

The Use of Multimedia Aids by Elementary School Teachers in the Effective Communication of Environmental Education

MScSM

Master of Science in Sustainability Management UofT

CASE STUDY: ONTARIO

Syeda Hasan | SSM1101Y | Supervised by Dr. Jodie Jenkinson

BACKGROUND

- Current progress has given way to numerous anthropogenic environmental problems such as, but not limited to, increasing GHG emissions, cross-boundary air and water pollution, increase in climate change refugees, and a rise in social justice issues pertaining to minority and vulnerable communities.
- The issue of 'generational injustice' has also been raised as children and youth have no choice but to inherit social and ecological problems which they have had very little part in creating. It is children who have the largest stake in the future and who will ultimately have to suffer through the consequences of the today's detrimental decisions.
- It is society's responsibility to equip children with the attitudes, values, knowledge, and skills necessary to rethink and change current patterns of action so that they can create a sustainable future.
- Environmentally educated teachers are crucial in getting children, particularly those within the early childhood and elementary school age categories, to become aware of, and take action for environmental issues through the medium of environmental education in school settings.
- Unfortunately, the concept is not heavily embedded in curriculums and educational policies and practices. Many teachers do not have a clear understanding of environmental education and often lack the expertise and knowledge needed to convey the information to their students. Despite the existence of multiple resources and recommendations, the lack of awareness causes teachers to rely on traditional forms of teaching aids such as textbooks and hand-outs, which often fail to engage students.

METHODOLOGY

- Evaluation tool (survey) created using online form creator (Google Form)
- 25 questions: 14 close-ended/quantitative + 10 open-ended/qualitative
- Question themes: (1) Awareness of EE & the current state of environmental education in Ontario (2) Opinions and experiences with specific multimedia aids to assist in the teaching process
- Disseminated to elementary school teachers through 26 Facebook groups created by Ontario teachers to share resources and advice
- Response rate: **N=27**
- Data automatically collated by form creator to produce basic descriptive statistics

RESEARCH QUESTION

- How can the use of multimedia resources assist elementary school teachers in Ontario in their efforts to teach environmental education concepts?

SUPPORTING QUESTIONS

1. What is the level of awareness of elementary school teachers in Ontario regarding environmental education and the associated documents created by the Ontario Ministry of Education?
2. If awareness is present, to what extent do elementary school teachers in Ontario follow the recommended guidelines and examples provided in the documents?
3. Are multimedia resources currently being used in the classroom?

