on this courses impact. • The course does not train students in current crown legislation regarding archaeology but does provide Resources Information Standards Committee (RISC) certification. • Students said that the course was helpful for future academic studies, provided new and relevant skills, helped in their jobs, and that the instruction was great. • Some students said that they did not use the skills in their work and that the course was not long enough for the material that it covered. • Instructors said that this course was too short and future design should make the course length two weeks to allow for less of an information barrage and more opportunities to practice skills and visit field sites.
<p>Advanced Compliance Monitoring Skills Good</p>	<p>Basic note taking skills, safety protocols, team-based work, conflict communication, public communication, public observation and infraction recording</p>	<ul style="list-style-type: none"> • Students rated this as a <i>Good</i> course with <i>Moderate</i> level of agreement. • Students felt that the skills learned were applicable to field work in their nations and the practicing of real-life scenarios helped with learning. • Students also said that the lectures in this course were too long. • The instructor had to alter the pace of learning to accommodate differing learning styles and writing skill levels.
<p>Intro to Land and Marine Stewardship Case Studies Good</p>	<p>Basic note taking, facilitation skills, crown enforcement and monitoring procedures, stewardship office work examples</p>	<ul style="list-style-type: none"> • Students rated this as a <i>Good</i> course with <i>Moderate</i> level of agreement. • No student or instructor feedback was given for this course.
<p>Fish and Fish Habitat Monitoring Skills Good</p>	<p>Basic and intermediate notetaking and data management skills, safety protocols and procedures, teamwork in field settings, fish habitat, spawning, and sampling, as well as aquatic species at risk knowledge</p>	<ul style="list-style-type: none"> • Students rated this as a <i>Good</i> course with <i>Moderate</i> level of agreement. • Students felt that the course taught new and relevant skills that were directly applicable to work in the field.

<p>Cultural Awareness Good</p>	<p>Well-being skills, team-based work, communication of vulnerabilities, presentation skills, communication skills that are applicable to interacting with resource users, Indigenous history, resurgence, cultural healing</p>	<ul style="list-style-type: none"> • Students rated this as a <i>Good</i> course with <i>High</i> level of agreement. • Overall, students enjoyed the content and skills learned in this course. • Students said that the course was applicable to work and life, provided a deep understanding of elder’s experiences, helped to understand cultural histories, and that the instruction was strong. • Students also said that the subject matter was sometimes uncomfortable and not always critical for work, and that they already had some of the knowledge taught. • Students also felt that this course should not have a grading system as expressed by this student: <i>“It felt disrespectful that we didn’t know enough of our culture for it to be a good grade. That didn’t feel right. Some people have a barrier for that. It’s a painful thing to talk about. I get that the culture can save people, but some people just don’t want to express that part of themselves. It can make for an uncomfortable subject.”</i>
<p>Essential Field Skills Good</p>	<p>Basic and intermediate note taking and data management skills, safety protocols and procedures, teamwork in field settings, compass navigation, GPS use, quadrant throwing</p>	<ul style="list-style-type: none"> • Students rated this as a <i>Good</i> course with <i>High</i> level of agreement. • Students said that this course provided great skills for field work, helped to improve note writing, and provided a transferable skillset that can be used anywhere.
<p>Interpersonal Communications and Leadership Skills Excellent</p>	<p>Leadership skills, communication, presentation, conflict resolution, Indigenous leadership models and ways of knowing, as well as skills that are relevant to working with resource users</p>	<ul style="list-style-type: none"> • This course was ranked the highest of all the courses in STTP. • It was identified through the survey as <i>Excellent</i> and had a <i>High</i> level of agreement. • Students said that the skills and learning in this course was especially useful alongside the group learning format. • Students felt that they left with skills relevant for future work, communications, and self-confidence building skills. • Instructors said that it was occasionally hard getting commitment from students to come to class prepared.

PROGRAM COURSE CONTENT AND SKILLS GAPS

This course content analysis reviewed a total of 77 Activities across 13 Skill Areas. The analysis relied on two indicators. First is the *relevancy* of the program course content as indicated by the number of CFN stewardship offices actively engaged in an activity/skill area. Second is the *comprehensiveness* of knowledge skill training the program course content provides for Guardians and stewardship technician in this area. These are defined below. One of the main challenges with both of these indicators is a lack of a consistent definition and job description of a Guardian across communities. Without that, and defined vision/objectives for STTP, tension will continue to exist on what is the appropriate course content, level of detail, length of courses, location of course, and other issues.

Relevancy of the program course content is indicated by the number of CFN stewardship offices actively engaged in an activity/skill area. This is based on a 2015 survey of seven CFN Guardians and Stewardship Directors.

Nations included: Heiltsuk Nation; Haida Nation; Kitasoo / Xai'xais Nation; Metlakatla First Nation; Nuxalk Nation; Wuikinuxv Nation; Gitga'at Nation.

Comprehensiveness of the program course content is indicated by a score on a 1-4 scale as defined below:

Level	Defined
1 (Best)	HIGH Program course content <i>thoroughly covered</i> skills and knowledge necessary to perform activity
2	SUFFICIENT
3	SOME
4 (Worst)	NOT AT ALL Program course content <i>did not cover at all</i> the skills and knowledge necessary to perform activity

The intent of developing skill level categories for evaluation purposes was to help in understanding if the activity and corresponding skills required might possibly constitute “basic” Guardian work. Advanced skills might be more appropriate for experienced Guardians or those that had already been trained at a basic level. Some activities may require both basic and advanced skills. Other activities required just advanced skills. The rationale for organizing in this way is to be responsive to the yet undetermined STTP vision and objectives. If the vision for STTP is to provide “core” Guardian and technician training, then those activities associated with basic skill level gaps would be the focus. It might also require structuring a more coordinated training agenda beyond STTP. One example is where a nation might want to organize their own training sessions for activities that are specific to that nation. Another example is if the STTP vision is to provide more than basic training (e.g., become a larger program, a training institute or learning center), then addressing the advanced skill level gaps might be included in an STTP program.

With this in mind, three categories were identified through interviews with STTP coordinators: 1) Basic and Advanced, 2) Basic and 3) Advanced. STTP provided a high level of skill comprehension in 15 Basic and Advanced activities; 5 Basic activities and 12 Advanced activities. Gaps include a low level of training or none at all for 15 Basic/Advanced activities and 20 Advanced skill areas. Table 8 below summarized the findings.

TABLE 8: STTP Skill level coverage

Category	ACTIVITY BASED SKILL LEVEL COVERAGE		
	Number of Guardian Activities	Well covered (score 1 or 2)	Poorly covered / Not at all
1. Basic and Advanced Skill Level Training	21	15	6
2. Basic Skill Level Training	14	5	9
3. Advanced Skill Level Training	32	12	20

Category 1: Basic and Advanced Skill Level Training

The STTP provides sufficient to high level of skill training for training of the majority of activities in this category. Skill gaps were identified for: Sharing information, data and other resources, TU/TK data collection (on the land), Site mapping, Boat operation, Invasive species management/eradication (e.g., green crab), and Computer work. It is important to note that most if not all the Nations undertake Boat operations, sharing information, data and other resources and computer work suggesting they would be more beneficial for more Nations.

TABLE 9: Basic and Advanced Skill Level Training Gap Analysis

Skill Area	Activity	Comprehensiveness 1=Very, 4=Not covered	Relevancy Number of Nations
Visitor Compliance Monitoring	Monitoring visitor activities (e.g., tourists)	1	7
Ecological Monitoring Research - Marine	Fresh water and marine surveys/sampling	1	6
Basic Skills	Numeracy	2	7*
Basic Skills	Well-being (including physical fitness)	2	7*
Leadership/Team work	Conflict Resolution	2	7*
Basic Op Skills	Maintenance of equipment	2	6
Activity/Agreement Monitoring	Monitoring impacts to TU areas	2	6
Visitor Compliance Monitoring	Monitoring commercial and recreational fishers	2	5
Archaeology	Archaeology and CMT inventory	2	5
Activity/Agreement Monitoring	Monitoring FSC catch and community access	2	4
Activity/Agreement Monitoring	Monitoring impacts to CES sites, knowledge and resources;	2	4
Data Management	Data entry and management	2	4
Ecological Monitoring Research - Marine	Fish inventories (weirs)	2	3
Activity/Agreement Monitoring	Monitoring compliance with agreements (e.g., protocol)	2	2
Ecological Monitoring Research - Terrestrial	Habitat assessments	2	3
Basic Op Skills	Boat operation	3	7*
Data Management	Sharing information, data and other resources	3	6
Archaeology	TU/TK data collection (on the land)	3	4
Archaeology	Site mapping	3	3
Basic Skills	Computer skills	4	7*
Ecological Monitoring Research - Marine	Invasive species management/eradication (e.g., green crab)	4	4

* from coordinator interview

Category 2: Basic Skill Level Training

The STTP provides sufficient to high level of skill training for 35% of the activities in this category. Skill gaps were identified for: Literacy, Participating in Network activities, Monitoring invasive species, Patrol ride-alongs (e.g., with Elders, youth), First Aid Skills, Prawn and crab surveys, Monitoring marine mammals, Bear Safety and Swift water. Of these, 70% of the Nations undertake activities in Literacy, Participating in Network activities, Monitoring invasive species, First Aid Skills, Prawn and crab surveys, Monitoring marine mammals suggesting they would be more beneficial for more Nations.

TABLE 10: Basic Skill Level Training Gap Analysis

Skill Area	Activity	Comprehensiveness 1=Very, 4=Not covered	Relevancy Number of Nations
Leadership/Team work	Basic communication skills	1	7*
Basic Op Skills	Safety	2	7*
Education/Outreach	Respond to community issues/questions	2	6
Visitor Compliance Monitoring	Observe, record, report on infractions	2	6
Ecological Monitoring Research - Terrestrial	Wildlife monitoring and research	2	5
Basic Skills	Literacy	3	7*
Education/Outreach	Participating in Network activities	3	6
Ecological Monitoring Research - Marine	Monitoring invasive species	3	5
Visitor Compliance Monitoring	Patrols ride-alongs (e.g., with Elders, youth)	3	4
Basic Op Skills	First Aid Skills	4	7*
Ecological Monitoring Research - Marine	Prawn and crab surveys	4	6
Ecological Monitoring Research - Marine	Monitoring marine mammals	4	6
Basic Op Skills	Bear Safety	4	3
Basic Op Skills	Swift water	4	

* from coordinator interview

Category 3: Advanced Skill Level Training.

The STTP provides a sufficient level of skill training for 37.5% of the activities in this category. Skill gaps were identified for 20 activities. Of these gaps, 70% of the Nations undertake activities in Monitoring forestry impacts, Referral and EA field studies (incl. TUS) Monitoring health of species-at-risk, Marine Rescue, and Spill response suggesting they would be more beneficial for more Nations.

TABLE 11: Advanced Skill Level Training Gap Analysis

Skill Area	Activity	Comprehensiveness 1=Very, 4=Not covered	Relevancy Number of Nations
Visitor Compliance Monitoring	Protecting significant sites (e.g, CES)	2	7
Activity/Agreement Monitoring	Monitoring designated zones (e.g., conservation areas)	2	6
Education/Outreach	Engaging with media, researchers, politicians, celebrities, funders	2	5
Education/Outreach	Formal presentations (for community)	2	5

Skill Area	Activity	Comprehensiveness 1=Very, 4=Not covered	Relevancy Number of Nations
Visitor Compliance Monitoring	Monitoring recreational trail users	2	4
Visitor Compliance Monitoring	Monitoring hunters	2	4
Education/Outreach	Engaging with visitors (e.g., Australian delegation);	2	3
Activity/Agreement Monitoring	Monitoring development impacts on fish-bearing streams	2	3
Ecological Monitoring Research - Marine	Riparian area/strea restoration	2	3
Ecological Monitoring Research - Terrestrial	Advanced soil and wildlife sampling/ monitoring	2	3
Activity/Agreement Monitoring	Compliance monitoring with regards to proponent conditions and commitments	2	2
Cultural Skills	Learning Indigenous laws/protocols	2	
Activity/Agreement Monitoring	Monitoring forestry impacts	3	5
Ecological Monitoring Research - Marine	Referral and EA field studies (incl. TUS)	3	5
Visitor Compliance Monitoring	Promoting Indigenous laws/protocols	3	4
Activity/Agreement Monitoring	Monitoring heli-drops and log storage sites	3	4
Activity/Agreement Monitoring	Monitoring marine plans	3	3
Activity/Agreement Monitoring	Monitoring abandoned logging or other operations with regards to impacts on fish-bearing streams	3	3
Ecological Monitoring Research - Marine	Monitoring climate change impacts	3	3
Activity/Agreement Monitoring	Monitoring conservancy management plan implementation (e.g., ensuring that recreational users sticking to designated trails; monitoring recreational sites - garbage, sewage, campfires; monitoring permitted uses - fuel drops)	3	2
Activity/Agreement Monitoring	Monitoring waste dumping (e.g., at lodges)	3	2
Ecological Monitoring Research - Terrestrial	Monitoring health of species-at-risk	4	6
Search and Rescue	Marine Rescue	4	6
Emergency Response	Spill response	4	5
Education/Outreach	Youth mentorship	4	4
Education/Outreach	Youth programs	4	4
Education/Outreach	Participation in school events/programs	4	4
Activity/Agreement Monitoring	Planning/managing harvesting (e.g., clams)	4	4
Emergency Response	Contaminated site clean up	4	4
Activity/Agreement Monitoring	Managing permit systems	4	3
Ecological Monitoring Research - Terrestrial	Socio-cultural data collection (e.g., TLU)	4	3
Ecological Monitoring Research - Terrestrial	Monitoring health and/or recovery of specific ecosystems	4	2

FINDING #4

Course Delivery: STTP performed excellent to exceptional for 85% of the course delivery indicators. Only, one area was identified as needing attention: culturally sensitive instruction

Course Delivery is the process of offering a course to students including the method used to present instruction and the implementation of the course content and design. Students agreed the delivery of STTP courses was of a very high quality. For 11 of the 13 indicators measured to evaluate course delivery, STTP performed *Excellent* or *Exceptional*, one *Good* and one indicator *Needs Attention*. See Table 12 below, followed by a discussion.

