A Lesson in Climate Change Education: Examining how Climate Change is taught in the Nova Scotia Public School Curriculum

Barbara Alber, BA Combined Honours in Environment, Sustainability & Society and International Development Studies
Supervisor: Dr. Matthew Schnurr, Department of International Development Studies

1 Climate Change Education (CCE) in Nova Scotia

- The world’s youth will experience the brunt of the negative impacts of Climate Change, and have to be prepared to live with its impacts.
- CCE can be used to spread valuable information about Climate Change to youth.¹
- Unfortunately, 75% of Nova Scotian educators state that there is an absence of CCE in the mandatory curriculum.²

2 CCE Frameworks

- Literature splits CCE teaching methods into two frames:
  - Scientific: teaches the scientific processes of Climate Change³
  - Interdisciplinary: teaches the social, economic, cultural, consequences of climate change³
- Multiple sources state that Interdisciplinary framework teaches about climate change more comprehensively, and has greater long term benefits for students.⁴

3 Methods

- The Grade 9-12 curriculum was read, with any instance of CCE recorded in Excel
- Data was sorted by grade, discipline, course code, curriculum subject, and the specific way CCE was used
- Using these categories as a guide, data was then grouped into two frameworks (Scientific & Interdisciplinary) (Fig. 1)
- Frameworks were measured by frequency to discern the dominant framework of the curriculum
- The specific ways CCE is used was also recorded (Fig. 2)

What is the dominant framework of Climate Change Education (CCE) in the public Nova Scotia curriculum?

- 33 curriculum documents read
- 4200 total pages read
- 20 years of curriculum studied, 1996-2016
- 13 curricula found with CCE
- 42 total records of CCE found

Figure 1: Frequency of CCE Frameworks

- 54% Interdisciplinary Frame
- 46% Science Frame

Figure 2: Specific Use of CCE

- Example of other concept
- Single lesson/assignment
- Overarching learning goal

4 Results

- The Nova Scotia Curriculum teaches CCE from a primarily Interdisciplinary Framework
- There are 22 records of Interdisciplinary CCE, and 19 records of Scientific CCE. (54%/46%)
- This split is close to even; thus, CCE in the Nova Scotia 9-12 Curriculum is fairly well rounded
- CCE is used in three main ways: to compliment other subjects, as a theme for individual lessons and assignments, and as an overarching learning goal of some curricula
- This split is also fairly even, but overall, climate change is most often referenced briefly, as an example of another concept or to compliment other subjects.

5 Recommendations

- Based on the results of this study, CCE in the curriculum is well rounded, but not without some flaws:
- There is relatively little CCE within the curriculum (42 records within 4200 pages)
- Most environmental education focuses on other environmental issues, such as deforestation, oil spills, etc
- The curriculum could be considered outdated: the median publishing year of the documents read was 2003
- Updating material, including more CCE, and creating lessons that focus solely on climate change related content could improve the curriculum.

References: