

# ENVIRONMENTAL ATTITUDES IN DALHOUSIE'S ESS PROGRAM: A QUANTITATIVE ANALYSIS

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## Background

Each year, the Environment, Sustainability, Society (ESS) Program at Dalhousie sends a survey to all students enrolled in an ESS course. The ESS Student Survey includes demographic questions, followed by a standardized survey used to measure environmental attitudes, known as the New Ecological Paradigm (NEP) scale.<sup>1</sup>

## My Question:

Have ESS students' environmental attitudes changed over the course of the past nine years?

## The NEP Scale

### What is the NEP Scale?

The most popular validated survey tool used to measure environmental attitudes.<sup>2</sup>

### How does it work?

Participants respond to 15 statements on a scale of 1-5; where 1 represents strong disagreement, and 5 represents strong agreement. Responses for all 15 statements are then averaged into a single NEP score.<sup>3</sup>

8 statements reflect a pro-ecological worldview, and 7 statements reflect an anti-ecological worldview. Scores for anti-ecological statements are reverse-coded when calculating total NEP score.<sup>3</sup>

## Methods

### 1. Data Compilation

- Combining data into a single 'master sheet' document.

### 2. Descriptive Statistics

- Calculating means and standard deviations for each independent variable.

### 3. Inferential Statistics

- Running ANOVAs and t-tests to locate significant differences in the data.

The NEP's Five Dimensions of an Ecological Worldview:

1. Limits to Growth



2. Anti-Anthropocentrism



3. Fragility of Nature's Balance



4. Rejection of Exemptionalism



5. Possibility of an Eco-crisis



## Results

### Year of Survey (2013-2021)

- No significant difference reported.

### Faculty of Study

- BManagement scores were significantly lower than BA and BSc scores (Figure 1).

### Level of Education

- First year versus third year scores were significantly different (Figure 2).

### Limits to Growth

- Significant decline in scores (Figure 3).

### Anti-Anthropocentrism

- No significant difference reported.

### Fragility of Nature's Balance

- No significant difference reported.

### Rejection of Exemptionalism

- No significant difference reported.

### Eco-crisis

- Significant increase in scores (Figure 4).

Figure 1.

'Faculty of Study' average scores, all survey years.

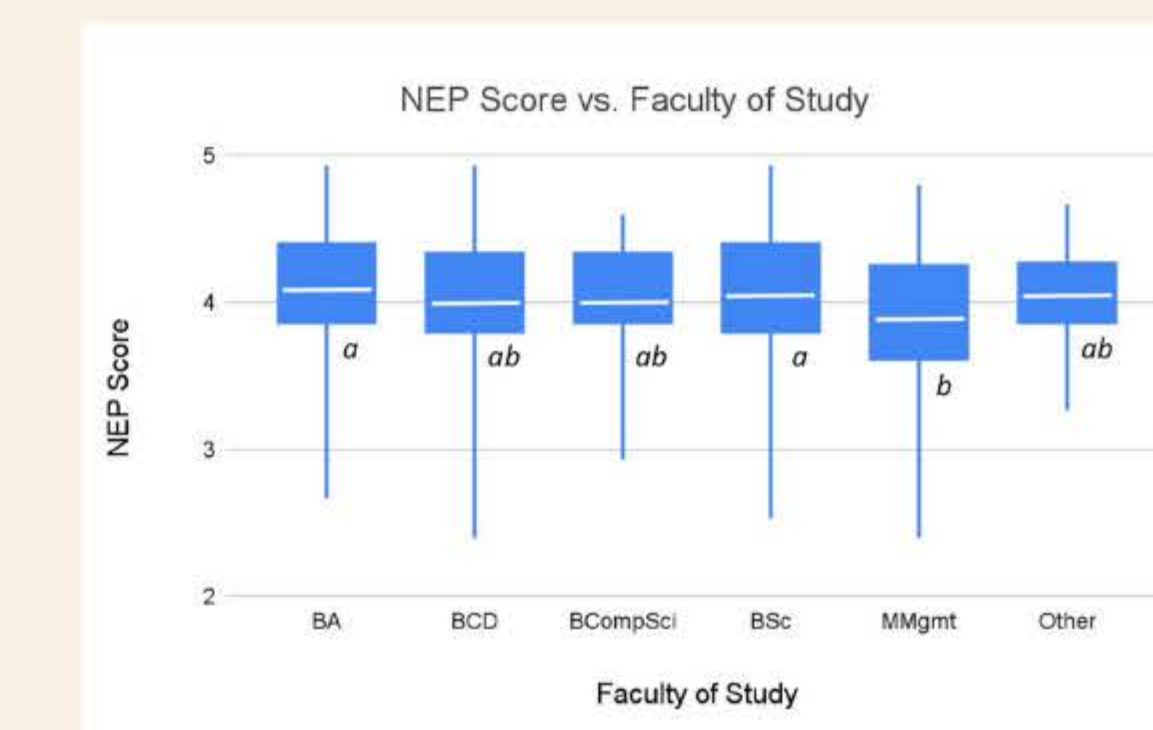


Figure 2.

