

## PROJECT DESCRIPTION

This poster presentation addresses educational processes that have resulted in citizens who embrace environmental stewardship and are active contributors to a healthy, sustainable society. The presentation has been framed around current research of two integrated curriculum programs that have demonstrated long term learning outcomes related to active citizenship.

| The Programs Studied |   |   |
|----------------------|---|---|
|                      | <b>Experiential Science 11 (ES 11)</b>  | <b>Experiential Studies 10 (ES 10)</b>  |
| Location             | Whitehorse, Yukon (Canada)  | Coquitlam, BC (Canada)  |
| Courses integrated   | Biology 11, Chemistry 11, Art 11, Geography 12, Field Methods 11, Physical Education 11 | Science 10, Earth Science 11, Socials 10, Physical Education 10, Planning 10, Leadership 11 |

Both programs utilize experiential and place based practices to approach the various curricular topics related to the courses integrated. The subjects are integrated in such a way as to give purpose to the subject material through experiential learning. Outdoor initiatives and placed based practices are used as vehicles to empower the learning experiences and foster attainment of the program goals which includes responsible citizenship. In both programs the students will take part in various local field studies as well as several extended ones. Many of the studies emerged from expressions of community concern with a large number of these initiated by the students themselves. Examples of these experiences are described through various graduates voices from both programs are included in the poster presentation.

## PLACE-BASED & EXPERIENTIAL EDUCATION

**Constructivist Learning Process**—“the student develops his or her knowledge in a process of reflection on practical situations which creates a concern and a personal need for learning” (Korthagen, 2001, p. 15) .

The intent of a *Experiential* approach to education is to transform **experience** into **knowledge** (Kolb, 1984) that reflects the **social**, **political** and **cultural** reality of the educational context (Kincheloe, 2003)

**Pedagogy of Place**— the integration of the student into either their home land or into the context of their community and the reinforcement of the essential links between the student, their peers and place.

- Students make connections to their schooling that is based on realistic, immediate and important statutes.
- Students see the relevance and importance of the studies as they have immediate and causal effect to their present lives and, ultimately the well-being of themselves and their community.

Place-based activities and the related field studies exposed students to a wide variety of ‘experts’ associated with a range of resource management issues. Rigorous field methods, reliable well-kept data and valid scientific methodology are the foundation of the program. Students collect field data and analyze various aspects of environmental study issues before developing strategies to address and take action related to community concerns. The place-based educational activities were designed to engage students by incorporating: curriculum integration, experiential learning, leaning by working with others, addressing real problems and puzzles, connecting with a wider community through addressing local issues. Active citizens actively embrace social responsibilities and take it upon themselves to play a civic role of being informed and maintaining and developing critical perspectives while becoming actively involved in social, political and/or environmental issues (Klincheloe, 2005).

## RESEARCH — LONG TERM ANALYSIS

### ES 11

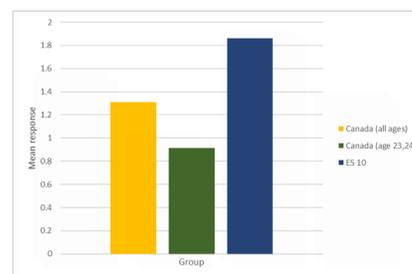
This study was comprised of two separate but related parts. The first part included tracking students through high school records and the Yukon post-secondary grants program. This part of the study was able to track 82% of the students who took part in the program through PSE and/or training. The preliminary results from this part helped give rise to a second stream of research to collect more detailed information related to active citizenship. Responses to this part of the study pointed to the value of early involvement in place-based activities leading to social and environmental action and responsibility. This second phase was an extensive survey exploring education, employment, travel, community service and citizenship. Forty of the forty five students responded to this survey. The responses provided comprehensive insights and understanding of the impact the program had on long-term student engagement and citizenship. Graduates that took part in this study completed the ES 11 program ten to twenty years earlier ensuring long term results.