TABLE 12: STTP performance on Thirteen Course Delivery Indicators

Course Delivery	Performance	Score	Level of Agreement
Accommodate different learning styles*	Exceptional	1.00	Exceptional
Positive learning environment	Exceptional	0.98	Exceptional
Relevance to work	Exceptional	0.92	High
Active involvement/Engaging	Exceptional	0.90	High
Interesting	Excellent	0.88	High
Balanced teaching methods	Excellent	0.88	High
Organized	Excellent	0.87	High
Understandable	Excellent	0.87	High
Retention of knowledge	Excellent	0.83	High
Focus on learning	Excellent	0.80	High
Quality of Instructors	Excellent	0.80	High
Reflective thinking	Good	0.75	Interviews /research**
Culturally sensitive instruction	Needs Attention	0.40	Interviews /research**

* Instructor responses only.

** No level of agreement provided, these indicators were based on interviews and research.

Summary of Performance – Good to Exceptional

STTP performed *Excellent* or *Exceptional*, on the following indicators: positive learning environment, courses were highly relevant to their work, courses were well organized, and the teaching methods were balanced between lecture, peer to peer, small group, field trips and hands on. Evaluation participants also felt there was a strong focus on learning, rather than on grading. Reflective thinking, or taking time in the class to contextualize learning and create meaning by becoming more aware of one’s own knowledge, assumptions and past experiences, has been identified as an important part of internalizing

learning. This was given a score of *Good*, determined through interviews with coordinators.

All the instructors felt they were able to accommodate different learning styles. Wendy Simms, instructor for the Interpersonal Communications and Leadership Skills course stated, “I met the students where they were at, and worked with them in any way that helped them meet the requirements of the course”. However, this accommodation appears to be an area that instructors had to figure out over time with much help from the STTP and VIU Coordinators as well as the students. Bryn Letham, instructor for the Archaeology course stated, “[Accommodation]

was the greatest challenge for me, and it definitely took a few days the first time. I can't concretely put into words how specifically I sorted it out, but I definitely focused on listening a lot and building a casual rapport with students and opening up to their interests and expectations". Tanya Dowdell, instructor for the Law Administration course stated that the "...on-the-fly adapting kept me light on my feet... it was a joy and a challenge".

Culturally Sensitive Instruction

The one area that was highlighted by students and coordinators as an area that needs attention is *culturally sensitive instruction*. This issue ranked as the most important in the Prince Rupert stewardship professional development session with graduates, was highlighted in student interviews and ranked as one of the most important issues for 30% of the students surveyed. This issue was most prevalent in Cohort 1 where it ranked as the most important and was ranked second most important among males across all three cohorts with 58% of the males ranking it as number 1 or 2 in terms of importance. While instructors received high performance scores, comments in the survey suggest that some instruction was not sensitive to the student's cultural context, with some instructors struggling to deliver material in this context. One Student commented, "*Do not put non-indigenous teachers in cultural settings they may*

not fully understand or appreciate." Another Student from stated, "*I would have preferred a First Nation's instructor for the portfolio section...*".

The initial design of STTP anticipated this issue and recommended that VIU screen instructors to ensure they had adequate qualifications and experience working with Indigenous learners. However, what became clear during delivery is that some of the instructors were not adept at teaching to adult Indigenous learners in-community (i.e., not at the University). Their lack of understanding regarding the history of intergenerational trauma and First Nation's cultures lead to the need for increased support in how instructors taught. There were few support structures in place to deal with situations where instructors struggled to meet student needs. Although there was some support from the VIU coordinator, this often fell to the CFN coordinators which created an awkward and unclear professional relationship as CFN coordinators and VIU coordinators and instructors work for different organizations. Instructors appreciated the support, and over time they either improved in their teaching to these students or were discouraged from returning based on CFN and student feedback. Issues around cultural sensitivity improved over the three cohorts yet still remain an issue that needs attention.



FINDING #5

Student Success: STTP presented students with a positive academic experience and a high degree of success in the program.

Generally, student success is defined here as students having a positive academic experience with high-quality learning leading to high program completion rates and graduates that are prepared to enter the labor force and maintain employment. Eight indicators leading to student success were developed from the literature and interviews to evaluate STTP performance in this area. The indicators and corresponding performance and student level of agreement are shown in Table 13 below, followed by a discussion.

TABLE 13: STTP performance on Eight Student Success Indicators

Student Success	Performance	Score	Level of Agreement
Academic support*	Exceptional	0.95	High
Individual validation	Excellent	0.85	Interviews/research***
Individual social integration	Good	0.78	Moderate
Responsiveness	Good	0.78	Exceptional
Prepared/Ready for program	Good	0.74	Moderate
Fairly evaluated	Adequate	0.69	Moderate
Clear expectations/understanding	Needs Attention	0.49	Low
Wellness Support (emotional, mental, healing)	Needs Attention**		Interviews/research***

* From coordinators, instructors, and fellow students

** Coordinators, instructors and fellow students are doing an exceptional job under the circumstances – but success in this area is fragile.

*** Information came from interviews and research not from survey data so level of agreement was not available.

Academic Support

Completing STTP courses was important for students as this was often their first exposure to accredited university learning for many, an achievement many never thought they would have access to. Graduates proudly discussed completing university courses and a university program – leading to a significant increase in self-esteem that was identified by students as well as STTP Coordinators and Stewardship Managers.

Individual Validation and Social Integration

STTP performed *Excellent* on individual validation. By making students feel welcomed, recognized, and a significant part of the program, feeling validated as a student encourages belonging, interest, and effort. STTP had good social

cohesion, with students finding that being in a cohort helped with learning. For example, one student commented: *“The teachers told me, ‘you’re a natural leader, teacher, knowledge holder’ – I’m continuously trying to learn and keep it going. It’s been really enjoyable; I like coming back and learning more or even teaching something that I know.”*

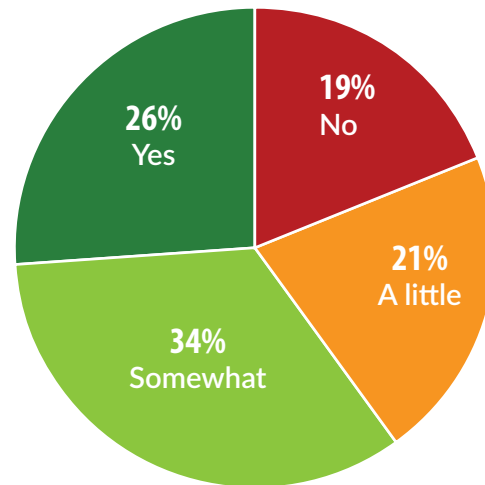
Responsiveness

The program was responsive to arising course and program content issues through the feedback mechanisms employed by Instructors and program Coordinators. Coordinators did regular check-ins with students, and the students provided course evaluations, coordinator evaluations, interim program evaluations and final program evaluations.

Recruitment, Pre-Screening, and Program Preparedness

Most students felt prepared for the program, but this was not the case for all students. Issues such as being away from family and community were challenging, academic issues like having basic levels of computer skills, literacy and numeracy were also cited as areas students were not prepared for. Some of this stems from the finding that many did not have a clear understanding of the program when they entered it. Only 26% of graduates surveyed said they had a clear idea of what to expect from STTP before the program started; although this understanding improved among those that graduated from Cohort 1 (20%) to Cohort 2 (30%) to Cohort 3 (50%). The improvement in understanding by Cohort 3 might have been driven by the need to recruit outside of the employed Guardian/technician pool. Additional efforts made by CFN and VIU to inform potential students of the program expectations, such as the development and distribution of one-pagers and rack cards which were mailed to band offices, phone calls, and social media posts, which were shared amongst the alumni network. Some of this was done for all cohorts. Even with these efforts, 50% of Cohort 3 still did not have a clear understanding of the program. In all cohorts, students indicated that they did not have a good understanding of what STTP is; what level of basic academic and technical skills were assumed (computer, literacy, numeracy); what emotional, physical, financial, family, etc. challenges they might be facing. Interviews with several students that did not complete the program cited this as the reason for leaving early. Greg Klimes, instructor for Compliance, Communication, and Resource Monitoring stated, “many students were not expecting the heavy workload that my course required but all completed the various assignments and reports successfully”. Tania Smethurst, an instructor for the Portfolio course stated “for my course, some students were in the dark about why they were required to take the course”. This point was echoed by a few of the instructors. These issues can have a significant effect on student success during the program.

Did you have a clear idea of what to expect before you started the program?



Grading and Evaluation

Fair evaluation of student learning is another important aspect of success. If students feel they are being fairly evaluated within courses and in the program (across courses) they are more inspired to participate and learn; if not they can be discouraged. Fairness in evaluation was mixed. Students agreed that within each course they were fairly evaluated. However, there was less agreement that grading was clear and consistent across courses in the program, a point of some confusion among the instructors. When instructors were asked about grading and evaluation, half of them did not know if their evaluations of students were consistent with other instructors, and there was a wide disagreement across those that did have an opinion (20%=Yes, 20%=somewhat, 10% =no). Some students mentioned that there should have been more consistent grading across all courses. One student suggested that, “...evaluation should [take] more in than just your grades...”. Additionally, instructors like Greg Klimes supported this idea by stating, “with Indigenous students it is harder to do questions / exams-based evaluation” and that instructors need to “...think outside the box to find new ways of evaluation”.

Student Wellness

While incorporating the indicators mentioned above into program design will lead to success for many of the students, research shows that despite these design interventions a significant number of Indigenous learners struggle to complete academic programs.¹³ The primary reason, as highlighted by students and STTP Coordinators alike, was the lack of wellness supports – the emotional and mental supports needed to complete STTP, and a particularly challenging aspect to address. Unique to STTP is that many students travel from small communities to a more urban environment (Prince Rupert). Similar to the student experience of many university programs, STTP students may abuse alcohol and drugs when with their peers in a larger center. Many students are dealing with trauma, addiction issues, and family needs that have a significant effect on their ability to complete the program. Students affected by wellness issues have difficulty showing up for classes, completing assignments and being ready to learn and contribute productively. In this learning context, drug and alcohol use in a group setting can exacerbate the pre-existing mental, emotional, and addiction issues students face, while also being a way to bond, socialize and de-stress after long days in the classroom. The cohort model used with the student body created a support network that students felt created safe spaces, wellness support and accountability to participate in courses.

This evaluation found that wellness supports for students are critical to student success, and a highly vulnerable area that needs attention. Currently, students report that the wellness and mental health support being provided by STTP Coordinators, instructors and fellow students is excellent, and they are doing an exceptional job under the circumstances. But success is fragile in this demanding and critical area. The healing and confidence many STTP graduates take away from the program has cascading affects not only for these individuals and workplaces, but to their families and communities. However, supporting wellness is particularly challenging. While students did not feel it was a priority, it was an

area highlighted by coordinators and instructors as needing additional attention and it is an area the literature and case studies highlight as a key to success.

“Everyone lost a lot of their culture and people are still trying to figure out how to get it back—mind you everyone is doing a good job of it, but still people need this kind of environment to help bring them back into and motivate them”

- STTP Student

“I have made a family, people I will never forget. This opportunity has made me feel purposed and self-fulfilled.”

- STTP Student

“It’s hard to participate in post-secondary programming, but because we all looked after each other it was for the most part successful”

- STTP Student

¹³ Mordoch, E. and R. Gaywish (2011)

Graduation Rate

An important statistic in student success is the graduation rate. Here STTP had a declining performance from Cohort 1 where 87% of the students graduated, to Cohort 2 where 69% graduated, and further declining to 59% in Cohort 3. There is no correlation between having a stewardship job when entering the program and completing the program (the fact that 95% of Cohort 1 were employed by their nation as opposed to 60% of Cohort 3 was not found to be a reason for leaving early). Gender also doesn't seem to be a relevant factor in the lowered graduation rates. Some of the possible reasons for this decline are family obligation and work opportunities that required students to leave the program. Additionally, lack of funding certainty for a second year did have an impact on Cohort 3 student retention rates. For others, leaving the program early can be traced to poor recruitment practices, resulting in students having unclear expectations and/or a misplaced understanding of the program before signing up for it.

TABLE 14: Graduation Rate

STTP	Cohort 1	Cohort 2	Cohort 3
Entered	15	16	17
Graduated	13	11	10
Graduation Rate	87%	69%	59%



FINDING #6

#6

Program Structure: STTP is a very well-structured program. Students found the quality of the coordinators, cohort size, and the culturally appropriate learning environment to be exceptional.

STTP performed less well in two areas: coordination between instructors; and program affordability.

