ISLAMIC ENVIRONMENTAL STEWARDSHIP THROUGH ABORIGINAL SPIRITUAL ECOLOGY
HOW MUSLIM STUDENTS CAN LEARN STEWARDSHIP THROUGH ABORIGINAL TEACHINGS

By

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A thesis submitted in conformity with the requirements for the degree of Master of Arts
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Abstract

This study investigates the challenges and opportunities of using the Aboriginal principles of “Respect,” “Reciprocity,” “Relationship,” and “Responsibility” (known as the “4 R’s”), Seventh Generation Stewardship, and an Aboriginal circle of giving and receiving, to teach Muslim students in one Islamic elementary school setting about environmental stewardship. The research tracked the thoughts and emotional connections of students as they undertook to establish the Aboriginal circle of giving and receiving, with plants they planted for their science unit. Through lessons and practices around the 4 R’s, the majority of students demonstrated an increased emotional attachment to the plants in their respective circles, which was documented in journals. While establishing these practices, the students expressed a heightened awareness of the various ways in which they may enhance the practice of environmental stewardship mandated in traditional Islamic texts.
Acknowledgments

I would like to acknowledge and extend my heartfelt gratitude to the people who have made the completion of this thesis possible, including:

The Department of Adult Education and Counselling Psychology (OISE, University of Toronto);

My Supervisor, Dr. Jean-Paul Restoule, for his understanding and guidance;

Dr. Sarfaroz Niyozov for reviewing and commenting on the thesis;

The administrators and teachers of Olive Grove School for welcoming me into the school to conduct my research, and the students for participating and offering their work to this study;

My sister, Memona Hossain, who set me on this path, and my sisters, Khalidah Ali, Aaida Mamuji and Krista Riley, for their unending inspiration, help and support;

My friend and mentor, Dr. Yaser Haddara, for his insights and encouragement;

Finally, all praise and gratitude are due to God.
Dedication

To Dad and Mom
My greatest teachers
My greatest supporters
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Introduction

Islamic spiritual teachings are intended to impel people toward civic action. Standing up for the rights of others, encouraging justice and the betterment of society, are expected outcomes of Islamic teachings. One element of these teachings is environmental stewardship. In Islam, environmental stewardship is based on the belief that all living things are the creation of God, which impels one to act with respect and care towards them, thus bettering the wider society. God describes this relationship in the Qur’an, Islam’s holy book, believed to be God’s words revealed to the prophet Muhammad through Archangel Gabriel. God says, “It is He (God) that has appointed you as stewards in the earth.” (The Qur’an, 25:39) Muhammad said, “The world is green and delightful, and Allah has put you in charge of it and is watching how you behave.” (Muslim) Teachings such as these encourage Muslims to investigate how they can be good stewards.

In aiming to fulfill the injunction to be good stewards, Muslims have actively taken part in the Green Movement. On one of the most widely read Islamic websites worldwide, Islamonline.net, Najma Mohamed boasts of a rising trend of environmentalism amongst Muslims the world over, from Canada to the United Kingdom. (Mohamed) However Canadian Muslim educators have yet to explore the possibilities of including this in Islamic curricula. Given the relative newness of Muslims to Canada, it is understandable that stewardship education is still a new subject in Islamic academic and/or educational literature in a Canadian context. (Memon) The Islamic injunctions around stewardship are a good place to begin to examine the potential to revive a practice like stewardship in Muslim educational forums such as Islamic schools.

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1 I will be using the Yusuf Ali translation of the Qur’an for this paper.
1. Statement of the Problem

A major shortcoming in literature on Islamic environmentalism is a lack of educational theory and strategies on stewardship education. The consequence is that Muslim students miss out on imbibing this essential Islamic teaching, which is not only a part of their religion but necessary for a healthy lifestyle. Traditionally, teachings on stewardship were conveyed in an experiential manner among Muslims, as were other lessons, a method that is generally encouraged in pedagogical models. This paper looks at opportunities to use the wisdom of Aboriginal peoples to develop stewardship education theory and strategies, specifically experiential stewardship education, to teach stewardship in Islamic elementary schools.

The need can be identified in three areas: (a) references in the literature to the direct experience of Muhammad with his natural environment and the Indigenous peoples of his time, (b) discussion in the literature about the need to have direct experience with the natural world when studying the environment, and (c) documented, or under-documented, teaching strategies to deliver experiential stewardship education.

Before proceeding to expound the opportunities I have identified, I will clarify terms which I will be using throughout this study. They are:

(1) Islamic concept of Stewardship – The belief that God has given human beings the earth as a trust and that we are responsible for its safekeeping.

(2) Experiential education – A model of education most recently expounded by David Kolb in which the student tests information given in the classroom against real-life accustomed experiences, thus transforming the information and the experiences into new knowledge about a phenomenon. (Shields, Aaron, & Wall, 2001)

(3) 4 R’s – Aboriginal principles of Respect, Reciprocity, Relationship and Responsibility (Pevec, 2002). Reciprocity is to acknowledge the gifts that the earth gives to human beings, and simultaneously return gifts to the earth. Respect means treating the part of the earth where
one lives well, and maintaining the natural balance that exists on earth. Responsibility means taking care of the earth through caring actions, and thinking about the generations to come when doing things which have an impact on the earth. Relationship means understanding the connectedness and dependence between living things and treating living things with kindness. (Pevec, 2002)

(4) Seventh Generation Stewardship – A traditional stewardship perspective of Aboriginal North American cultures, often expressed in terms of doing things wisely and carefully while keeping in mind the repercussions every action will have upon the next seven generations of living things to come. (Caduto and Bruchac, 2007)

I have based my study on these key concepts, and I will refer back to them in this Introduction and throughout the following chapters. Following from the opportunities I have identified to develop experiential stewardship education for Muslim students, I will now proceed to explain those opportunities.

1.1 References in the Literature to the Direct Experience of Muhammad with the Natural Environment of Arabia

Islamic history paints a picture of the central role which interaction with the natural environment played in the life of Muhammad and other prophets of Islam who preceded him. It is well known that at birth, high-class Arabian children of Muhammad’s time would be sent by their own families to live with Bedouin foster families, who are considered among the Indigenous peoples of Arabia. Muhammad was also sent to live with such a family from birth to the age of five. (Al-Ghazali, 1999) Children were sent to Bedouins to be suckled and weaned, and to be raised in the fresh air of the desert and learn the language and manners of the Bedouins. While there, Muhammad is known to have developed deep relationships with his foster family and other Bedouins. After returning to his family, Muhammad would accompany his uncle on trade caravans through the Arabian Desert from age 13, also affording him time to reflect on the
natural world and live off of the land. (Al-Ghazali, 1999) Historians note that these experiences led to the development of certain qualities and behaviours in Muhammad, such as deep thinking. (Al-Ghazali, 1999) Muhammad’s upbringing was a definitive precedent for Muslims: it demonstrates the value of living in close proximity to nature, as well as learning from indigenous peoples, in order to build strong character. This character was to be Muhammad’s foundation in living a good life as a prophet of God. Arguably, following these aspects of Muhammad’s early life would help other Muslims to develop strong character as well.

Muhammad was a shepherd in his youth, which afforded him the opportunity to act as a steward over animals. (Al-Ghazali, 1999) Jesus, Moses and other prophets of Islam are also known to have been shepherds. (Al-Ghazali, 1999) Muhammad said, “There is no prophet sent by Allah (God) who did not tend sheep.” (Al-Ghazali, 1999, p. 83) This would necessarily have taught them to be responsible for the well being of other creations. Muhammad chose to apply this lesson to other spheres of life as well, such as care for human beings. Muhammad said, “Beware. Every one of you is a shepherd and everyone is answerable with regard to his flock.” (Sahih Muslim, Book 20: 4496) What appears to be absent in the literature about Islamic prophets is any discussion of how responsibility was learned through shepherding.

Moreover, it was the practice of these prophets and their communities, known as some of the greatest leaders in the world, to live on the land. Charles Le Gai Eaton (1998) observes that the traditional Islamic city “blended perfectly into the surrounding natural environment. It was not, as are Western cities today, a denial and defiance of the natural world.” (p. 45) Even in what were considered to be the urbanized settings of their time, such as the city of Makkah, they grew their own crops and raised their own animals. Muhammad said, "No food is better to man than that which he earns through his manual work. David, the Prophet of Allah, ate only out of his earnings from his manual work." (Riyadh-us-Saliheen, Chapter 59: 543) Living so closely to

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2 “Allah” is the Arabic word for “God” or “One God”, the God of the Abrahamic traditions.
the land would necessarily engender a deep appreciation of it in these leaders, as is evident from their teachings.

Such teachings have been lost in modern writings about Islamic environmentalism, let alone writings on environmental education in classrooms. In “An Islamic Approach towards Environmental Education” Marwan Haddad reviews the approach of numerous famous Islamic scholars to environmental education. Absent from their approach is any mention of reviving the practice of prophets and early Muslims, of learning stewardship through direct experience with the land and other living things. (Haddad, 2006) Haddad himself does not suggest or explore such an approach within his work but rather offers a strictly intellectual analysis of Islamic environmentalism. (Haddad, 2006)

1.2 Discussion in the literature about the need to have direct experience with the natural world when studying the environment

The need to interact with the land is also well established in the Qur’an. In many instances in the Qur’an, God asks people to reflect on natural phenomena in the universe and in their own spiritual and physical selves in order to see signs of God’s greatness and to consider their role in the web of life around them. God says in the Qur’an:

_allah sends down water from the sky and by it brings the dead earth back to life. There is certainly a Sign in that for people who hear. There is instruction for you in cattle. From the contents of their bellies, from between dung and blood, We give you pure milk to drink, easy for drinkers to swallow. And from the fruit of the date palm and the grapevine you derive both intoxicants and wholesome provision. There is certainly a Sign in that for people who use their intellect. Your Lord revealed to the bees: ‘Build dwellings in the mountains and the trees, and also in the structures which men erect. Then eat from every kind of fruit and travel the paths of your Lord, which have been made easy for you to follow’. From inside them comes a drink of varying colours, containing healing for mankind. There is certainly a Sign in that for people who reflect._ (The Qur’an, 16:65-69)
God also says in regards to the things which He has given human beings, “He wanted to test you regarding what has come to you . . .” (The Qur’an, 5:40) God warns Muslims about the impact of human acts on the universe: “Corruption has appeared in both land and sea because of what people’s own hands have brought about so that they may taste something of what they have done, so that hopefully they will turn back.” (The Qur’an, 30:40) According to these injunctions, people are expected to take the necessary time to reflect on God’s signs and respect their humble place among other creation.

In order for people to fully understand the signs which God refers to, and to appreciate the human impact on the web of life, they would need to get as close to those signs as possible and use their senses in comprehending the signs. This is why God alludes to hearing. He also refers to the use of sight to reflect on signs in several other places in the Qur’an. Based on the precedent set by the prophets of Islam and the encouragement in the Qur’an to look, think and reflect, it follows that people would need to interact with the land to experience the full intent of the Qur’an.

Yet in literature on the subject of environmental education, reference is only made to the teachings themselves and not to the traditional methods which may be employed. In “An Islamic Perspective on Environmental Literacy” Imfadi Abu Hola (2009) concludes, “The embodiment of Islamic principles in the form of Islamic educational institutions is one method to instill and disseminate an ethic of environmental literacy and sustainability” and suggests that “If culture and nature were more tightly linked in education, children could perhaps better understand their part in the web of life on this planet, and see that their actions are inseparable from the rest of the world.” (p.16) Yet she does not expound how culture and/or nature may be more tightly linked in education, or how the said institutions can teach environmental literacy. (Abu-Hola, 2009) It appears that very little has been said about the need to visit the natural environment or interact with it within contemporary Islamic educational literature.
1.3 Documented teaching strategies to deliver experiential stewardship education

Scholars and educators who write about environmental education in general expound the need for experiential education. Olivia Griset (2010) is a high school teacher who founded a field ecology class in the high school she taught at. In an article entitled “Meet Us Outside!” she writes, “This type of learning builds self esteem and encourages students to recognize that they are part of something bigger than themselves…Many comment that their worldview has shifted from apathy to action, and from mild interest to a passion for the study of the natural world around them.” (p. 40) In “Educational Potentials of Encounters with Nature: Reflections from a Swedish Outdoor Perspective”, Klas Sandell and Johan Ohman (2010) conclude that “the experiences that people have in a direct encounter with nature can play a decisive role in the development of complements to value-oriented environmental ethics…” (p. 14) They argue for an outdoor pedagogy in the Swedish curriculum. Numerous educators and scholars have noted the impact of direct experience with the environment on the environmental conscientiousness of children and adults. They demonstrate that experiential environmental education would assist people in developing a heightened awareness and care for the natural environment around them.

In Ontario, the Hamilton-Wentworth Catholic District School Board has made purposeful efforts to teach environmental stewardship through school activities and initiatives around energy conservation, waste minimization, ecological literacy and school ground greening. (Hamilton-Wentworth Catholic District School Board, 2010) Although these projects have not been written up in academic literature, the schools in the board are subject each year to the scrutiny of the Ontario EcoSchools program. Notably, 39 of their 45 schools continue to qualify as EcoSchools, meaning that they adhere to certain environmental standards prescribed by the Ontario Government.
Similarly, the Keewatin-Patricia District School Board in Western Ontario has developed an Environmental Stewardship Mandate and a Council whose goal is to “help develop a plan or strategy to integrate environmental issues including an Aboriginal focus into the K-12 program and Board Operations… Students will adopt a global mindset about the environment and gain an understanding of the Aboriginal land-based approach to living and the Seven Grandfather teachings.” (Myers and Lentz, 2008, pp. 6-7) Two key moves in this strategy are to “Introduce more experiential learning environments and activities” and “Include more environmental learning into the classroom.” (Myers and Lentz, 2008) Very little has been done to assess the strategy thus far, but it demonstrates an active and purposeful effort on the part of educators in this school board to enact experiential stewardship education.

The literature on Islamic education is lacking suggested strategies on how to bring experiential stewardship education to Muslim students, in or out of Islamic schools. As Mohamed notes, there are many initiatives taking place worldwide amongst Muslims to act out environmental stewardship. One such example is the set of initiatives taken by a Muslim youth group based in Toronto, Young Muslims. Under “Activities” on their website they list “Environmental Initiatives” which include Earth Hour, Waste Diversion 2010 and Adopt a Park. (Young Muslims, 2010) It appears that a documented assessment of these strategies or the goals and methodology behind them has not been prepared however.

One area where some Islamic strategies have been documented is the Scouts Philmont Trail Handbook. There is a Muslim section in the handbook entitled “Eagles Soaring High: Trail Worship for Muslims, Jews and Christians” that lists a set of prayers and Reflections which Scout leaders can use with them. An example of such a Reflection is “Do we have a responsibility for the condition of the earth?” and this is followed by several verses from the Qur’an including, “Let there be from among you, a group of believers who call to what is good, and will prohibit the evil. (Qur’an 3:104)” and “Allah has promised to those among you who
believe and do righteous deeds that He will assuredly make them to succeed (those now with power) and grant them stewardship and responsibility in the land just as He made those before them to succeed others. (Qur’an 24:55)” (Boy Scouts of America, 2004) There is no discussion in the said pages on how the teaching is applied, although it is presumably done while the Scouts are passing through trails and other natural environments. Moreover, there is no mention of how this type of experiential stewardship education may be translated into other learning environments, such as the classroom.

One documented narrative of what is being done in the Islamic school classroom is an instance where a teacher chose to relate the science curriculum (on insects) to the teachings of the Qur’an on ants and bees. (Zine, 2008) No apparent attempt was made to take the students’ reflections beyond the teachings which were articulated, to direct experience with insects.

Other spiritual peoples have developed such strategies. For example, the Evangelical Lutheran Church in America has produced a resource on stewardship called “Awakening to God’s Call to Earthkeeping” which is intended to be used in faith-based small group settings such as Christian Education Classes and is applicable to any Christian denomination. (Winchell, 2006) The resource includes Christian teachings and suggested teaching strategies, including “take-home” strategies for learners to enact. One such example is, “Visit and walk an outdoor labyrinth; be open to God’s presence, seek to learn something new about God’s love for you and how the Earth and others may need your talents and gifts.” (Winchell, 2006, p.17) Another is, “Plan and plant a natural area, garden, or meditative garden on your congregation’s grounds.” (Winchell, 2006, p.17) These strategies offer various Christian educators both the theoretical underpinnings and the practical methods they can use to teach stewardship from a Christian perspective.
Michael Caduto and Joseph Bruchac are Indigenous writers who have documented many Aboriginal teachings about care for the earth in their book series known as the *Keepers* series. Each book includes stories and activities which can be used by all educators to teach children to develop a spiritual relationship with the earth, plants and animals. The series is not tailored to any particular curriculum, however it contains scientific lessons, experiments, diagrams and images, as well as discussions of current environmental issues, to be used with students in various contexts, including small and large groups, indoors and outdoors. An example of such a lesson is “Seventh Generation Stewardship.” The aim of that lesson is for students to “understand the circle of sharing, of giving and receiving, and the meaning of living in balance…” and “incorporate seventh-generation stewardship into daily life,” among other goals. (Caduto and Bruchac, 2007, p. 242)

These strategies are unparalleled in Muslim communities. Muslims have many beliefs in common with Christian and Aboriginal communities, such as the belief in a Creator and in stewardship of plants and animals, thus there is room for people in these spiritual groups to benefit from one another’s efforts to teach environmental stewardship.