### ES 10

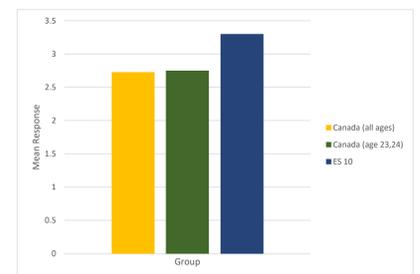
A retrospective case study was completed with two cohorts from this program. A mixed method approach was used to collect the data. The qualitative methods consisted of a group interview with past students as well as an open-ended questionnaire. The quantitative portion consisted of two separate one-time surveys: one measured active citizenship components while the other measured learning environment perceptions. The graduates in this study completed the program eight to nine years earlier at the time of the data collection ensuring long term results. Thirty eight out of forty seven participants were successfully contacted, thirty six completed the study. The open ended questionnaire was designed along side the design of the ES 11 open ended questionnaire thus utilizing parallel questions. The learning environment portion of this study led to understanding important learning environment features related to developing active citizenship which is described through the model presented in this poster. The quantitative and qualitative analysis provided evidence that the program influenced the graduates disposition and engagement with citizenship activities.

## RESULTS

Graduates from both programs identified the ES experience as having a significant influence on their present level of active citizenship. All the participants interviewed volunteered in their community or beyond in one form or another. What was most important in the findings was the range and types of volunteerism in which many of the ES alumni appeared to be involved, including initiatives that related to environmental, social justice or humanitarian causes or programs. Further, some alumni were involved in initiatives not only at a community level but also on a global scale. A 2012 Statistics Canada Report on volunteering among youth of the same age cohort as the ES 10 Alumni indicated the most common form of volunteerism was in the areas of sport, arts and culture while engagement in environmental or humanitarian-related organizations and causes was much less common (ISSP, 2012; Vezina & Crompton, 2012).



ISSP Citizenship 2004 Survey: Category (Political Social Action – Overall mean comparison)  
Note. Canadian normative data retrieved from ISSP (2012).



ISSP Citizenship 2004 Survey: Category (Voice/belief in significance – Overall mean comparison)  
Note. Canadian normative data retrieved from ISSP (2012).

## Voices of graduates from ES 10 and ES 11

*Collecting salt from the side of the Alaska Hwy and taking it into the chemistry lab at Yukon College and actually figuring out how much salt was present in the gravel to link to caribou highway deaths at that location, integrated chemistry, biology, and ecology. This experience as holistic learning changed how I viewed education and the world around me. (Female, 2003)*



*The extended trip in ES was an invaluable learning experience for me regarding my ability to interact and communicate with others. As we (students) were tangled in socially intense learning environments (due to traveling with many adolescents), we were forced to learn and adapt to other peoples behavior. My ability to communicate has continued to grow and is an integral part of my job. I started learning about tolerance, empathy, charity, and patience when I was in ES, and it has allowed me to grow into the medical provider that I am today. (Male, 1998)*



*One of the things I learned from ES is that everyone has a voice; it's all about how you say what you want to say. One of the most important things is to learn about the matter yourself and not rely on what others (e.g. pamphlets, protestors, etc.) are trying to convince you of. Do your own research, learn about it and you will have a stronger voice for it. People are more likely to listen to a knowledgeable person than a passionate, one-sided rant. And you might learn something yourself that changes your view of what others are saying. Being open to other people's opinions is as much a part of having a voice as knowing what to say. (Male, 1998)*



*It was a crucial development point in our youth, we were allowed to experiment in a safe environment. Personal development through exploration grew to have strength in self which lead to sense of responsibility. There were demonstrated tangible benefits to include: communities based on values, personal growth, and a support network based on mutual trust developed skills leading to higher level of confidence and belief in oneself. Being responsive and taking responsibility was encouraged... Working through real-life problems with community members gave us something to care about. (Male, 2003)*



*ES had a profound impact on me, without ES I wouldn't have had the courage to make a global impact through my involvement through Red Cross. I headed Centennial Red Cross and felt strongly that you can make a difference and encourage others to do so. (Male, 2003)*



*The program showed us concrete examples of community commitment and activism. In university, I founded the non-profit organization: Africa Canada Accountability Coalition (Female, 2004)*

## Key Learning Environment Features for Active Citizenship

