Factors Contributing to Ontario Secondary School English Teachers' Inclusion or
Exclusion of Environmental Education

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the degree of Master of Teaching
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ABSTRACT

Environmental education is an increasingly integral aspect of public education throughout Ontario as well as Canada, with schools across the country implementing conservation guidelines, recycling programs, and environmentally-conscious curriculum. The Ontario Ministry of Education promotes the inclusion of environmental education in all subject areas, but the English curricula for grades nine through twelve currently contain fewer than ten explicit recommendations on how to teach environmental topics and skills to high school students in English classrooms. This study aimed to discover what factors inform Ontario secondary English teachers' inclusion or exclusion of environmental education as part of their curriculum in light of the fact that the Ontario Ministry of Education does not provide guidelines or recommendations on how to implement environmental education into the secondary English classroom.

**Keywords:** secondary, English, environmental education, Ontario
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CHAPTER 1: INTRODUCTION

Introduction to the Study

Earth, our beloved planet and home to all carbon-based life forms, has always been a climatologically- and geographically-changing planet. From the first signs of life to the shifting of subterranean tectonic plates to the concrete-filled heat-generating cities of today, Earth's atmosphere and surface have constantly changed in response to natural and human-made phenomena. Beginning in 1962 with Rachel Carson's book about pesticides and environmental pollution – *Silent Spring* – people became more aware of and began to pay more attention to how humans have contributed to the destruction of Earth's environment (Griswold, 2012). For the past 52 years, scholars, scientists, and social activists have worked to promote the importance of environmental protection, and while some ideas have been successful, our planet still suffers at the hands of its population. Endangered species are poached for money, construction rips through entire ecosystems, and humans create a vast amount of waste that ends up in landfills, underground bunkers, and oceans.

So what can be done to combat environmental damage? Numerous non-profit groups exist that raise awareness and promote conservation, but another demographic can also contribute to the ongoing discussion surrounding these issues: teachers. Teachers are uniquely equipped with power to educate about and affect change regarding environmental problems and practices, but only if they actively pursue teaching environmental education within their classrooms.

In the introductory text to her book, *Teaching Secondary English as if the Planet Matters* (2012), Sasha Matthewman writes, "the true worth of a school subject is revealed in how far it can account for and respond to the major issues of the time" (p.ii). The Ontario Ministry of
Education (OME) has attempted to respond to the rise in environmental awareness and activism by modifying the existing curricula and producing resources to help school boards, administrators, and teachers with the implementation of environmental education. The OME publication, *Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools* (2009), stated the following goal for environmental education in Ontario: "By the end of Grade 12, students will acquire knowledge, skills, and perspectives that foster understanding of their fundamental connections to each other, to the world around them, and to all living things" (p.11). The OME acknowledges the importance of environmental education and is visibly working to update curricula and mandate environmentally-themed lessons, but some subjects lend themselves more easily to environmental topics than others (OME, 2011, p.3-4). As will be shown below, English is not one of those subjects.

At the time of this study, the most recent OME publication on environmental education is *Environmental Education Grades 9-12: Scope and Sequence of Events* (2011). The document proposes to provide updates to the existing curricula that will guide educators in teaching environmental topics. The first sentence of the section pertaining to instruction in English courses states: "none of the expectations in the English curriculum explicitly addresses environmental education" (p.68). The OME itself acknowledges a lack of direction and content concerning environmental issues, which is problematic for English teachers seeking strategies for teaching environmental knowledge and skills. The remainder of the English section contains six recommendations for updating or modifying the 2007 curriculum, but four of the six are copied verbatim from the existing text within the 2007 curriculum and do not offer additional explanation or direction. Despite the OME saying they are implementing document updates, little had been done by the 2011 publication, and nothing has been done since 2011. Only two
recommendations expand on what has already been printed by offering additional ways to insert environmental education into the existing standard (OME, 2011, p.69-70). So even though the OME valorizes the inclusion of environmental education, they have published very little and have acknowledged forthright the dearth of standards for English teachers trying to teach environmental education.

As a pre-service English educator in Ontario public schools, I am taught to teach according to OME standards and expectations. Upon scouring the existing curricula and policy documents pertaining to secondary English education, I was appalled to find a lack of information on how to teach environmental topics in secondary English classes. As I widened my search to include scholarly articles and supplementary, non-Ministry publications and online resources, I was again surprised to find a lack of information on how to teach environmental topics within English education. As the Ministry bluntly stated and as my preliminary research revealed, environmental education is not easily inserted into the English curriculum, and few guidelines and recommendations exist for English teachers. So even though the OME has worked to update the curriculum, the process is ongoing and incomplete (OME, 2011, p.3).

**Purpose of Study**

In light of the global importance of environmental awareness and the apparent lack of OME guidelines, references, and recommendations, this study aimed to discover what factors inform Ontario secondary English teachers' inclusion or exclusion of environmental education as part of their curriculum. A vigorous literature review and two interviews with current secondary English teachers in Ontario formed the bulk of this study, ending with a discussion and analysis of participant responses. By conducting this study, I hoped to provide a look at how English
teachers are teaching environmental education with few specific directions from the OME, how they decide to teach environmental education, and from where they are getting information about how to teach environmental education, specifically within English courses. Ideally, the OME will continue to update the English curriculum to reflect environmental topics and skills, but this study aims to unearth what factors are at work in the interim.

**Research Questions**

The primary research question of this study was as follows: *What factors inform Ontario secondary English teachers' inclusion or exclusion of environmental education as part of their curriculum?* The secondary sub-questions of this study were as follows:

- How do secondary English teachers define "environmental education"?
- Do secondary English teachers feel that environmental education has a place in the English classroom?
- What needs to happen in order for every secondary English teacher to include environmental education as part of their English curriculum?

**Background of Researcher**

I am a teacher candidate in the Master of Teaching program at the Ontario Institute for Studies in Education at the University of Toronto (OISE, UT). My undergraduate degree is in English from the Franklin College of Arts and Sciences at the University of Georgia (UGA) in the United States. I immigrated to Ontario in 2010, and I was immediately faced with hitherto foreign recycling and conservation practices required by my municipality. Aside from a summer study abroad program in Oxford, England, I had not seen or been taught how to separate
recyclables and biodegradables from waste. Moving to Ontario and managing a household with my husband succinctly taught me a wealth of information concerning recycling, conservation, and sustainability practices. After beginning to study at OISE and completing a practicum placement in a public high school that practiced and heavily promoted recycling, I began to see just how pervasive environmentalism is across Ontario; schools, business, and communities work together to promote awareness of environmental problems and practices.

Also at OISE, I had the opportunity to attend an environmental conference with workshops and lectures based on environmentally-friendly practices and environmentally-conscious teaching strategies. Both workshops I attended stressed the importance of adapting each subject’s curriculum to include environmental education, but neither offered suggestions on how to do so within any subject. I spoke with several of my colleagues after the conference, and many of them expressed similar frustration at having been repeatedly told the importance of environmental education without hearing any recommendations on how to teach environmental topics or skills. The importance of environmental education is widely recognized; the practical directions and guidelines are needed, especially if teachers are going to include environmental education in their classrooms.

Elsewhere, I have experienced and encountered various things that have contributed to my interest in environmental education within English education. One of the literature courses I took at UGA focused entirely on literary characters’ interactions with and in nature. A history lecture I attended examined manmade destruction of and harm to the environment over the last 100 years. Perhaps the most seminal factor in choosing to research how to implement environmental education into English education, however, stemmed from searching the Ontario English curriculum for the word “environment.” I found fewer than ten occurrences, including
conjugations, and I began to wonder whether any English teachers were actually teaching environmental education within their classrooms.

Aside from a newfound and growing concern for environmental issues and topics, I am passionate about constructivist pedagogy. I firmly believe that a learner-directed approach to education that emphasizes students’ active participation in learning new concepts is more successful than passive reception of a lecture or handout. The student drives the pace of learning as teachers adapt their methods and tools to build upon the student’s existing knowledge and interest bases. My preference for constructivist teaching has pushed me to focus continually on the ever-changing interests of students, and currently, many students are environmentally-conscious and inquisitive, as is evidenced by the increase of practices-based sustainability clubs and adherence to community recycling programs (Chan, 2012). I want to respond to their queries and facilitate their awareness, knowledge, and skills surrounding environmental issues, and I want to do so by utilizing OME standards, even when they are lacking.

By conducting this study, I hope to explore how OME curricula shortcomings have affected secondary English teacher practices concerning environmental education and what other factors may affect their inclusion or exclusion of environmental education as part of their curriculum.