Program structure comprises the components that determine the overall form of a program, with emphasis on the interrelationships between components. STTP is a very well-structured program and for the purposes of this evaluation, a total of thirteen indicators were developed to analyze the components that make up the program. Indicators were derived from the literature and interviews. Ten of the thirteen indicators (77%) resulted in ratings of *Good* to *Exceptional*. Only two performed at a standard that suggests improvement may be warranted: Affordability and Program Coordination between instructors and courses. The indicators, corresponding performance, and student level of agreement are shown in Table 15 below, followed by a discussion.

TABLE 15: STTP performance on Thirteen Program Structure Indicators

Program Structure Indicators	Performance	Score	Level of Agreement
Quality of Coordinators	Exceptional	1.00	Exceptional
Class/Cohort size	Exceptional	0.95	High
Culturally appropriate learning environment	Exceptional	0.90	High
Length	Excellent	0.88	High
Physical learning environment	Excellent	0.85	High
Timing	Excellent	0.83	High
Course Synergy	Excellent	0.83	High
Access: Employment	Good	0.79	High
Location	Good	0.77	High
Responsive	Good	0.77	High
Access: Family life	Good	0.73	Moderate
Access: Affordability	Adequate	0.69	Moderate
Coordination (instructor and course)	Needs Attention	0.19	High

Quality of Coordinators

Particularly notable is the quality of Coordinators Sandra Thomson, Elodie Button, Dana Holtby (CFN) and Sheila Cooper (VIU). They received the highest score possible from each and every student of the students, the only indicator to receive such a score (100%). Interviews with students and instructors confirmed their excellence in this critical role, highlighting an important factor in the program's success (see comments in Box 1).

Class/Cohort size, Learning environment, Program Length, Timing, Course Synergy

Other indicators that performed well with a high level of agreement were: the Cohort size (15-17 students) the Culturally appropriate learning environment; Physical learning environment (quality of classrooms, technology, materials, food/lodging, etc.); the Responsiveness and adaptability to emerging issues; the Course Synergy (how well the courses worked together and avoided overlap in forming the program); the Program length (2 years) and the Course length (short modular format of two weeks). However, it was observed by Coordinators that a shorter one-week format might be preferable, as the second week they saw an increase of personal issues and complaints that some students were away from home for too long. Timing of the courses was seen as positive, which were offered in the off-season when fieldwork had slowed down and seasonal employment was over.

“This program not only gave me work skills and knowledge but a sense of family, an overwhelming sense of pride and is something I will never forget. I appreciate the instructors and coordinators with all my heart”

– STTP Student

BOX 1:

Student comments on CFN STTP Coordinators

- Excellent job right to the end. Very supportive, loving, caring and a good friend (*Cohort 1*)
- Awesome coordinator. Very open. Willing to learn with the class. (*Cohort 1*)
- You're amazing!!! What a powerhouse you are as a facilitator, friend, peer support, etc. You are a professional and I couldn't have finished the program as strongly without you. (*Cohort 3*)
- She was amazing and every program NEEDS someone like her. Very determined to see us succeed. And provided anything we needed. And went above and beyond. A very key person in my success. (*Cohort 3*)

Location

Location received a good performance score. However, there were many comments on how this score could be maintained or improved. Students commented on the need to have more in-community courses, one student suggesting, “I think one of the biggest things for improvement is that when we got to go to Haida Gwaii and Metlakatla, I thought that students were more engaged. Instead of having to be in Rupert, they got more distractions. People wanted to be out in their territories, they were bragging about it and showing it off”. In-community courses were mentioned in the 2015 proposal, stating “...courses will be offered in community and rotated between different communities within the region to minimize and share travel and the time that participants will be required to be away from family and community responsibilities”. While courses were offered in community, student feedback highlights the need for more in-community learning, while also outlining some of the challenges students faced in travelling and spending time away from home.



Students commented on the potential benefits of moving the program around more and spending time in different communities, enabling opportunities to meet a variety of Guardians as part of the program. When asked about an improvement to the program, one student suggested, *“if next time they could move the program around. Instead of me coming all the way up here, someone could come to our territory... when we went to Haida Gwaii, that was my first time ever going there and that was amazing...”*.

Although Prince Rupert was a generally accessible location, there were students that struggled to get there, experienced delays, or had to dedicate days for travel time. When asked what they would like to see done differently, one student commented, *“Going to Rupert every time was difficult - 3 to 5-day travel from home. Part of it was an adventure but could be difficult”*. Further, when asked about recommendations for program improvement, one student said *“the time and season is not a good time for travelling. The weather is usually miserable, and you get caught and stranded. So maybe spring or summer or something. But you know sometimes people have work”*.

Hakai Institute, a research institute and STTP partner located on Calvert Island, received both positive and critical feedback.¹⁴ One student commented on the benefits of travelling to Hakai as an opportunity to connect, *“you look at when we go to the annual gathering in Hakai, we all share the knowledge. The successes and the problems we’ve had throughout and we share our collective knowledge to help each other”*. Instructors also commented positively on remote learning locations such as Hakai, increasing student focus, and creating *“...no other distractions”* from learning. Other students struggled with the additional travel, one commenting, *“when we travelled we got stuck here for 3 days trying to get to a course in Haida Gwaii, so we missed 3 days and that shortened our learning period”*. Some students felt that courses being delivered at Hakai need to be longer to make better use of the time and money it takes to get there.

¹⁴ The Hakai Institute conducts long-term scientific research at remote locations on the coastal margin of BC. They are part of the Tula Foundation and they have offices in Quadra Island/Campbell River, Victoria, and Vancouver. They partner with universities, NGOs, First Nations, government agencies, businesses, and local communities.

Program Access

In terms of accessing the program, most students said that STTP did not impact their current employment, which is not a surprise as many were attending as part of their work as Guardians or technicians; or they were unemployed. There was less agreement regarding the role family life played in accessing the program. For some students their responsibilities to children, spouses, or need to support parents made attending STTP difficult. One barrier to access for some of the students was affordability. While STTP pays for travel and provides a stipend to cover hotel costs in addition to a per diem for food, (students who lived in the location of the course were given a per diem to cover the cost of lunches) other issues demanding financial support are not covered. For example child support was mentioned as causing access and learning issues as was accommodation (budget constraints resulted in students sharing rooms). These were mentioned as the reason for leaving the program by some students who did not complete. One student commented, *"I was not able to complete [two] courses due to illness, children having illness and injury..."*. Another student commented, *"It would have been great relief had I been at least granted all meal allowances for each of the two weeks of training. I also found that this was a factor in me not getting to know my classmates..."*.

Program Coordination

One of the areas both students and instructors flagged with a low performance score was regarding the lack of coordination between instructors, courses and program content. One instructor commented that they *"...felt disconnected with [other] courses [and] not familiar besides students talking about other [courses]..."*. Instructors indicated that they were operating independently, but that they would greatly benefit from just one or two instructors meeting each year to share their experiences and teaching methods, discuss consistent grading, and ensure program content flow between all courses. Instructors brought up the idea of connecting prior to the start of the program to share course materials, syllabi, as well as discuss and plan out the course delivery while also considering *"...the budget of the program with this"*.



"Funding should never be an issue for First Nations peoples looking to educate themselves for our future generations and resources"

- STTP Student

FINDING #7

Career Development Support: STTP provides transferable academic credits which are important to students and inspire further academic learning and career opportunities; but post-graduate support needs attention.

Career development supports are services and programs to help students address questions related to employment, career direction, professional development during the program and after the program has ended. Students agreed that STTP’s inclusion of transferable credits was important to their career development as was professional certifications offered. However, employment and academic support during the STTP and professional development support after graduation needs attention.

While there is demand from students, and instructors are willing to provide more career development support, it is not clear that this is part of the STTP vision or what level of support is feasible for STTP. If STTP’s target student body is employed Guardians and technicians, then it is not surprising that less support for further academic training or post-program employment is provided and is therefore poorly ranked by students. Confirming STTP’s mandate, vision and objectives will help determine if more effort in these areas should be included in future offerings. Table 16 below shows performance for the four components of career development support and level of student agreement on performance, followed by a discussion.

TABLE 16: STTP performance on four Career Development Support Indicators

Career Development Support	Performance	Score	Level of Agreement
Transferable Academic Credits	Excellent	0.84	High
Industry/Professional Certification	Good	Research	
Employment or Academic Support (in-program)	Needs Attention	0.58	Low
Professional Development (post-graduate)	Needs Attention	0.57	Low



Photo by Lena Collins



Photo by Elodie Button

Transferable Academic Credits/Certification

For graduates, getting transferable academic credits is an important part of the program. Student surveys found 60% of students felt this was particularly important and 30% somewhat important. This aspect inspires students to feel confident to pursue further post-secondary education and a wider range of employment opportunities.

Employment or Academic Support (in-program) and Professional Development (post-graduate)

From the perspective of many of the students, areas that require improvement were employment support, continuing academic support while in STTP, and professional development support after graduation. A total of 44% of students responded that STTP did just an *Okay* (38%) or even *Poor* (6%) job of providing support in finding a job or continuing academic support. When asked, 'how well did STTP provide support in accessing further stewardship training?' 42% of the students responded that STTP did *Okay* (25%) or even *Poor* (17%) job, with 58% saying *Good* or *Excellent*. For example, one Student from Cohort 3 felt there was not much connection after graduation, stating, "I am interested in further learning in these areas but lack the [access] to information or support."

How well did STTP provide support in finding a job or continuing academic support?



How well did STTP provide support in accessing further stewardship training?



Student responses stand in contrast to the perspective of instructors, with 85% of instructors stating they felt that they were able to provide support to students by showing examples and answering questions around career paths and work opportunities. Still, there appears to be opportunity to incorporate more career or academic support, as 85% instructors also felt they should be providing more post-graduate



Photo by Nicole Morven

support for students during the program (e.g., networking opportunities, work searches, investigating further training needs). Instructor Wendy Simms stated, *“...I felt more could have been done to help those that didn’t have jobs to consider next steps. There was little time for that with the format”*. In an interview from the Prince Rupert session, one Student from Cohort 3 stated, *“... credits are great and all but I think that it should move toward leadership and actual skills and a skillset that’s going to help them and prepare them better for the jobs they apply for at home”*.

Coordinators provided support in the form of an Alumni Facebook group, moderated by the CFN Coordinator, but those supports focused primarily on student well-being, rather than learning competencies or employment support. Additionally, CFN hosts a Professional Development session yearly for each graduated cohort group. This involves various workshops and facilitated group discussions that enables students to reflect on their experiences and continue the community building that STTP started.

In the 2015 proposal, post-graduate support was identified as part of the original design and is a requirement of the funder. That proposal anticipated: *“Follow up with Level I and Level II graduates to determine their success at finding employment as stewardship technicians. Participants will be required to complete a portfolio and identify next steps for education and work options”*. It also identified: *“Project coordinators will evaluate the impact of the*

training on individual participants by surveying annually how they have applied themselves in their career post-training”. Finally: *“We will determine if students found and maintained employment, moved from seasonal employment to year-round employment, took on more responsibility, and/or assumed a more senior position”*. All of this took place to some extent, but fell short of satisfying the needs of the students.

While students in Cohort 1 and 2 might have required little support in finding jobs, students graduating in Cohort 3 may have required more support, as demonstrated by post program feedback. One Student from Cohort 3, in a post-program evaluation, identified their goal as *“Get work. Haida watchmen, Haida fisheries, CHN mapping, rediscover camp, I want to work for my Nation. I want to learn how to write a good cover letter and resume.”* This indicates that cover letters, resume writing, and other work support was either lacking or non-existent in STTP.

Another Student from Cohort 3, when asked about post-graduate recommendations, said *“it’s only [through] social media... that’s about it”*. When asked the same question, another Student from Cohort 3 stated that they would like to see *“more alumni gatherings to share knowledge amongst the coastal First Nations”*.

FINDING #8

Program Reputation and Networks: STTP has a strong reputation and has helped students create strong personal and organizational networks.

The original program design parameters, developed with stewardship managers, identified the importance of STTP as a recognized program that offered university accredited and industry recognized courses and training. This type of training signals to employers that graduates have the needed stewardship knowledge and skills to fulfill work requirements. It also provides graduates with confidence to thrive in the coastal stewardship labor market. STTP performed *Good to Excellent* in the three categories of Program Reputation: recognition (completion certificate); academic accreditation and partner reputation and Networks: Personal relationships and Organizational relationships. Table 17 below shows performance for the five components of reputation and networks.

TABLE 17: STTP performance on five Program Reputation and Networks categories of Indicators

Program Reputation	Performance	Score	Level of Agreement
Recognition (completion certificate)	Excellent	0.90	High
Academic Accreditation	Excellent	0.84	High
Partner reputation	Good	0.80	Interviews/research*

Networks	Performance	Score	Level of Agreement
Personal relationships	Excellent	0.80	Interviews/research*
Organizational relationships	Good	0.70	Interviews/research*

* Information came from interviews and research not from survey data so level of agreement was not available.

VIU is an accredited university and offers transferable credits that can be used to meet the requirements of a degree or diploma at a different college or university. VIU has a good reputation, ranking 40th in a 2020 Ranking of Canadian Universities¹⁵ and is well-known for welcoming Indigenous students, in programs such as the STTP and the Aboriginal Eco-Tourism program.

Although CFN originally developed the program to meet the needs of its member-Nations and approached VIU to work in partnership for further development and delivery, VIU now offers a version of STTP to other First Nations, based on this original model. It is unclear if the CFN STTP differs from what VIU offers in terms of program content and consistency/meaning of the completion certificate.