2. Background and Need

2.1 Need to Return to Muhammad’s Practice of Interacting with Natural Environment

In their interactions with their natural environments, including plants and animals, and their respect for nature as God’s creation, many Muslims throughout history have been very effective stewards of the environment. Muhammad taught, "There is none amongst the Muslims who plants a tree or sows seeds, and then a bird, or a person or an animal eats from it, but is regarded as a charitable gift for him." (Bukhari, Volume 3, Book 39: 513) Muhammad’s life is filled with examples of his practice of stewardship. While observing a man doing his ablutions near a stream, Muhammad told the man that he should not waste drops of water, even though he was in front of a flowing body of water. (Abu- Hola, 2009) Muhammad prohibited Muslims
from killing ants, bees, sparrow hawks and hoopoes. He also prohibited killing frogs for their use in medicine. (Abu Dawud, Book 41) In one incident he instructed some of his friends to avoid an ant nest that he spotted on the earth, when building their fire. It is noteworthy that these stories were recorded in Islamic history, showing the importance and value of the practices themselves. These practices are essential elements of Islamic life and they demonstrate that Muslims are expected to live out the teaching of stewardship.

It appears that teaching Muslims how to enact their role as stewards by a direct connection with nature has not been documented as an effective teaching strategy for stewardship. Muhammad’s experience with his natural environment (the desert) as a child, and his direct relationship with the land as an adult, appear to have been forgotten. The practice of purposefully taking Muslim children to the land in order to reflect on nature, or develop an understanding of stewardship, is seemingly foreign to modern Muslims. It is possible that this is due to the fact that many Muslims today live in densely populated cities where plants and other wildlife are minimal. As scholars from other worldviews have argued, it is necessary to give children direct experiences with the land in order for them to be more sensitive to the needs of the natural environment around them.

2.2 Need to Revive Teaching of Interacting with Nature in Order to See God’s Signs

The practice of interacting with the natural environment to examine it for signs of God’s greatness and understand one’s place in the web of life also appears to be absent from literature on Islamic education, specifically education for young students. This approach to nature may help to develop that aspect of Islamic stewardship which stresses the importance of respect for nature as God’s creation. In recent years, this practice has been revived to a certain extent among youth clubs such as Scouts, who take time out of their camps to spend time outdoors reflecting on the natural environment around them. There is a considerable amount of literature on the importance of reflecting on the signs, but this takes the form of an intellectual
exercise and actual physical experience with the natural environment is not encouraged. Harun Yahya, a widely read Sunni Muslim author, has published many books of this kind. Sunni Muslims are expected to perform five daily ritual prayers, which take a total of approximately a half hour to an hour each day, but this is often the most time they spend engaged in spiritual reflection on the purpose of life and their place in it. There is a need for educators to purposefully take up the cause of teaching stewardship education through the direct experience of students with nature.

By comparison, Muhammad and his immediate followers, like the prophets who preceded him, had many opportunities for spiritual reflection through living and travelling on the land. Al-Ghazali (1999) observes that Muhammad’s education on the land gave him clear thinking and keen perception. It is well known that Muhammad would spend much time alone in the Arabian desert, and that this is often when he received divine revelation and determined major courses of action in his life. In this sense, spending time in this way on the land was a way for Muhammad to be self-taught. Al-Ghazali argues that the various levels of education, which Muhammad received on the land and in other simple occurrences in his life, were needed to discipline his mind and correct his outlook on the universe and life. “Thus every educational system which fails to take its students to this peak is not worthy of attention in spite of its beautiful certificates,” writes Al-Ghazali (1999, p. 86). Although this is something that Muslims seldom practice any longer, it may be taught to Muslims by developing educational methods which encourage Muslims to return to this educational heritage.

2.3 Need to Develop New Strategies and Borrow from Existing Strategies in Other Traditions

Some Aboriginal educators, such as Gregory Cajete and Joseph Bruchac, recognize the value of experiences like the ones Muhammad had. Cajete writes, “Direct experience is the cornerstone of plant knowledge. Through experience, careful observation, and participation
with plants, Native people came to possess a deep understanding of plant uses and relationship to humans, animals and the landscape.” (Cajete, 2000) Many Aboriginal teachings are based on a direct engagement with nature. Caduto and Bruchac’s lessons are examples of strategies to promote that engagement, which Muslims may borrow from.

Due to similar conceptual understandings of nature and stewardship, Aboriginal-Canadian conceptions and methods may help to inform educational models appropriate for Muslim students. Aboriginal peoples have in common with Muslims the sense that care for other creation is a necessary aspect of living a spiritual life. Cajete (2000) writes, “Native societies realized that a sustainable relationship with plants is the foundation of all human and animal life...This deep relationship, it seems, is rooted in the inherent focus of Native cultures on participation with nature as the core thought and central dynamic Native philosophy.” (p.108) This recognition of the critical role which nature plays in leading a good life is a commonality which Muslims may benefit from. These commonalities make already established Aboriginal teachings and strategies more accessible to Muslim educators; they may enable Muslim educators to teach stewardship without having to establish brand new pedagogies.

The foresaid perspectives and strategies appear to be absent from Islamic curricula in Canada and the U.S. Muslims will benefit from developing such strategies, drawing upon the teachings and repertoire of peoples who have much direct experience with the Canadian landscape and with teaching their children about the land.

Stewardship education is a part of the basic education of Muslim prophets and leaders and it is a part of Muslim heritage. More importantly, stewardship is a moral obligation upon Muslims and respecting nature and reflecting on it is a command in the Qur’an. Therefore, it is important to revive the practice of experiential stewardship education so that Muslims may enact this obligation, and it is prudent for Muslim educators to look for the most effective ways to do so.
3. Purpose of the Study

Thus, the purpose of this study is to investigate some of the possible ways that experiential education based on Aboriginal pedagogy and teachings can be used to teach environmental stewardship to Muslim students. The teaching strategy employed two lessons and they were implemented on Muslim students at an Islamic elementary school.

4. Research Questions

Several major questions are at the centre of this study:

What is the potential to combine Aboriginal teachings about the human relationship with the natural world, with Islamic teachings about the same?

What are the challenges and opportunities of introducing experiential stewardship education based on Aboriginal pedagogy and teachings to Muslim students in an Islamic elementary school?

5. Methodology

The teaching strategy was comprised of two lessons which combined Islamic teachings on stewardship of the earth with Aboriginal teachings on care for the earth. It was delivered to two separate Grade 3 classes at the school. The lessons taught students about the Islamic concept of stewardship as I have defined it, about Aboriginal understandings of stewardship, and then asked them to form Aboriginal Sharing Circles with the plants they planted for their Science unit based on both sets of teachings. The term “Aboriginal Sharing Circle” was used with the students to describe what Caduto and Bruchac (2007) variously call “the circle of sharing” and “circle of life” and “attunement” in Keepers of Life. It refers to the interaction between human and plant which the students were instructed to observe.
This study looks at the outcome of those lessons based solely on the three foresaid written assessments: (1) worksheets on the Islamic concept of stewardship, (2) a questionnaire about the 4 R’s and (3) the Sharing Circle Journals. Of the 37 students who participated in the lessons, 11 students and their families consented to submit their work for this study.

I analyze the written assessments for indicators of connections between the students and the plants, specifically those which foster in them the 4 R’s, as well as impediments to those connections either in their prior knowledge, the content of the lessons, or my teaching methods. In my final analysis, I look at other possible applications of the 4 R’s and Sharing Circle in Islamic or non-Islamic education, and I look at further opportunities and possible impediments for Muslims to learn from Aboriginal teachings.

6. Significance to the Field
The study will offer an analysis of one strategy to teach experiential stewardship education to Muslim students in an Islamic elementary school in an area where such strategies are rare or at least not easily found in Islamic educational literature. The study will assess one opportunity for the burgeoning Muslim community to revive a religious value and practice in the Canadian context with the help of a people who have much more experience with stewardship in Canada. It will also uncover some of the limitations in this regard, such as the difficulties which educators might encounter which trying to combine worldviews.

My standpoint on Islamic environmental stewardship and Spiritual Ecology is that of an academic exploring various ways of approaching Islamic environmental stewardship education. The arguments I make and ideas I use are intended for that purpose, and not meant to be a theological or philosophical treatise on either of these topics. Being one of the first of its kind, this study will raise many questions about the sources, scope and application of Islamic environmental stewardship and Spiritual Ecology. While I attempt to address some of those
from my standpoint, many of them are beyond the scope of this study. In order to properly address Islamic environmental stewardship and Spiritual Ecology in their entirety, one must compare and contrast the multiplicity of perspectives on them, as there are often differences between them.

My perspective on Islamic environmental stewardship, which is elaborated in Chapter 1, is based on the works of several acclaimed authors on this topic, such as Ozdemir and Izzi Deen, and not on the work of one particular scholar, school or group of Muslims. Notions of Spiritual Ecology from Aboriginal perspectives are also diverse and experienced distinctly in specific places; however there are some principles shared across nations which are described by some notable authors, such as Cajete, Caduto and Bruchac. My perspective on Aboriginal Spiritual Ecology is based on these authors, which I explain briefly in Chapter 1, and elaborate in Chapters 2-3.

Notably, the study does not answer the larger Islamic theological question of whether plants are spiritual in nature. The notion that plants and created things, other than human beings, animals, angels and jinn’s (spirits), have a spiritual life is heavily debated in Islamic scholarship. Many scholars reject the notion completely; some prefer not to delve into the subject at all; and some believe it to be possible. Thus, that discussion is also beyond the scope of this paper.

7. Ethical Considerations

The foresaid written assessments were obtained with the formal consent of Olive Grove School, the teachers of the two Grade 3 classes, the students who produced the work and their families. The University of Toronto’s Office of Research Ethics granted permission to approach these parties to solicit the students’ work.
Chapter 1

Literature Review

Introduction

This literature review will review literature related to the following questions, which are the focus of this study:

- What is the potential to combine Aboriginal teachings about the human relationship with the natural environment, with Islamic teachings about the same?

- What are the challenges and opportunities of introducing experiential stewardship education based on Aboriginal pedagogy and teachings to Muslim students in an Islamic elementary school?

The literature covered in this review is comprised of a broad range of articles from across the world on Islamic and Aboriginal worldviews on the environment. The literature spans the last three decades and looks at the relationship between the human being and the natural world around him/her from these perspectives. Much of this literature has been written due to modern concerns about the health of the natural environment.

Questions I have asked of the literature include:

- What do “the environment” and “environmental stewardship” mean according to Islamic and Aboriginal worldviews?

- How can environmental stewardship be taught in those paradigms, particularly through experiential education?

- What is the potential to combine these worldviews to teach environmental stewardship?

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3 Henceforth "environment" and "environmental stewardship" will denote natural environments
In order to answer these questions, the review of the relevant literature was done in several sections:

1. **Comparing Islamic understandings of the “environment” and “environmental stewardship” to Aboriginal understandings of the same**
2. **A review of literature with Islamic perspectives on environmental stewardship education**
3. **A review of literature on the potential to combine Aboriginal and Islamic approaches to environmental stewardship education**

Documented work in the area of environmental stewardship education in Islam, which is the focus of this study, including experiential stewardship education, is not prevalent in the literature reviewed. Such documentation appears to be at its inception, however I will make note of any such literature that does relate to this study. The same is the case for documented work in the area of combining Islamic and Aboriginal approaches to teach environmental stewardship education, although scholars recognize the need for this and the potential here.

Before proceeding with the three sections described above, I will briefly discuss the foundational sources of knowledge in this field.

**Traditional Sources for Islamic Teachings on the Environment**

Islamic scholars have produced lengthy and detailed articles, dissertations and books on Islam and the environment. Scholars most often use the Qur’an and prophetic injunctions recorded in other texts as the starting point for their discourses on Islamic environmentalism. Ibrahim Ozdemir (2003) writes that the Qur’an is

“unanimously considered by insiders and outsiders alike to be the most fundamental basis both for the faith of the individual Muslim and for what is called Islamic civilization. Muslims naturally believe that the Qur’an can and should continue to play such a role today in our quest to conduct a meaningfully ethical life. As is clear from the records of history, the Qur’an has played this role in the life of Muslims from the
The Qur’an is the primary source of religious teachings, and prophetic traditions are the secondary source. Mawil Izzi Deen says that while the human soul can distinguish between good and bad to some extent, due to the complexities of life, including outside influences on the soul, “an ethical conscience alone cannot define the correct attitude to every problem.” Therefore, legal instructions were revealed to prophets, who had “a special nature” and “were able to avoid the outside influences which may affect other individuals” who were given God’s messages in such a way that the human conscience could approve and acknowledge them to be correct. (Izzi Deen, 1990, p. 2) This includes rulings on environmental issues.

Izzi Deen cites the example of the prophet Solomon, which is given in the Qur’an:

“When the Prophet Solomon and his army were about to destroy a nest of ants, one ant warned the rest of the colony of the coming destruction. When Solomon heard this he begged God for the wisdom to do the thing which God wanted him to do. Solomon was obviously facing an environmental problem and needed an ethical decision; he begged God for guidance:

Till, when they reached the Valley of the Ants, an ant exclaimed: O ants! Enter your dwellings lest Solomon and his armies crush you, unperceiving. And [Solomon] smiled, laughing at her speech, and said: My Lord, arouse me to be thankful for Thy favor wherewith Thou hast favored me and my parents, and to do good that shall be pleasing unto Thee, and include me among [the number of] Thy righteous slaves (Surah 27:18-19)."

There are many other such examples in the Qur’an and prophetic traditions.

In covering the Islamic perspective on environmental stewardship, this literature review will consider articles and books such as Ozdemir and Izzi Deen’s, which base an Islamic understanding of environmentalism on teachings of the Qur’an and prophets mentioned in the Qur’an.
Traditional Sources for Aboriginal Teachings about the Environment

For Aboriginal peoples, guidance on life is sourced from all of creation, as well as the Creator. In this regard, Deborah McGregor (2004) writes, “Many stories and teachings are gained from animals, plants, the moon, the stars, water, wind, and the spirit world. Knowledge is also gained from vision, ceremony, prayer, intuitions, dreams, and personal experience.” (p.388)

Marlene Brant Castellano (2000) describes three sources of Indigenous Knowledge: traditional teachings, empirical observation and revelation. (p. 23) She writes that these branches overlap and interact with one another. A part of that interaction entails that the knowledge, although timeless in some respects, is also dynamic and adaptable to current realities. This makes the knowledge relevant to each generation. (p.23) Adapting knowledge is the work of Aboriginal adults “who are fully engaged in the economic, social and political life of their communities.” (p. 24)

The Aboriginal scholars included in this review have derived their knowledge from these various sources. In contrast to Islamic scholars, their words are not based around one or two particular sources of knowledge. The following discussion will describe what scholars have said about the environment based on these sources.

As previously noted, the following three areas are the foci of this literature review:

1. comparing Islamic understandings of the “environment” and “environmental stewardship” to Aboriginal understandings of the same
2. a review of literature with Islamic perspectives on environmental stewardship education
3. a review of literature on the potential to combine Aboriginal and Islamic approaches to environmental stewardship education
1.1 The “Environment” from Islamic Perspectives

It is rare to find a precise definition of “the environment” as it relates to stewardship, in literature on Islam and environmentalism. The word “environment” is not found in the Qur’anic and prophetic traditions about stewardship. However God does delineate exactly what human beings are responsible for within their environments, and this understanding forms the basis for environmental stewardship. Ozdemir (2003) writes,

“A careful examination of the early verses of the Qur’an reveals an invitation to examine and investigate the heavens and the earth, and everything that can be seen in the environment: birds, sheep, clouds, seas, grapes, dates, olives, flies, the moon, the sun, fish, camels, bees, mountains, rain, wind—in short, all natural phenomena.” (p. 7)

In a separate essay, Ozdemir writes, “Thus, our environment is formed by our house, garden, and car, the air we breathe, the water we drink, the town in which we live, and the people we live with. So too, it is formed by the seas, lakes, rivers, roads, mountains, and forests, which are shared by all the members of society. Thus, when we say “environment,” we understand all these natural surroundings in which we and all living creatures live.” (Ozdemir, 2002, Section 1)

In “The Muslim Declaration on Nature” Abdullah Omar Naseef (1998), referring to the Muslim role of stewardship, writes, “His [God’s] trustees are responsible for maintaining the unity of His creation, the integrity of the Earth, its flora and fauna, its wildlife and natural environment.” (p.13) One may logically deduce from these works that the environment in the Islamic conception includes all naturally occurring things on Earth.

A broader understanding of the environment includes outer space. In his essay, Izzi Deen (1990) defines the environment as the “alameen” or “worlds” which God describes in the opening chapter of the Qur’an: “Praise be to God, Lord of all the worlds.” (Qur’an, 1:1) Izzi Deen writes, ““Worlds” comes from the same root as “signs”; thus the worlds are signs of the
Creator…A Muslim, therefore, has a very special relationship with those worlds in which modern times have come to be known as the environment.” (p.5) Izzi Deen takes worlds to mean all of those things within reach of the five senses of human beings (which they can interpret, then, as signs). This would include all naturally and unnaturally occurring things in the human being’s environment, including outer space.