Overview

This research proposal contains five main chapters. In Chapter 1, I provide details on the study including an introduction, purpose of study, research questions, and background of the researcher. Chapter 2 is a literature review wherein I provide a definition of “environmental education” and an overview of the existing body of work about the inclusion or exclusion of
environmental education in English classrooms. Chapter 3 is a methodology that describes every step I took to complete this study. Chapter 4 lists and details all of my findings, grouped by codes and explored through analysis. Finally, Chapter 5 closes the paper with a discussion of the study and its limitations, implications, recommendations, and questions.
CHAPTER 2: LITERATURE REVIEW

Introduction to the Literature Review

I approached the literature review by searching for scholarly articles describing environmental education from theoretical, practical, and English content-specific perspectives. As Bruce (2011) writes in her article, *Green(ing) English: Voices Howling in the Wilderness*, I, too, prepared to find that environmental education is “either a matter of little importance or something only relevant to ‘science geeks’” (p.13). The lack of guidelines within the OME curricula and policies contributed to my expectations, and I did find a large bevy of information available for environmental education paired with teaching of science and math. However, I did find several articles covering various aspects of English environmental education, including recommendations for top-down and grassroots change of existing standards and practices. What I found can be grouped into three overarching categories that support the purpose of the study and provide information related to my research questions: definitions of and perspectives on environmental education, reasons to teach environmental education, and reasons not to teach environmental education. Throughout the literature review, I focused on what the OME has published as well as scholarly articles and books.

Defining “Environmental Education”

Before delving into the findings of the literature review, I will first provide the definition of “environmental education” that the OME uses and references throughout its literature. I am providing this definition and not another organization or author’s definition because my methods will be entirely centred on Ontario teaching practices and teachers. The definition is as follows:

Environmental education is education about the environment, for the
environment, and in the environment that promotes an understanding of rich and active experience in, and an appreciation for, the dynamic interactions of the Earth’s physical and biological systems, the dependency of our social and economic systems on these natural systems, the scientific and human dimensions of environmental issues, and the positive and negative consequences, both intended and unintended, of the interactions between human-created and natural systems. (OME, 2007c, p.6)

**Reasons to Teach Environmental Education**

The reasons to teach environmental education in the English classroom are varied and include the overarching needs to educate about topical issues, update the curriculum, educate about local and global issues, and take into account student wants and needs. The literature revealed three benefits of teaching students about the environment: promoting diversity, thinking about the future, and supporting community.

*The Overarching Need*

The need for environmental education in all subjects is stressed across OME documents (2009, p.3; 2008, p.1; 2007c, p.1). The Ministry recognizes the need for students to learn environmental topics and skills, and the Ministry acknowledges its role in providing the knowledge of those topics and skills, writing that “it is critical that [the Ministry] help students understand how our individual and collective behaviour affects the environment, and how environmentally-responsible lifestyles can contribute to healthy, sustainable ecosystems” (2009, p.3). In the policy framework *Acting Today Shaping Tomorrow: A Policy Framework for*
Environmental Education in Ontario Schools (2009), the OME promises to update policy documents concerning environmental education annually in order to help teachers and schools implement environmental education, but the most recent update to environmental policy was in 2011, which is two years before this proposal (p.12). As noted in the above introduction, the OME continually promotes environmental education in all content areas but does not provide concrete guidelines on how to do so within English classrooms, nor does the OME provide updates as promised.

Although the subjects of science and math lend themselves more readily to environmental education, the need for environmental education in the English classroom is just as strong, especially in the increasing globalization and awareness of the world in which we live. As Matthewmann (2011) denotes, “if English is to be a topical subject then it needs to be informed and responsive in relation to the discourse and debates of the environment” (p.96). The OME proposes to infuse all subject areas with environmental education by continually updating the curriculum, and several studies support this practice as a primary need for increasing environmental education teaching practices (OME, 2007c, pp.13-14; Selby, 2000; Horwood, 2004; Russell & Burton, 2000).

The overarching need for environmental English education is evidenced by the OME’s publications and several studies, all of which emphasize curriculum change as the primary change needed to increase environmental education within English classes.

The Scale of Needs

Environmental education – within English and any other subject – contributes to student comprehension of and engagement with environmental issues on two scales: local and global.
Students have the potential to work through local environmental issues, learning about their homes and communities as well as environmental knowledge and practices (Bruce, 2011; Jewett, 2011; Matthewman, 2011; OME, 2009). Bruce (2011) further writes, partly paraphrasing Sobel’s (2004) findings, that local education is “a way to inspire stewardship, love for home place whether urban or rural, and an authentic renewal and revitalization of civic responsibility that brings education back to the neighborhood” (p.21). Students have the potential to connect to global environmental issues through exposure to and analysis of large-scale environmental problems and practices (Colarusso, 2010; Horwood, 1994; Moroye, 2011; Selby, 2000).

Colarusso (2010) discusses how English teachers have a natural advantage to educate for global environmental education, writing that “language and literature are always windows to the world and powerful tools for global consciousness and social transformation” (p.453).

The scale of needs for English environmental education includes the ability to learn about and engage with environmental issues at the local and global scale, which further increases the need for secondary English teachers to teach environmental topics and practices.

Students’ Needs

In addition to Ministry publications stressing the need for environmental education, students themselves are interested in and have vocalized their need and want to engage in learning about the environment. Several studies have published student comments and questionnaire answers that show students are aware of and concerned about environmental issues (Jenkins & Pell, 2006; Jewett, 2011; Russell & Burton, 2000). Russell and Burton (2000) reported that polled students in Ontario “indicated their desire to learn about nature, environmental issues, and environmental advocacy” (p.294).
Students’ voices are likely rarely heard when policy and curriculum documents are updated or published, but, in this case, students’ opinions align with those of education officials, which further increases the need for teachers to implement environmental education.

Diversity

The OME (2009) recognizes the varied population of its student body and seeks to promote diversity in environmental education, writing, “Environmental education must address the particular needs of students as they relate to cultural background, language, gender, ability, and other aspects of diversity” (p.6). Colarusso (2010) writes extensively of the ways English can be taught to include multiculturalism, stating, “Because language and literature play a significant role in mediating cultural identity and cultural diversity, secondary English teachers face the challenge of defining their practices in response to these tensions” (p.434). Environmental education within English allows for the opportunity to approach various issues across the world simply by reading international texts and reports on environmental issues (Jewett, 2011, p.32). Thus, environmental English education readily lends itself to multicultural, international issues and points of view.

The Future

Common knowledge dictates that the youth of today are the future of tomorrow, and the OME predominantly pushes environmental education from this viewpoint:

The future of environmental solutions ultimately rests with students.

Today’s students will shape the world of tomorrow. More than ever, it is vitally important that our education system not only prepare students
academically but also provide them with the skills, perspectives, and
practices they will need to meet the social and environmental challenges
of the future. (2009, p.7)

Several studies recommend approaching environmentally-themed English lessons from the
perspective of future problems about which students will read, brainstorm, and attempt to solve
(Jenkins & Pell, 2006; Matthewman, 2011). Matthewman (2011) endorses the genres of fantasy
and science fiction as easy options for future environmental considerations, stating the following:
“Inevitably the environmental exploitation of the Earth, the fragility of the planet and the
relationship between the human and non-human are dominant themes in both genres” (p.125).

Environmental education framed within English studies can push students to consider and
“solve” future ramifications of current environmental practices.

Community

The most commonly-referenced benefit of environmental education is an increased sense
of and contribution to real-world communities (Bruce, 2011; Horwood, 1994; Jewett, 2011;
OME, 2009, 2007c; Russell & Burton, 2000; Selby, 2000). The benefits can be viewed as
reciprocal, with both the community and the school profiting. The OME (2009) writes, “the
community … has a vital role to play in providing environmental education opportunities and
linkages for the school” (p.14). Students can be given environmentally-themed assignments that
are centred in the neighbouring community or that take place outside the school and involve
working with the community and local environment (Jewett, 2011, p.35; Selby, 2000, p.92).
Community members can play more active roles within the classroom, and students can play
more active roles within the community (Bruce, 2011, p.22; Horwood, 1994, p.93).
Environmentally- and community-themed instruction and application within English classes provides students with real-world interactions and skills.

**Reasons Not to Teach Environmental Education**

Unfortunately, the literature revealed that numerous problems exist with implementing environmental education into English education. The potential problematic aspects of implementation can be grouped into four categories: a lack of educator knowledge and skills, a lack of universal model, time needed for implementation, and board resistance.