(EE) IN ONTARIO

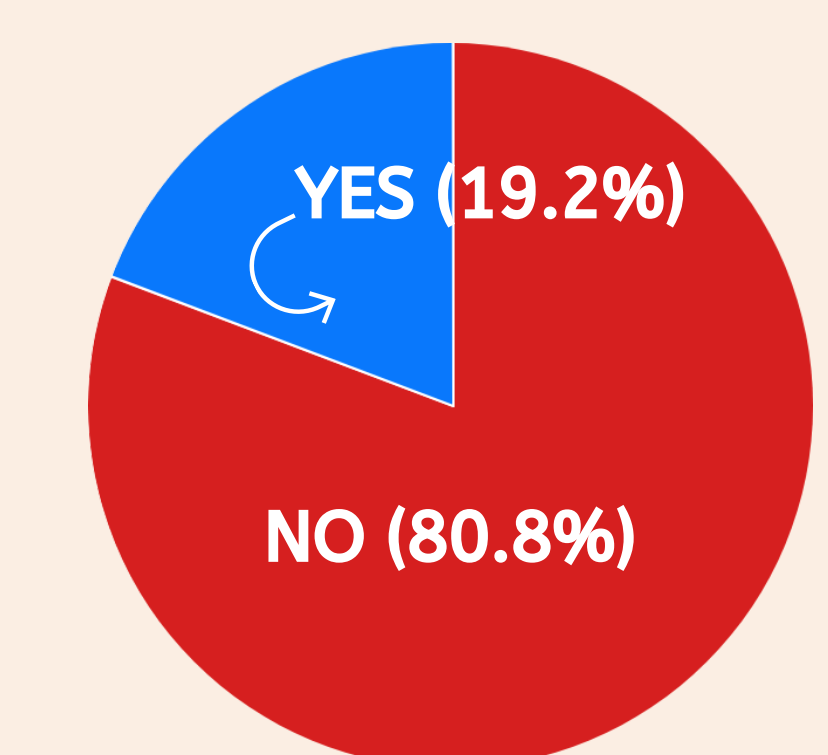
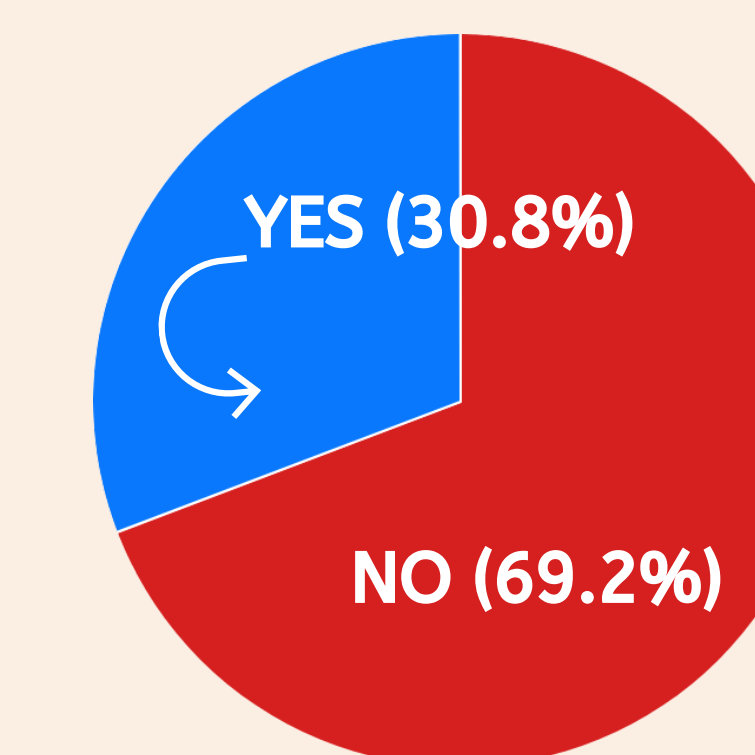
- **1973**: Environmental Science courses formally introduced
- **2007**: OME formed the Working Group on Environmental Education. Working Group produces the Bondar Report with 32 recommendations on fulfilling environmental education needs and implementing successful teaching and learning methods
- **2007**: OME created Ready, Set, Green! which lists contributions by schools and school boards across Ontario in the form of tips, techniques, and resources created to cater to the needs of teachers, principals, educators, school councils, parents, and community members.
- **2008**: OME created the Standards for Environmental Education in the Curriculum containing a list of statements around community, knowledge, perspectives, and action for curriculum writers to utilize when including environmental education expectations.
- **2009**: OME created Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools which provides implementation strategies, examples and indicators that would allow schools to map the development and measure the progress of their implementation of environmental education
- **2017**: OME updated Environmental Education: Scope and Sequence of Expectations (The Kindergarten Program, Grades 1-8) which includes expectations pertaining to environmental education and environmental concepts for teachers to refer to when creating course plans.



KEY RESULTS

AWARENESS OF EE + MINISTRY CURRICULUM & DOCUMENTS

- Are you aware that Ontario has a separate Environmental Education curriculum?
- If you are aware, have you had the chance to review it?