For the purpose of this study, my definition of “the environment” will include all naturally occurring things on earth within the reach of human beings; this includes human beings.

1.2 The “Environment” According to Aboriginal Perspectives

Cajete writes that the environment of the individual and community constitutes the earth and all naturally occurring phenomena on it. This includes living and non-living entities. (Cajete, 2000)

In “Developing environmental accounting: insights from indigenous cultures,” a team of scholars study Aboriginal peoples from three regions, including the Australian Aboriginal, the Maori and Native Americans, to elucidate how they can contribute to environmental accounting and reporting. (Gallhofer, Gibson, Haslam, McNicholas and Takiari, 2000) In describing the Aboriginal relationship with the natural environment, they begin by connecting the human being to the earth. The specific teaching is that “We are part of the earth, and the earth is an interconnected whole.” (p. 391) Thus the natural environment is that interconnected whole.

In these conceptions as well, the natural environment includes the earth and all animate and inanimate things on it, all of which are considered alive.

1.3 Islamic Perspectives on Environmental Stewardship

According to the scholars under review, the basis of Islamic Environmental Stewardship is tawhid or “oneness” of God. This means that any actions carried out to benefit the environment (or any entity, for that matter) should ultimately be for the sake of obeying and pleasing God.
Reasons such as preserving life and honouring other creation, though vital in nature, are secondary. Izzi Deen (1990) quotes Muhammad in this regard as saying: “‘When doomsday comes if someone has a palm shoot in his hand he should plant it.” This hadith encapsulates the principles of Islamic environmental ethics. Even when all hope is lost, planting should continue for planting is good in itself.” (p. 4) Thus it should be assumed that all of the perspectives outlined in this study hold this to be the ultimate goal of relationships with the natural environment.

The scholars under review say that khalifah or “stewardship” in the Islamic understanding is a God-given role which entails several expectations of human beings, which I have ordered as follows: First, that they consider the natural environment a trust; second, that they accept responsibility for the trust placed upon them and all that it entails; third, that they treat the natural environment with respect as they fulfill their responsibility; and last, that they will be held accountable for the trust.

Muhammad Muinul Islam (2006) expounds this understanding in “Towards a Green Earth”:

“The Quran explains that mankind holds a privileged position among God’s creations on earth: he is chosen as khalifah, (vicegerent) and carries the responsibility of caring for God’s earthly creations. Each individual is given this task and privilege in the form of God’s trust. Environmental crisis is, in effect, a failure of the trusteeship, thus nature becomes an index of how well a particular society has performed its responsibility towards God.” (p.48)\(^4\)

I will now discuss the expectations associated with Islamic environmental stewardship.

\(^4\) Bold-face inserted.
Stewardship as a trust

“Trust” implies that the natural environment does not belong to human beings. Naseef writes, “We are not masters of this Earth; it does not belong to us to do what we wish. It belongs to Allah and He has entrusted us with its safekeeping. Our function as vicegerents, khalifahs of Allah, is only to oversee the trust.” (Naseef, 1998, p.12) According to Ozdemir (2003), “It should be apparent that nature has been entrusted to us, as we are God’s vicegerents on Earth. We are not the lords of nature and the world, however; the world is not our property, at our disposal to be used haphazardly and irresponsibly. On the contrary, nature was created by God, and it belongs to Him.” (p.27)

Stewardship is effectively a duty to care for the natural environment in the physical absence of its Creator. This entails behaving with it in a responsible manner, which I will detail below.

Stewardship as a Responsibility

Izzi Deen (1990) says that the responsibility of human beings is to “preserve, protect and promote their fellow creatures.” (p.3) To Ozdemir (2003), this specifically means, preventing “the appearance and emergence of corruption in ecosystems.” (pp.28-29)

The key to fulfilling the responsibility is in recognizing the value of nature independent of human beings. Ozdemir says (2003), “Nature as a whole, being created and sustained by God, has intrinsic and inherent value, independent of its usefulness for human beings.” (p.28) Izzi Deen (1990) says, “the environment is God's creation and to protect it is to preserve its values as a sign of the Creator. To assume that the environment's benefits to human beings are the sole reason for its protection may lead to environmental misuse or destruction…” (p. 3-4) In recognizing the value of nature, human beings will understand that they “are only members of the community of nature” and carry out their responsibilities to the environment “just as they have responsibilities towards their families.” (Ozdemir, 2003, p. 28)
Izzi Deen (1990) cites several additional reasons why human beings have this responsibility, including: the earth is intended to be a place of peace and rest for human beings; human beings come from the earth (i.e. dust and water), a fact highlighted in the Qur’an; the Qur’an mentions the earth 485 times in total; and, the earth is considered to be a source of purity (earth is used to cleanse one’s skin if water is unavailable) and a place of worship of God, so in protecting the earth, the earth becomes a “source of blessedness.” (p. 4) Further, “the component parts of nature are entities in continuous praise of their Creator. Humans may not be able to understand the form or nature of this praise, but the fact that the Qur’an describes it is an additional reason for environmental preservation.” (pp. 3-4) Thus, protecting the environment is both a responsibility to present and future generations of living things, and to God.

These scholars make an excellent case for the need to be responsible towards the natural environment, however they have not explained exactly how that may take place. Other scholars have discussed that question in great length, and suggested practices and systems which may be adopted in order to preserve, protect and promote the environment. Those works do not include recommendations for educators, and as such they will not be discussed here.

Stewardship as Respect

The fact that other beings are God’s creations and that God honours them, as is evident from the above examples, necessitates that Muslims show sincere reverence and respect to them. In order for people to worship God correctly and attain his favour, they must sincerely honour the environment for its inherent worth. This makes respect a vital component of stewardship.
Stewardship as Accountability

According to Islamic teachings, human beings are expected to hold themselves to account for their actions throughout their lives, after which they will be held to account before God. This includes the practice of stewardship. Ozdemir (2003) writes, “This means that we are answerable for all that we do, both the good and the evil. As God’s vicegerents, at the Last Judgment we will be called to account for our actions in fulfilling this trust.” (p.27) He writes that this trust includes the natural environment. Human beings are expected to hold themselves accountable while on Earth, as well as expect to be judged by God in the Hereafter.

Human beings are also expected to hold themselves accountable to coming generations. Izzi Deen (1990) writes, “the environment is not in the service of the present generation alone. Rather, it is the gift of God to all ages, past, present and future.” (p.3/4) He further states, “The concept of the sustained care of all aspects of the environment also fits into Islam's concept of charity, for charity is not only for the present generation but also for those in the future....Islam encourages the sustained cultivation of the land.” (p. 5) Thus it is expected that human beings consider coming generations when caring for the Earth, and they will be rewarded for it by God. With respect to this, Naseef (1998) cites the tradition of the prophet Muhammad where he said, “Whosoever plants a tree and diligently looks after it until it matures and bears fruit is rewarded” and “If a Muslim plants a tree or sows a field and men and birds and beasts eat from it, all of it is charity on is part.” (p.13)

The following discussion will compare Islamic environmental stewardship with Aboriginal conceptions of environmental stewardship.

1.4 Aboriginal Perspectives on “Environmental Stewardship”/Spiritual Ecology

Cajete (2000) writes that to Aboriginal peoples, a good life means maintaining the balance in nature: “Yet, to Indian people, the land and the place they lived were in a perfect state. For
them, the real test of living was to establish a harmonious relationship with that perfect state that was Nature—to understand it, to see it as the source of one’s life and livelihood, and the source of one’s essential well-being.” (p.74) For Aboriginal peoples, the goal of a spiritual life is living in harmony with nature. Thus nature has a primary role in determining one’s earthly success or failure. In the Islamic worldview, the primary determinant is God’s judgment.

Cajete (2000) calls this spiritual orientation a “spiritual ecology” in a “natural community”, which is the foundational teaching of Indigenous environmental education. He explains,

“Since everything was mutually dependent, nothing in Nature could be viewed as purely self-sufficient, especially human beings. The idea of a community that included not only the human species, but all species, became an integral foundation and context for expressing Indigenous environmental education.” (p.88)

When Aboriginal peoples went through spiritual ecology education, they were essentially learning about this natural community. One basic lesson is about natural democracy. He writes, “The understanding of a natural community let to the social-organizational concept of “natural democracy.” Within this context of natural democracy, there is the idea that plants, animals, and other entities in the natural world, have rights of their own and must be given respect, as would any member of a human tribe. (Cajete, 2000, 88)

For the purpose of this study, Aboriginal worldviews on relationship with the natural environment will henceforth be called Spiritual Ecology. According to the above conceptions, Spiritual Ecology may be understood as follows:

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5 “Spiritual Ecology” will be used from hereon to denote Aboriginal perspectives on relationship with the natural environment.
- Establishing and maintaining a Relationship with the natural environment that recognizes the mutual dependence of all animate and inanimate things in the natural environment
- Living with deep Respect for all elements of the natural environment, for their inherent spirit and value, and in so doing taking from the natural environment only as much as is needed for survival
- Establishing, particularly through ritual, acts of Reciprocity with the natural environment. This means to actively recognize its gifts and back give to it
- Understanding the Responsibility given by the Creator to human beings, of living well with natural environment and ensuring its health for coming generations

In my study I have termed these principles the 4 R’s (Relationship, Respect, Reciprocity and Responsibility, which are principles also grouped together by Illene Pevec (2002), on the basis of teachings from Aboriginal elders. A fuller explanation of the 4 R’s has been given in Chapters 2 and 3.

1.5 Comparing Islamic Environmental Stewardship and Spiritual Ecology

There are many similarities between Islamic environmental stewardship and Spiritual Ecology, as can be noted from the preceding discussion. Those similarities which form the basis for my study, effectively demonstrating the value of linking Islamic environmental stewardship and Spiritual Ecology, will be discussed in Chapter 2.

Differences between Islamic Environmental Stewardship and Spiritual Ecology

The major difference between Spiritual Ecology and Islamic environmental stewardship is that Spiritual Ecology is founded on a connection to nature, whereas Islamic environmental stewardship is founded on a connection to God.
Islamic environmental stewardship is primarily the fulfillment of an obligation and trust toward God. Stewardship is defined by God and is an act of worship toward Him, thus stewardship is constantly formed and mediated by this relationship with the divine. In contrast, Spiritual Ecology is itself an entire system of relating to the divine through Nature, Nature being infused with spirit. In Spiritual Ecology, Nature, and not God, is the primary determinant of how human beings relate to it.

These conceptions are not mutually exclusive however; there is simply a different belief in what the defining factors are in the relationship between human beings and the natural environment. Although Muslims hold that a connection to God is the primary factor, the natural environment plays as large a role in shaping and defining the Muslims’ worldview and their conception of Islamic environmental stewardship. It is through reflecting on the natural environment, which people are constantly urged to do in the Qur’an, that Muslims come to fully understand their place and role in the world. By the same token, Aboriginal peoples hold that the natural environment is the primary factor, but the Creator (who Muslims call “Allah” or God) also defines the relationship between human beings and the natural environment through narratives and visions, and directs human beings to learn from it. In practice, then, Islamic environmental stewardship and Spiritual Ecology agree that to understand the principles of relating to the environment, human beings must connect with and learn from it.

There exists a misconception among some Muslims that God has created the natural environment to serve human beings. While it is true that God has subjected the natural environment in such a way that human beings, particularly through the exercise of intellect, may use it this does not put the natural environment at the disposal of human beings. Rather, it places a great responsibility on human beings to ensure that they refrain from abusing God’s creations. God reminds human beings of this trust when He says in the Qur’an, “It is Allah Who has subjected (sakhkhara) the sea to you, that ship may sail through it by His command, that
Thus, what is perceived as an opportunity is in fact a burden where human beings are expected to constantly assess their actions and weigh their outcomes.

2. Islamic Perspectives on Environmental Stewardship Education

The literature on environmental stewardship education from Islamic perspectives is scarce. While many scholars recognize the need for stewardship education amongst Muslims, they do not articulate how this can be done using traditional Islamic teachings, particularly how it can be done in schools. For example, M. M. Islam (2004) mentions the need for environmental education, but only goes so far as to say: “To get back the sound environment and unhazardous nature, Islamic teaching and guidelines have no alternative. Islamic ecoethics needs to be implemented at all levels – local, national, regional, global and most importantly, at individual level.” (p.80)

Elmut Beringer (2006), who analyses the work of Seyyed Hossein Nasr, discusses environmental education in terms of the correct paradigm to present it from. He writes, “environmental education and, in extension, environmental studies, if they are to be genuine partners in the global sustainability project, can and must reclaim religious-spiritual paradigms, and guard these against the dominant scientific worldview.” (pp.39-40) Beringer’s discussion is highly theoretical and does not include the audience, content and avenues of Islamic environmental stewardship education in this religious-spiritual paradigm.

The following section of the review will look at what three scholars have said about the goals, audience, the content and the means for environmental stewardship education among Muslims and in Islamic contexts.
2.1 Goals

Imfadi Abu Hola (2009) says that the goal of environmental education is to “produce an environmentally literate citizenry who will take care of the environment.” What this entails is “to foster a sense of responsibility and environmental stewardship in people. Awareness is not enough.” But she says that this remains a challenge and does not articulate exactly how it may be done except by briefly mentioning the use of curricula and effective teacher education. (pp. 196-197).

Khadija Al-Naki (2004) examines the place of environmental education in Kuwaiti Islamic schools. To her, the end of environmental education is “that students are expected to gain the conviction that they have significant power in shaping the community’s future, and even a willingness to make sacrifices for the sake of the environment and the greater good. (p.138) Al Naki argues for a fundamental shift in the place and structure of environmental education, as will be discussed below.

2.2 Audience

Presumably, people at all ages can undergo environmental stewardship education, but Islamic scholars tend to focus on elementary and teacher education. Abu Hola (2009) argues that it should be taught to “all levels and sectors” but she focuses on children when she says, “To prepare them [children] for such responsibilities, they need a sound environmental literacy as a foundation upon which to make those decisions.” (p. 198) She also argues that teachers need to be trained to deliver this education. She says that Islamic environmental stewardship education “may be achieved with a team of well trained, dedicated religious, socially and environmentally literate teachers.” (p.196)

Al-Naki’s (2004) study found that environmental education could be an effective cross-curriculum vehicle in junior high schools, integrated into every subject area, but that this would
only happen if teachers were trained to “realize the connection between their subjects and traditional environmental Islamic ethics.” Al-Naki argues that Kuwaiti teachers “have the potential to explore the significance of reconstructing their own Islamic traditions and therefore explore (environmental education) within the course of their profession and the framework of Islamic values.” (Al-Naki, 139). This would take place through extensive teacher training.

2.3 Content
Abu Hola (2009) looks in-depth at verses of the Qur’an and traditions of Muhammad to determine the values of Islamic environmental stewardship. She hopes that the results of this analysis will be used to improve the use of curricula to teach environmentalism to students in a deep and effective manner. (Abu Hola, 198) She writes, “To become knowledgeable, caring and active global citizens in the twenty-first century, students must develop attitudes, skills and behaviors that both are both environmentally and culturally sustainable.” (p.198) However she does not go into detail as to how those values may be used in educational institutions.

In contrast to Abu Hola’s approach, Al-Naki (2004) argues that “it was not necessary to insert a discrete environmental component into the Kuwaiti curriculum, either as a subject or in the form of a cross-curricular theme, for Islam already exists as the vehicle.” (p. 139) However, Al-Naki does not detail what the contents of such an education, through the “vehicle” of Islam, might be, and how exactly it would be implemented.

2.4 Avenues
Abu Hola (2009) writes, “Dealing with the environmental literacy in universities and schools’ curriculums would help in controlling or at least reducing the effects of different environmental problems.” (p.198) However she does not propose how environmental literacy can be integrated into school curricula.
Marwan Haddad (2006) articulates an approach to environmental education that has its origins in environmental management theory. He says that,

“The approach to environmental education in Islam is formulated in a tripod-type structure:

• The manager of all activities of Moslems is Allah (SWT), the one and only-creator, represented by the belief in and the application of his rules and directions. Allah (SWT), and in this structure to environmental education in Islam represents the head or the nucleus of the tripod.

• The main tripod is comprised of three interrelated elements: knowledge/understanding, manifestation/differentiation, and faith/believing.

• Each of the three legs of the main tripod constitutes a balanced sub-tripod relating to knowledge, manifestation, and faith, and consisting of: paths, reference, and end results.” (Haddad, 72)

However Haddad does not articulate what the paths, reference and end results may be in the field of education. He says, “This representation is brief and, therefore, further detailing of the structure is needed along with bringing various applications of it into everyday life.” (p. 72)

Although Al-Naki’s (2004) arguments are largely theoretical, she argues in favour of non-conventional, deeply rooted avenues of environmental education. She cites the example of an empirical study conducted by Szagun and Mensenholl (1993) on German adolescents, assessing their ethical and emotional concerns about nature. These researchers recommended that “for affecting a long-term change in people’s awareness of nature and the way they treat nature, it is not sufficient to impart knowledge or simply carry out practical projects. It is necessary to reach people’s deep convictions and their emotions, at a level that informs ethical values.” (p. 138) Al-Naki agrees. She believes that the Islamic religion has principles, such as “treading lightly” on the earth and environmental stewardship, which may support this process. Religion is an effective vehicle but to Al-Naki, “the spiritual dimension still remains elusive.” (p. 140)
I argue that through experiential education, students’ emotions can be harnessed to help them imbibe the practice of environmental stewardship education.