**Lack of Educator Knowledge and Skills**

A stark reality is that many English educators simply do not possess the knowledge and skills necessary to include environmental education within their teaching practices. The OME (2007c) acknowledges this problem, writing that “in the absence of specialized teacher training and expertise, there is likely a gap between the environmental education ‘intended’ in Ontario’s curriculum and that which is taught and received in the classroom” (p.2). Without educating each and every teacher on environmental knowledge, skills, and recommended teaching strategies, implementing environmental education will be problematic and unlikely to occur at all. If teachers do not know the subject material, they will struggle to teach the subject or will avoid teaching the subject.

**Lack of Universal Model**

Because environmental English education lends itself to education on the local and global scale, there is no universal or standardized model for how to infuse English education with
environmental education (OME, 2009, 2007c; Colarusso, 2010). The OME (2009) bluntly states this, writing, “There is no universal model for the implementation of environmental education” (p.4). Without a solid framework or guiding model, injecting environmental knowledge and skills into English curriculum will be difficult and “inconsistent” (OME, 2007c, p.1).

**Time Needed for Implementation**

Implementation of environmental education into the English curriculum will take time, as the OME's lack of frequent environmental publications proves. The OME (2009) repeatedly emphasizes the time needed for updating the curriculum, concluding that “realizing environmental education in Ontario schools is a long-term, ongoing process that will evolve over time” (p.25). Even in schools that have already implemented environmental studies programs, such as the Ontario secondary school studied by Russell and Burton (2000), the yearly commitment to organization and preparation is “substantial” (p.299).

**Board Resistance**

Although the OME urges school boards to implement environmental education (albeit with insufficient documents), numerous studies have found that board resistance is a key determinant in whether or not teaching practices will change to include environmental education (Horwood, 1994; Russell & Burton, 2000; Selby, 2000). Russell & Burton (2000) lament “changing board priorities” that prohibit the updating of department and teacher materials and practices to include environmental knowledge and skills (p.299). Without board support and with vocal board resistance, teachers will struggle to inform their teaching strategies with environmental education. And even with board support, as with the OME, teachers will struggle
to include environmental education, especially if the support does not deliver on what it promises.

**Conclusion**

In light of the literature reviewed for this study, several things are evident concerning environmental education within English classrooms. Primarily, the needs for and benefits of environmental English education are vast and numerous. Students need to be educated about environmental issues to increase their knowledge base, skill sets, and local and global awareness and activity. The direct benefits of learning about the environment include a promotion of diversity, exploration of the future, and support of communities. Unfortunately, the literature also reveals potential problems with environmental education implementation, which include a lack of resources, time, knowledge, and support.

Two of the articles read for this study emphasized the need for additional and ongoing research in this field (Jenkins & Pell, 2006; Russell & Burton, 2000), with Russell & Burton writing that “research … based on Canadian programs is much needed” (p.300). I agree with this statement, especially because so little is known about how Canadian English teachers are teaching environmental topics and skills, or even whether or not they are doing so.
CHAPTER 3: METHODOLOGY

Introduction to the Methodology

This study aimed to discover which factors inform Ontario secondary English teachers' inclusion or exclusion of environmental education as part of their curriculum. The qualitative research conducted sought to compile information through two one-on-one semi-structured interviews with educators who currently teach in secondary English classrooms. This methodology details all information concerning procedure, participants, data collection, analysis of data, ethical review procedures, and limitations.

Procedure

In order to begin collecting information, I first conducted a literature review to ascertain the importance of environmental studies and the current availability of resources for secondary English teachers. I searched educational and scholarly databases for information on the importance of teaching environmental skills and knowledge to students as well as common practices and recommendations regarding teaching environmental education within the English classroom. I focused on definitions of and perspectives on environmental education, particularly within English courses, as well as benefits of and issues with implementing environmental education. The existing literature revealed a knowledge break between what is recommended and what actually happens during instruction in classrooms, which mirrors the OME's mandate without direct guidelines.

Based on this knowledge gap and my desire to bridge it, I then crafted a series of semi-structured interview questions, details of which are discussed below under “Data Collection.” Ultimately, I wanted to discover what secondary teachers are actually doing in their classrooms
to integrate environmental education, and how these same teachers view their role in and
efficacy of teaching environmental education. I also wanted to learn how they defined
environmental education at a basic level and whether or not they felt it could be taught in
secondary English classrooms.

After finalizing my interview questions, I searched for participants. I began by contacting
secondary English teachers I had met or worked with in the past. I gave each of them an
overview of my research topic, a copy of my primary research question, information on the
Research Ethics Board (REB) clearance I have through OISE to conduct interviews with
individuals over the age of 18, information on confidentiality and privacy, and my email and
phone number. I gave permission for the teachers I contacted to share these particulars with other
interested parties. I also gave this information to two of my professors at OISE and asked them if
they could recommend applicable educators. I screened responses and chose my participants
based on the fact that they are currently teaching English in a high school in Ontario and they
responded to my participant requests. Originally, my criteria requested a participant who teaches
environmental education at least once a month, but I was unable to find a single educator who
self-identified in that manner, a fact which in itself reveals a lack of inclusion of environmental
education within English classrooms.

After identifying participants, clarifying expectations, addressing concerns, and receiving
signed Consent Letters from them, I arranged one-on-one interviews with the participants to ask
them my previously determined interview questions, which they did not see in advance. I
recorded each interview with a digital voice recorder, and after each interview I told the
participants I would be in touch with them after my study was complete to share my findings
with them. Both participants expressed interest in this offer and asked to be sent a copy of the final version of this study.

Immediately after I conducted each interview, I transcribed the interview verbatim with the help of Audacity® software which allowed me to slow the speed of the recording as I transcribed. After the first transcription, I reviewed my work and edited mistakes I had made. I then reread the interview transcription, making notes and marking important quotes and insights that I wanted to focus on more specifically when I began coding on the next read-through, a process which I have detailed below under “Data Analysis.”

After coding my data, I wrote a thorough analysis of my findings and their implications. This included a comparison to the findings of my literature review, a comparison among participant responses, and an examination of themes identified through coding. I looked at ways in which the data gathered reinforced or contradicted information gathered through the literature review, and I discussed data that surprised me as well as data that I expected to find.

Finally, I concluded my study by discussing how the literature review, the interview process, and the data coding and analysis answered my research question and sub-questions. I discussed implications of my research on the existing body of literature and discussed recommendations for teacher practices. I ended my study by addressing the needs for further similar research, and I discussed specific areas my research was incapable of exploring or analyzing and that need additional research.

Participants

As mentioned above, my participants are currently teaching English in two different high schools in Ontario, and they each responded to my request for participants. Before each
interview and throughout the data gathering and analysis, I took care to ensure anonymity and confidentiality was guaranteed. I assigned a fictional name of my choice to each participant, and participants’ schools, school boards, daily schedule, and any other identifying factors have been kept private. Each participant’s personal information and signed consent forms are kept in a locked storage facility and have not been seen by anyone other than myself and the participants.

Participant #1, "Bailee," is a secondary English teacher in the Toronto District School Board. She has been teaching for four years in the same school and has taught all high school grade levels in core English classes, as well as Credit Recovery.

Participant #2, "Christie," is a secondary English teacher in an independent school board located in the West end of the Greater Toronto Area. She has been teaching for seven years in the same school and has taught all core English classes for grades eight through twelve, as well as Physical Education electives, such as yoga.

**Data Collection**

I collected data through two face-to-face, one-on-one semi-structured interviews.

I chose to conduct interviews face-to-face because I wanted the participant to view me not as a mere set of questions, but as a human conducting meaningful research. I wanted my passion and concern for the topic to be evident, which I hoped would put my participants at ease, and I wanted to be able to answer questions and provide clarifications in real time during the interview.

I chose to conduct a semi-structured interview because I wanted to ask specific questions but not restrict the participant from elaborating on a topic or mentioning something related to my question but not exactly in response to my question. I did not want to “box in” either my
participant or myself by pushing us to adhere to a strict script. I wanted to be able to cultivate a conversation grouped around a series of topics that organically and easily flowed from one to the next, and so my interview questions are grouped by sections of similar topics. Each section includes a “preamble,” wherein I introduce the topic or idea of the next questions and explain the types of information I am seeking. My interview questions are listed in Appendix B.

I let my participants choose an interview location convenient for them, with my only caveat a quiet space where we would be uninterrupted. After greeting and introducing myself to each participant, we sat together and I recorded the interview with a digital recording device.

Data Analysis

After conducting each interview, I immediately listened to the digital recordings to make sure all words were clearly audible and to ascertain whether any technical issues had plagued the recording. As soon as I was able after recording the interviews, I transcribed each interview. I transcribed verbatim because I wanted every word, every pause, and every interjection to appear exactly as they did during the interview in case meaning could be found in the less-than-polished moments of the conversation.