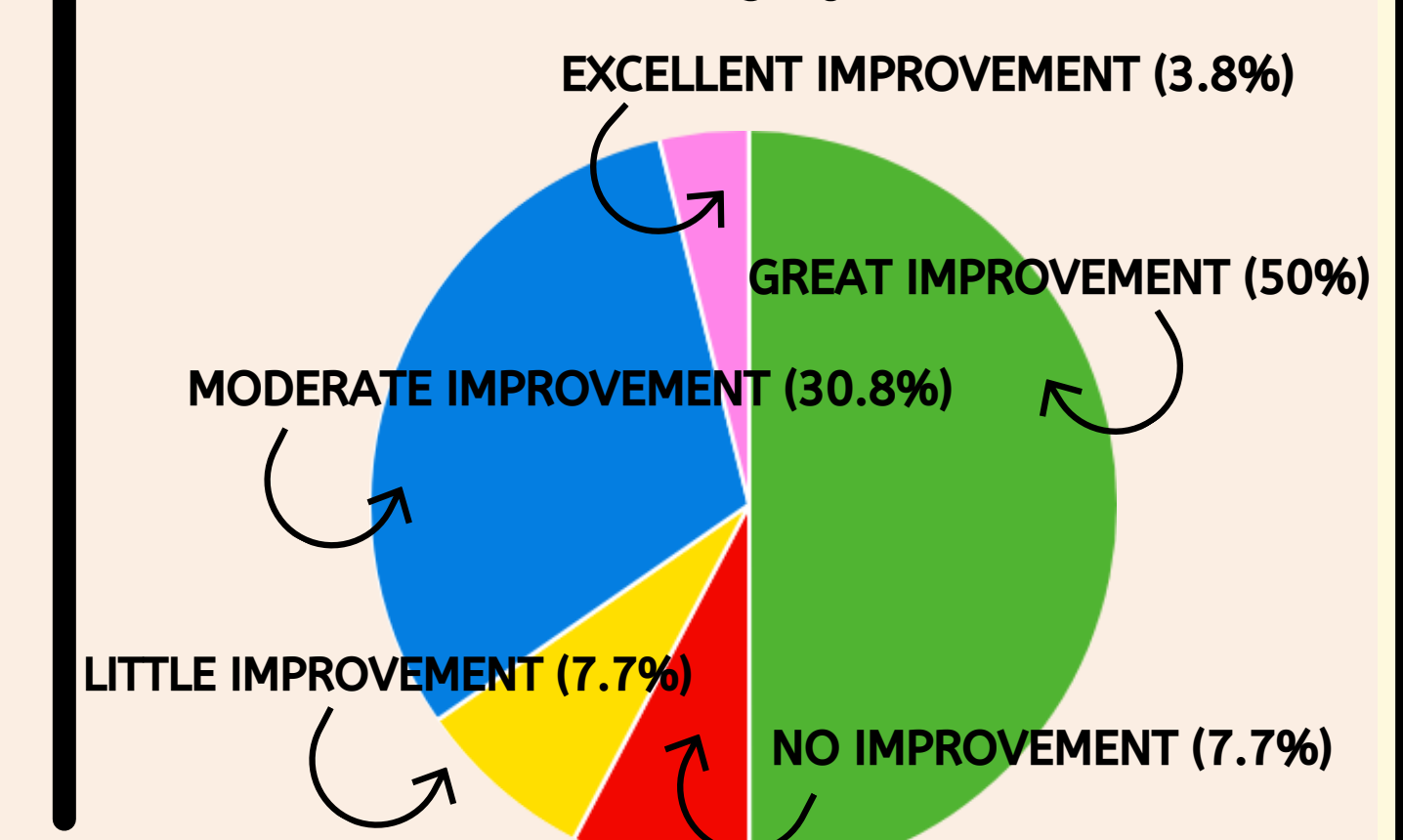
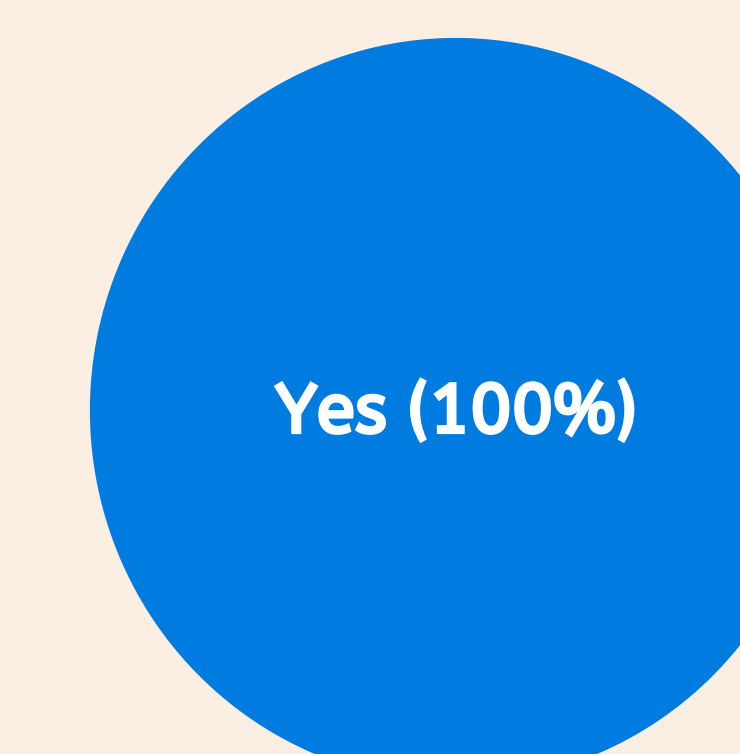
Should the EE guidelines be included in the teaching process? Why, or why not?

"I just found the environmental education document online and I'm embarrassed and ashamed that I didn't even know it existed. I'm disappointed that we haven't received any professional development around this."

- Survey Respondent

USING MULTIMEDIA IN THE TEACHING PROCESS

- Do you use visual and/or multimedia aids in your teaching?
- If you use visual aids, do you see an improvement in student performance and understanding of EE?



What are some changes you have seen in students' personal sustainability habits? (As a result of using multimedia aids)

"The more they see images of the harm done to the Earth the more real they understand Environmental degradation to be. Images of young people helping out lets students understand they are not helpless. Videos of plants, creatures etc. they might not otherwise see because the plants, creatures etc. are from another region. (They) are helpful to develop an interest in the conservation of the world rather than just the local environment."

- Survey Respondent

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