2.5 Experiential Stewardship Education

Experiential stewardship education is recognized and validated in Islamic traditions. This argument was already presented through explicit and direct references to the Qur’an and traditions of the prophets of Islam in the introductory chapter.

In my study, students interact with plants on the basis of this understanding, which is found in the Qur’an and the practices of prophets of Islam, as recorded in traditional Islamic texts. That is, their relationship with plants is direct and interactive.

My teaching methods are based on Spiritual Ecology principles from the Aboriginal paradigm, as will be discussed in Chapter 3.

It is hoped that if students interact with the plants as animate beings, they will find that the plants teach them, either by direct inspiration of some kind or through a close observation of their needs, about the needs of other living beings and the students’ role in Islamic environmental stewardship.

3. The Potential for Combining Aboriginal and Islamic Worldviews

Major scholars of Islamic environmental stewardship see the need and potential of bringing together different worldviews to help and sustain the natural environment.

Seyyed Hossein Nasr (1996) writes,
“Each tradition has both a wealth of knowledge and experiences concerning the order of nature, which, once resuscitated, can bring about a situation in which religions all over the globe could mutually enrich each other and also cooperate to heal the wounds inflicted upon Earth on the basis of a shared perspective of the sacredness of nature. Despite differences in the understanding of the meaning of the sacred and its source in various religions, they still share a great deal more in common and with each other than they do with a worldview in which the sense of the sacred has disappeared completely. Furthermore, such a resuscitation would not only make possible the serious implementation of ethical principles concerning nature, but it would also affect deeply many in the secularized West who are searching desperately for a spiritual relation with nature ... (p. 6)

The door is open for members of different traditions to find the common ground between them and develop collaborative strategies to address the health of the environment, thereby carrying through with their principles and beliefs. This can be done without causing a threat to belief systems. Nasr believes that we can “develop a path across religious frontiers without destroying the significance of religion itself” (1996, p. 3).

Ozdemir (2003) is in agreement. He highlights that “the global character of environmental problems… has encouraged the members of diverse world religions to cooperate with each other, to see the problems in a real context. To put it differently, this new understanding brings members of different faiths and traditions to a new frontier and paves the way for a dialogue between them that has never before been experienced in human history.” (p. 4)

Abu Hola (2009) posits that this multi-religious approach to environmentalism may be useful in education. She says that both environmental education and multi-cultural education have an emphasis on the diversity among living things and the need for respect and compassion for others. They are both interested in positive individual and societal change in the interests of sustainable living. These common elements offer many people a way of uniting for the common good.
Although Abu Hola does not suggest a specific learning strategy, her idea is inspirational and opens the door to a wealth of possibilities around teaching students of all traditions about environmental stewardship through school curricula. When opportunities arise in school curricula, events and projects to learn about other cultures, one common and very timely strand can be the way those cultures teach about the relationship between the human being and the environment. Understanding common elements of various traditions around this theme, of which there may in fact be many, and finding ways to unite around those beliefs, can be a great spiritual impetus for improving our natural environments. Abu Hola says that “….The relationship between these two educational trends should be seen in a wider context, as a starting point for more holistic teaching and learning.” (p. 198)

One such possibility is for Muslims to learn from Aboriginal teachings about the environment. As I have shown, there are many possibilities for this, which Nasr (1996) affirms. He believes that indigenous traditional wisdom can contribute to the religious understanding of the order of nature. (p. 25)

Cajete (2000) affirms this as well: “Indigenous people have preserved ways of ecologically based living that have evolved over 40 000 years of continuous relationship with special environments. Their understanding and application of relating to their land represents models for the art of relationship that must be re-taught through modern education. Modern understanding and reapplication of Indigenous relationship to the land are keys to creating social and economic structures that may mean the survival of modern societies.” (p.77)

In the following chapter I will explain how specific Aboriginal teachings and pedagogies around SE can be brought together to teach IES to students.
Chapter 2
Theoretical Framework

Islamic environmental stewardship and Spiritual Ecology share many similarities. I have chosen to use some Spiritual Ecology principles and practices which align with Islamic environmental stewardship in my study, specifically:

1. Seventh Generation Stewardship
2. The 4 R’s
3. The Sharing Circle

This chapter discusses how each of the above aligns with Islamic environmental stewardship and may be brought to Islamic environmental stewardship education.

1. Seventh Generation Stewardship

Caduto and Bruchac (2007) describe Seventh Generation Stewardship in the following way:

“The traditional stewardship perspective of Native North American cultures is one of considering the long-term effects of our actions upon Earth and humanity. It is often expressed in terms of doing things wisely and carefully while keeping in mind the repercussions every action will have upon the next seven generations of children to come. Decisions are made considering the wisdom of the ancestors of seven generations ago. Each of us is a seventh generation.” (p. 240)

With regards to Seventh Generation Stewardship, Chief Oren Lyons says,

“In our way of life, in our government, with every decision we make, we always keep in mind the seventh generation to come. It’s our job to see that the people coming ahead, the generations still unborn, have a world no worse than ours – and hopefully better. When we walk upon Mother Earth we always plant our feet carefully because we know the faces of our future generations are looking up at us from beneath the ground. We never forget them.” (Caduto and Bruchac, 2007, p. 240)

The concept of Seventh Generation Stewardship, as Caduto and Bruchac (2007) have defined it, has a direct parallel in the Qur’an. In the Qur’an, God says, “He it is Who has made you vicegerents in the earth.” (The Qur’an, 6: 165) The word “vicegerent” is used interchangeably
with “steward” in Islamic teachings, both terms indicating someone who has been delegated the authority to look after the affairs of a ruler or power (in this case, God). The Arabic word that is translated as “vicegerent” is “khalifah”. While “vicegerent” is a more comprehensive translation of *khalifah*, *khalifah* literally translates as “he succeeded another.” This denotes the concept of generations inheriting the earth one after another and implies that the earth does not belong to any one generation but must be considered a temporary trust, which will be passed on. (Asad, 2008)

Maududi concurs:

“This can have two meanings:
(1) “Now He has settled you on His earth after the passing away of the previous generations and nations;” and
(2) “the powers and authority that He has given you over different things in the earth are not meant to make you the owners of these things but are meant to enable you to function as the representatives of their real Owner. ” (Maududi)

The essence of vice regency or stewardship is an understanding that human beings do not truly own the earth and must fulfill the trust given to them. A part of fulfilling that trust is to be considerate all of the other creatures of present and future generations. Arguably, this aspect of stewardship is crystallized in the concept of Seventh Generation Stewardship. Based on the above understanding of *khilafah*, Muslims may accept the following aspects of Seventh Generation Stewardship:

- doing things wisely and carefully while keeping in mind the repercussions every action will have upon the next seven generations of children to come.

The second element of Seventh Generation Stewardship (i.e. considering the wisdom of the ancestors of seven generations past) is not a part of the conceptual understanding of Islamic environmental stewardship. However, Islam emphasizes
the importance of learning from the wisdom of elderly, knowledgeable people, and so this aspect is also congruent with Islamic teachings.

Thus, there is no apparent incongruence between the Islamic environmental stewardship and Seventh Generation Stewardship. Seventh Generation Stewardship may be useful as a teaching strategy for Muslims of all ages, to think more carefully and precisely about the impacts of their actions, thus enabling them to fulfill their role on earth.

2. The 4 R's

The second set of Aboriginal concepts I use in my study is the 4 R’s: Relationship, Responsibility, Respect and Reciprocity. These are directly related to Islamic concepts and offer a comprehensive and holistic way of reviving Islamic environmental stewardship education. They are easy to understand and remember, and touch upon the key elements of Islamic environmental stewardship, particularly the direct and spiritual aspects of Islamic environmental stewardship, which I presented in the Introduction and Chapter 1.

Educators in other contexts use the 4 R’s. In “First Nations and Higher Education: The Four R’s-Respect, Relevance, Reciprocity, Responsibility”, Verna J. Kirkness and Ray Barnhardt (1991) present the 4 R’s (Respect, Relevance, Reciprocity and Responsibility) as a way of approaching education for Aboriginal students, one that is more in agreement with Aboriginal teachings and principles, and allows Aboriginal students to achieve goals which are in line with the needs of Aboriginal communities.

The 4 R’s were also implemented by Illene Pevec (M.A.) in “Ethnobotany: Patterns in Relationships,” (2002) a curriculum to teach about relationships with nature, for educators to run on school grounds. Like me, Pevec is an immigrant to Canada who was looking for a means of bringing Aboriginal principles and teachings about plants and Mother Earth to a wider
audience. She developed the entire curriculum after working with a group of students, parents and educators to plant a garden at a B.C. school. The 4 R’s are a part of this curriculum.

The said educators do not offer a detailed analysis of the 4 R’s from an Aboriginal perspective. The following analysis of each “R” demonstrates its formulation and use in both Aboriginal and Islamic thought.

2.1 Relationship

As previously explained, a sea of relationships forms the basis of the Aboriginal's care for the natural environment. Without acknowledging, and more importantly, living, the relationships, care for the environment cannot happen. Cajete (2000) writes, “An ecological sense of relationship encompassed every aspect of traditional American Indian life. American Indians understood that an intimate relationship between them and their environment was the essence of survival and identification as People.” (p. 85)

Gallhofer et. al (2000) write, “Native Americans perceive all things as a continuous totality that always was and always will be…this relationship is, however, an expression of realized interdependence.” (p. 389)

Muslims also acknowledge this interdependence, primarily from the lens of gratitude to God:

“Allah is He Who has created the heavens and the earth, and He sent down rain water from the sky where with He produced different kinds of fruits to provide you with food. It is He Who subdued the ship for you that it may sail in the seas by His order and likewise He subdued the rivers for you. It is He Who subdued the sun and the moon so that they should steadfastly pursue their courses and He subdued day and night for you. It is He Who fulfilled all your requirements; so much so that you cannot count His bounties, if you tried to number them.” (The Qur’an, 14:32-34)
Further, God directs Muslims to acknowledge the fine balance He has placed throughout creation, and not to deny themselves the benefits of that balance through carelessness:

The sun and the moon adhere to a schedule, and the stars and the trees, all bow down in worship. He raised the heaven high and set the balance. Therefore, do not upset the balance: weigh with equity and do not give short weight. He set the earth for all creatures, with all kinds of tasty fruits in abundance and palm-trees with sheathed fruit, and a variety of corn with husk as well as grain. So, O jinn and men, which of your Lord’s blessings will you deny? (The Qur’an, 55: 5-13)

God reminds human beings of the consequences of forgetting their obligations toward him in upholding this balance: “Corruption has appeared on the land and in the sea on account of man’s own doings that He (God) may make them taste same of their (evil) works: maybe they mend their ways.” (The Qur’an, 30:41)

In regards to these principles, Ozdemir (2002) writes,

“It is clear that the Islamic world view could not endorse any view of man’s vice regency of the earth which destroys and spoils the ecological balances and the order and systems of nature, which it teaches that God has created and put as signs of His own existence. For vicegerent (khalifa) means ‘deputy’. And this in turn means that man is the sole being whom God holds responsible for the earth, to whom He has entrusted its preservation. Such a deputy would not betray the trust of the One who created the world with a particular order, balance, and harmony. If he was to spoil the order and harmony and destroy them, he would be known as an unreliable and perfidious deputy.”

The primary factor in the Muslims’ relationship with the natural environment is their obligation towards God, and in order to fulfill that, Muslims cannot deny the natural order of the natural environment. To do this is to disobey God and to harm other creations. Thus, acknowledging the deep interconnectedness of all creation, and in turn locating human beings in a humble place amongst other creations, is essential to Islamic environmental stewardship. Muslims would benefit from being reminded of Aboriginal concepts of Relationship.

This relationship manifests itself in several ways, which I will detail below.
2.2 Responsibility

Through Seventh Generation Stewardship and other practices like it, Aboriginal teachings encourage people to think about the generations coming after them, when considering their impact on the environment. Responsibility, then, lies in trying to have as little an impact on the environment as possible, and protecting what they need to protect. (Caduto and Bruchac, 2007)

McGregor (2004) writes,

“Traditionally, Aboriginal people in Canada understood their relationship with Creation and assumed the responsibilities given to them by the Creator. The relationship with Creation and its beings was meant to be maintained and enhanced, and the knowledge that would ensure this was passed on for generations over thousands of years. The responsibilities that one would assume would ensure the continuation of Creation (or what academics or scientists might call “sustainability”).” (p. 388-389)

The element of responsibility in Islamic environmental stewardship has already been established in Chapter 1, as well as in the above discussion of Seventh Generation Stewardship. Islamic teachings propound that:

a. Human beings are primarily responsible to God for their use of the natural environment, due to the Islamic belief that God has entrusted human beings with the environment and will hold them to account for their use of it

b. Responsibility is based on the understanding that people do not own the natural environment, and that the natural environment has inherent worth which must be honoured

c. Integral to that is careful reflection on their impact on the natural environment, and thus, on the lives of present and future creations
This Aboriginal “R” is also integral to Islamic environmental stewardship and it would benefit Islamic environmental stewardship education to have it included in a set of principles around this subject. If included in Islamic environmental stewardship, this “R” could include the Islamic concept of accountability as it is very much in line with Responsibility. (See Chapter 1)

2.3 Respect

As in Islamic thought, Aboriginal thought expounds a belief in the independent value and meaning of the earth, from which a deep respect is sprung. “For Indian people, the Earth was alive and had its own sense and expression of consciousness and being. The natural environment was a spiritual reality and the earth entities, living creatures, were not used haphazardly or without great respect.” (Cajete, 1994, 87) This includes all natural beings, such as plants and animals. In reference to the Anishinaabe creation story of the muskrat’s role in building Mother Earth, McGregor (2004) emphasizes, “all of Creation is important; all must be respected. If we lost or disrespected even the tiniest and most seemingly insignificant being, we would not be here! If the muskrat had failed, where would the Anishinaabe be?” (p. 388)

A way of enacting this respect is for people to avoid impacting the natural environment as much as possible. Cajete (1994) writes, “Indian people lived with as little impact on the natural state of the land as possible. They allowed the land to be, taking from it only the resources necessary for their survival, but always remembering that it was given to them as a gift. (p. 76)

This is no different than some of the prophetic traditions previously cited in this paper. For example, Muhammad said, “If without good reason anyone kills a sparrow, or a creature lesser than that even, the living creature will put his complaint to God on the Day of Judgment, saying: ‘So-and-so killed me for no purpose.” (Ozdemir, 2003) This hadith emphasizes both a respect for all creation and care in their use for human benefit.
In the ways I have described, this “R” is the same in both Aboriginal and Islamic practice and may easily be adapted into Islamic environmental stewardship.

2.4 Reciprocity

The last “R” to be listed, and I argue the most critical, is Reciprocity. The ritualized form of giving and receiving with the natural environment that is found in Aboriginal practice, is unique and underdeveloped in Islamic practice. At the same time, it is practical and beneficial to Islamic practice, and may easily be adapted as well.

Reciprocity is an understanding of being inextricably linked and at the same time gifted with the natural environment. It forms the basis of the Aboriginal relationship with the environment. Cajete (1994) writes,

“Ultimately, there is no separation between humans and the environment. Humans affect the environment and the environment affects humans. Indigenous practices were founded on this undeniable reality and sought to perpetuate a sustainable and mutually reciprocal relationship. What Indian people practiced was a “highly sophisticated, very competent land stewardship that was universal and very indigenous to this hemisphere.”(p. 83)\(^6\)

With regards to enacting reciprocity, Cajete also writes,

“Mutual reciprocity was engendered in all the acts that Native American people joined and effected within the context of their natural environment. Ceremony and ritual were social and spiritual mechanisms that maintained or re-established harmony with natural processes. They were also ways of learning how to maintain one’s relationship to the natural sources of life that Indian people recognized within their place. Offering tobacco after taking the life of an animal, such as the deer or antelope or buffalo, was a reflection of this understanding, this environmentally educated sense of being that Indian people practiced in their everyday lives.” (p. 88)

\(^6\) Cajete uses the term land stewardship as a reference point for non-Aboriginal readers, however it is evident from his writing and other Aboriginal thought that the Aboriginal understanding of land stewardship extends far beyond many other conceptions of it. At the same time, Aboriginal ways of relating to the natural environment are logical and reasonable, and are able to be understood from the Islamic and other worldviews.
Laduke (1994) writes,

“Simply stated, the resources of the economic system, whether they be wild rice or deer, are recognized as animate, and, as such, gifts from the creator. Within that context, one could not take life without a reciprocal offering, usually tobacco or some other recognition of the Anishinabeg’s reliance on the Creator. There must always be this reciprocity. Additionally, assumed in the “code of ethics” is an understanding that “you take only what you need, and you leave the rest.”” (p. 128)

Thus, for Aboriginal peoples, reciprocity is a conscientious, active effort, often in the form of rituals, to revive the natural environment and to honour it.