Graduates agreed that accreditation as well as a completion certificate are important aspects of the STTP, contributing to the program's reputation and to the network building benefits.

An important benefit of having an accredited program was the sense of accomplishment it brought to many students, many for whom STTP was their first experience in a university program. This benefit was highlighted by graduates, instructors and coordinators.

One student's comment captures a common sentiment regarding accreditation: *"Very important. It's uplifting, it makes you feel good about what you've accomplished in the long run"*.

15 <https://www.4icu.org/reviews/546.htm>

Another student responded “I definitely felt really good, like I was doing more. I haven’t even finished high school myself, and being able to this kind of study work, it does inspire me to go back to school. I’d like to finish high school”.



Photo by Dana Holtby



Design

EVALUATION RESULTS

The following findings are a result of reviewing the STTP design process, and comparing the STTP design, as found in a 2015 funding proposal, to the actual delivery of STTP.

FINDING #9

Design Process and Delivery: *The process for designing STTP was adequate to good, with the notable exception of Generating a Vision and Objectives.*

The program was mostly delivered as designed and was responsive to ongoing and emerging needs.

Design Process

The process of designing a training program can be quite complex. To evaluate the STTP design process it was broken down into ten component parts. This 10-step evaluation framework is also a model for program design (see Table 18). The analysis found that most steps were completed during the STTP design process, with the notable exception of *Step 4: Generating a Vision and Objectives*, which needs attention. While the needs assessment undertaken as part of STTP did contain information that suggests there was a common program purpose, the development of a clear vision and articulated objectives needs attention.

When undertaking the design of a program, having a common understanding of program vision and clear objectives is important. A vision statement is a helpful process step and communication tool. Objectives clarify why the training is important and what it is trying to achieve. They provide direction and should capture the needs, interests, and values of the benefitting communities and participants. Well-structured objectives can support both the creative elaboration of alternatives and be used as a framework to evaluate program impact. Table 18 below provides an overview of the design process assessment.

TABLE 18: STTP Design Assessment Overview

Framework: Process Steps	Performance	Notes
Step 1: Plan the Design & Decision Process	Adequate	Facilitated by CFN coordinators who brought information forward to the participating communities' land and resource managers or Stewardship Directors on an as needed basis. The formal advisory committee that supported the NWCC design process did not continue with the STTP. Interviews with managers and directors confirmed that this informal process functioned well.
Step 2: Identify Partners and People	Good	CFN coordinators worked with stewardship offices and identified existing and potential partners and how they might be involved.
Step 3: Understand Context	Adequate	CFN identified VIU as institutional partner and in September of 2012 an assessment of "Stewardship Training Needs" was conducted with stewardship offices of Coastal First Nations member-Nations.
Step 4: Generate a Vision and Objectives	Needs Attention	No commonly understood vision statement or a complete set of objectives was identified. However, the needs assessment process did contain information that suggests there was a common program purpose and general "objectives" which were a mix of actions and high level objectives.
Step 5: Create Alternatives	Adequate	Alternatives were discussed during the needs assessment and between CFN and VIU. These were incorporated into the design through practical iterations.

Framework: Process Steps	Performance	Notes
Step 6: Evaluate Alternatives & Choose	Adequate	As there were no clear objectives to evaluate alternatives against, design evolved based on a common understanding that training would be responsive to the needs of stewardship offices and would address training areas of common need. A formal alternative development and analysis exercise was done for course selection with Stewardship Directors.
Step 7: Action Planning	Good	Action planning was an integral part of the design of STTP.
Step 8: Program Delivery / Implementation	Adequate	Project Management of the STTP was designed to be conducted jointly by VIU and CFN, with VIU as the overall operational program manager. Under the guidance of CFN member-Nations Stewardship Directors, CFN and VIU staff worked together to adapt existing VIU programs and implement the training program.
Step 9: Monitoring and Evaluation	Adequate	Regular evaluations were built into the delivery process through observation in the classroom, course evaluations, one-on-one interviews and student self-evaluation during the training program. Progress reporting was a funding requirement. Other key indicators were to be tracked, such as successful program completion and annual post-training surveys.
Step 10: Adjust and Modify	Good	CFN/VIU made adjustments and modifications as new information and learning arose or new priorities were identified.

Design Delivery

Understanding how program design translated into actual delivery is helpful for many reasons. Were all the ideas agreed to in the design phase implemented? Why or why not? Understanding these issues provides an opportunity to revisit the use of resources, resource availability, management flexibility and other aspects that are helpful to consider in future iterations.

The design of STTP was articulated in a 2015 funding proposal that outlined key elements in the program. A design element is one of the essential or characteristic aspects of the program. As shown in Table 19, STTP delivered *Somewhat* or *Yes* as designed on over 90% (12 of 13) of the elements assessed. Common reasons for modifying or not implementing elements include:

- Responsiveness to ongoing program dynamics (e.g., logistical issues, student learning or wellness support),
- Addressing inefficient or ineffective program elements (e.g., onerous pre-screening, demanding student applications),
- Lack of resources (e.g., family and childcare support),
- Lack of awareness of the original design elements (e.g., involving Indigenous Adult Higher Education Learners in recruitment and post-program support).

Coordinators were responsive to the dynamic implementation environment and modified or addressed issues affecting original design elements. *Student Recruitment, Student Pre-assessment and Learning Plans and In-Community Teaching* elements were *Somewhat* implemented as designed. Most elements were effectively implemented as designed including: *Hands on/ In-Field Learning, Program Target Audience, Prospective Student Application Process Instruction Model Cultural Relevance, Student Learning Support-during program, Student Support, including Well-being Support, Student Cohort / Peer-to-Peer Learning. Post-graduate support* was not implemented as designed.

TABLE 19: Original Design Elements vs Delivery of STTP

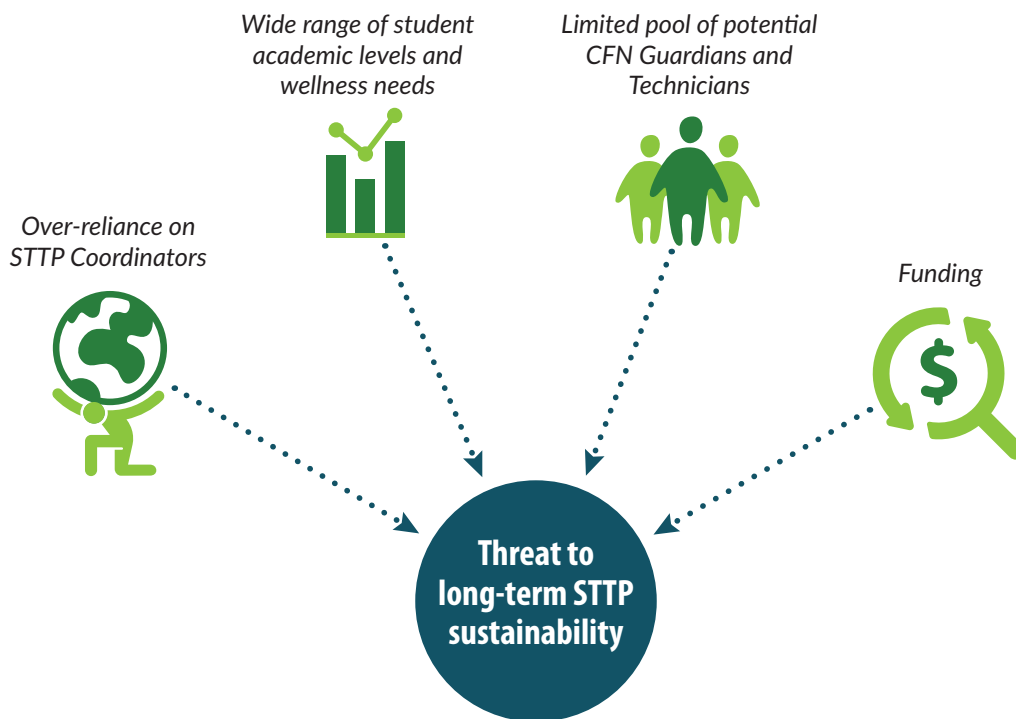
Program Element	Delivered as designed?	Original Design	Actual Delivery
Program Target Audience	Yes	Members of First Nation communities on the North Coast, Central Coast, and Haida Gwaii who will be employed by their First Nations or industry to work in the field of resource stewardship and environmental monitoring and new employees who will be hired as stewardship technicians upon completion of this training, as well as existing stewardship technicians (Guardian/Watchmen, fisheries technicians, other stewardship staff).	Stewardship offices recommended students identified as needing STTP training.
Student Recruitment	Somewhat	Participating First Nations will support CFN coordinator to recruit, screen, and select appropriate candidates. Commitment to hire or retain after successful Level II completion will be part of recruitment process. It is likely that new hires will work seasonally until they complete Level II. Recruitment will occur by sending postings to and contacting each First Nation's band office/ stewardship office, utilizing social media, and engaging with established youth programs. If necessary, individual meetings and presentations will be held with band educators, colleges, community-based service providers, and employment agencies	Originally, those already working for stewardship offices participated in the program. By Cohort 3, there was a need to recruit outside of this. VIU made 1 pagers/ rack cards that were mailed to band offices, CFN created social media posts that were also shared amongst the alumni network.
Prospective Student Application Process	Yes	<p>Participants will be pre-screened in their community with education coordinators and Stewardship Directors to ensure eligibility, employability, and ability to successfully complete the program. All individuals should have the ability to read course material, complete written assignments, and be physically ready and prepared for related field activities.</p> <p>General university entrance requirements apply. Applications will be completed including a resume, application form to VIU, cover letter, and two references from community members.</p>	This was implemented as designed.
Student Pre-assessment and Learning Plans	Somewhat	<p>Where possible, students will be required to participate in pre-assessment interviews to confirm eligibility, suitability, demonstrated interest and capacity to complete the program and tests prior to, or as soon as possible after initiating the training program. Specifically, Participant Essential Skills will be assessed at the beginning of the training using the CAMERA assessment tool (Communications and Math Employment Readiness Assessment).</p> <p>Results of this assessment will formulate individual coaching/tutoring plans that will provide students with the tutoring and teaching support they need to develop their writing, numeracy and document use skills during the training modules, as well as on the job between Levels I and II, increasing learning success and employability. Assessing essential skills will identify and address any challenges to learning in a sensitive, culturally appropriate way, helping ensure successful completion, building confidence, and addressing the needs of learners with oral learning styles.</p>	Participant Essential Skills using the CAMERA assessment tool (Communications and Math Employment Readiness Program) was used for Cohort 1. VIU Coordinator was trained in the assessment tool. Test was not used for subsequent cohorts. Individual coaching/tutoring plans were not developed and students that struggled were supported by Coordinators, fellow students and instructors

Program Element	Delivered as designed?	Original Design	Actual Delivery
Instruction Model	Yes	Instructors to develop their own course workplans and deliver training independently. Appropriate and relevant information will be shared with instructors so that they can be aware of individual student needs and provide the necessary support during class, while at the same time, maintaining the confidentiality of those interview and assessment processes. No co-teaching or faculty team/ cohort model was identified.	Delivered as designed, with instructors getting support from STTP Coordinators.
Instructor Training	Yes	Instructors were hired and supervised by VIU. Selected for their teaching experience in RMOT or NRE courses. Third party instructors were selected for their qualification and experience working with Indigenous students. No in-community Indigenous experience, cultural sensitivity or trauma informed training required.	Delivered as designed.
In-Community Teaching	Somewhat	Community based delivery will be integrated with classroom delivery. Courses will be offered in a short modular format rotated between different communities and within the region to minimize and share travel time.	Delivered as designed, primarily in Prince Rupert.
Hands on/ In-Field Learning	Yes	Community-based teaching and field sessions will be integrated with lecture style classroom delivery.	Lecture was a part of every course. Hands on learning occurred in some courses more than others.
Cultural Relevance	Yes	Students will take a Cultural Awareness course, and Portfolio course during Phase I and II.	Delivered as designed.
Student Learning Support- during program	Yes	Support will be provided to students for writing assignments, taking exams, taking class notes, comprehending questions, understanding course material, and using technology.	Coordinators provided in-class support for instructors, and students.
Student Support, including Well-being Support	Yes	CFN Coordinator will be in touch with the education coordinator and social development manager for each First Nation with successful applicants to ensure additional supports are available to students including but not limited to daycare support and living allowances. Counselling, mental health or broader well-being support was not considered.	Delivered as needed (e.g., childcare support through small grant search and finding facilities). Coordinators provided in-class support, outside class support, between/ post courses support via Facebook and phone. Those supports focused primarily on student well-being, rather than learning competencies.
Student Cohort / Peer-to-Peer Learning	Yes	Cohort Model for peer support.	Peer to peer learning was encouraged throughout, integrated into cohort model.
Student Support- post program	No	All Indigenous Adult Higher Learning centers located in the areas of delivery will be connected to support recruitment of students. Students will also be made aware of any program or services that these centers offer that could support them during and after the program	Some continued professional development courses took place. For Cohort 3 some students were involved in recruitment and received help with applications.

STTP's tremendous success is fragile. Its long-term sustainability is threatened by four main factors: over-reliance on STTP Coordinators; Wide range of student academic levels and wellness needs; limited pool of potential CFN Guardians and technicians; and funding.

Four factors which have been critical to program success have also been identified as fragile, meaning that changes to them threaten the short-term viability and/or the long-term sustainability of the program. These factors are: 1) Over-reliance on STTP Coordinators; 2) Ability to address the participants wide range of academic levels and learning styles while also supporting the array of wellness needs (emotional/mental health); 3) the limited pool of potential students if restricted to CFN member-Nation's Guardians and technicians; and, 4) securing long term sustainable funding for the program.