I combed through each interview transcription, and I began to list things I noticed, such as repeated ideas, similar words, and differences among responses. I tried to do as Creswell (2013) suggested: "[reduce] the data into meaningful segments and [assign] names for the segments" (p.148). These segments became my codes, which I then organized into groups of themes.

I first identified a priori themes, which Falk and Blumenreich (2005) describe as "[utilizing] predetermined themes or categories to sort the data you have collected throughout
your study” (p.117). Essentially, I made a list of themes I expected to arise from the codes before I began sorting the codes into themes. As I worked, I found that some codes did not fit my *a priori* themes, which supports Falk and Blumenreich’s comment: "You may find evidence that just doesn’t seem to fit in any category” (p.117). I created emergent themes based on the codes that did not fit within the *a priori* themes. I then organized both *a priori* and emergent themes into overarching themes based on topic. I tabled each set of themes and began to discuss my findings. Chapter 4 contains these three tables, as well as more information about how I identified and named themes.

**Ethical Review Procedures**

As mentioned, I am a graduate student in the Master of Teaching degree program at the Ontario Institute for Studies in Education at the University of Toronto, and all students in my program receive Research Ethics Board (REB) approval to interview individuals above the age of 18, provided we work with a supervisor and follow REB protocol for ensuring privacy and confidentiality of our research participants. In my initial contact with potential and actual participants, I informed them of this REB approval and explicitly stated that I would protect their identity throughout the interview, data analysis, and publication process.

Once I had found participants, I sent each a Letter of Consent via email. A template for the Letter of Consent is included in Appendix A, and it contains information on my degree requirements, the purpose of my study, what I needed from the participant, how the participant will be protected, and the participants’ right to participate. The Letter also contained the contact information for my degree program, my research supervisor, and me.
Throughout the interview process, from initial contact onward, I made myself available via phone or email to address any questions or concerns. I reminded my participants of the option to withdraw at any time, and I continually reassured them that any identifying features would be removed. I informed my participants that each would be receiving a pseudonym chosen by me, and I explained how their identity would be completely protected during data coding, data analysis and synthesis, and publication. Before I asked the first interview question and after I began recording the interview, I verbally confirmed with each participant that they were aware of ethical procedures and their options and rights.

**Limitations**

Although every effort was made to overcome foreseeable limitations, limitations do exist. Perhaps most obvious is that I only interviewed two teachers. Time constraints prohibited a larger number of interviews, but the number of participants was also restricted by the lack of secondary English teachers who regularly (at least once a month) teach environmentally-themed lessons. Participant criteria were ultimately changed in order to find the two participants that did agree to be interviewed. This study attempts to overcome this limitation by analyzing and synthesizing the data through the lens of transferability and not generalizability, which means that information I found may be transferable to other teachers in similar environments, but the information can in no way be applied to all other teachers in similar or dissimilar environments.

Another limitation of this study is its reliance on the participants’ words as fact. I have no way to validate the answers participants give, and so I took their words as fact. While I do not believe any answer given was intentionally untruthful, I do believe a small measure of self-editing and self-promotion occurs unconsciously. I attempted to navigate this limitation by
making sure the participant felt comfortable with their confidentiality, the interview process, the data analysis process, and any other concerns they expressed in the hopes that they would feel comfortable with me and not feel the need – subconsciously or otherwise – to self-edit or self-promote. I believe my participants spoke truthfully and to the best of their knowledge, for their anonymity and self-professed dedication to their craft assuaged all initial concerns I had that they might self-edit or self-promote. Both participants spoke openly and without reserve, and I maintained a stance that was critical of the system and not of the individual teachers' practices.

A final limitation of this study is that participants may feel uncomfortable critically discussing OME – the regulator of their career, so to speak – shortcomings in terms of policy and curriculum. I am very critical of OME policy and curriculum documents throughout this study, and several of my research questions directly address OME documents, so it is feasible that the participants may have been hesitant to openly critique their employer. However, I clearly explained to each participant during the participant screening process that I was attempting to bridge the knowledge gap between what the Ministry says and what actually happens, so my critical stance should not have come as a surprise. Both participants willingly answered questions about their perceptions of the OME and the mandate to teach environmental education, and I believe both participants felt protected enough by my pledge to keep their identity anonymous to speak honestly and frankly about the OME's role in how English teachers think about and teach environmental education.

**Conclusion**

Throughout this study, much care was given to following proper REB protocol and qualitative research guidelines. I aimed to be as transparent and as professional as possible, and I
feel that I successfully crafted interview questions, analyzed data, and synthesized information, all of which resulted in a sound study that answered all the questions it initially sought to answer. Details about my findings appear in Chapter 4, followed by a discussion and conclusion in Chapter 5.
CHAPTER 4: FINDINGS

Introduction to the Findings

The Ontario Ministry of Education (OME) has mandated the inclusion of environmental education as part of every subject area in response to this worldwide concern surrounding environmental issues. Some curriculum documents have been updated to reflect this mandate, but the English documents for secondary schools have not been revised and therefore contain very few explicit environmental connections. This disconnect between mandate and practice led me to wonder if this affected whether or not English teachers are actually teaching environmental education within their classrooms, and what other factors may be affecting their practice, all of which became the basis for this study.

The two interviews I conducted revealed a plethora of factors that inform English teachers’ inclusion or exclusion of environmental education as part of their curriculum, and I defined these factors by first organizing information they provided into codes, which are simply names assigned to information. I then grouped the codes three ways, which I did with the hopes of discovering different layers of meaning within the information provided.

First, I grouped codes by a priori themes, which are themes I named prior to the interviews based on what information I expected to find. The second grouping of codes is by emergent themes, which are themes that appeared that I did not expect to find. The final grouping of codes is by overarching themes, which are themes that take all information gathered and sort them by topic.

After identifying and organizing overarching themes, I analyzed the information conveyed about each topic. I explored parallels between my participants’ responses and
information unearthed in my literature review. Chapter 5 synthesizes and summarizes all of this information, but the details and nuances are here explored.

A Priori Themes

Before I began the interview process with my participants, I thought about themes I expected to encounter. Falk and Blumenreich (2005) recommend analyzing data using such *a priori* themes, and so I began by identifying those themes on which I hoped my interview questions would specifically provide information. The three themes I began with were as follows: 1) definitions of environmental education, 2) perspectives held on the place of environmental education in the secondary English classroom, and 3) strategies for implementing environmental education into the secondary English classroom. I believed these themes would appear in my data because I felt each would factor into why Ontario secondary English teachers were or were not including environmental education as part of their instruction in the classroom. I also asked direct questions designed to gather data on these specific topics.

As expected, many of my participants’ answers provided information that complemented the three *a priori* themes I identified. I directly asked my participants to define environmental education and to give their opinion about the place of environmental education in the English classroom. I indirectly asked my participants about how to implement environmental education into the English classroom. Appendix B contains a complete list of interview questions. Column one of Table 1 on the following page depicts these three categories of *a priori* themes, and the second column of the table shows applicable codes for each theme that arose during the interviews. The superscript numerals beside the codes indicate whether the first participant\(^1\), second participant \(^2\), or both participants\(^1,2\) made a statement that provided data for the code.
### Table 1. *A priori* themes

<table>
<thead>
<tr>
<th>Table 1. <em>A priori</em> themes</th>
<th>Applicable codes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition of environmental education</strong></td>
<td>Environmental education exists outside the English classroom(^1,2)</td>
</tr>
<tr>
<td></td>
<td>The structure of environmentally-themed lessons within English classrooms is noticeably different than traditionally themed lessons(^1)</td>
</tr>
<tr>
<td></td>
<td>Environmental education is cross-curricular(^2)</td>
</tr>
<tr>
<td></td>
<td>Environmental education is practices-based(^1,2)</td>
</tr>
<tr>
<td><strong>Perspectives held on the place of environmental education in the secondary English classroom</strong></td>
<td>Environmental education exists outside the English classroom(^1,2)</td>
</tr>
<tr>
<td></td>
<td>Environmental education in the English classroom must be authentic(^1,2)</td>
</tr>
<tr>
<td></td>
<td>Environmental literacy is as important as other kinds of literacy(^1)</td>
</tr>
<tr>
<td></td>
<td>The Ontario Secondary School Literacy Test (OSSLT) prep contains environmentally-themed content for usage in the English classroom(^1)</td>
</tr>
<tr>
<td></td>
<td>Science Fiction can incorporate environmental education(^2)</td>
</tr>
<tr>
<td><strong>Strategies for implementing environmental education into the secondary English curriculum</strong></td>
<td>Professional development is needed(^1,2)</td>
</tr>
<tr>
<td></td>
<td>Environmental education in the English classroom must be authentic(^1,2)</td>
</tr>
<tr>
<td></td>
<td>School administration can play a role(^1)</td>
</tr>
<tr>
<td></td>
<td>News articles are a good resource(^2)</td>
</tr>
<tr>
<td></td>
<td>Exemplars of lessons or unit plans are needed(^2)</td>
</tr>
</tbody>
</table>
Overall, both participants responded similarly to interview questions designed to provide information applicable to the three *a priori* themes. Bailee, my first participant, and Christie, my second participant, both defined environmental education as something that is difficult to fit into the English classroom. Bailee said, “I have … no real basis for understanding what it is to teach it under the English purview – how it looks in an English classroom versus a Science or Geography classroom where it more actually fits for me.” Christie repeatedly discussed environmental education as physically existing outside the English classroom and as needing an outdoor space or alternative campus. Both Bailee and Christie used the word “authentic” when describing what environmental education must entail, and both stressed the importance of Professional Development (PD) for English teachers seeking to implement environmental education. Bailee and Christie both mentioned numerous times that environmental awareness in schools is practices-based and focused on sustainability, which they described as rooted in recycling programs, energy conservation, and school waste awareness.