McGregor (2004) writes,

“For Native Americans, ceremonial rituals are meant to reflect and perpetuate the concern to engage in relationships deemed environmentally sound. Further, the rituals are designed to remind people of a frame of mind which is in a proper relationship with the rest of the world (a frame of mind which is, for example, crucial for the maintenance of good health). The ecological dimension is brought to consciousness and people can be empowered to act on its behalf.” (p. 390)

When comparing Islamic and Aboriginal practices of stewardship, it appears that this is where the two forms differ greatly. Muslims are lacking purposeful practices, such as rituals, which may remind them of the need to honour and give back to the natural environment.

To actively practice reciprocity in a form similar to Aboriginal peoples would enable Muslims to do four things:

a) Increase their gratitude to God by being more conscientious of His gifts
b) Recognize their place amongst creation in a respectful and humble manner
c) Honour the feelings and needs of other creations
d) Revive the natural environment to keep it healthy for present and future generations
Aboriginal peoples may offer much guidance in this area, in a way that complies with non-Aboriginal beliefs. One way to adapt this practice is in the form of an Aboriginal Sharing Circle, which I use in my study with students.

3. The Sharing Circle

Sensual experience, thought processes, transformation and recreation, sublime experiences and ritual are all avenues for an education in Spiritual Ecology. Cajete (1994) writes,

> In contrast to the relatively one-dimensional reductionist Newtonian-Cartesian view of Nature, Indians perceived multiple realities in Nature—that experienced by our five senses was only one of many possibilities. In such a perceived “multiverse,” knowledge could be received directly from animals, plants, and other living and non-living entities. They perceived that animals and plants have ritual ways of behavior that interact with one another. All life and Nature have a “personhood,” a sense of purpose and inherent meaning that is expressed in many ways and at all times. (p. 74)

The Sharing Circle is a way for Aboriginal peoples to establish this type of interaction between themselves and other creations. According to Caduto and Bruchac (2007), the Sharing Circle is a circle of giving and receiving with another living thing (that reinforces Reciprocity), which helps people to be better stewards. It is recommended in their lesson on Seventh Generation Stewardship (p. 241). In this circle students learn that a part of living in balance is to maintain the cycle of giving and receiving with other beings in a “circular relationship.” The Sharing Circle unfolded in the following way in my lesson (based on Caduto and Bruchac):

1. Students are given the above understanding of the circle
2. Students acknowledge that they are entering this relationship
3. With the teacher, students acknowledge and list the gifts they may give and receive from plants
4. Students dedicate time and energy to gifting their plants, and acknowledging and being thankful for the gifts they receive from their plants
I chose to use this as the primary principle and teaching strategy in my study. I will briefly explain why it is useful.

*The Use Of Plants To Teach Spiritual Ecology/Environmental Stewardship*

Cajete (1994) writes,

> There is a perception among some Indian herbalists that plants are the “hairs” of Mother Earth. Every time you pull a plant from the earth, she feels that pull, and you must always make the proper offering of tobacco and prayers….She must understand that you comprehend your relationship to her, and you know what she is giving you is one of the parts of her body. In honouring and understanding that, you also honor and understand your reciprocal relationship to all of life and Nature. (p. 100-101)

According to this understanding, people can learn a great deal about respecting the earth through developing a relationship with plants. Aboriginal peoples use ceremonial rituals to do this, one of which is circle. The Sharing Circle is an excellent tool that can be implemented in all areas of the curriculum where students are directly involved with other creations such as plants, classroom pets, or outdoor organisms. It can also be implemented between students. If students enter Sharing Circles with other creations such as these, an emotional/spiritual connection to these creations may shift the consciousness of students from one of removed indifference, to empathy and care for their well-being.

The Sharing Circle can also be extrapolated to everyday interactions which children have with family members, pets and household or neighborhood organisms. It is a simple and effective way of ensuring that students are grateful and caring for the natural environment.

What may be contested about the Sharing Circle are the human-like qualities that might be assigned to plants. Muslim scholars have varying opinions on this. For example, in his commentary on the Qur’anic verse:
“We offered this trust to the heavens and the earth and the mountains but they refused to bear it and were afraid of it, but man undertook to bear it. Indeed, he is unjust and ignorant,” (The Qur’an, 33:72)

Maududi writes in his exegesis,

“The presentation of the trust before the earth and the heavens and their refusal to bear it and their being afraid of it may be (understood) literally, or it may have been said so metaphorically. We can neither know nor can comprehend Allah’s relationship with His creations. The earth and the sun and the moon and the mountains are dumb, deaf and lifeless for us but they may not be so also for Allah. Allah can speak to each of His creations and it can respond to Him, though its nature is incomprehensible for us. Therefore, it is just possible that Allah, in fact, might have presented this heavy trust before them, and they might have shuddered to see it, and they might have made this submission before their Master and Creator.”

Thus Maududi and other scholars might contend with the attribution of qualities like hearing, sight and feeling in plants, and/or attributing gender and personality to the plants. At the same time, there is a record in Islamic history of prophets and their followers who interacted with particular plants and animals in this way. Doing so in the Sharing Circle will encourage students to develop an emotional attachment to plants, one that is based on the 4 R’s. This will be explained further in Chapter 3.
Chapter 3
Conceptual Framework

I have explained the various Aboriginal and Islamic concepts used in my lessons. In this chapter, I will detail how various educators have used the concepts, and why I chose to use them the way I did.

There is strong precedence in Aboriginal and Islamic traditions, as well as contemporary education, for the usefulness of experiential education. This was established in Chapters 1 and 2. Thus, experiential education is the framework in which I was formulating my lessons.

The lessons themselves consist of 4 major components:

1. Islamic concept of environmental stewardship
2. Seventh Generation Stewardship
3. The Sharing Circle
4. The 4 R’s

1. The Islamic concept of environmental stewardship

The Islamic concept of environmental stewardship was explained in Chapters 1-2. In those chapters, I demonstrate that this concept is congruous with Seventh Generation Stewardship. Taken together, this is the understanding of environmental stewardship that I was trying to teach to students. I asked students to enact this understanding of stewardship in Sharing Circles, and to implement the 4 R’s in their circles so as to reinforce the purpose of the circles.

This circular diagram (see Figure 3.1) demonstrates how my lessons came together:
The Sharing Circle is based on the Islamic concept of environmental stewardship, and on Seventh Generation Stewardship. These are at the centre of the circle. In each of the four directions of the circle is found one of the principles the students were asked to enact. That they are in four directions demonstrates that the process of coming to internalize and enact them is itself a journey around the circle. As one proceeds to enact the circle, s/he will learn more about each principle and how to apply it. Moreover, the journey doesn't necessarily start from one particular principle, but by the individual's choosing to live out one of the principles. Because the principles go hand-in-hand, once one is enacted, the others should fall into place. As one journeys around the circle, she will also learn that the entire circle is an act of reciprocity.
In the following sections I will explain how the various concepts listed above were brought together in this model.

2. Seventh Generation Stewardship

The concept of a Sharing Circle and Seventh Generation Stewardship are found in “Keepers of Life” by Michael J. Caduto and Joseph Bruchac (2007). "Keepers of Life" is one of a series of “Keepers” books by these authors. The foreword explains, “Using the ancient wisdom of Native North American stories as connecting span, Michael J. Caduto and Joseph Bruchac have respectfully built bridges of understanding between people and the natural world…Now comes Keepers of Life, which unifies humans, plants and all that lives in the great cycle of coming and going, giving and receiving that is life itself.” (p. XI)

Each book in the series includes several stories, each teaching various lessons about relationship with nature. After each story there is discussion, questions to explore, activities to build upon the lesson and additional things people can do to extend the experience. The lessons are conducive to classroom teaching and learning but applicable in various contexts.

The lesson on Seventh Generation Stewardship is one of the activities Chapter 15 in the book, “Healing our Relations.” I chose not to use the story but I found that the activity was very helpful in teaching about relationships with nature, particularly because it emphasizes the principle of reciprocity, one of the 4 R’s.

In the “Discussion” section of Chapter 15, Caduto and Bruchac talk about “Living in Balance.” Their understanding of balance is living in a sustainable way on Earth. They cite Abenaki traditions as an example of deep respect for the circle of giving and receiving with Earth. They
write, “These traditions are an example of a reciprocal, sharing relationship with plants, which can be used as a model for contemporary ways of living in balance in today’s world.” (p. 240)

The model of stewardship they emphasize is Seventh Generation Stewardship. They write, “The traditional stewardship perspective of Native North American cultures is one of considering the long-term effects of our actions upon earth and humanity. It is often expressed in terms of doing things wisely and carefully while keeping in mind the repercussions every action will have upon the next seven generation of children to come. Decisions are made considering the wisdom of the ancestors of seven generations ago. Each of us is a seventh generation.” (p. 240) As I explained in Chapter 3, this teaching goes hand in hand with Islamic environmental stewardship, thus I chose to supplement the students’ Islamic learning with this teaching. I assumed that the two could be taught at once.

The activity called Seventh Generation Stewardship, which I implemented most of, is described as follows:

“ACTIVITY: Plant and nurture a flower, tree or other plant over the course of seven visits. List the survival needs of the plants and the gifts plants give to people. Discuss threats to the well being of plants. Create an ongoing story of the experience and a “seventh-generation” necklace.” (Caduto & Bruchac, 2007, pp. 241-242)

The Goals of the activity are described as follows: “Understand the circle of sharing, of giving and receiving, and the meaning of living in balance. Develop the awareness and the communication skills necessary for nurturing plants physically and through supportive words and empathic caring feelings. Understand what plants need to survive and how to help them obtain those needs. Realize the many threats that plants face in their existence. Incorporate seventh-generation stewardship into daily life. (p. 242) I shared the first three goals in my activity.
The procedure that Caduto and Bruchac outline can be found in Keepers of Life on pp. 242. The Sharing Circle is a key aspect of the activity.

In brief, the elements of the entire activity are:

1. Have a discussion with children on:
   a. One of the great circles of life is that of giving and receiving in a sharing, circular relationship with the natural world
   b. (Brainstorming) ways to give and receive from plants
   c. An important part of living in balance is keeping this circle strong
   d. How to communicate with plants – what they respond well to and what they respond poorly to
   e. Threats to plants
2. Explain that each person will begin a circle with a plant and will practice good stewardship by caring for it and protecting it
3. Take the children outdoors to plant the plants, tell them how to communicate with the plants and then do clean-up
4. Record the gifts given to and gifts received from plants. Encourage students to keep thinking about this.
5. Ask each child to create a story about their plant and have them share their stories
6. Ask each child to create a “seventh-generation” necklace
7. Over the coming weeks and months have the children visit the plants and continue the circle, reminding them to take gifts to the plants, including:
   a. Playing soothing music for the plant
   b. Singing to the plant
c. Hanging a personal object of beauty on the plant (once the plant is strong enough to support its weight)

d. Reading to the plant

e. Placing rich soil at the base of the plant for fertilizer

Of these steps, I chose to implement 1, 2, 4 and 7. Students were not asked to write a story or to build a necklace. They were asked to write journals instead. I believed that journals would be a comfortable way for them to express their thoughts and feelings about the Sharing Circle.

3 & 4) The Sharing Circle & The 4 R’s (Relationship, Responsibility, Respect, Reciprocity)

The 4 R’s are a set of principles which I wished for students to learn and enact in Sharing Circles. They go hand in hand with the concept of the Sharing Circle. As students began to enact Relationship, Responsibility, Respect and Reciprocity as I described them, students would necessarily establish the Sharing Circle and strengthen their relationships with their plants. It is important to note that once they knew that a Sharing Circle existed, two things could unfold quite naturally: (1) practicing or emphasizing any one of the 4 R’s would support the student in enacting the others; and (2) by enacting them all, the student would be practicing reciprocity (the circle itself being an enactment of reciprocity).

The 4 R’s were collected and implemented by Illene Pevec (M.A.) in “Ethnobotany: Patterns in Relationships,” (2002) a curriculum to teach about relationships with nature, for educators to run on school grounds. Like me, Pevec is an immigrant to Canada who was looking for a means of bringing Aboriginal principles and teachings about plants and Mother Earth to a wider audience. She developed the entire curriculum after working with a group of students, parents and educators to plant a garden at a B.C. school. She wrote,
“I offered to help them start a school garden to bring some nature back to their learning and play environment…This curriculum was written to help the children at Grandview learn about the traditions associated with First Nations cultures and their relation to the earth.” (p. 1-2)

The curriculum contains a set of modules, each with its own introduction (containing a background and explanation of principles) and activities. The 4 R's is found at the end of the first module, titled “A First Nations’ Philosophy of the Earth.”

Pevec explains the 4 R's as follows:

Relationship: “We learn about relationships by watching all the relationships around us in nature. In the spring we see the wild animals protect their young from harm when they first venture forth in the world just as humans protect their children…We show our understanding of relationships by being kind to the people, plants and animals around us.” (p. 26)

Respect: “We can learn respect by learning about the natural world and treating the part of the earth where we live well so the cycle of life can continue. Indigenous people have laws which govern their use of earth resources. They understand that their existence depends on the earth remaining in balance and that they must respect this balance.” The example she offers is: “If we gather wild foods we must never take all we find in one site, but always leave enough so the plant can regenerate for future food growers.” (p.27)

Responsibility: “We learn to be responsible to the earth through caring actions. We can learn responsibility by observing that wild animals do not kill more than they need to eat.” (p. 27)

Reciprocity: “We can learn reciprocity by seeing that huge trees protect smaller plants with their shade. In turn, those small plants shed leaves which decay and nurture the giant
trees…Indigenous people traditionally leave an offering for anything they take from the Earth as a thank you…First Nations people teach us to acknowledge the gifts the earth gives us.” (27)

These 4 R’s are also explored in Chapters 1-2. The definition of the 4 R’s which I used in my lessons is similar, but not exactly alike. This is the way that I conveyed them to students:

“In the sharing circle, you need to practice what Aboriginal Peoples call the 4 R’s:

Relationship – means you have a relationship with your plant and you do not leave it to itself

Respect – means you respect your plant because it is another living thing

Responsibility – means you take responsibility for caring for the plant, as it cares for you

Reciprocity – means your relationship is one of giving and receiving from your plant”

I explained to students that God teaches human beings to practice each of the 4 R’s through the Qur’an and through the example of Muhammad. I cited examples of this for the students, some of which are listed in the Introduction and Chapters 1-2. Although my R’s were simplified, they impacted students’ relationships with their plants in significant ways, which will be discussed in Chapter 5: Data Analysis.

A Note About Journaling

As noted, rather than have students write stories or build necklaces, I asked them to journal about their Sharing Circles. Pevec (2002) recommends journaling in these types of activities. She writes, “Observing, reflecting and recording one’s observations of nature is a first step in becoming an earth steward. If students keep all activities and journal entries together they will have a wonderful record of their development in this life-long endeavor of stewardship.” (p. 4)
I also chose to use journals because they are a medium which all students are used to, and give students a degree of comfort to express themselves, through words or pictures, as they wish. Journals would help me to understand how the students grasped what I was trying to teach them.

**Summary of the Lessons**

The lesson on Islamic Environmental Stewardship was a collection of Islamic teachings, without a basis in any other methodology or theory. As noted, little has been done to develop environmental stewardship lessons for Muslim students.

The lesson on stewardship using Aboriginal principles and techniques, specifically Seventh Generation Stewardship, the Sharing Circle and the 4 R’s was designed to supplement Muslim students’ learning about Islamic environmental stewardship. In Chapters 2 and 3, I examined these principles and pedagogical tools to determine how with Islamic teachings. I found that they are congruous. Thus, Muslims may benefit from implementing Aboriginal principles and pedagogical techniques, specifically, in their educational models.

The model I have outlined in this chapter demonstrates how the various ideas were brought together in my lesson. The model is also based on the Aboriginal concept of circle and four directions. It is another way to introduce Aboriginal thought to students.
Chapter 4
Methodology

Introduction

The purpose of this study is to examine the opportunities and impact of bringing together Aboriginal and Islamic worldviews to teach environmental stewardship. The participants in my research were Muslim students at an Islamic elementary school in Mississauga, Ontario. The teaching strategy was comprised of two lessons: one on Islamic environmental stewardship and the second, on Aboriginal teachings about Spiritual Ecology. The second lesson asked the students to establish an Aboriginal Sharing Circle with plants. The lessons were delivered to two separate Grade 3 classes at the school. Worksheets and journals were used to collect data on the learning outcomes, with the primary goal of determining the impact of the Aboriginal Sharing Circle on the students’ relationships with and conceptions of the plants. The data was coded and categorized into 2 themes related to the research questions.