'Level of education' average scores, all survey years.

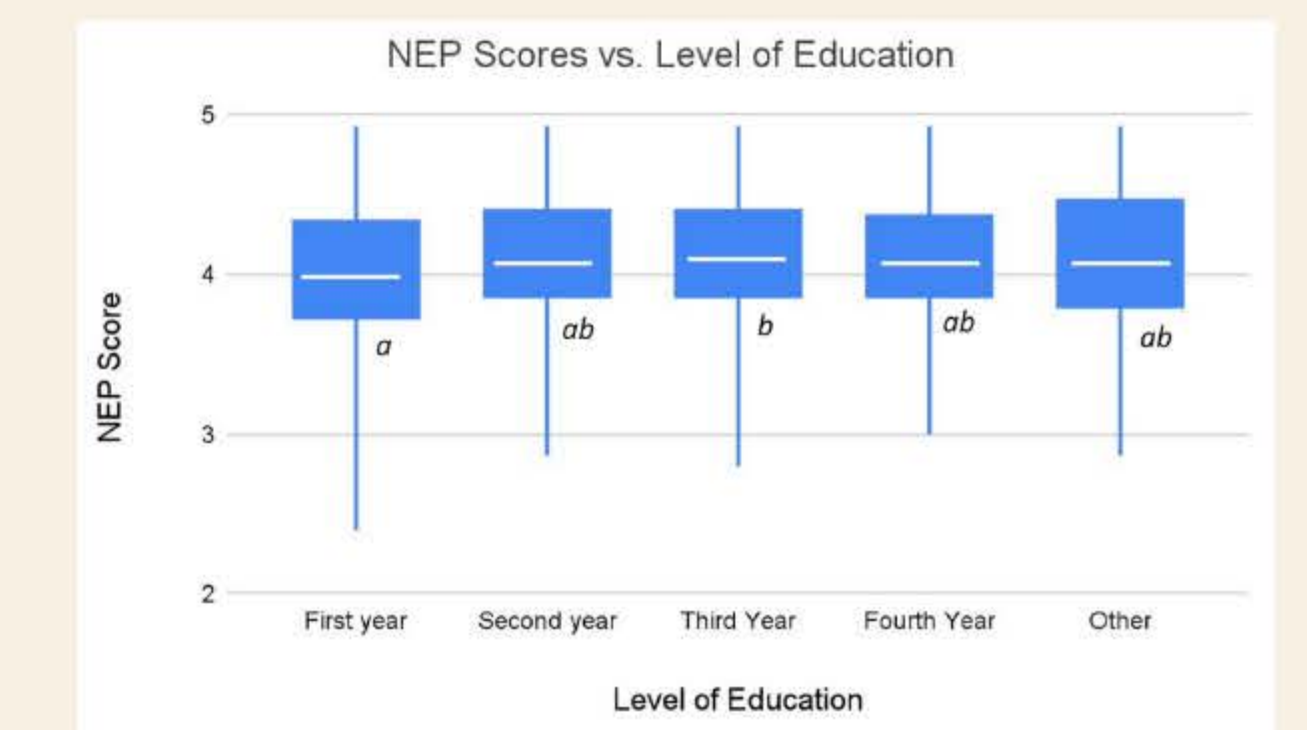


Figure 3.

'Limits to Growth' average scores (2013-2021).