FIGURE 13: Factors threatening STTP's long-term sustainability



Overreliance on STTP Coordinators

The STTP Coordinators are exceptional. Out of the 45 delivery indicators, STTP Coordinators received the highest performance score by every single student.¹⁶ They need to be exceptional as they shoulder an enormous workload stemming from a wide range of responsibilities (some outside their areas of expertise), including: program development, provision of student academic, emotional and psychological support, instructor

support and dynamic logistics. Interviews made it clear that this range of responsibilities and general workload is incredibly demanding and has led to high stress and burnout. Previous Coordinators cited these issues as the primary reasons for leaving this position, while also describing it as meaningful and important. They are a lynchpin in the success of the program and subsequently need additional support (e.g. a program counsellor). If Coordinators fail to meet the demands of the program, STTP will significantly

¹⁶ Only the importance of STTP Coordinators and importance of support from fellow students received the highest score from every student surveyed.

underperform or, as one previous Coordinator put it, “the program will not survive”. Instructor Tania Smethurst described it this way: “...this is a huge amount of work for a coordinator (emotional labour and logistical labour of the program) - more forethought needs to go into this...”.

This conclusion is not unique to STTP. Literature and case study experience from programs operating in culturally specific and rural or remote areas confirm the danger to program sustainability that an over-reliance on key individuals can have.¹⁷

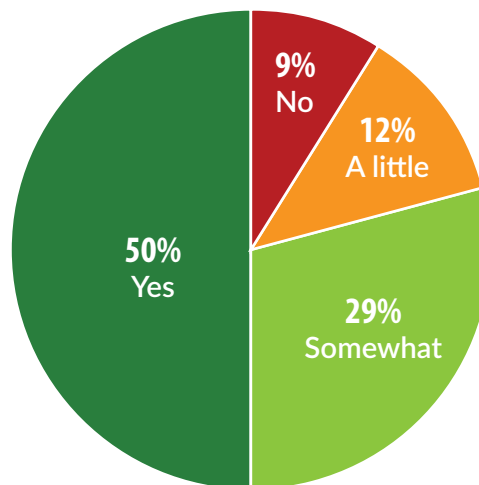
Wide range of student academic levels and wellness needs

STTP success is only possible if the program can meet the needs of the students. The STTP students are diverse in terms of life experience (age ranges from 20’s to 60’s) and institutional academic achievement – for example Cohort 1 had the following mix: Less than high school - 13%; High school 38%; Post-secondary (some) 44%; Trades 6%.

Survey results reflected this range of education and, subsequently, how well-prepared students felt for STTP with only 50% arriving at the program feeling academically, emotionally and physically prepared. When asked to rank future STTP needs, students ranked the need for providing prerequisite courses for students that need support in technical writing, computer literacy, and math as the second most important action.

Students in the program are Indigenous and have been directly impacted by colonialism, experiences of inequity and intergenerational trauma. Consequently, students often face challenges with their mental health and difficulties thriving in the colonial education system.¹⁸ Not surprisingly, research has found that even mature Indigenous learners in Canada that meet criteria for academic success (e.g., high marks in high school) fail to complete course work and subsequently do not finish their academic programming. Furthermore,

Did you feel you were well prepared for this program (academically, physically, emotionally)?



findings show that students, regardless of cultural background, studying outside of the typical full-time student on-campus experience are more likely to struggle with academic program completion.¹⁹

STTP receives excellent performance ratings for academic and emotional support. This can be attributed to the culturally appropriate and safe learning environment, care and quality of the STTP Coordinators, excellent instructors, and support from fellow students afforded by the cohort learning model. However, the needs of the students put stress on this support scaffolding, which is vulnerable and needs additional attention to ensure long term program sustainability and student success.

Limited pool of potential CFN member-Nation Guardians and technicians

If the goal of STTP is to be a base-level training program over the long term, a potential threat is the limited pool of potential students if restricted to CFN member-Nation Guardians and technicians. This was raised as an issue after the Northwest Community College Pilot Training,

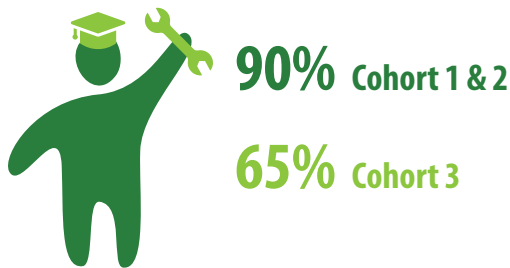
17 Indigenous Youth Justice Programs Evaluation, 2014

18 Kim, P. 2019. Social Determinants of Health Inequities in Indigenous Canadians Through a Life Course Approach to Colonialism and the Residential School System Health Equity Volume 3.1.

19 Mordoch E. and R. Gaywish. (2011) Is There a Need for Healing in the Classroom? Exploring Trauma-Informed Education for Aboriginal Mature Students Vol 17, No 3 Autumn 2011 Special Issue: [Indigenous Education] in education

where lack of prospective students was a key reason given for the two-year gap before STTP was initiated. STTP's experience suggests this might also be an issue for future iterations of the program over time. STTP's Cohort 1 and 2 had over 90% of the students working for their nations. This dropped to 65% for Cohort 3 and the coordinator confirmed that they needed to look outside the stewardship offices to fill openings. Interviews suggest that while there will always be a need for base level training for staff of coastal stewardship programs due to turnover and growth, this pool will become smaller over time suggesting a need for intentionally opening the program to a wider range of potential students and making necessary program design modifications.

Students who were working for their nations while attending STTP



Funding

The lack of dependable long term funding for STTP is a core risk in ensuring program sustainability.

Any program relying on grant funding is vulnerable. STTP has already experienced a lack of program continuity due to funding uncertainty with Cohort 3. For that group of students a second year was not initially secured, making planning for work, life, and family commitments challenging. This also may have led to a drop in graduate numbers for Cohort 3.

A lack of secure funding also impacts staff and instructors' ability to design, plan and deliver critical aspects of the program. Funding is part of the reason that the program relies on Coordinators to carry out the extensive range of responsibilities and why the program was not as extensive as originally designed with 2 levels of training. With only short-term funding arrangements, it is not possible to make commitments for multi-level training. STTP is not alone in this, other successful programs (see Appendix C) reliant on grant funding, rather than core funding, cite this as a major vulnerability to program success. In addition to the lack of certainty for future programming, funding limitations can also limit much needed resources for comprehensive program delivery.



Photo by Nicole Morven

A woman with glasses and a plaid shirt is smiling and pointing at a whiteboard. The whiteboard has handwritten notes, including "My goal for this year of training is..." and "I am moving forward".

Key Considerations

The following are considerations, not recommendations or even suggestions. Without a clear vision and articulated objectives defining STTP and without understanding the resource trade-offs (staff capacity, financing) in designing a program, recommendations are not possible.

These considerations are based on the evaluation findings and are meant to support future planning efforts.

While STTP currently exists as an isolated program, some of the considerations support a larger training program, institute, or learning centre which would offer multiple levels of programming and provide specific courses.

Photo by Elodie Button

CONSIDERATION #1

#1

Develop a program sustainability plan

Program sustainability and long-term program stability requires a clear vision and articulated objectives (see Consideration 2). A sustainability plan would build on current STTP design planning and integrate market, financial and organizational/institutional sustainability objectives and could help answer questions such as: Is STTP to continue as a core stewardship training program or evolve as a more significant source of training (e.g., an institute)?

Identify long term student demand

Finding 10 cautioned that there is a limited pool of potential CFN member-Nation Guardians and technicians to continuously fill future STTP cohorts. Part of the sustainability plan should be identifying a stable market and designing the program to that level of demand over time. This would include understanding the wide range of student academic levels and wellness needs of potential candidates.

Securing long term sustainable funding

Unstable funding for the program was identified as a main factor threatening program stability and enduring program success (Finding 10). Without secure funding it is difficult to undertake program design and is disruptive to program delivery, as was experienced in Cohort 3 when Year 2 funding

was uncertain leading to other impacts (e.g., difficulty retaining students, lower graduation rates). Developing a long-term sustainability plan will help attract and secure a steady flow of funds and generating revenue for maintaining and continuing the organization's work.

Define appropriate staffing needs

Finding 10 identified the over-reliance on the STTP Coordinators, even at the current core training level, as one organizational issue that needs to be addressed with additional support. When there is a clear definition of what STTP is and will become in the future, it will need to establish appropriate levels of core and temporary staffing (e.g., mental health counselors, program assistants, teaching assistants, etc.).



Photo by Elodie Button

Organizational systems

If STTP is to continue and evolve, on-going monitoring and evaluation, developing an institutional memory, and planning for succession will grow the toolkit for organizational stability.

- **Monitoring and evaluation systems:** Having an M&E system would help STTP with establishing clear baselines, promoting on-going performance management, internal development and reporting.
- **Institutional memory:** Having organized documentation and systems to record learnings, protocols, job descriptions, policies, etc., promoting on-going performance management, internal development and reporting.
- **Succession planning:** Included in the staffing needs identified above, it provides a way to pass along institutional knowledge to other staff allowing for key roles to be filled in urgent situations or for planned staff departures. It also provides a way to cut the costs of recruitment, enabling STTP to manage recruitment in-house.

Indigenous Advisory Committee

Having a dedicated committee, perhaps multi-generational, to supplement the Stewardship Directors in the design, development and modification of the program would provide additional insight and more Indigenous representation in all aspects of STTP.

STTP management, control and reputation

What is STTP? Who manages it? Who controls it? Does it matter? These are questions that might be important to look into as STTP matures. STTP started as a response to community stewardship needs within the larger context of Coastal First Nations' declaration to protect and restore their culture and the natural world. Training has responded to the growing needs with program recognition, credibility and respect now identified as an important program outcome. However, issues were revealed throughout this evaluation, such as control over course credits, course ownership, instructors and requirements, and reputation. While STTP strives to play a key role in changing the relationship with government, students identified what they perceived to be a lack of respect and credibility for Guardians and technicians from Federal and Provincial Governments. Other program delivery models do exist with multiple institutional partners such as Dechinta Centre for Research and Learning who have multiple research partnerships and faculty.



CONSIDERATION #2

Adopt a more structured approach to program design.

*Use the **Design Checklist Tool** to support a more comprehensive design process. Special attention is needed in **Step 4: Development of a clear vision and articulated objectives***

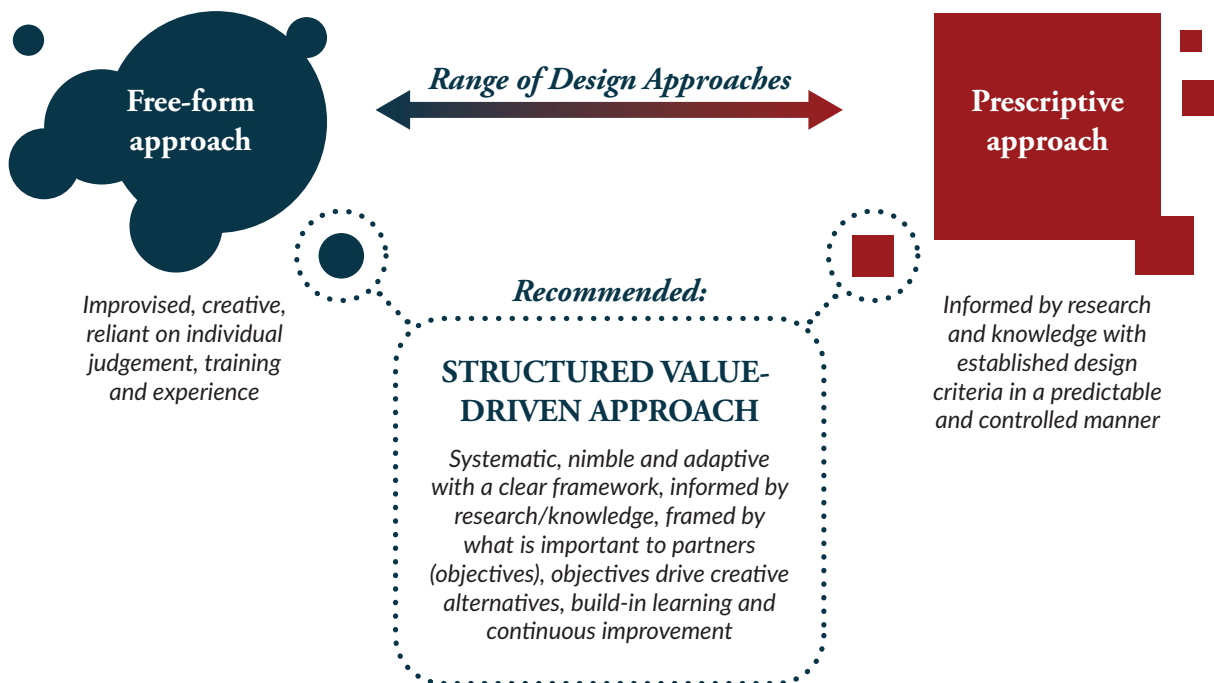
DESIGN APPROACH

As STTP matures and evolves to continue to address the training needs of Coastal First Nations, the Coastal Stewardship Network should consider using a more structured, value-driven and participatory design approach (see Figure 14).²⁰ This approach supports creative thinking in a complex, multi-perspective context like STTP where there are many different communities and partners with an array of interests and needs - where many creative alternatives need to be generated and evaluated to meet those needs (courses, locations, etc.).