The study offers a method of reviving Islamic environmental stewardship for Muslim students using selected teachings of Aboriginal peoples (which, I have demonstrated, are in accordance with particular Islamic beliefs as I understand them). This initiative is unprecedented in Islamic education, and is helpful in improving the practice of Islamic environmental stewardship. My hope is that students who were given the lessons will have imbibed this moral practice in a comprehensive, holistic, yet easy and relevant way that they will take forward into their everyday lives. They will also have learned about another worldview containing teachings which are similar to the teachings they are used to, and seen some of the opportunity that exists to benefit from those teachings and those peoples.
1. Setting

The research took place at a private Islamic elementary school, Olive Grove School, in Mississauga, Ontario. There are 480 students, all of whom come from families where one or both parents are Muslim, attending the school. The families are of various ethnic backgrounds. The school has classes from pre-school to Grade 8. Olive Grove School is an institution of the Muslim Association of Canada (MAC). The school itself is 5 years old, and MAC has been operating for 11 years, with 12 chapters across Canada including the Toronto chapter (which includes Mississauga). MAC is a non-profit, grassroots organization whose mission is "To establish an Islamic presence in Canada, that is balanced, constructive and integrated though distinct, within the social fabric and culture of Canada." Olive Grove School is one of MAC's 3 elementary schools across the country. The MAC website details that its institutions, such as Olive Grove School, are intended to accomplish its mission. In regards to education in particular, MAC believes that “the way forward for the Muslim Community and Islamic work in Canada must be “through the education, improvement and training of each individual Muslim, each Muslim family and each local Muslim community.” Thus, for MAC, education is a very high priority. The goal of education in MAC is to produce “Muslim individuals, families, and communities that are spiritually vibrant, intellectually sophisticated, and physically performing good works and involved in their society” through a nurturing method of “total character development.” How this is achieved varies from institution to institution within MAC, and MAC welcomes new methods and strategies which are in accordance with its understanding of Islam. MAC’s goal is that people understand Islam in particular as a religion of “balance, constructive engagement, and relevance to life,” (as per its mission statement) (MAC, 2009, Mission Section). Thus MAC was a good organization to approach for a study of this nature and happily accepted my proposal.

In addition to meeting MAC’s goals, Olive Grove School is committed to following and “exceeding” the expectations of the Ontario Curriculum and has a special focus on character
building and healthy living. A stated goal of Olive Grove is for its students to become “respectful and contributing Canadian citizens.” An example of the efforts of the school to achieve these goals is that in Spring of 2010 the school applied to become a “Green School” through the EcoSource Green Schools Program. This means that for the 2010-2011 school year, Olive Grove staff and students worked together with EcoSource to make the school’s practices, culture and school grounds more environmentally friendly. Olive Grove welcomed the opportunity to use my study to achieve its goals for students, specifically improving their practice of environmental stewardship.

The data was collected from the two Grade 3 classes at the school, which had 18 and 14 students respectively.

2. Sample/Participants

Students in Grade 3 at the school were mostly the age of 8, and like the rest of the school, come from a variety of ethnic backgrounds. Most of the students had been at the school for 2-3 years minimum, indicating that they had received similar instruction in Islamic studies at the school for that period of time. I selected the Grade 3 classes because the Science and Technology strand of the Grade 3 Ontario Curriculum (2007) contains expectations related to the relationship between human beings and plants, including:

- “assess ways in which plants are important to humans and other living things, taking different points of view into consideration”;
- “assess the impact of different human activities on plants, and list personal actions they can engage in to minimize harmful effects and enhance good effects”;
- “investigate ways in which a variety of plants adapt and/or react to their environment, including changes in their environment, using a variety of methods.” (p.71)

Students were taught lessons around these expectations (and assessed for them) prior to the lessons which I delivered; thus the lessons provided a good segue into my lessons. In addition, the students had planted plants for the unit, which could be used in my lessons.
3. Methodology

My teaching methods and lessons were used to address the following research questions:
What is the potential to combine Aboriginal teachings about the human relationship with the natural environment, with Islamic teachings about the same?
What are the challenges and opportunities of introducing experiential stewardship education based on Aboriginal pedagogy and teachings to Muslim students in an Islamic elementary school?

3.1 Intervention and Materials

In order to investigate the challenges and opportunities of introducing experiential stewardship education based on Aboriginal pedagogy and teachings to Muslim students, there are three Aboriginal pedagogies/teachings which I attempted to give to students:

- Seventh Generation Stewardship
- The 4 R’s (Relationship, Respect, Responsibility, Reciprocity)
- The Sharing Circle

In the Theoretical Framework Chapter I argue that all three are synchronous with Islamic beliefs and the Islamic lessons being taught to students at OGS.

As previously mentioned, the Grade 3 Science and Technology strand of the Ontario Curriculum offered a way to bridge learning about plants with Islamic environmental stewardship and Spiritual Ecology as they relate to plants.

Before I could give these pedagogies/teachings to students, I had to ensure that they had an understanding of what the Islamic concept of environmental stewardship was. Thus, my first lesson was on this topic.
Lesson on Islamic Environmental Stewardship

For a copy of this lesson, refer to Appendix A.

The Lesson on Islamic environmental stewardship was delivered in a theoretical manner, without any practical applications for students, as recommended applications are lacking in documented Islamic pedagogy. The intention of this lesson was to teach Muslim students about the relationship which Muslims are asked to have with nature, as dictated in the Qur’an. This relationship is one of stewardship, which in the Islamic understanding, means that God has given human beings the earth as a trust and that we are responsible for its safekeeping. (Naseef, 12) The lesson included various verses of the Qur’an and sayings of the prophet Muhammad which support that understanding. This lesson was a part of the students’ Islamic studies curriculum, specifically the Character Building aspect. The assessment for this lesson was a worksheet on Stewardship in Islam, which will be explained further in this chapter under “Measurement Instruments.”

Lesson on Spiritual Ecology

For a copy of this lesson, refer to Appendix B.

The second lesson included a segue into Aboriginal teachings on the human relationship with the natural environment. I explained to the students that Muslims and Aboriginal peoples share values on this topic. In the lesson, the segue is as follows:

We have discussed the meaning of “stewardship” and you know that you are stewards of the earth. What does being a steward mean?

(Students offer answers)

Aboriginal peoples also believe that we should care for the earth. Do you know anything about how Aboriginal peoples care for the earth?

(Students offer answers)
The lesson then explained that one teaching of Aboriginal peoples is in Seventh Generation Stewardship and I defined this concept for students based on Caduto and Bruchac (2007). Seventh Generation Stewardship is the practice of thinking about the seven generations of living things to come, as well as the wisdom of the generations which preceded us, when human beings do things which impact the natural environment.

This was followed by an experiential activity to reinforce the concepts which were being taught: included in Caduto and Bruchac's lesson on Seventh Generation Stewardship was the activity of forming a relationship with plants called a “Sharing Circle,” that would help students appreciate their impact on plants and the earth. This would be a reciprocal relationship where students would acknowledge the gifts which the plants gave to them, and they in turn would give gifts to the plants. This was based in part upon the learning the students did in the Science unit when their teachers covered the Overall Expectation listed as “assess ways in which plants have an impact on society and the environment, and ways in which human activity has an impact on plants and plant habitats.” (Ontario Science Curriculum, 2007, p.71) In order to help students acknowledge and practice both sets of gifting, we developed a list of the sets and posted it in the classroom where they could read it.

The list included the following gifts:

Gifts human beings receive from plants:

- Food
- Oxygen
- Water (in fruits)
- Flowers (beauty)
- Friend
- Resources
- Fragrance
- Shade and shelter
- Dye and medicine

Things human beings may give to plants:

- Love
In addition to the gifts which students acknowledged, I taught them about the “4 R’s,” a set of Aboriginal principles including Respect, Reciprocity, Relationship and Responsibility (Pevec, 2002, p.25); also see Chapter 3. I instructed them to practice the 4 R’s in their Sharing Circles as follows:

In the sharing circle, you need to practice what Aboriginal Peoples call the 4 R’s:

Relationship – means you have a relationship with your plant and you do not leave it to itself

Respect – means you respect your plant because it is another living thing

Responsibility – means you take responsibility for caring for the plant, as it cares for you

Reciprocity – means your relationship is one of giving and receiving from your plant

I explained to students that God teaches human beings to practice each of the 4 R’s through the Qur’an and through the example of Muhammad. I cited examples of this for the students, some of which are listed in the Introduction and Chapters 2 and 3.

For the purpose of assessing their understanding of the meaning of each of the 4 R’s, students were asked to give the meaning of each of the 4 R’s in one sentence each as they understood
them. This was assigned within one week of the activity. This will also be explained further on in the chapter, under “Measurement Instruments.”

Immediately after the lesson on Seventh Generation Stewardship, the Sharing Circle and the 4 R’s, I instructed students to begin their Sharing Circles as follows:

“You will start a journal where you write down about how you are acting as a steward of your plant in your Sharing Circle. You can use pictures and words. I would like you to do at least 5 journal entries about your Sharing Circle over the time that your plants are growing.

The journal reminds you of the ways in which you can be a good steward of your plant. Please pay attention to them and try to record how you have acted them out.

When you visit your plant, take gifts to it, like kind words, make it comfortable, and give it extra fertilizer, along with watering and placing it in the sunlight.

The cover of your journal says “My Sharing Circle with __________________” and you fill in the name of your plant. Inside, you will find some ways in which you can be a good steward of your plant, and you will find some journal starters. You can choose not to use these if you wish, and you may come up with your own. Please include any pictures or words that come to your mind.

Don’t forget to include the date by each journal entry.

A further explanation of the journal can be found below under “Measurement Instruments.” Students were asked to complete at least 5 journal entries within 5 weeks of the start date (as their seeds sprouted and grew). While developing the Sharing Circle in those weeks, the classroom teachers reminded students of the Islamic concept of stewardship and the Aboriginal teaching of the 4 R’s. This was not done systematically and the number of reminders is unknown.
3.2 Measurement Instruments

This study looks at the outcome of my lessons based solely on the three aforementioned written assessments: (1) a worksheet on the Islamic concept of stewardship, (2) a questionnaire about the 4 R’s and (3) the Sharing Circle Journals. The Sharing Circle Journals were the focus of my data analysis, since they allowed the students the most flexibility to exhibit any learning they did, both from Aboriginal and Islamic teachings.

Of the 37 students who participated in the lessons, 11 students and their families consented to submit their work for this study. There are several reasons why only 11 students and their families consented, including:

- some students consented but their families were unfamiliar with the research process and were hesitant to allow them to participate
- some students left the country for the summer, before the consent forms were sent home and/or returned
- some students lost their consent forms or families said they were too busy to sign them
- some families consented but students did not want their work to be used in my research

I will briefly explain each of the measurement instruments used.

Worksheet on the Islamic Concept of Stewardship

For a copy of this worksheet refer to Appendix C.

This worksheet asked the students reflective questions to assess their understanding of the Islamic concept of stewardship that was taught in the first lesson. It was handed out to students following the first lesson. It was used as an assessment tool for the students’ Islamic studies marks.
This sheet had three purposes, which were to assess the students’ understanding of (1) living things (2) ownership and (3) stewardship from the Islamic perspective.

I will explain each of these below.

1. Assessing students’ understanding of living things

At the beginning of the first lesson I asked the students the questions “Are the things around us alive or dead? Which things are alive? Which are dead?” The students offered their answers and then I explained to them that things human beings, plants and animals, and other things which breathe, grow, and require food are alive. I told the students that along with human beings, plants and animals are also spiritually alive. This means that they are constantly praising God, they can respond to God’s commands in the way that human beings do, and sometimes they can behave in the way human beings do, through expressing emotions/listening/speaking. I also explained that inanimate objects such as rock may be considered spiritually alive because God can command them to act at His will, and they are constantly praising God. I did not discuss whether plants, rock or other non-human creations are animate. I gave students the example of the tree stump which wailed when Muhammad stopped using it as the pulpit for his sermons. Thus, I did not make it clear to students whether they could consider their plants to be animate beings.

In the worksheet, I asked the students to finish the sentences, “Something is alive if it is…” and “Three examples of living things are…” Although a correct answer to this question would have been that living things “grow, take in food to create energy, make waste, and reproduce,” as per the Grade 1 Science Curriculum (Ontario Curriculum, 2007, p. 44), I wanted to know if they considered non-breathing objects as alive, which would have been considered a creative answer.
2. Assessing students’ understanding of ownership

In the middle of the first lesson I told the students “In Islam, we believe that all living things belong to the Creator, Allah. They do not belong to us. In order to be good worshippers of the Creator, we need to take care of the things around us. So, are we masters of the earth? (Students offer answers) We are not masters of the earth. Allah gave it to us and we are supposed to take care of it. We are called stewards of the earth.”

Thus, in the worksheet, I asked the students questions such as “Who owns the land this school is on?” and “Who owns a baby when it is born?” Acceptable answers would have been “MAC” and “parents” respectively, but the answer with the highest grade would have been “Allah.”

3. Assessing students’ understanding of stewardship

In the first lesson I explained the meaning of stewardship to students, I gave them Islamic injunctions around stewardship found in the Qur’an and the traditions of the prophet Muhammad, and I discussed with them how stewardship may be done well or done poorly:

When you talked about land use and you heard stories about how we treat the land, do you think we are acting as stewards of the earth? (Students offer answers)

What are we doing to be good stewards? (Students offer answers)

What are we forgetting to do, or what are we doing to harm the earth? (Students offer answers)

Thus, the worksheet asked students to explain who a steward is, why and how people should be good stewards, and how people can be bad stewards.

One shortcoming of the lesson was that I did not explain what exactly I meant by “earth” (i.e. whether this meant only living things on earth or living and non-living things, and whether it included human beings as well as plants and animals). I assumed that the discussion about
which things around us are alive would automatically lead students to understand that by “earth” I meant the natural environment. I also did not explain the connection between “earth” and “environment”, which I assumed the students would understand to be the same thing. In retrospect, this should have been clarified for students.

Although I did not use the data in the worksheet to assess the impact of the foresaid Aboriginal teachings/pedagogies (i.e. Seventh Generation Stewardship, the 4 R’s and the Sharing Circle), it provided some insight on how students understood certain concepts, such as what “earth” or the “natural environment” encompasses.

A rubric was attached to the students’ work, so that they knew how they would be assessed. The highest grade (Level 4) would be given to the students who met the criteria: “You give one answer for each line, answer all of the questions completely and correctly, and try to think of new and creative answers to the questions.” This met the provincial requirements for a grade of Level 4, according to the classroom teachers.

**Questionnaire about the Stewardship and the 4 R’s**

For a copy of this worksheet, refer to Appendix D.

This worksheet asked the students to list ways in which a person can practice good stewardship and ways in which they can practice the 4 R’s. It was intended to reinforce the learning that the students had done in the first worksheet, and it was handed to students approximately one week after the first worksheet was handed out. It asked the students to answer two questions: “List at least 5 different ways that a person can practice stewardship” and “How will you practice the 4 R’s discussed in class with your plant. List at least one way for each.” I included it in my study because it might serve to clarify students’ understanding of certain concepts for me.
Students were given one mark out of ten for each reasonable answer. In terms of assessment, the classroom teachers accepted one-word responses as correct answers, such as listing one of the 4 R’s. In response to the second question, one student wrote “Respect” and this was accepted as a correct answer.

“Sharing Circle” Journals

For a copy of the instructions inserted at the beginning of each journal, refer to Appendix E. Students were asked to do a minimum of five entries in their journals, one of which was done with me when the journals were distributed, and the rest were to be done over the following weeks during their spare time or Language classes. Students were instructed to journal about the experience of having the Sharing Circle, i.e. what they were giving to their plants and what they were receiving from them. (As previously mentioned, a list of the gifts which human beings and plants exchange was produced between the students and myself during the lessons and posted in the classroom). The journal included two reminders for students; one was a list of the 4 R’s and their meanings, and the second was journal starters.

The journal starters were:

Today, my plant looks like…

Today, I took my plant a gift of…

I practice responsibility with my plant by…

I show respect to my plant by…

My plant gives me…

These journal starters were intended to prompt students to think about the 4 R’s, rather than simply describing their plants. Each question relates to one of the 4 R’s; all of them imply a Relationship with the plant, and each of them implies a Relationship of either Respect, Reciprocity or Responsibility. As mentioned above, students were invited to draw pictures to go
along with their entries, thereby allowing them the facility of drawing to explain their thoughts and feelings.

Journals were an excellent tool for the students to express themselves, as students in the Grade 3 classes were told that they would not be marked for their work. Thus, they felt free to enter whatever they wished to. If they chose not to do the journals they were not reprimanded. Thus, any lack of entries may also reflect the strength or weakness of the Sharing Circle relationship.

4. Data Analysis

The following research questions are at the centre of this study:

What is the potential to combine Aboriginal teachings about the human relationship with the natural world, with Islamic teachings about the same? (answered in the Theoretical Framework chapter)

What are the challenges and opportunities of introducing experiential stewardship education based on Aboriginal pedagogy and teachings to Muslim students in an Islamic elementary school? (answered in the Concluding chapter)

The data from the above measurement instruments were coded according to the following headings:

1. Characteristics of Sharing Circles

2. Connections to Stewardship in Sharing Circles

I developed these categories on my own. The below section is an explanation of each category.
1. Characteristics of Sharing Circles

   a. Observational (i.e. what the students observed about the plants)

   This will indicate what aspects of the plants were of interest to students; did students focus on physical elements of the plants only, or also on human-like behaviours or emotions.

   b. Interactive (i.e. data reflecting the students’ interactions with the plants)

   This will show the various types of interactions which the students had with their plants.

   c. Non-interactive (i.e. data reflecting a lack of interactions with the plants)

   This may indicate a lack of relationship between the students and the plants, as well as any degree of disappointment or dejection of the students with the relationships.

I developed these categories for the following reasons:

1. Students’ observations about the plants would indicate what aspects of the plants captured their attention. I hypothesized that if students only noted material observations about their plants, they would not make strong emotional connections with their plants, whereas they would necessarily make strong emotional connections if they observed human-like behaviours and emotions in their plants. I also hypothesized that stronger emotional connections in the Sharing Circle would encourage them to be better stewards.