Although they answered similarly regarding certain things, Bailee and Christie provided differing responses as well. Bailee mentioned a specific Ontario document – the Ontario Secondary School Literacy Test (OSSLT) prep - as a resource for environmentally-themed content, and Christie mentioned news articles and Science Fiction literature as sources of environmentally-themed content. Regarding Science Fiction literature as a resource, Christie discussed how Science Fiction and the environment are intertwined her classroom:

Right now in Grade 10 I’m doing a Science Fiction unit. … [The students] are writing their own Science Fiction stories. And a lot of the sparks for the stories will come from current environmental issues … that they sort of take to their nth degree in a hundred years in the future. So if global warming
continues on the same scale it is, what the world will look like in a hundred years and how people will survive.

Christie elsewhere mentioned that news articles provide excellent and timely environmental prompts for writing assignments. Bailee repeatedly stressed the importance of PD, as did Christie but in fewer instances, and Bailee also opined that school administration could play a role in implementing environmental education in all subject areas by providing PD specific to environmental education.

**Emergent Themes**

During the analysis processes, I began to notice several themes evolving from the data that I had not previously expected to find. This data fit into several emergent themes that I defined as follows: 1) English teachers are not exposed to or trained to include environmental education, 2) lesson plans are restricted by various factors, 3) length of time teaching is a factor, and 4) class makeup and response affects content. Table 2 below lists these themes and applicable codes, and as with Table 1 above, the superscript numerals indicate whether an individual participant or both participants provided the data.

Overall, both participants gave similar responses that comprise the emergent themes, but there were fewer similarities among responses than appeared in the *a priori* themes. Additionally, the emergent themes identified were not always composed of information contributed by both participants. For example, the emergent theme "length of time teaching is a factor" was something about which only Bailee talked.
Table 2. Emergent themes

<table>
<thead>
<tr>
<th>Emergent themes</th>
<th>Applicable codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>English teachers are not trained to include environmental education</td>
<td>There is a focus on how we teach, not what we teach(^1)</td>
</tr>
<tr>
<td></td>
<td>English teachers feel under-qualified to teach environmental topics and skills(^{1,2})</td>
</tr>
<tr>
<td>Lesson plans are restricted by various factors</td>
<td>Lessons are planned around themes(^{1,2})</td>
</tr>
<tr>
<td></td>
<td>Amount of time spent / available for lesson planning is a factor(^1)</td>
</tr>
<tr>
<td></td>
<td>Common assessments dictate content(^2)</td>
</tr>
<tr>
<td>Length of time teaching is a factor</td>
<td>Amount of time teaching is related to whether or not environmental education is taught as part of the English curriculum(^1)</td>
</tr>
<tr>
<td>Class makeup and response affects content</td>
<td>Students do not respond differently to environmentally-themed content(^1)</td>
</tr>
<tr>
<td></td>
<td>Students do respond differently to environmentally-themed content(^2)</td>
</tr>
<tr>
<td></td>
<td>Course content is dependent on each group of students(^{1,2})</td>
</tr>
</tbody>
</table>

Bailee response\(^1\), Christie response\(^2\), both response\(^{1,2}\)

In terms of similarities, both Bailee and Christie stressed that they feel under-qualified to teach environmental topics and skills. When asked directly if she felt qualified to teach environmental education in her classroom, Bailee responded, “Not at all.” Christie responded by saying that she felt comfortable with the minimal amount of environmental content she was already teaching – 10% of overall course instruction, in her estimate – but that she had no idea how to implement environmental education into a greater percentage of her instruction. Both participants described their lesson plans as thematically-based, and both mentioned that environmental education does not easily fit into the themes around which they currently plan and teach. Both participants also acknowledged that their course content is dependent on each group of students, although they disagreed with how students respond to environmentally-themed
content, which I further explain below. Bailee spoke about this in terms of individual class makeup, and Christie talked about this in terms of overall student body composition. When asked if students have responded to the content of environmentally-themed lessons, Christie said, “Students will … try to bring other subject matter in, and they are really, which I love about them, they’re really open.”

In terms of dissimilarities, both participants provided several different perspectives that contributed to the emergent themes. Bailee talked about how teachers are focused on teaching skills more than content: "There is a focus on how we teach, not what we teach." She also mentioned that the length of time she has been teaching – four years – and the amount of time available for lesson planning are factors affecting why she does not teach environmentally-themed lessons more than five times a semester. Christie discussed the fact that her school utilizes common assessments, and so she must cover the knowledge and skills for which the existing common assessments will evaluate. Bailee and Christie responded oppositely when asked if students respond differently to environmentally-themed content than they do any other type of content in the English classroom. Bailee said students do not respond differently, and Christie said students do respond differently. Neither Bailee nor Christie elaborated on what they meant by these statements, but other information gathered from the interview revealed that they both believed students respond differently to different things depending on the people that they are, which can affect the content teachers choose to teach. The inconsistencies in their responses lead me to wonder if perhaps Bailee and Christie are not exactly sure how students respond to environmentally-themed content, but they are both confident that course content and instruction methods are often contingent on class composition.
Overarching Themes

The more I sifted through the codes that fit within the *a priori* and *emergent* themes, the more I found similarities among codes that did not correspond to the two themes. I began to regroup codes based on the new similarities, and as I regrouped I found that the new themes better corresponded to my research sub-questions. Table 3 below shows my final grouping of codes into overarching themes. Noticeably different between the preceding tables and Table 3 is the lack of superscript numerals denoting which participant provided the information; this change occurs because I feel that the overarching themes and ideas I am working with are of value to this study regardless of which participant said what specific bit of information and because so many things were said by both participants.

I found that two of the *a priori* themes – definitions of environmental education and perspectives held on the place of environmental education in the secondary English classroom – were similar enough in nature and contained enough alike or identical codes that I wanted to combine them. The first new category I created this way is called “definition and perspectives.” The codes applicable to this new category describe environmental education both in and outside the secondary English classroom as my participants view it.

The second new overarching theme is called “reasons to include environmental education in the secondary English classroom.” This theme includes codes that depict my participants’ positive views about including environmental education within the English curriculum, which aligns with several points discovered in the literature review about the benefits of including environmental education, something I discuss in the next section: Analysis of Overarching Themes.
## Table 3. Overarching themes

<table>
<thead>
<tr>
<th>Overarching theme</th>
<th>Applicable codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitions and perspectives</td>
<td>Environmental education exists outside the English classroom&lt;br&gt;The structure of environmentally-themed lessons within English classrooms is noticeably different than traditionally themed lessons&lt;br&gt;Environmental education is cross-curricular&lt;br&gt;Environmental education is practices-based&lt;br&gt;Environmental education in the English classroom must be authentic</td>
</tr>
<tr>
<td>Reasons to include environmental education in the secondary English classroom</td>
<td>Environmental literacy is as important as other kinds of literacy&lt;br&gt;The Ontario Secondary School Literacy Test (OSSLT) prep contains environmentally-themed content for usage in the English classroom&lt;br&gt;Science Fiction can incorporate environmental education&lt;br&gt;News articles are a good resource</td>
</tr>
<tr>
<td>Reasons to exclude environmental education in the secondary English classroom</td>
<td>Professional development is needed&lt;br&gt;Exemplars of lessons or unit plans are needed&lt;br&gt;School administration can play a role&lt;br&gt;There is a focus on how teachers teach, not what they teach&lt;br&gt;English teachers feel under-qualified to teach environmental topics and skills&lt;br&gt;Lesson plans are restricted by thematic units, amount of time available for lesson planning, and common assessments</td>
</tr>
</tbody>
</table>
Amount of time teaching is related to whether or not environmental education is taught as part of the English curriculum
Course content is dependent on each group of students

The third new overarching theme is called “reasons to exclude environmental education in the secondary English classroom.” This theme includes codes that portray my participants’ negative views about and roadblocks to including environmental education within the English curriculum. This theme also includes codes wherein my participants discussed things that should happen in order for secondary English teachers to include environmental education as part of their taught curriculum, which directly corresponds to my third research sub-question: What needs to happen in order for every secondary English teacher to include environmental education as part of their English curriculum?