Research indicates that using a more structured design approach will support efficient allocation of resources (time, money, knowledge), encourage the inclusion of key design considerations, facilitate buy-in with program partners and promote clear communication.

Consideration #2 provides an overview with considerations of a proposed 10 step process to support individuals tasked with generating, evaluating, and deciding on the best training program.

FIGURE 14: Overview of Design Approaches and Recommended Approach



20 Keeney, R. Value focused thinking, a path to creative decision making. 1992 Cambridge, MA: Harvard University Press, ISBN 0-674-93197-1

DESIGN CHECKLIST TOOL

As identified in Finding #9, a ten-step process for program design was developed to evaluate how the current program was designed. A **Design Checklist Tool** was developed to support a more comprehensive design process (See Appendix B). For each step of this process specific considerations have been generated to support future program design, shown in Table 20 below. Of particular importance to future programming is the need to address the current gap in *Step 4: Development of a Clear Vision and Articulated Objectives*. This step-by-step process is intended to encourage designers to consider each step, with the understanding that program design is an iterative process and the steps will likely overlap.

TABLE 20: Summary of Design Process Considerations

Process Design Steps	Considerations
Step 1: Plan the Design & Decision Process	<ul style="list-style-type: none"> Establish a clear design and decision process that will assist next generation staff to understand how design decisions were made. The Design Checklist Tool would support this effort.
Step 2: Identify Partners and People	<ul style="list-style-type: none"> Identification and analysis of partners is important to successful implementation, and on-going communication/engagement. It may be helpful to keep a running list of partners and cooperative arrangements that have potential for contributing to STTP. Think through and write down who should be involved in the process, why, when, and how. This can assist next generation staff to understand how design decisions were made.
Step 3: Understand Context	<ul style="list-style-type: none"> Documentation and record storage of past evaluations and lessons learned can be helpful to assist next generation staff with understanding the evolution of program decisions. Additionally, conducting regular literature reviews and case study sharing with other institutions (e.g., organizing meetings and phone calls with other institutions to learn program-specific lessons) may assist with a broader knowledge base to support the on-going program design process.
Step 4: Generate a Vision and Objectives	<ul style="list-style-type: none"> It is helpful to articulate the vision of the STTP. A clear vision will inform program objectives and support program design. No less important, a vision statement will help communicate the purpose and expectations of the program to funders, stewardship offices, First Nation communities and students. Articulate a full set of value-focused objectives that can help focus program purpose, drive creative alternative development, evaluate those alternatives, and be used for program impact evaluation.
Step 5: Create Alternatives	<ul style="list-style-type: none"> Brainstorm and categorize alternatives as they come up through formal sessions and during discussion with partners and the core design team. Using objectives to drive alternative development can inspire creative thinking about alternatives and identify if there are any gaps. This will help track ideas and promote creative program design.
Step 6: Evaluate Alternatives & Choose	<ul style="list-style-type: none"> Having a value or objective-based framework to think through alternatives is helpful in weighing trade-offs. This can help to balance objectives like maximizing budget resources, promoting technical skills, promoting leadership skills, supporting cultural knowledge, promoting cooperation among all coastal nations, etc. Tools like consequence tables and facilitated deliberation can contribute to understanding choices and determining what combination of options is "best."
Step 7: Action Planning	<ul style="list-style-type: none"> Things to consider: In addition to listing actions, responsible organizations and individuals, resources, timeframes and pre-conditions, consider conducting a 'pre-mortem' with core group on the final design (e.g., what might go wrong with this design?) and develop associated mitigation actions.
Step 8: Program Delivery / Implementation	<ul style="list-style-type: none"> In addition to governance and project management structure and responsibilities, it is important to have clear decision-making processes and protocols in place to effectively address on-going issues, challenges and changes.
Step 9: Monitoring and Evaluation	<ul style="list-style-type: none"> Consider preparing a monitoring and evaluation plan with what will be monitored, what information is required and how it will be collected, who will be involved, how data will be collected and analyzed, and how it will be documented and shared.
Step 10: Adjust and Modify	<ul style="list-style-type: none"> Consider how new information and learning will be used in a cycle of continuous improvement.

NEEDS ATTENTION: VISION AND OBJECTIVES

This evaluation found that special attention is required for *Step 4: Development of a clear vision and articulated objectives*. The current vision for STTP is unclear and differs across partners; and the stated objectives are incomplete and poorly articulated (see Finding 15). Establishing a clear vision for STTP and articulating objectives is a pressing need. A vision statement is a helpful process step and communication tool. Objectives clarify why the training is important and what it is trying to achieve. Well-structured objectives can support both the creative elaboration of alternatives and their evaluation. Finally, objectives can be used as a framework to evaluate program impact. The design checklist tool (Appendix B) will help support this process.

Vision

An explicit and agreed to vision for training was generally understood but never specifically articulated. Training needs were linked to the broader and evolving coastal stewardship context. In the late 1990s and early 2000s, Indigenous Guardian programs and Indigenous protected areas were concepts that were not yet integrated into policy and practice. Major

policy developments, such as the Marine Plan Partnership, and organizational developments, such as the formation of the Coastal Guardian Watchman Network (CGWN), established a common purpose. With many coastal First Nation communities involved, developing a common vision for a standard training program required working with many different concepts and ideas around stewardship, from monitoring to enforcement of Indigenous laws and authority. Although not labelled a vision statement, the 2015 funding request could be understood as a placeholder vision. It stated that:

STTP would address “the need for an integrated, consistent program that can train community members to meet the anticipated demand within their offices for new stewardship technicians throughout the North Coast, Haida Gwaii and Central Coast.”

Important in this vision is that it was not limited to existing Guardian Watchmen (unlike its NWCC predecessor) or even to stewardship technicians more broadly defined (e.g., fisheries technicians), but open to all “community members” to support stewardship and “anticipated demand within their stewardship offices.”



Photo by Sandra Thomson

This definition also suggests that non-community members, even if they are part of a coastal First Nation's stewardship staff are not eligible for STTP training (i.e., non-Indigenous individuals or Indigenous individuals from other regions or provinces). Furthermore, it suggests that training is strictly to meet the needs of Coastal First Nation stewardship offices, not coastal stewardship needs more broadly defined. However, interviews suggest that some program supporters would like STTP to be supporting coastal First Nation members with the skills needed to obtain employment not just with First Nation stewardship offices, but with government or industry as well. This suggestion is reflected in the 2015 proposal: "After completing the *Stewardship Technicians Training Program*, it is expected that graduates will work as stewardship technicians for their First Nation, other governments, industry, and consulting firms."

It would be helpful for all to understand if the intention is for the STTP vision to be more narrow and targeted (e.g., training coastal First Nation members to work in stewardship offices) or more broad and open (e.g., all stewardship staff and coastal First Nation members interested in stewardship work with any coastal First Nation, other governments, industry, or consulting firms). Having a generally agreed to vision will support design and communicate the intention of the program.

Objectives

Vision statements are meant to be aspiring and inspirational, building consensus around a common purpose. However, in design there are decisions to be made that require trade-offs. Objectives provide the framework to understand the potential consequences of alternatives in order to make better choices.

Program objectives give structure and detail to vision statements. Review of the objectives for STTP suggest that they have evolved as the program was implemented. There was an identified need to develop a credible, standardized and certifiable training program that would both build capacity within nations and develop a strong network to connect Guardians. Additional

objectives were established to meet funding requirements. However, it is not apparent if or how stated objectives were used in the design phase. The only articulation of program objectives was found in the 2015 program funding application, is as follows:

1. To prepare the First Nation participants with the necessary knowledge and skills to be stewardship technicians, resource management officers, and environmental monitors in the growing sector of monitoring and assessment related to industrial development and land and marine plan implementation;
2. To provide industry recognized training and certifications relevant to employment in this field; and,
3. To generate graduates at two levels of expertise to address the labour market need for First Nations environmental monitors and stewardship technicians on the BC Coast.

Although these objectives are aligned with the directions from stewardship offices, it is unclear when these objectives were developed and how they were used beyond the 2015 funding proposal application. Clearly the program objectives evolved after the funding application. Objectives #1 and #2 were largely achieved by STTP; while Objective #3 was not achieved due to funding constraints and subsequent shifting of priorities. Other important objectives (e.g., culturally significant training) were implicitly understood and incorporated in the STTP by CFN and VIU staff, but not articulated in funding proposals or design frameworks.

CONSIDERATION #3

#3

Improve STTP recruitment and admissions process and provide better student assessment and support before entering the program, during the program and after the program

RECRUITMENT AND ADMISSIONS PROCESS

For STTP, one of the most critical areas for attracting the best fit students and fostering student success is improving the recruitment and admissions process. Surveys of graduates indicate that these two processes need attention, one STTP student mentioning that “...a lot of our people don’t know about this program. Same with the agencies. I wouldn’t have known about this program if not for my office and some friends.”

Even after program admission, this evaluation found that most students had a poor understanding of what to expect before entering the program. This issue will become more significant if STTP continues to attract students outside of current stewardship offices, as was the case with Cohort 3. The recruitment, application and admission process can also help identify candidates who want to be there and will benefit from the program, versus those that have been told to attend. Programs that have high graduation rates tend to not only provide a clear picture of the program but screen for students that have a strong desire to attend (e.g., Dechinta, NWT). Unfortunately, we do not have any data on what students thought they were signing up for, but post analysis indicates that some students either did not have a clear idea or that they had a different idea of what STTP was offering suggesting that more work needs to go in to the pre-program communications and readiness.

“...it would be good to give prospective students a clear idea of what they are signing up for, prior to starting... through an open house in community or something...”

– STTP Student

Areas to consider to improve recruitment and admissions are:

Revisit and reform program recruitment strategy

- Work with stewardship offices in developing criteria for potential candidates and in choosing or nominating potential students.
- Hold information sessions or open houses in-community.
- Work with partners to advertise for spots in program.
- Develop pre-program Information/Orientation to explain what this program is about and what its overall impact can have.
- Recruiting students that are clear what STTP is, why they are taking it, and what limitations and opportunities exist (financial, housing, child support, etc.) prior to signing up will positively influence graduation rates and overall student success.

Revisit the application process

- Screen for motivated and qualified students: Ask the question “What should be included?” (e.g., resume, application form to VIU, cover letter, references from community members, numeracy and literacy examples, etc.)
- Do not make it overly restrictive: Consider making the application form easy for everyone, providing support or alternative application processes.

Revisit the admission process

- Continue to engage with students prior to program entry through phone interviews to confirm eligibility, suitability, demonstrated interest and capacity to complete the program, as well as requirements for financial support, ability to travel, and existence of other family and community commitments.

- Plan for students to show up and thrive. Creating inclusive prerequisites and pre-assessment processes that are not restrictive for entry and establishing a support system that makes sure students can successfully enter and complete the program will help this. Examples of this include: creating a support plan that includes tutoring and coaching as well as linking pre-requisites with pre-assessment process.

IMPROVE PRE-ASSESSMENT PROCESS AND PROVIDE SUPPORT BEFORE ENTERING AND DURING THE PROGRAM

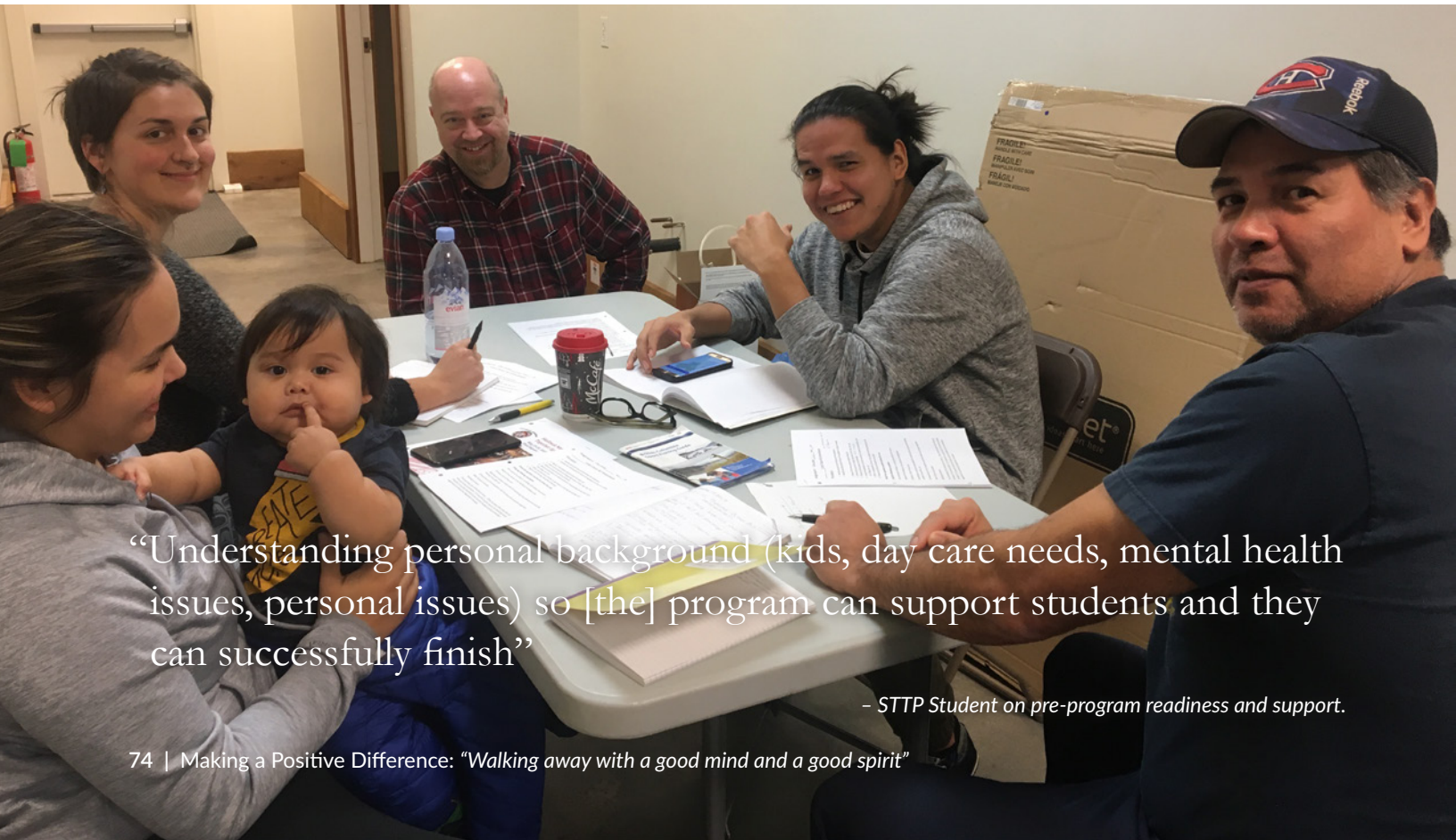
Many students need additional academic and technical knowledge and skills support. Only half of the students entering STTP felt prepared for the program. One consequence is that significant resources, including the STTP Coordinators, instructors and student time, were spent supporting the students who struggled with the basic technical program requirements of computer skills, literacy, and numeracy. It is unclear how general entrance requirements from VIU as an accredited university were applied, but evidence indicates that improvement in this area is needed to improve the learning experience