2. Human-like observations would confirm that students were not experiencing any confusion in gifting their plants with gifts like speech, love, attention and so on. It would confirm that this belief, which Aboriginal peoples and many Muslims share, could in fact be adopted in lessons such as these.
3. The various interactions which the students had would depict how much the Sharing Circle would impact their practice of stewardship, from building relationships to deepening their respect for plants. If students were able to build significant relationships with the plants without confusion, this would indicate that the Sharing Circle is a useful experiential tool from the Aboriginal tradition, which could complement Islamic notions of stewardship.

2. Connections to stewardship in Sharing Circles:
   a. Connections to 4 R’s
      - under reciprocity: connections to gifting between student and plant
      Connections to 4 R’s would indicate an understanding among students of how to implement the 4 R’s in a practical way in their Sharing Circles. Also, they would indicate the establishment of the Sharing Circle through these principles.

   b. Connections to Seventh Generation Stewardship
      Connections to Seventh Generation Stewardship would indicate a sense of Responsibility on the part of students, one of the 4 R’s.

   c. Connections to specific Islamic concepts
      Connections to specific Islamic concepts would indicate that students were able to explicitly connect their learning about stewardship in Islam (i.e. principles taught about Islam) and the practices of the Sharing Circle

   d. Confusions?
      Students may explicitly state or express contradictions between their learning of various concepts. If there were contradictions in the students’ work, this might indicate that
some or all students were having difficulty linking the various concepts from the lessons together.

Analysis of the Journals

Students were asked to make at least five entries, but were told that they would not be marked for them. Therefore, while more entries might point to a student's dedication, less entries could not be assumed to mean less dedication. In this sense, the number of entries, the amount of content and the reflections cannot be considered representative of a larger population of students. At the same time, given that the students had a similar education at Olive Grove School (in Grades 1 through 3), it can be assumed that other students who underwent or would choose to undertake the Sharing Circle relationship, might have similar experiences in their Sharing Circles.

Journals were analyzed for specific references to the above themes, such as the 4 R’s, including verbal and visual references. They were also analyzed for consistency in entries, but only insofar as subsequent entries would indicate, in their details, a continuous commitment on the part of the students to their plants. For example, some students drew their plants’ growth in each entry, detailing the growth of various aspects of the plant. Together with the rest of the content in the journal, I counted that as an indicator of commitment to their plants.

I also looked for the way in which earlier thoughts and feelings about their plants would impact students’ later observations and feelings. For example, observations of human-like behaviours and feelings in their plants early on, might shape subsequent interactions with their plants. As noted, I hypothesized that this would forge a stronger Sharing Circle.

5. Summary

This study seeks to answer the following questions:
What is the potential to combine Aboriginal teachings about the human relationship with the natural environment, with Islamic teachings about the same?

What are the challenges and opportunities of introducing experiential stewardship education based on Aboriginal pedagogy and teachings to Muslim students in an Islamic elementary school?

I have established in Chapters 1-3 that the spiritual understanding of environmental stewardship found in Islam is shared in many ways with Aboriginal peoples and is reflected in their teachings. I have also established that this understanding can be fostered by Aboriginal teachings and pedagogies which are emotional and relational in nature. In order to establish the efficacy of the teachings and pedagogies, I have created a number of lessons to (1) teach students the Islamic perspective on environmental stewardship and (2) teach students how to use Aboriginal teachings to make their practice of stewardship more meaningful. The focus of my data analysis will be students’ understanding, practices and emotions reflected in the Sharing Circle Journals.

Based on the assumption that Aboriginal teachings would enhance students’ practice of environmental stewardship, I use the Sharing Circle Journals to determine (1) what emotional connections were being made between students and their plants which would enhance students’ practice of environmental stewardship and (2) how emotional connections were informing or being informed by the teachings about Seventh Generation Stewardship, the 4 R’s and the Sharing Circle itself.

I am looking for the understanding, practices and emotions reflected in each entry, rather than all of the entries as a whole. Students were not forced to produce journal entries, therefore in most cases there is no way to tell whether a consistency in entries reflects their practice of
environmental stewardship. However, consistency in a particular reflection, practice or emotion may reflect a students’ practice of environmental stewardship, so this will be looked at in detail.

**Shortcomings of the Methods**

There are several shortcomings which can be identified at the outset:

1. The students did not have a common educational foundation in Islamic environmental stewardship which could be drawn upon. Thus, one lesson on this central Islamic practice may not be enough to convey to students all that Islamic sources say about it. This is a shortcoming because Islamic teachings about environmental stewardship are spiritual in nature, having to do with a human being’s relationship to God, and spiritual concepts require time to be imbibed.

2. The students did not have a common educational foundation in Aboriginal worldviews, Aboriginal knowledge and Aboriginal teachings. Although students understood the Aboriginal teachings as I presented them, many Aboriginal elders would prefer that the individual teachings (e.g. each of the 4 R’s) be presented in a more traditional way by an Aboriginal person. Had more time been available, I would have invited Aboriginal elders into the classroom to teach the specific concepts through their words, acts and stories. This would honor Aboriginal knowledge as Aboriginal people wish for it to be honored, and would teach the students’ a deeper respect for the knowledge being conveyed.

I attempted to employ a methodology that would be conducive to a Grade 3 private school classroom (which happens to mirror a public school classroom and schedule), thus my time with students was limited. My methods were therefore limited, but they were effective in building emotional connections between students and their plants, which will be discussed in Chapter 5.
Chapter 5
Analysis of the Data

The following research questions are at the centre of this study:

• What is the potential to combine Aboriginal teachings about the human relationship with the natural environment, with Islamic teachings about the same?

• What are the challenges and opportunities of introducing experiential stewardship education based on Aboriginal pedagogy and teachings to Muslim students in an Islamic elementary school?

I have given my analysis of the first question in Chapters 2-4. I will answer the second question in this data analysis. In order to answer this, I have asked research participants to engage in an experiential Aboriginal Sharing Circle with plants, and I have asked the following question of the data:

What are the characteristics of an Aboriginal Sharing Circle which students' created with their respective plants? Do the Sharing Circles complement the students' learning about stewardship?

In order to answer these questions, the data from the measurement instruments were coded according to the following headings:

1. Characteristics of Sharing Circles
2. Connections to Stewardship in Sharing Circles

1. Characteristics of Sharing Circles
When organizing the data which indicated the characteristics of Sharing Circles, I grouped it according to the following headings:

- **a. Observational (i.e. what the students observed about the plants)**

This will indicate what aspects of the plants were of interest to students; did students focus on physical elements of the plants or also on human-like behaviours and emotions in the plants?

- **b. Interactive (i.e. data reflecting the students’ interactions with the plants)**

This will show the various types of interactions which the students had with their plants.

- **c. Non-interactive (i.e. data reflecting a lack of interactions with the plants)**

This may indicate a lack of relationships between the students and the plants, and any degree of disappointment or dejection of the students with the relationships.

**Summary of (a & b): Observational and Interactive Data**

Data on the students’ observations and interactions with their plants indicated two types of views on the plants which are relevant to this study: either as having human-like behaviours and emotions, or as only having needs and reactions related to physical growth and development. I have chosen to use the term “human-like” (as opposed to animate) to avoid an assumption that students were in fact perceiving the plants as animate beings; it is possible that students were recording that their plants exhibited human-like emotions and behaviours but the students were unsure that the plants were in fact animate. Students may have recorded such phenomena without believing that their plants were animate for several reasons:

1. Students were instructed to interact with their plants by talking, singing and gifting their plants with other things which are normally given to animate beings

2. I discussed the spiritual life of plants in class. Although I did not say that the plants were animate, I did explain that plants have a spiritual life because they witness and remember human acts, and that they praise God constantly in their own way
For these reasons, it is possible that students believed their plants had a spiritual life, but did not believe they were animate.

Based on what they were taught in the lessons, students could have interacted with their plants in one of the following ways:

1. As though their plants had a spiritual life and were animate, truly expressing human-like behaviours and emotions;
2. As though their plants had a spiritual life but were inanimate, yet students still attributed human-like behaviours and emotions to the plants;
3. As though their plants had a spiritual life but were inanimate, and students did not attribute human-like behaviours and emotions to the plants.

Because (1) cannot be judged here, I have separated the data according to students who did (1) and (2) (i.e. “Observational/Interactive Data of Human-Like Behaviours and Emotions”), and students who did (3) (i.e. “Observational/Interactive Data Related to Physical Changes and Development Only”). Doing so illustrates a critical point: students falling under both categories had emotional connections with their plants on account of the Sharing Circle. Those students who interacted with their plants as if they only had needs and reactions related to physical growth and development, recorded that they received the gifts of self-fulfillment and joy from the Sharing Circle relationship which indicates that the plants had a direct impact on their emotions (i.e. emotional connections were made). In many cases, these emotional connections would in turn serve to solidify the Sharing Circle relationship and their practice of stewardship.

For the purpose of this study, I noted any case where the student acknowledged that the sharing circle relationship emotionally impacted them as an emotional connection between
student and plant. In my assessment, students made emotional connections with their plants if they:

- demonstrated care for their plants
- acknowledged the receipt of some benefit from their plants
- shared an emotion with their plants, such as excitement or joy, at the development of their plants
- experienced an emotion upon the development of their plants, such as happiness when their plants grew or sadness when their plants died
- expressed attachment to their plants, either explicitly with words, or through their constant care of their plants

I have described any of the above as emotional connections between student and plant.

**Observational Data Of Human-Like Behaviours and Emotions**

This data shows that students made instant connections with their plants through attributing human-like behaviours and emotions to the plants. Students may or may not have felt that the plants were in fact experiencing the behaviours and emotions they mentioned (i.e. animate) for the reasons cited above. Also, they may have attributed these things to plants on account of a sense of ownership or an emotional reaction to sprouting or growing the plants. Regardless of this factor, by observing their plants in this way, an emotional connection was made to the plants that would enhance the students’ practice of stewardship. The following examples will illustrate this point.

As his seeds sprouted, Bilal said “Today my plant looks like its happy. One of them is ready to be planted.” Eight days later, he made the observation that his plant looked happy once again. His observations indicated excitement over the growth of his seeds and motivation to continue caring for them.
Heba also said that her plants looked “happy” and one in particular looked like it was “having fun growing fast.” Heba drew her plants as growing larger each time, over a period of 17 days. (See Figure 6.1) Heba’s initial observations about the happiness of her plants may have been a part of her motivation to help them grow over those 17 days.

Figure 6.1: The growth of Heba’s plants

Completed June 3rd 2010, the drawings depict Heba’s kidney bean and fenugreek plants.

Completed June 7, 2010, the drawings depict continued growth in Heba’s plants.

Completed June 18, 2010, the drawings depict considerable growth in Heba’s plants.
Some observations also contained an element of interaction. For example, Nabeel, who made two separate observations about his plants as having human-like qualities, wrote “Today, my plant looks so grateful and beautiful.” Observing his plant as being grateful indicates that Nabeel felt or believed that the plant was thankful for its growth, which Nabeel appreciated. Nabeel continued to make this type of observation about his plants. As will be demonstrated in the following section, all of Bilal, Heba, and Nabeel demonstrated interactions with their plants based on the said observations of human-like qualities in their plants. This resulted in a substantive practice of stewardship among them, as will be demonstrated in the next section.

Interactive Data of Human-Like Behaviours and Emotions

When Bilal exclaimed that his plant appeared excited at being planted, he wrote that, in turn, “I feel excited about my plant because it will grow.” (10-06-03) He described a direct emotional exchange between himself and the plant: the share of excitement. This reciprocal relationship carried on between Bilal and his plants. Immediately following the above entry, Bilal proceeded to describe acts of reciprocity between him and the plant, indicating that he perceived a constant exchange between him and the plant. He did this thrice.

Heba’s observations may also have inspired further interest in her plants. In her third entry, 6 days after the first, she said that she would practice Relationship with her plant by giving it love. She also said that she would “have a relationship with (her) plant by talking to it everyday.” These practices demonstrate that Heba decided to adhere to a belief that the plants could receive love and words from her. Adhering to this belief in the emotional or spiritual life of the plant appears to have encouraged Heba’s practice of stewardship. As previously mentioned, Heba described her plants as growing consistently larger over the course of 17 days, and she consistently mentioned the 4 R’s in her entries.
Nabeel’s interaction with his plant continued through its life and death. This relationship demonstrated Nabeel’s attachment to his plants, which I would describe as an emotional connection. Seven days into the Sharing Circle, he wrote, “I gave my plant water, food. And it gave me back a very good look.” When he began to notice that the plants were dying 8 days after that, he said: “Today my plant is all falling and it is dying because I forgot to give it water and it kept falling off my desk.” Nabeel had a strong desire to give the plant what it needed to survive. Thus Nabeel continued to practice essential elements of stewardship, such as respect for the plants and responsibility in caring about them. This was further demonstrated when he said, “Today my plant looked like it was falling that’s bad. But don’t worry I will put a stick and rap [sic] it with a string.”

Fatima was another student who interacted with her plants as though they had human-like behaviours and emotions. She said that she would “show respect to (her) plant by talking to them once in a while and giving it water…” and underneath this entry she drew a picture of her plant and wrote, “I love you plants! I will never forget you even when you die!” (See Figure 6.2)

Figure 6.2: Fatima’s expression toward her plants

(No date)
Fatima expressed much emotion in this entry.
Fatima was expressing attachment to her plants through words and pictures. It appears that her attachment to her plants and her vigilance in looking after them went hand in hand.

The consistency and detail in students’ drawings may have demonstrated deeper care for their plants. Fatima entered detailed descriptions of her plants through drawings. The drawings are of individual sprouts and are very detailed. In her 4th entry, she wrote, “My bean didn’t grow bigger. P.S. I hope it grows into a strong and healthy plant.” (See Figure 6.3) This observation may have been made due to comparisons of earlier and later drawings. Drawing the plants may have motivated Fatima to continue her practice of stewardship. This demonstrates the added value of using a Sharing Circle Journal. Fatima had 6 entries in her journal and completed them over the course of 7 days.

Figure 6.3: The Growth of Fatima’s plants
Image 3 (no date)

Image 4 (May 31, 2010)

Image 5 (June 2, 2010)
It could be argued that students were attributing human-like behaviours and emotions to plants because I instructed them to do so in my lessons; further, that none of the students truly observed an animate life in the plants. While this may be true, not all students chose to relate to their plants this way. Five out of 11 students described their plants as having human-like behaviours/emotions. The other 6 whose work is under examination, chose not to.

3. Observational Data Related to Physical Changes and Development Only

Some students only wrote material descriptions of their plants. In his second entry, Aadil wrote, “I can plant my plants in my backyard. My corn plant is dying. My corn plant grew the most. My bean plant stopped growing.” This was one of two observations of Aadil’s, which were both describing the growth of his plants. Aadil’s observations did not include any human-like behaviours/emotions in his plants.

Similarly, Ibrahim said: “Today my plant looks like it has grown a lot. I am happy because it is still living and growing. (They) are so big now.” Riyaad said, “Today my plant looks like its dying. Because I think I gave it too much water.” Although these observations of the plants were absent human-like qualities, these students demonstrated care for their plants.
Saima’s observations were, “Today my plant look very green,” and “My kidney bean sprouted roots…My black eye pea has sprouted leaves.” These are careful observations which indicate extra care for her plants, as would be further demonstrated. Saima’s descriptions of the growth of her plants were very detailed, indicating that her care for the plants was consistent and meaningful to her. She wrote “Kidney bean grew very tall over a lot of days and now has some baby leaves. My fenugreek are leaves and they are very small and are very cute. And my black eye pea are very tall now and the leaves are always sleeping.” Although she was not describing any particular human-like qualities in the plants, it is clear that she cared for them and thus an emotional connection was made.

Nadia initially said, “My beans and corn grew really, really well.” Over the course of the next 13 plus days, Nadia would only describe physical attributes and developments in her plants. Interestingly, she also consistently expressed feelings for her plants, such as “I love corn better than bean!”, “I love corn,” “I love plants whoever hates corn! I love corn! They’re [i.e. people who hate corn] crazy!” This demonstrates an emotional attachment to her plants, despite the lack of observations of human-like behaviours or emotions in them. These emotional connections would be further reflected in the students’ interactions with their plants.

**Interactive Data Related to Physical Growth and Development Only**

Several students were constantly gifting and being gifted by their plants. Although they were not observing their plants as having human-like behaviours or emotions, this reciprocal type of relationship appears to have been an emotional endeavor for students, where emotional connections were made between them and their plants.

Saima, wrote, “today I took my plant a gift of vacation. I practice responsibility with my plant by making sure it is ok every single day. I show respect to my plant by checking on it. My plant
gives me oxygen. The thing I give my plant is love, care, respect, responsibility.” Thus Saima was constantly gifting and being gifted by her plant each day, and she acknowledged this reciprocal relationship. It is unclear what she meant by a gift of vacation, but the mention of this unusual gift, one that is often valued by students, seems to be an expression of Saima’s care for her plant. Further along in her journal, Saima wrote, “I feel very good because my kidney beans roots sprouted out…I feel very good because I am able to plant them in soil today,” and “I feel very good because they grow very well and they’re now in the soil.”