Not included in the new three-theme organization are my participants’ thoughts on whether or not students respond differently to environmentally-themed English lessons. Because my participants’ conflicting responses, I feel that the only information worth categorizing is that they both expressed the opinion that course content can be dependent on differing groups of students, which is actually further evidenced by their conflicting responses. This last opinion is now coded under “reasons to exclude environmental education in the secondary English classroom” because both participants felt that class composition can be a factor in whether or not environmentally-themed lessons can work.

Analysis of Overarching Themes

The more I organized and reorganized my codes, the more I began to see parallels between information my participants gave and information my literature review detailed. Once I
grouped codes into overarching themes, I realized exactly how closely their responses aligned with my literature review, and I have here noted those similarities, in order of overarching theme.

Definitions and Perspectives

My participants defined environmental education as encompassing a number of different aspects.

Overwhelmingly, they talked about environmental education as something that physically exists outside the English classroom. This is similar to the OME (2007c) definition which lists "in the environment" as a part of environmental education (p.6). This also recalls Bruce's (2001) comment that environmental education is "either a matter of little importance or something only relevant to 'science geeks'" (p.13). My participants' responses support the idea that environmental education is something that occurs physically in the environment or belongs to another subject area.

My participants were both concerned that environmental education in the English classroom must be authentic, which Merriam-Webster's Online Dictionary defines as "real or genuine; true." My participants worried that they would be teaching environmental education to unsympathetic ears because the students would not view the topic as authentic to their lives. Russell and Burton (2000) reported that polled students in Ontario "indicated their desire to learn about nature, environmental issues, and environmental advocacy" (p.294). This poll and several other studies have shown that students are aware of and interested in environmental issues (Jenkins & Pell, 2006; Jewett, 2011, Russell & Burton, 2000). Thus, students would likely view environmental integration within any subject area as authentic to their lives, especially if teachers worked to help students make connections between the topics and the students.
Reasons to Include Environmental Education in the Secondary English Classroom

My participants gave few responses about why they believed environmental education should be included in the secondary English classroom, and most of their reasons had to do with easy resources for such inclusion. They mentioned three specific resources: the Ontario Secondary School Literacy Test (OSSLT), Science Fiction literature, and news articles. Colarusso (2010) writes about such tools at English teachers' disposal, saying, "language and literature are always windows to the world and powerful tools for global consciousness" (p.453).

In particular, the resource Christie alone mentioned – Science Fiction literature – is one that fits within a major finding of my literature review: encouraging thought about the future is a benefit of teaching students environmental education. The OME (2009) promotes this benefit, writing that "the future of environmental solutions ultimately rests with students" (p.7). Matthewman (2011) endorses the genres of fantasy and science fiction as options for teaching environmental education, and other studies recommend approaching environmentally-themed English lessons from the perspective of future environmental problems (Jenkins & Pell, 2006; Matthewman, 2011).

One reason my participants gave to include environmental education in the secondary English classroom that does not involve resources is that environmental literacy is as important as other kinds of literacy. I, personally, define literacy as the ability to understand and communicate information appropriate to a specific environment. Multiple types of literacies are taught in schools, including math literacy, English literacy, computer literacy, and media literacy. Different literacies are applicable to post-secondary careers, such as business literacy, trade literacy, or a specific sport literacy. Expectations exist around the ways to converse about things given the parameters of the conversation. Environmental literacy is no different. Jewett
Johnson (2011) writes, "environmental education within English allows for the opportunity to approach various issues across the world simply by reading international texts and reports on environmental issues" (p.32). If students need to read international texts and reports on environmental issues in order to fully understand and explore environmental issues, then they must be fluent in environmental terms and concepts, which will only come through environmental education across all subject areas.

**Reasons to Exclude Environmental Education in the Secondary English Classroom**

My participants overwhelmingly gave more reasons to exclude environmental education in the secondary English classroom than to include.

Their primary reason for not including more environmentally-themed lessons in their own practice was that they felt under-qualified to teach environmental topics and skills. This belief directly corresponds to what the OME (2007c) itself acknowledges: "in the absence of specialized teacher training and expertise, there is likely a gap between the environmental education 'intended' in Ontario's curriculum and that which is taught and received in the classroom" (p.2). Both of my participants' responses proved the truth of the OME's words. Also with these words, the OME acknowledges another belief expressed by my participants: professional development (PD) is needed.

Both of my participants mentioned specific types of PD they would need in order to feel more qualified to teach environmental education. One type of PD would be to explore and copy exemplars of lessons or unit plans. The lack of existing exemplars is a problem also noted in my literature review, with the OME (2009) itself bluntly stating that "there is no universal model for the implementation of environmental education" (p.4). Colarusso (2010) also...
bemoans this lack of a universal model, especially when it comes to implementing environmental education within the English classroom.

**Conclusion**

In spite of a number of differences, both of my participants expressed similar views about how environmental education is defined, the place of environmental education, and the reasons why environmental education is excluded or included in the English curriculum. Their statements concerning environmental education provide insights into why they do or do not include environmentally-themed lessons within their English classroom, which I explore more fully in the next chapter.
CHAPTER 5: DISCUSSION

Introduction to the Discussion

Environmental education in Ontario secondary schools has largely consisted of instruction about sustainability practices – behaviours that are designed to preserve Earth’s resources and reuse specific types of waste such as plastics, glass, and decomposable items. Green Teams comprised of faculty and students facilitate school-wide recycling programs, and many schools participate in fundraising efforts to replant displaced trees or save acres of an endangered ecosystem halfway around the world (TDSB, 2013).

While sustainability practices are important to Earth’s future, the Ontario Ministry of Education (OME) has dictated that every teacher of every subject should include direct instruction of environmental topics and skills as part of their taught curriculum. So not only will students be learning sustainability from practices-based school-wide programs, but also students will be learning about the environment through the lens of specific subject areas. The OME has promised to update curriculum documents to reflect this dictation and to support teachers, but the secondary English curriculum has yet to be modified to reflect this mandate. This study aimed to discover what factors inform Ontario secondary English teachers’ inclusion or exclusion of environmental education as part of their curriculum.

In general, the participants in this study responded similarly to interview questions designed to ascertain how they viewed environmental education and their opinion on how it fits into their classrooms. Three overarching themes emerged from the information they provided: definitions and perspectives, reasons to include environmental education in the secondary English classroom, and reasons to exclude environmental education in the secondary English classroom. Information within each of these sections answers my primary and secondary
research questions, and I explore below how these findings answer each question. Under the heading "Explanation and Evaluation of Findings," I discuss my findings through how they answer each of my sub-questions, ending with my analysis of how my primary research question is answered. I then discuss implications, limitations, recommendations and remaining questions.

**Explanation and Evaluation of Findings**

Sub-Question One: *How do secondary English teachers define "environmental education"?*

Both participants in this study defined environmental education as something existing primarily outside the English classroom but with the potential to be cross-curricular and as being practices-based. They also noted that the structure of environmentally-themed English lessons may be structured differently from typical English lessons about literature or grammar, but they did not clarify exactly how the structure differs; they simply repeated that it did. In terms of environmental English education, my participants stressed that lessons must be authentic. I synthesized their comments and the resulting codes into the following definition of "environmental education":

> Environmental education is intrinsically based in the Sciences and in sustainability practices but has potential for cross-curricular applications provided lessons are structured in a specific way and are perceived as authentic by the students and teachers.

This definition corresponds to my first sub-question as well as provides insights into my participants' beliefs and practices. For example, the fact that both participants' almost identically defined environmental education as centered in the Sciences has likely influenced their inclusion of environmentally-themed lessons into their taught curriculum. If teachers feel that it is not
intrinsically a part of secondary English curriculum content, then they will be less likely to
include it when lesson planning. Their definition does not at all encompass everything that the
OME (2007c) says is a part of environmental education:

   Environmental education is education about the environment, for the environment, and in
   the environment that promotes an understanding of rich and active experience in, and an
   appreciation for the dynamic interactions of the Earth’s physical and biological systems,
   the dependency of our social and economic systems on these natural systems, the
   scientific and human dimensions of environmental issues, and the positive and negative
   consequences, both intended and unintended, of the interactions between human-
   created and natural systems. (p.6)

However, the OME definition does not include specific mention of cross-curricular education or
the importance of fine arts education integration with environmental education. Seemingly, the
OME and teachers are unsure of how best to define environmental education so that it is
applicable to and accessible from all subject areas taught in Canadian secondary schools.

   Another insight can be garnered from my participants’ beliefs that environmentally-
   themed English lesson look different from other types of English lessons. As stated above, both
   participants struggled to define exactly how the structure differed, but they both provided
   answers that resulted in a specific code about structure. The fact that teachers think the structure
   is or must be different may have resulted in their lack of planning these lessons, especially if they
   feel the structure is more difficult to construct than all of their other lessons. Or it could have
   resulted due to the lack of exemplars and guidelines provided by the OME.

   Of importance to note here is that the definition I synthesized from my participants’
definitions of environmental education does not touch upon exactly what type of content or skills
should be taught; they mentioned only the context of where and how it should be taught. This lack of specificity as to what exactly environmental education consists of tells me that my participants may be open to including it in their taught curriculum, but they still do not know what exactly that looks like in or how to describe it in regards to the English classroom.

Ultimately, my participants’ acknowledge the place of environmental education in the secondary English classroom, but they do not know exactly how that looks and they think it must be structured differently and authentically. I further explore these thoughts in the section below.

Sub-Question Two: Do secondary English teachers feel that environmental education has a place in the English classroom?

As mentioned above, both participants acknowledged the cross-curricular potential for environmental education, but they were not able to define exactly what this looks like in an English classroom. Several of their comments fit within a theme I called "reasons to include environmental education in the secondary English classroom," and their comments here provide information about their perspectives on why environmental education can actually work in their classrooms.

Both expressed the opinion that environmental literacy is just as important as other kinds of literacies. This opinion was further emphasized by Bailee's comments about the Ontario Secondary School Literacy Test (OSSLT). Bailee said that she uses the OSSLT prep materials as sources for environmentally-themed English lessons, and that the OSSLT itself may contain environmentally-themed content. Christie mentioned two types of writing that can easily incorporate environmental education: Science Fiction and news articles. Colarusso's (2010) study supports utilizing literature as a means of accessing environmental education.
Based on their comments, it appears that both participants feel that environmental education does have a place in the secondary English classroom even if they do not exactly know what this looks like or how to define it for the English classroom. Several inferences can be made from their specific comments listed above.

First of all, if the OSSLT prep and actual test contain environmentally-themed content, then this appropriately reflects the OME's mandate that all teachers teach environmental education within their subject areas. This fact alone should be enough to encourage English teachers to teach environmental education. If our students are going to be faced with this type of content, then we teachers need to make sure they encounter it within the classroom first so that nothing on the OSSLT is foreign to them. If students are not taught environmental education within the context of a secondary English education, then they may not perform to the best of their abilities when they do encounter these topics on major tests.

Another point that can be made is that many different types of genres exist within fiction and non-fiction, and many of them easily lend themselves to environmental education in the English classroom. Christie mentioned Science Fiction and news articles, and she also pointed out that future-predicting activities can incorporate environmental education. A simple way for English teachers to begin to include environmental education could look as easy as intentionally choosing futuristic literature that automatically includes environmental issues. Several studies explored in my literature review support such forward-looking education, recommending approaching environmentally-themed English lessons from the perspective of future problems about which students will read, brainstorm, and attempt to solve (Jenkins & Pell, 2006; Matthewman, 2011).
Ultimately, both participants gave responses that proved that they do believe environmental education has a place within the secondary English classroom, and they gave several examples of how this could look. However, they also gave many reasons why they and their colleagues do not frequently include environmental education within their classrooms. I explore these reasons below under my third and final sub-question.

Sub-Question Three: *What needs to happen in order for every secondary English teacher to include environmental education as part of their English curriculum?*

Although my participants do feel that environmental education has a place in the English classroom, they listed several reasons why they believe many teachers, including themselves, include it as part of their curriculum. Each of their responses can be framed as things that should be remedied in order for more secondary English teachers to include environmental education as part of their taught curriculum.

The reason for exclusion most-mentioned by both of my participants was the lack of professional development (PD). Both Bailee and Christie emphasized the importance of PD so that English teachers will know exactly what is expected of them in terms of including environmental education. They also both mentioned that PD could include exemplars of lessons or unit plans that explicitly show how to craft an environmentally-themed English lesson for secondary students. The OME (2009) tersely acknowledges this shortcoming, writing that "there is no universal model for the implementation of environmental education" (p.4). In an earlier publication, the OME (2007c) writes about the "gap" between what environmental education should be and what it is, something they attribute to lack of educator knowledge and skills (p.2). The fact that both Bailee and Christie want such PD proves that they are willing to do as the
OME mandated, but they acknowledge their lack of ability to do so and believe the OME is responsible for providing or facilitating specific PD to help them do so. Bailee said that school administration can play a role in both providing PD and supporting teachers as they begin to teach environmental education, but she acknowledged that administrators are already overburdened and would likely be unwilling to provide additional support without the OME directly requiring them to do so. I personally believe that both of my participants are scared of teaching something with officially-designated importance without knowing exactly how to do so. Perhaps their readiness to blame the lack of PD belies a discomfort and a fear with the subject matter at hand.

A final interesting comment made by Bailee is that there is currently a focus on how teachers teach and not what they teach. She said that the ways in which teachers facilitate learning are of more importance than the content teachers teach, which reflects the current movement away from the teacher as expert model of education. She further explained this comment by referencing the secondary English curriculum's focus on skills and not content. She believes that if certain content is mandated, as environmental education is, then the curriculum documents must appropriately reflect that. Bailee was highly aware of and in agreement with my exact reason for this study: the OME mandated something without appropriately revising other documents, thus making the inclusion of environmental education in English classrooms an infrequent if not altogether absent practice.
Primary Research Question: What factors inform Ontario secondary English teachers' inclusion or exclusion of environmental education as part of their curriculum?

As discussed above, many factors affect whether two secondary English teachers have included or excluded environmental education within their English classrooms. I have synthesized the above information into a statement that I believe encapsulates all of the primary factors that affect secondary English teachers' curriculum content, as revealed by my participants' comments and my observations gathered from their comments and the literature reviewed:

English teachers include or exclude environmental education as part of their curriculum directly as a result of how they define environmental education, how they believe it fits within their classrooms, and whether or not they receive support and PD for implementing environmental education.

Several implications, both personal and broader, emerged from the analysis of these findings, and I detail these implications below.

Implications

Personally, my findings affected me in several different ways. As a teacher, I was struck by my participants' emphasis that environmental literacy is another important type of literacy, much in the same way math literacy or media literacy is important. I had never before considered just how many types of literacies exist, and how one of my greatest jobs as an educator will be to ensure my students are sufficiently able to communicate with and work within these varying literacies. I believe that the OME is responsible for updating the English curriculum, but I also believe in the power of individual teacher agency in this instance. Although including environmental education without specific PD or exemplars may be challenging, the importance
of environmental education remains, and it is up to me as the teacher to take whatever steps I can to include something I find important. I would like to explore different types of literacies within my own classroom, and I want to make sure I communicate with my students about why certain literacies are valued in certain circumstances.

Broadly, my findings have multiple implications for the education community at large. While my findings are not generalizable to the entire population of secondary English teachers in Ontario, they are transferable, which merely means that because my study was qualitative in nature and involved only two participants, their comments can be related to other - but not necessarily all - teachers' experiences and opinions. For secondary English teachers in particular, my findings contain great potential for them to evaluate their own practices and begin to pinpoint how they can work toward including environmental education as part of their taught curriculum.

Another implication of this study is that the OME, like many overarching organizations, fails to put theory into practice. They have lovely, globally-important ideas, which they require others to implement, and they do not provide specifics on how to do so. The OME needs to take a look at their own words, specifically their comments about updating the existing curriculum documents, and they need to keep their promise to update documents and provide guidelines (2007c, 2011).

As I have stated elsewhere and as many educators, researchers, and policy-writers likely may state also, there is a huge knowledge gap between policy and practice, recommendations and guidelines, and preparation and execution. The participants in this study blamed this gap on external parties: the OME, their school boards, and their administrators. Both of the participants expressed the idea that if the government is going to require something, then they must show exactly how to implement it. Although I did not have an opportunity to interview any OME
policy-writers, school board representatives, or administrators, I wonder if their explanation for the gap would sound similar, or if they would lay the blame squarely on a lack of teacher initiative. This discussion then creates the question of who is responsible for teaching teachers how to teach something, a question for which I do not have an answer.

Recommendations

While conducting this study, I began to compile a list of recommendations I believe should happen as a result of this study. I have grouped them here by to whom I am making the recommendation.

For myself, I recommend continuing to follow the OME’s publications concerning environmental education. I plan on watching for curriculum revisions and additional publications concerning how to teach environmental topics and skills within the secondary English classroom. I also plan to continually revise this study as new information is published, and I would like to interview additional participants and broaden my literature review where possible.

For current teachers, I recommend discovering exactly what the OME requires, and then find a way to do it, regardless of whether or not the OME tells you how to do so. Part of the joy of being a teacher, at least for me, is finding creative and different ways to facilitate learning. Sometimes, exact templates or guidelines do not exist for exactly what I need, and so I create something from scratch, cross my fingers, and take a risk with my students. Teachers can and should employ their own agency when it comes to their curriculum, and risk-taking is a necessary part of growing as an educator.

For the OME, I recommend remembering the promise to update all curriculum documents. I also recommend finding a way to poll and listen to teachers about their concerns.
surrounding mandated content, especially if their curriculum documents are skills-focused, and not content-focused, as is the case with the current secondary English curriculum documents.

For the education community at large, I hope that additional research continues that is focused on environmental education within all subject areas. Many courses promote the interconnectedness of all humans on Earth, and those same courses should include environmental education as our world is constantly in flux as a result of natural and human-made phenomena.

Limitations

While I feel that my study was successful and sufficiently answered my primary and secondary research questions, several limitations persist that affect the overall study and that might be modified for future studies. The number of participants is a major limitation of this study, and while the number does not change the transferability of my results, a larger number of participants would have enriched the study and provided a greater wealth of perspectives and information.

Another limitation of this study is that it only includes teacher perspectives. I feel that, were it possible to do so, including perspectives of curriculum writers, OME representatives, administrators, and students would expand the perspectives and data herein presented in invaluable ways. The participants interviewed both mentioned and questioned the role of other figures in the field of education, and I wish that I had been able to include their opinions in addition to teacher opinions.

Still another limitation of this study is that both of my participants were located in and had always taught within the Greater Toronto Area, an urban region in Southern Ontario. Although I did speak to teachers at two different boards – one public and one independent – they
both are a part of urban areas. If I had included participants from suburban and rural areas, I
would have broadened and deepened my research.

Other limitations of this study have to do with me as a researcher. This is the first
qualitative study I have conducted, and I can see several improvements that can be made to each
section of this paper. I was also limited by time and resources available for this study, in
particular time and money to travel outside of my home area to conduct interviews.

**Remaining Questions**

Several questions remain at the close of this study.

In particular, I want to ask my participants some follow-up questions. *How exactly does the structure of environmentally-themed English lessons look different from other English lessons? What type of content does environmental education cover?*

Additionally, I would like to know the perspectives of other persons involved in education: administrators, OME representatives, and students. I would ask them similar questions as I asked my participants, but I would ask specific questions of specific groups as well. To administrators: *Do you think you are responsible for PD for new content areas? Who determines what PD you offer your teachers?* To the OME: *When are you going to update the English curriculum to reflect your seven-year-old mandate? Are you responsible for providing PD for teachers for new content areas?* And to students: *Do you care about the environment? Do you want to learn about the environment in all of your classes?*

I would also like to explore this research topic through the lens of multiple literacies, something around which this study danced but did not engage fully. I am also interested in
learning if literacy education PD can support environmental literacy instruction or if environmental literacy functions as something else entirely.

I would also like to revisit this study in a few years time to ascertain whether or not the English curriculum has been finally updated to reflect the mandate, and then I would be interested in re-conducting the study to find out if the updated curriculum has affected English teachers' inclusion or exclusion of environmental education. I would also include a conversation and exploration of the taught, null, and hidden curriculum, and how teachers' inclusion or exclusion of environmental education contributes to the messages they are sending their students about what is important enough to be taught, what is unimportant enough to be excluded, and what are the side effects of those decisions.

Conclusion

Several factors inform Ontario secondary English teachers' inclusion or exclusion of environmental education as part of their curriculum. English teachers are unsure of how to define and how to include environmental education as part of their English curriculum, and so they are unlikely to include many – if any – environmentally-themed lessons. My participants readily acknowledge their lack of capability to teach environmental education, and they stress the importance of exemplars, PD, and collegial support. One participant in particular touted the OME's responsibility to update the curriculum and provide PD since they mandated teachers must include environmental education in every subject area.

Interestingly, although my participants spoke of the importance of environmental education and how it naturally paired with certain types of writings that would easily fit within their respective curricula, they continually mentioned the difficulty with teaching those types of
writings from an environmental standpoint or through an environmental lens. Their inexperience with and self-expressed lack of capability with environmental topics and skills definitely shape their current practices.

Ultimately, these two secondary English teachers understand the importance of teaching environmental education within every subject, but they need more guidance and instruction on how to do so.
References


Appendix A: Sample Letter of Consent and Consent Form

[Date]

Dear [Participant],

This is a letter inviting you to participate in a research project regarding recommended practices for teaching environmental education within English education.

My name is Holly D. Johnson, and I am a Master of Teaching candidate at the Ontario Institute for Studies in Education at the University of Toronto. As part of my degree requirement, I am studying environmental English education and what recommended practices secondary school teachers in Ontario employ to teach environmental education. Your knowledge, expertise, and experience will provide me with a rich source of information.

In order for me to conduct research with you, I request your permission for the following:

To conduct and digitally record an interview with you that will last around 30 minutes.
To compile data from the interview into a research paper and oral presentation.

The interview will be arranged to take place at a time and location that is convenient for you, provided it is a place that is quiet and unlikely to be interrupted. Only my supervisor and I will have access to the recording of the interview, and your identity and responses will be kept anonymous. All data will be stored in a secure place and will be destroyed no later than five years from the completion of this study.

Your participation in this study is entirely voluntary. You may refuse to answer any question during the interview, stop the interview, or withdraw from the study at any time for any reason.

If you have any questions or concerns, please contact me or my supervisor by phone or email, listed below.

Thank you for your help.

Sincerely,

Holly D. Johnson
Holly D. Johnson
Researcher
Researcher
dnjohnson@mail.utoronto.ca

[Research Supervisor Name] [Research Supervisor]
[Researcher contact info]
Consent to Participate

[ ] I wish to participate in this OISE / UT project as outlined above.

[ ] I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw at any time without penalty.

Participant’s Name (printed) ________________________________

Participant’s Signature ________________________________

Date ______________________
Appendix B: Interview Questions

Hello. Thank you for taking the time to participate in this study with me. Before we get started, I’d like to remind you that you are able to withdraw from the study at any time, including during the interview. You can stop the interview at any point for any reason, whether you’d like to take a break or need clarification on a question or for any other reason. Whatever you need - just let me know. Do you have any questions before we begin?

Ok, this interview has been organized to learn about your teaching practices and opinions concerning environmental education, so some questions will be specific, and some will be general. Please feel free to elaborate or add any additional information you think may be relevant to the study. And as always, please stop me if you have any questions or concerns.

1. How long have you been teaching in Ontario?
2. What classes do you currently teach?
3. What does a typical day look like for you?
4. In your estimate, how many minutes or hours do you spend each week lesson planning?
5. What types of sources influence your lesson planning? (These can be Ministry documents, department sources, personal preferences, etc.)
6. Do you ever consult environmentally-themed sources when lesson planning?
   a. IF YES >>>
      i. What types of sources have you used?
         1. [Do you ever consult Ontario Ministry documents?]
      ii. How did you find these sources?
      iii. What prompted you to look for these sources?
      iv. On average, how frequently do you teach environmentally-themed or environmentally-conscious lessons? (Monthly, weekly, etc.)
      v. Have any students specifically commented on the content of these lessons?
      vi. Have any students responded differently – either through participation or assessment – to these lessons?
      vii. How qualified do you feel to teach environmental education as part of your curriculum?
   b. IF NO >>>
      i. Why not?
      ii. What would you need as a teacher in order to start teaching environmentally-themed English lessons?
7. In your own words, how do you define “environmental education”?
8. In your opinion, do you think environmental education has a place in the secondary English classroom?
9. Do you think other secondary English teachers are teaching environmental education within their classrooms? WHY OR WHY NOT?
10. What do you think needs to happen in order for every English teacher to include environmental education as part of their curricula?
And that concludes our interview. Is there anything you’d like to add that I have not specifically asked about?

Thank you for your time, and I really appreciate your willingness to participate in this study.