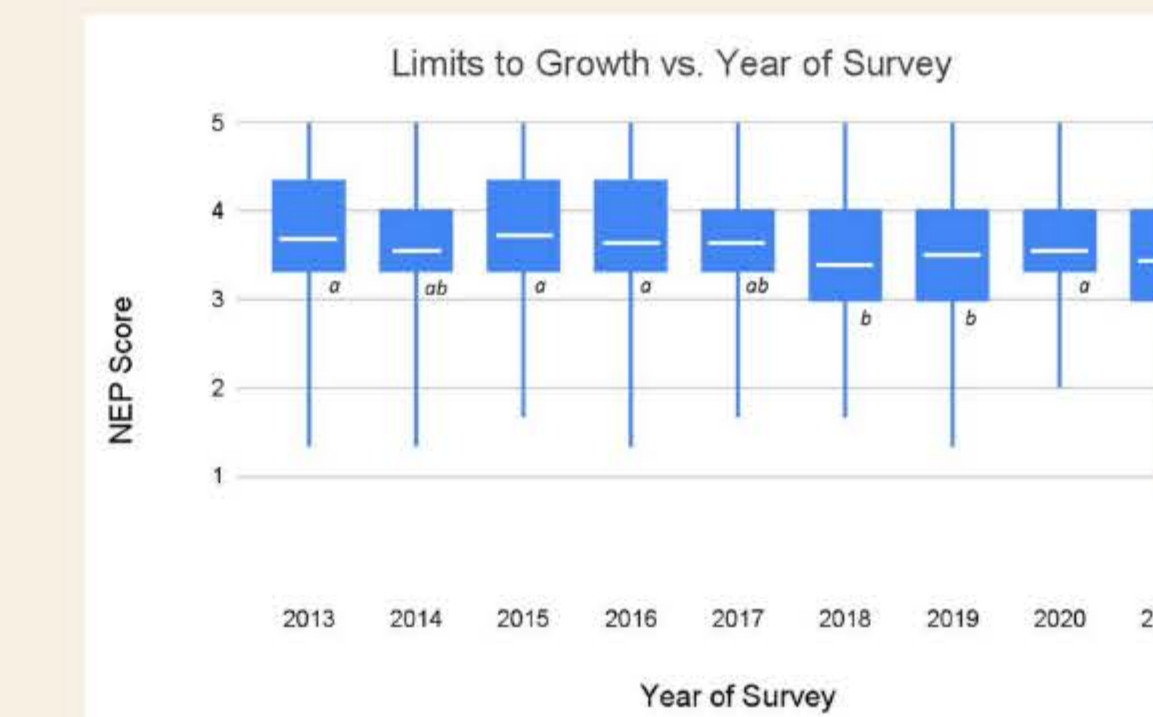
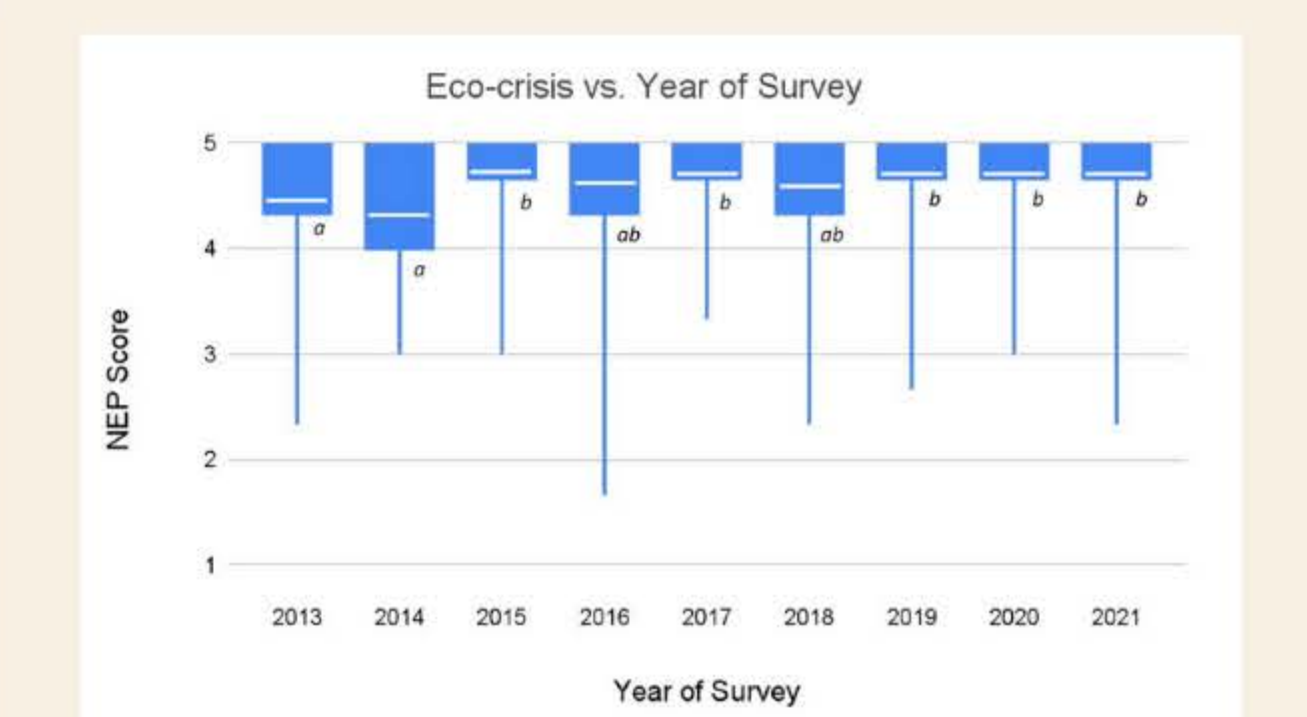


Figure 4.

'Eco-Crisis' average scores (2013-2021).



Note. Data points with different letter connotations represent significantly different values.

## Discussion

- Decreasing scores in the 'Limits to Growth' dimension and increasing scores for the 'Eco-crisis' dimension are balancing each other out.
- 'Limits to Growth' survey items are outdated and might be confusing for students.<sup>4</sup>
- Very high 'Eco-crisis' scores demonstrate that students possess strong awareness about the significance of climate change.
- Comparatively low scores from students in business has been a consistent finding throughout the literature.<sup>5</sup>

### References

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## Conclusions + Looking Forward

For the ESS program and other post-secondary sustainability programs interested in measuring students' attitudes, I'd recommend using an attitude measurement scale that is more contemporary, more specific in its language and concepts, and ideally one that is tailored to the context of post-secondary students.

- Integrate another reputable EA measurement tool into the ESS Student Survey to replace the NEP Scale.
- Keep the NEP in the survey, but pair it with another attitude measure to obtain more specific information.