for all students, to maintain the instruction at a university level (especially considering the importance of graduating STTP with transferable university credits), improve graduation rates and maintain the reputation of STTP.

“Some of the math was challenging, and some students struggled with reading or computer skills...”

– Janet Sinclair, Chair and Instructor, Aboriginal Bridging Program

Stewardship Directors also stressed they do not want strict academic pre-requisites that might limit some STTP candidates who have other needed stewardship skills (traditional knowledge and/or field skills). Providing targeted academic and technical skills upgrading, tutoring and support prior to and during STTP should be considered.



“Understanding personal background (kids, day care needs, mental health issues, personal issues) so [the] program can support students and they can successfully finish”

– STTP Student on pre-program readiness and support.

STTP should consider the following two improvements:

Institute a more rigorous pre-assessment process of potential students

- This can be done with CFN Training Coordinators and Stewardship Directors to ensure eligibility and ability to successfully complete the program.
- This will help students use essential tools, read course material, complete written assignments, and be physically ready and prepared for related field activities.
- Pre-assessment should also identify non-academic issues, barriers, and student needs prior to entry (e.g., affordability, child support, work support, etc.).

Formulate targeted individual tutoring plans that encompass pre-program and during the program support

- Results of the pre-assessment should be used to develop plans to support students in developing their technical digital skills (computer, tablet, apps use, GPS, etc.), writing, numeracy, and document use skills.

IMPROVE EMPLOYABILITY AND CAREER DEVELOPMENT SUPPORT: FIRST WITHIN STEWARDSHIP OFFICES AND SECOND WITHIN THE BROADER COASTAL STEWARDSHIP LABOR MARKET

STTP identified supporting employability as a component of the program during the design phase, but students indicated that STTP did not meet their expectations in this area (see Finding #7). As program objectives and vision are redefined, the amount of importance and subsequent effort and resources allocated to employability and career development support need to be clarified. If this is not to be part of the mandate of STTP, then this can be communicated to students. If this is an important area for STTP, there are opportunities for improvement. Further consideration needs to be given to the requirements of stewardship offices and supporting Guardians and technicians

while developing the skills needed to advance to stewardship management roles. As STTP trains community members and exceeds the employment requirements of stewardship offices, the training needs should be revisited and balanced with the aspiration of nations to increase the overall skills and employability of community members within the dynamic coastal job market.

Employability includes preparing for employment, obtaining initial employment, retaining that employment and being resilient in the labor market. It instills the desire and commitment to on-going learning. Most Cohort 1 and Cohort 2 STTP graduates were employed with stewardship offices making employability less of an immediate issue, but this changed with Cohort 3 and is expected to be a trend of the future. Some of these employed graduates were also interested in advancing to stewardship management positions or other positions within their nation or elsewhere – which makes employability an important issue for those students. One student in Cohort 3 went from Watchmen level to a management position. Two other students went from unemployed to working as coordinators, one for the Marine Plan Partnership for the North Pacific Coast (MaPP) and the other as a community's emergency response coordinator.

STTP did undertake specific employability actions, including participating in the Portfolio course where they made presentations on their learning journeys and gained skills. Instructors worked with students to identify next steps for education and work options. Additionally, some of the courses specifically supported graduates who wanted employment options after the program, including the BCIT Parks' and Administration Certificate. Stewardship offices wanted this course in order to help negotiate delegated or transferred authority for Guardians in performing Park Ranger duties (i.e. to help increase the credibility and skills of Guardians in community, not leave to other agencies). Finally, instructors within the program are linked to the industry sector and were available to offer suggestions of job opportunities and contacts for informational interviews.



Should it be determined that employability is a core component, considerations are:

Preparing for employment

- Continue to encourage instructors to provide work examples, career advice, and opportunities for students to build their portfolio. Bringing in past STTP graduates for mentorship or TA-type roles can help build students' knowledge base of what types of work are available to them post-STTP.

For obtaining employment

- Develop more student employment services (employer-student contact, job posting, etc.) and make sure students are informed about the location, resources, and services at their local Aboriginal Skills and Employment Training Strategy (ASETS) holder where further employment supports are made available. Enlist instructors more specifically to review job opportunities and contacts for informational interviews.

For retaining employment

- Require graduating students to develop a skills review plan and support and offer more professional development including one-off courses for STTP graduates. Providing or supporting students finding training in executive function skills can also support this (e.g., time-management, focus and attention, organizing, planning, prioritizing, regulating emotions, self-care and monitoring, work planning, etc.)

For being resilient

- Provide more resilience-based skills in current courses or in specific courses. This includes continuing the current cohort / teamwork-based model that STTP employs. Other skills include problem solving, flexibility, adaptability, self-organization, and risk taking.

CONSIDERATION #4

#4

Develop a more culturally sensitive approach inclusive of trauma informed learning and specific learning needs

There is a need for future STTP cohorts to build on the exceptional, but fragile, student support systems already in place including support from coordinators, instructors and fellow students in the cohort model. Case study experience across a range of contexts confirms that students who have experienced trauma and violence face barriers to academic success. For Indigenous students, this violence stems from Federal colonial policies such as residential schools, the Sixties Scoop, and the Indian Act. Indigenous students are more likely to have experienced trauma, and due to discrimination within colonial education institutes, are also likely to have experienced racism, shame, and exclusion at school – experiences that affect classroom behaviours and may present as barriers to learning. Efforts to recognize and address these needs are continually evolving. Based on best practice research, some considerations for STTP include:²¹

- **Identifying issues during recruitment and indicate what support structures will be available to help students feel empowered to deal with trauma.**
- **Ensure counselors, Indigenous if possible, are available to students from the beginning to the end of the program. Build counselling into the program, as in class support as well as outside of class.**
- **Ensure all faculty and staff receive training on cultural awareness and Indigenous trauma informed practice and trauma's potential effects on students in order to better support students to engage in their learning and attain success.**
- **Institute more co-teaching in the classroom, with both Western and Indigenous teachers (including Elders and knowledge holders), to create more holistic and culturally-relevant learning opportunities for students.**
- **Hire successful STTP graduates as teaching assistants/mentors and to support a co-teaching model.**
- **Increase the staff to student ratio. Some successful programs have up to a 1:1 staff to student ratio which helps to create safer spaces and support systems for individual students.**
- **Establish and promote a culture of self-care so that coordinators and other helpers understand the need for self-care and are able to practice it.**

21 Supported by case study (Dechinta, NWT) and literature: Mordoch E. and R. Gaywish. 2011. Is There a Need for Healing in the Classroom? Exploring Trauma-Informed Education for Aboriginal Mature Students)

CONSIDERATION #5

Improve Program Instruction

While instructors received excellent performance reviews, student interviews suggested better coordination between instructors and more preparation and cultural awareness was needed for some specific course instructors. However, some students praised the awareness and accommodation of other instructors. Interviews supported the survey findings, in that most instructors pursued a range of student support interventions proven to help achieve student success including offering encouragement, individual and group tutorial support, and extensions on assignments when necessary. However, a need for more preparation and cultural awareness is warranted for some instructors.

“Small Motors course instructor was unprepared, and the class spent most of the time watching videos—need a more engaging and more prepared instructor”

- STTP Student

Whereas other students praised the awareness and accommodation of other instructors.

“...having a strong Indigenous matriarch as a facilitator was valuable in STTP, the course was able to bring out truth, whether it was anger, hurt, love, confusion, students were able to get through it together”

- STTP Student on Cultural Awareness instruction

Improvements were identified around the need for instructors and courses to be more coordinated and be better prepared to teach to the specific learning needs of Indigenous students using culturally sensitive and trauma informed methods. Indigenous instructors, mentors, and support staff were highlighted as solutions.

“Having Indigenous instructors would be very helpful for students... even a TA position with past students hired to provide that mentorship to the new students”

- Janet Sinclair, Chair and Instructor, Aboriginal Bridging Program

“No opportunity to have conversations with other instructors - I was asked to observe another course – [it] was very western focused with no opportunity for students to engage / communicate / educate via western model - it was not First Nations based learning”

- Hilistis Pauline Waterfall, First Nations History and Culture Instructor

Additionally, instructors supported and encouraged the idea for more information sharing between courses and instructors to allow for more pedagogical coordination.

“Creating shared pedagogy... learning from other teachers about how they approach student learning...”

– Dr. Sean P. Connaught, Archeology Course Instructor

Considerations include:

- **Involve CFN in curating faculty.** This has proved successful in other programs, for example in the NWT, Dechinta’s program staff carefully curated the instructor selection to specifically meet the needs for a trauma informed and culturally safe instruction during their program. Currently, the relationship with VIU does not allow for faculty and instructor selection, CFN can only provide suggestions.
- **Encourage all Instructors to take cultural awareness and sensitivity training,** including culturally appropriate trauma-based teaching methods before courses begin. At the present moment, VIU’s current approach to cultural sensitivity training is making it voluntary only – so CFN is limited in terms of mandating instructor training unless new university partners are considered.
- **Support greater attention to assignment design** to ensure sensitivity to cultural relevance and the course delivery method. Designing assignments to be more culturally relevant while maintaining the need for western academic deliverables could ensure that more western – Indigenous delivery occurs.
- **Explore opportunities for co-teaching.** Pairing Indigenous instructors (Knowledge Keepers, Elders, STTP graduate mentors) with VIU instructors could contribute to cultural knowledge transfer and positively influence student behavior and wellness. While universities have restrictions on who can be an instructor, successful Indigenous on-the-land programs have content delivered by community instructors (knowledge holders, Elders), but the instructor listed is the institutional staff to oversee and ensure quality. Elders and knowledge holders also hold a primary role in evaluation.
- **Investigate a Faculty Cohort Model.** Currently instructors teach independently. A cohort or team approach to course delivery would have benefited the program to allow for coordinated content and improved teaching methods. Additionally, this would allow for more consistent and fair evaluation of students across courses. While this option may be resource intensive, simple changes such as syllabi sharing and a group instructor meeting at the program’s start, to share pedagogy and learning outcomes, would be beneficial.



CONSIDERATION #6

Regularly revisit and refine course content and relevancy

It is challenging to provide courses that are relevant and teach the skills and knowledge needed to conduct Guardian and stewardship work for different communities that have different needs and objectives. This is true even when the focus is on core skills and knowledge, as these may differ from community to community. As STTP expands the target student body beyond Guardians and technicians to a more general audience interested in more expanded coastal stewardship opportunities, meeting course content demands will continue to evolve. Coordination with other programs on the coast and in individual communities will be needed in order to avoid displacement and redundant learning. This expanding of student body, and subsequent course content demands, will depend on the objectives and vision set out by CFN in developing the future of STTP.

As with most considerations, the direction STTP decides to take in course provision will depend on the vision and objectives established during the design phase. When revisiting and refining course content and relevancy, it has to be in the context of what STTP is, including a clear vision and objectives.

Currently, most of the of the courses in the STTP do achieve the goal of transferring core knowledge and skills to conduct Guardian and technician work in First Nation coastal communities. However, this evaluation identified opportunities for modifying or changing the courses offered to be even more relevant and useful, as follows:

- **Identify priority skills and activity needs of Guardians and technicians.** This would require both reviewing the analysis contained in this evaluation and undertaking a process of prioritization with stewardship managers/staff.
- **Continue to regularly revisit course selection** based on feedback from students, Stewardship Directors, managers and coordinators and others active in the field (e.g. Guardians and technicians).
- **More courses in-community.** Although logistically challenging and more costly, this is one of the highest ranked suggestions among students. Extensive coordination with stewardship offices in each Nation could create community-based programming that would cater to the needs of guardian technicians in each community. This would make learning more relevant and improve cultural connections and networks.
- **Modify poorly performing courses.** Consider re-designing courses that were not well received by students and instructors (e.g., the Portfolio course was critiqued on its length and format by students and the instructor). Additionally, consider making some courses electives (e.g., the Electrofishing course was not relevant for some students and the work with their Nations).
- **Review courses for relevancy, integrating feedback from students, and ensure that courses fit the needs of stewardship offices, or coastal stewardship more broadly.** Students offered the following suggestions to be considered during course selection review: spill response, whale rescue, climate change monitoring, and professionalism courses to the program. Stewardship managers have recommended including a First Nations Coastal Stewardship 101 course (e.g., what is a guardian and how does it fit in to the broader context of Indigenous sovereignty and law) as well as courses and course content on Indigenous law, Indigenous enforcement, and include more field note training. All of these need to be considered for future course reviews.

- **Identify and prioritize key skill gaps** that STTP can address through course refining. Computer skills was highlighted as a critical gap area for Guardian and technician skills, in both basic and advanced stewardship work. Reviewed in Finding 8 are other gap areas that should be revisited across basic and advanced stewardship skills.
- **More transferable credits.** Revisit which courses qualify for university credit and weigh the pros and cons of ensuring courses are accredited. For example, both students and the instructor of the Cultural Awareness Course identified it as an opportunity to be a credited course. This may require creative approaches, as interviews identified issues with VIU's ability to offer adjunct or instructor designations in order for a course to be accredited. Other programs (e.g., Dechinta) address this by working with multiple universities and having a university instructor lead the course and ensure quality, while co-instructing with a non-university employed individual. This may not be an option for VIU, and there are also course ownership issues to be addressed.
- **Consider a multi-levelled approach to STTP course delivery.** This would involve a reconfiguring of the way STTP is delivered . This would mean that STTP offers both basic and advanced training curriculum. Basic programming (e.g., Level 1) would cover all necessary baseline guardian skills and knowledge training needs (e.g., computer skills, basic operational skills like bear safety, swift water, first aid, etc.). While some of these skills could be integrated into STTP programming, others could be supported by individual Nations and stewardship offices. Additional programming (e.g., Advanced-Level 2; Electives-specific to Nation or community needs) would cover skills and knowledge training that students could select and customize to meet their future employment and Nation's needs (e.g., marine rescue, monitoring health and recovery of specific ecosystems, planning and management of harvesting sites, etc.). If not coverable by STTP, Nations and stewardship offices could provide the training or resources necessary to support students in advanced training.



Photo by Elodie Button



Conclusion & Next Steps

Conclusion

The purpose of this structured evaluation was to inform future design and delivery of STTP; share the STTP story with funders, stewardship departments, and participating communities; and provide information for other on-the-land / on-the-water training programs, communities or institutions currently conducting, or interested in creating, Indigenous stewardship training programs.

STTP is an excellent program and provides valuable technical and leadership knowledge and skills, improves employability and personal wellbeing, inspires self-Improvement, promotes coastal networks, and increases the credibility and respect of Guardians and other stewardship technicians. The program is situated within the larger context of building a sustainable conservation economy, taking care of coastal lands and waters, and ensuring knowledge and skills are passed from generation to generation.

Next Steps

The considerations outlined are not recommendations; the findings and considerations should be reviewed and used as a resource in continual program development. Indeed, many of the considerations listed in this report were identified during the program's development. Their implementation must be weighed against feasibility, capacity, and fit into the broader planning process underway with CFN. The findings and considerations should continue to be reviewed as the program evolves to meet the needs of Coastal First Nation communities.



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Appendices

A. KEY INDIVIDUALS

Thanks to key individuals who contributed to the program and evaluation, including:

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B. DESIGN CHECKLIST

The following checklist was developed to support long-term program design and development for the future of STTP.

STTP Program Design Checklist Tool: Structured Value-Driven Approach

Step 1: Plan the Design & Decision Process

- What triggered the training (re)design process?*
- What is the general scope?*
- Who is leading the design effort (CFN staff? CFN and academic partners? a small core group?)?*
- Are there other key stakeholders that should help in the initiation process?*
- What resources are available for the design process (timeline, staff time, budget)*
- How are decisions to be made and by whom? What structures and relationships (informal / formal) need to be in place for these decisions to be made?*

Step 2: Identify Partners and People

- Who are the key individuals and partners?*
 - For example, consider stewardship departments, community leaders, partners, targeted audience (e.g., students), training institutions, funders, other similar programs that can share insight
 - Consider who else might benefit or be negatively affected, formal positions, control over resources, block or hinder program, etc.
- What are they responsible for / how can they contribute?*
- When should they be involved (consider involvement throughout steps 3-6)?*
- How should they be involved (meetings, one-on-one, surveys, etc.)?*

Step 3: Understand Context

- What are the current training needs and non-training issues?*
- What do we already know (literature/document review, etc.)?*
- What are the opportunities, constraints, and partner needs?*
- What is the current context and how has it changed (community, organizational, political, regulatory, environmental, etc. – e.g., climate change, UNDRIP influence in BC)?*

Step 4: Establish Current Vision and Objectives

- What is the training vision, and how well does it respond to the design problem?*
- Has the vision evolved or changed?*
- Based on the priorities of the communities, what are the objectives of the program?*
- Have the program objectives been written down in a simple, understandable way?*

Step 5: Create Alternatives

- What alternatives respond to your needs and objectives? What else?*
- Have alternatives been considered for all of the program objectives on the table?*
- Can any of these alternatives be (re)designed to better contribute to multiple-objectives?*
- Is there an order to the alternatives, are some things mutually exclusive or do they need to happen in advance of others?*
- What is the opportunity cost of not implementing an idea?*
- What constraints (e.g., funding, distance) can be overcome?*

Step 6: Evaluate Alternatives and Establish Training Design

- How do the alternatives (courses, methods, locations, etc.) satisfy the objectives (i.e., what are the results)?*
- What are the key trade-offs and have they been compared?*
- Are there good mechanisms built into the design to conduct continuous improvement with in situ testing of a designed solutions, monitoring , reporting, regular evaluation and redesign?*
- What is the agreed to final program design?*

Step 7: Action planning and logistics

- Are the tasks and actions listed and understood?*
- Are the responsible organizations and individuals for each task identified?*
- Are the resources and time frames and pre-conditions required to complete the actions identified?*
- Was there a 'pre-mortem' conducted on final design (e.g., what might go wrong with this design?) and mitigation actions developed?*

Step 8: Implementation

- Is there a delivery system and is program being carried out?*
- Is there a process for adapting in real time to a changing context and evolving issues?*

Step 9: Monitoring and evaluation

- Is there a framework and process for monitoring and evaluating actions and outcomes (e.g., data collection, access to data)?*
- Is there a process for documentation and communication?*

Step 10: Adjust and modify

- How will on-going learning be incorporated?*

C. CASE STUDIES

Case Study #1: ECO Canada - Building Environmental Aboriginal Human Resources (BEAHR) program

Environmental Workforce Training programs for Indigenous communities

Program Overview

ECO Canada, a non-profit organization supporting careers in Canada's environmental sector, established the BEAHR program in 2006. It is a cross Canada Indigenous training and employment program to help First Nations, Metis, and Inuit communities develop their local environmental skills through short term, culturally relevant, and practical skills building courses. Since 2006, over 3,000 students in 170 communities have graduated from BEAHR programs.

BEAHR instructors are part of a network, licensed by ECO and work independently throughout the country. In order to be licensed, instructors require an educational background in the subject matter, 4+ years experience in the field, and previous instructor training. Instructors are then assessed and licensed to teach BEAHR courses.

Once licensed, instructors are able to respond to a request for an in-community course delivery, and work with the community partner, Nation, or organization to design the course structure and deliverables. As a result, each course delivery is unique and matches the needs of the community.

Due to its network of instructors, ECO can provide flexible courses and introductory training, designed specifically to meet the needs of the community. For example, a community that may be impacted by a pipeline project wanting to build their capacity in environmental monitoring may request a BEAHR course be delivered in their community. Courses are selected by the community from a range of customizable courses available and a fee is determined between the community and ECO.

The BEAHR training courses can be anywhere from 2 weeks to 15 weeks. The most common program takes place over a month. Instructors are a mix of Indigenous and non-Indigenous experts and provide culturally oriented, local and traditional knowledge, usually in tandem with a community partner.

The program audience varies with each community, but often is driven by a desire to build environmental and land monitoring capacity. Students participating in the program require a grade 10 education and basic computer skills. Digital literacy is an ongoing challenge throughout the courses. Instructors will adapt courses to the students' ability and/or students will be offered support with computer skills.

Challenges and Successes

The program has grown overtime, with very little promotion. Success can be attributed to the large network of qualified instructors that maintain relationships with communities and have helped to keep the program going despite changes in core ECO staff. The network of instructors and the short duration of the programming also allows for the program to take place in community, in partnership with industry or community partners.

Program and organizational challenges include succession planning, due to limited staff (1-2 FTE) and a heavy reliance on key individuals in ensuring program continuity.

Additionally, ECO is currently working to receive accreditation with local colleges, however, with the lack of consistency with course structure and delivery, this is an ongoing challenge.

Key Lessons for STTP

- A distributed and flexible network of instructors allows for curated lessons, adaptable courses, and in-community delivery
- Building relationships and working with community partners to determine specific program needs helps to deliver valuable, relevant training while ensuring student health, wellness, and support needs are met
- Program is vulnerable due to a heavy reliance on key individuals and a need for succession planning.

Case Study #2: Dechinta Bush University - Centre for Research and Learning

Land Based Post-Secondary Programming

Program Overview

Started in 2009, the Dechinta Bush University - Centre for Research and Learning aims to provide a land-based post-secondary program for open learning studies while promoting and supporting student wellness. It has been designed with a 1-1 student to staff ratio, Elders on site to support students, childcare that enables families to participate, a zero drug and alcohol tolerance policy, and instructors and staff that are trained in Indigenous approaches to trauma informed practice.

Dechinta has a long-standing partnership with the University of Alberta, Faculty of Native studies that accredits their courses and recognizes key program instructors and guest instructors. Additionally, Dechinta has a relationship with the University of British Columbia, with their own course code in Indigenous land-based learning. Both universities allow for autonomy, and for Dechinta to curate faculty and programming.

Dechinta has a multigenerational, land-based team including Elders, graduates, and wellness support. Faculty and program staff are trained in trauma informed approaches, including an academic lecture on trauma effects on the brain. The program is inclusive and promotes active learning, finding a moment where every student can shine.

Courses are designed to immerse students in an in-community and land-based learning experience, hosted by a supportive and involved community. One 20-day course has 12 students and is built around an outdoor paddling trip during the summer. In the fall, 15 students spend 6 weeks on the land in 5 courses. Students can bring families for free, which has made it possible for young Dene women who otherwise would not have access to this type of programming. Young women now comprise the majority of their students. Having Elders and children on site supports intergenerational learning.

Recruitment takes place in community, with groups (e.g., Detah First Nation), and via social media. Students apply to the program in person or through a paper application and are then interviewed. Subsequently, students complete a university application, along with medical history and paperwork. There are no scholastic prerequisites to the program, although, students are required to submit a transcript as part of their application to the university. There is an effort to take students that display a strong desire to be in the program rather than students that are told to attend by employers or family.

The program prioritizes community wellness and safety, while students and faculty engage in lectures, workshops, governance sessions, as well as harvesting and gathering. The majority of instruction takes place outdoors where students learn to tan hides, make dryfish, harvest medicines, and go on outings with local Elders and bush guides.

The program has no post graduate support and only informal follow-up. This is planned for the future.

Challenges and Successes

Dechinta has not had continuous and stable funding. In order to address this, they rely on internal capacity to fundraise and obtain grant funding from the federal government and other donors. Building this capacity was identified as another challenge for the program. However, having a strong, committed Board of Directors holding institutional knowledge is beneficial for the continuity and capacity of the program and its staff.

One of the biggest successes of the program is that it has a 100% graduation rate. This is attributed to supportive staff and faculty, the role of Elders in program delivery and student support, trauma informed practices, and the support for families.

Key Lessons for STTP

- 1 to 1 staff to student ratio contributes to the success of a land-based program
- All staff have training in trauma informed approaches, which has empowered staff to understand students' perspectives and experiences
- Family inclusive programming allows for greater student participation, and fewer barriers to program entry particularly for women. It does however require more staff and resources
- Non-hierarchical communication strategy amongst staff – each staff member knows everything (courses, program changes, finances / funding, etc.)
- Staff maintain a wall calendar - all details of programming / key deliverables provide transparent and accessible information and supports program planning, delivery
- Program employs alumni, encourages mentoring former students and bringing them on as program staff

Staffing Support- 1 to 1 staff to student ratio

- 30 casual staff
- 5 full time (programming)
- External finance team
- Faculty (1.5 full time)

Core team:

- Faculty
- Coordinators: to support students with land-based activities
- Coordinators: to help with reading and writing
- Fulltime nurse/nurse practitioner
- Indigenous counsellor that did wellness workshops, counselling sessions, tools to deal with conflict, healthy communities (as per the guidance of Elders)

Education supports:

- Bush professors (ranging from 25 to 70 years old): organize land-based activities; Keep the camp running – teach by demonstration
- Elders: sewing, talking about life, governance
- They have daily governance circles
- Indigenous graduates: help students with course work
- Peer to peer learning and support (e.g., cohort model)



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