Ibrahim was receiving pleasure at the growth of his plants, which he expressed when he said: “Today I planted my kidney bean and my fenugreek. I am so happy now because they are growing like crazy. I want them to grow leafs in 2 days. That is only what I want for now;” and “Today my plant looks like it has grown a lot. I am happy because it is still living and growing. (They) are so big now.” Although any person may experience pleasure and satisfaction at the growth of their plants, Ibrahim acknowledged that he wanted this in his Sharing Journal, demonstrating a recognition of growth as a gift. Ibrahim drew a before and after picture of his plant, which demonstrates significant growth. (See Figure 6.4)

Figure 6.4: Ibrahim’s before and after images of his fenugreek plant (June 10, 2010)
Some of Ibrahim’s entries explained how he would practice the 4 R’s with his plants. The 4 R’s are interactive in nature and so he has considerable interactions with his plants despite an obvious absence of human-like descriptions of the plants. The same is the case with Saima. For example, fifteen days into the Sharing Circle, Ibrahim wrote, “Today I respect my plant by making sure that the soil was damp. I practice responsibility by making sure that the roots are covered up with soil. I practice reciprocity by giving it carbon dioxide and my plant gives me oxygen.”

Aadil also expressed pleasure at the growth of his plants: “Today I planted my bean. I’m excited because my plant will grow more beans and my two corns will grow more corn.”

Nadia’s recordings demonstrate that she was much more attached to corn than to beans. I would surmise that Nadia’s love for corn was directly associated with her sense of personal success in sprouting and supporting the plants. On the one hand, this may be perceived as purely selfish and related only to her personal growth. On the other hand, it demonstrates that she was receiving something in return from the corn plant (i.e. a sense of success) and thus the relationship was reciprocal. This sense of reciprocity comes through when Nadia chose to bury her bean plant, showing that she acknowledged the value of the plant even beyond its life, and the need to honour it by burying it. (See figure 6.5)
Mustafa also said that his plants were giving him the gift of growth, and similar to Nadia, his exchange continued through to the death of his plants. In one of his first entries, he wrote, “It looks small. It gives me cool leaves…” Later, he wrote, “It looks tall. It gives me a long stem…” When his plant was dying, he said, “Today my plant looks like garbage. Because I threw it in the garbage. It gives me a dead look.” It is unclear whether Mustafa’s observation of a dead look on his plant was an association between it and death, between it and garbage, or a recognition of the plant’s spiritual existence. Nonetheless, Mustafa was able to acknowledge an exchange between them, and he continued to record this in his journal. The very acknowledgement of an exchange between student and plant was a connection between them and a way for students to improve their practice of stewardship.

Mustafa and Nadia’s interactions highlighted that death is an important aspect of stewardship, one which I did not address in my lessons. Although they did not express this explicitly, students may have experienced dejection, sadness or a loss of self-confidence upon the death of their plants. It would have helped their practice of stewardship if I had explained that death is
a natural part of life, and more critically for the Sharing Circle, that the death of their plants was not a rejection of their gifts or their ability to steward; that death can be the result of many things which are out of their control. I would recommend that educators ensure that death is discussed in future lessons of this type.

c. Non-interactive data
All of the students whose journals I have analyzed, had interactions with their plants. Thus, data of a non-interactive nature does not exist. This demonstrates the effectiveness of the Sharing Circle in evoking interactions of the students with their plants.

2. Connections to Stewardship in Sharing Circles:
I analyzed the Sharing Circle Journals for direct connections to stewardship concepts, including the 4 R’s, Seventh Generation Stewardship and specific Islamic concepts, which were taught to the students. Seeing these would indicate how much the Sharing Circle was able to reinforce that learning.

2.1 Connections to 4 R’s
Connections to 4 R’s would indicate an understanding among students of how to implement the 4 R’s in a practical way in their Sharing Circles. They would also indicate how well the 4 R’s support the Sharing Circle relationship, a useful point for educators who wish to use the Sharing Circle in this and other possible contexts.

Connections to the 4 R’s were of two types: descriptions of how students intended to practice the 4 R’s, and descriptions of how they did practice them. For the purpose of this analysis I will look at the latter as the former may simply reflect an intent to follow the lesson and may not reflect a practical application of one of the 4 R’s.)
Descriptions of how students practiced the 4 R’s:

Relation

As has been demonstrated above in the “Interactive Data” sections, all of the students whose work is under analysis were able to enter relationships with their plants, which is expected with the practice of the Sharing Circle. The Sharing Circle immediately places people in relationship with other beings, which is a very useful step in teaching stewardship of plants, as many people do not recognize a relationship with plants.

Students’ descriptions of their relationships with their plants varied from statements such as “I have a Relationship with my plant” to “I practice relationship by taking care of my plant” to “I did relationship with my plant by treating it like a friend.” (Bilal) As in Bilal’s case, some students explicitly stated that they had friendships with their plants.

Other students made interesting comparisons. Saima said, “I feel very good because my kidney beans roots sprouted out. Just like when my mom saw me growing taller and taller so I feel very good because I’m going to plant them in soil today.” (Saima) In this case Saima was able to (1) draw a connection between this relationship and a human relationship and (2) draw a sense of self worth from giving to her plant.

Some acts of reciprocity between student and plant reflected a deeper relationship and are thus noteworthy here. For example, Nabeel said, “I gave my plant a nice home and gave him air.” In this case Nabeel appeared to understand his relationship with his plant as being familial in nature, as he associated shelter and a gender with the plant at the same time. Evidently, the type and nature of the student-plant relationship varied greatly between students.
Respect

Most students described respect as something they gave to their plants. Heba said she practiced Respect because “I did not hurt it.” She also said “I respect my plant by giving it water.” Ibrahim said, “I respect them by making sure that I planted just right,” “I respect it by making it not fall off the end of my desk,” “I respected my plant by making sure that the soil was damp,” and “I practice respect by making sure that it doesn’t dent.” Nadia showed respect in a drawing of tombstones for her plant. The words above it were “Bye Bye Beans!”

Saima said, “I show respect to my plant by checking on it.” Ali said, “I show respect to my plant by giving it water in the start. I like my plant. Its greeat! [sic]” Bilal said, “I show respect to my plant by treating it nice.”

The numerous other acts of responsibility and care for their plants also demonstrated various degrees of respect for the plants among the students.

Responsibility

Bilal said “I did responsibility with my plant by taking care of it.”

A minimum level of care was the basis of responsibility, and this was understood in the classes. Students expressed more than this as well.

Nabeel exhibited responsibility when he said, “Today my plant looked like it was falling that’s bad. But don’t worry I will put a stick and rap it with a string.” Ibrahim said, “I practice responsibility with my plant by not touching them.” Heba said, “I took good responsibility of my plants by making sure that the soil is moist and the cup is straight.” An understanding of the need to practice Responsibility was implicit in all of the teachings in the class, and thus expressed in the students’ relationships. It is unclear as to whether Mustafa’s or Nadia’s plants

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died due to a lack of Responsibility. Given that there are numerous other possible reasons for the death of the plants, this cannot be determined. For example, due to weekend breaks, students may not have been able to provide their plants’ needs.

Reciprocity

As demonstrated in the first section above, Reciprocity was the “R” that was most mentioned by students in their journals. Ahmed said, “Today my plant give me a happy feel and I give it sunlight.” Bilal said, “I did Reciprocity with my plant by giving it water, soil and love it gave oxygen and carbon dioxide.” Saima expressed a relationship of Reciprocity in the Sharing Circle with the following sentences: “My plant gives me oxygen. The thing I give my plant is love, care, respect, responsibility.” Ibrahim said, “I practice Reciprocity by giving it carbon dioxide and my plant gives me oxygen.” Heba described Reciprocity as “I gave it water it gave me oxygen.” Fatima described Reciprocity as “Whenever I water my plant they give me a good feeling inside.” From these entries, it is clear that students understood the meaning of Reciprocity.

2.2 Connections to Seventh Generation Stewardship

Connections to Seventh Generation Stewardship would indicate a sense of Responsibility on the part of students, one of the 4 R’s. However, none of the entries reflected on previous or future generations of plants or human beings and how the students’ Sharing Circles would affect them. I surmise this is because the students were directed to look at the 4 R’s in particular (e.g. through their “Journal Starters”) and because that gave them much to reflect on, outside of Seventh Generation Stewardship. It may also be because they did not reflect on Seventh Generation Stewardship independently of the 4 R’s, before having to incorporate all of the principles in their thoughts and recordings.
2. 3 Connections to specific Islamic concepts

Connections to specific Islamic concepts would indicate that students were able to explicitly connect their learning about stewardship in Islam (i.e. principles taught about Islam) and the practices of the Sharing Circle. However there were no such connections in the Sharing Circle Journals. This may have been due to the fact that instructions about the Sharing Circle did not ask the students to connect Islamic concepts with the Sharing Circle. I was not seeking these specific connections. Rather, I was hoping that the practice of the Sharing Circle would easily fit into the Islamic framework I had provided about environmental stewardship. It appears that it did, as I did not detect confusion on the part of the students. The 4 R’s and the concept of the Sharing Circle seemed to be easily understood and applied by the majority of students without confusion.

3. General Observations about the Sharing Circle and Stewardship

Based on the analysis provided above, the data collected in this study demonstrate that the characteristics of the students’ Sharing Circles included:

1. Regard for plants as inanimate organisms
2. Regard for plants as animate beings with human-like behaviours and emotions
3. Relationship – students developed relationships of various sorts with their plants, including caregiver relationships and friendships
4. Respect – students demonstrated respect for their plants, especially through giving them things
5. Responsibility – a general care for the well being of their plants, as taught in all of the lessons on stewardship, as well as special attention to the need and protection of the plants.
6. Reciprocity – a recognition of the things which plants give to human beings, and an effort to reciprocate with material or emotional/spiritual gifts to the plants. This occurred in every Sharing Circle, and solidified the practice of stewardship among students.
7. Dejection – students may have experienced disappointment and a loss in self-confidence as their plants died

The data do not demonstrate any sort of problems or confusions that students had in establishing Sharing Circles, with one exception. Students were not taught how the death or illness of their plants could be understood (e.g. as part of the cycle of life) and this may have impacted them and their sense of success as stewards. Thus, I would recommend that students be taught about death in the lessons on stewardship, and that teachers make an effort to follow-up with students who have this experience, to ensure that they understand this to be a part of stewardship.

4. Do Sharing Circles complement students’ learning about stewardship?
After entering a Sharing Circle relationship and recognizing and practicing the 4 R’s, particularly Reciprocity, students were emotionally impacted by the Sharing Circle relationship. By entering an exchange with their plants, students made an emotional connection to the plants, which they would likely have not done otherwise.7 This occurred between students who observed human-like behaviours and emotions in their plants, and those who made observations and had interactions related only to the physical growth and development of their plants. Their emotional connections served to solidify their practice of stewardship, as was demonstrated by a continued reciprocal relationship with their plants over the course of several days. Most students were vigilant about the growth of their plants and some recorded their plants’ growth in the Sharing Circle Journals. Sharing Circles evidently enabled this group of students to care for plants in ways which they may not have previously. All of the practices enacted were in line with the students’ previous learning about the Islamic concept of stewardship, and there were no apparent contradictions or confusions as stated above.

7 After sprouting their plants for the Grade 3 Ontario Curriculum Science and Technology unit, students would have been asked to take their sprouts home or throw them out.
No observable connections were drawn in the students’ journals between the Sharing Circle (including the practice of the 4 R’s), and Seventh Generation Stewardship or Islamic concepts. This aspect of stewardship was absent from their recordings. As mentioned above, this may mean that the several concepts fit together seamlessly. However it presents two issues:

1. For the purpose of this study, I am unable to determine what, if any, mental connections were made between the 4 R’s, Seventh Generation Stewardship, and Islamic concepts around stewardship.

2. For the purpose of effective teaching, it may be better for teachers to use a separate strategy to teach Seventh Generation Stewardship and to assess students’ understanding of that concept. Then, when that concept is fully understood, they may use it in other lessons. While the concept may well have been a part of the students’ impetus to care for their plants, this is not clear.

Focusing on the value of the 4 R’s to the Sharing Circle, I believe they assisted the students greatly in reminding the students that a Sharing Circle is a relationship of giving and receiving with another being. Arguably, an educator may choose to replace the Sharing Circle with the 4 R’s instead of integrating the two, as they are so similar. However I would argue that they go hand-in-hand. Without the 4 R’s the students might not have had such a careful approach to their plants. Without the Sharing Circle they may not have remembered that the core of the teaching of stewardship that I am trying to convey is reciprocity. Thus the two strategies worked hand in hand.
Conclusions

The following research questions are at the centre of this study:

1. What is the potential to combine Aboriginal teachings about the human relationship with the natural world, with Islamic teachings about the same?

2. What are the challenges and opportunities of introducing experiential stewardship education based on Aboriginal pedagogy and teachings to Muslim students in an Islamic elementary school?

Summary of Findings

1. What is the potential to combine Aboriginal teachings about the human relationship with the natural world, with Islamic teachings about the same?

Several differences between Islamic environmental stewardship and Aboriginal Spiritual Ecology have been identified. The main difference is that the focus of Islamic environmental stewardship is an obligation towards God, whereas the focus of Spiritual Ecology is on the natural connections, sharing and protection that exist between creations. The two sets of practices are not mutually exclusive, and many concepts and practices within Spiritual Ecology are of benefit to Islamic environmental stewardship education. Notably, the understanding of Spiritual Ecology that I have conveyed in this paper is just one of many understandings of Aboriginal relationships with the natural environment which exist.

There are a great many commonalities between Islamic environmental stewardship and Spiritual Ecology. In particular, many of the teachings share a belief in the sacred nature of the natural world, and the need to honour it as such. Moreover, they share the tradition of
encouraging human beings to connect with the natural world and draw lessons from it. Finally, they share the value of considering the well being of coming generations of human beings, plants and animals, when using the earth's resources. Muslims may benefit from using the principles and teaching strategies which Aboriginal educators have developed around these common areas, in order to teach Muslim students about environmental stewardship.

2. What are the challenges and opportunities of introducing experiential stewardship education based on Aboriginal pedagogy and teachings to Muslim students in an Islamic elementary school?

Opportunities
This study was welcomed by Olive Grove School, which indicated to me that other schools may be open to the idea as well. The Ontario Science Curriculum (2007) and Olive Grove School Islamic studies curriculum provided great segues into my specific lessons. Teachers welcomed the idea of a lesson on stewardship which integrated Science, Islamic Studies, and the topic of stewardship. Students appeared to enjoy themselves in the process as well. As previously mentioned, the commonalities between Islamic and Aboriginal beliefs around care for the natural environment are a perfect foundation for a revived teaching of stewardship in Muslim communities, as Aboriginal peoples have expertise in this area which present day Muslims often do not have. The 4 R's are a gateway to a spiritual approach to stewardship, which views other creations as having their own inherent worth (independent of human beings) and encourages a respectful and reciprocal practice of Islamic environmental stewardship. Further, they assist students in experiencing emotional/spiritual connections with other creations, thus encouraging more attention and care towards those creations.
Challenges

The most obvious challenge of this study was the limited time spent in the classroom teaching about stewardship, whether that is Islamic environmental stewardship or Spiritual Ecology. The issue this presents is that students may not have the time to correlate certain concepts, such as correlating Seventh Generation Stewardship to Islamic notions about caring for coming generations, or correlating Seventh Generation Stewardship to the practice of Responsibility. Most importantly, a fixed time was not allotted for students to care for their plants and make observations about their Sharing Circles. Ideally this would be a part of any lesson planning on Sharing Circles.

A second challenge was the question of the comfort level of students observing or assigning human-like attributes to plants. I was very careful not to impose on students the belief that plants are sentient beings, as not all Muslims are comfortable with this. If this is not a shared understanding among students and their families, teachers will always have to tip toe around this area. There is ultimately no way around this issue until current Islamic scholarship clarifies this and schools, institutions or organizations adopt positions on it wholly. At the same time, the Sharing Circle and 4 R’s may be implemented without an emphasis on the spiritual nature of plants or animals. Students can learn a lot from these principles without making a spiritual connection. An emotional connection can be very encouraging in Islamic environmental stewardship, as was demonstrated in the data I analyzed.

Outcomes of Data Analysis

The following research question was the focus of my Data Analysis:

What are the characteristics of an Aboriginal Sharing Circle which students’ created with their respective plants? Do the Sharing Circles compliment the students’ learning about stewardship?
The Circles exhibited many characteristics, the most distinct of which was the practice of gifting between students and plants (Reciprocity). Students felt that reciprocity was important in establishing relationships with their plants and in showing respect to them. Reciprocity was the concept I wanted to teach through the Sharing Circles, the Circles themselves symbolizing reciprocity, and thus I consider the learning which the students did a success.

**Recommendations for Future Lessons**

There are a number of elements of this lesson which I would teach differently going forward:

1. Seventh Generation Stewardship should be taught separately from other concepts. This is a powerful foundational concept, therefore students should internalize it before delving into the 4 R’s and the Sharing Circle. Doing so would allow them to make their own connections between Seventh Generation Stewardship and other concepts, such as Responsibility. Students should be provided the time to discuss this concept and correlate it to Islamic notions of stewardship, possibly through an independent activity/assessment.

2. Certain key terms, such as “earth” and “environment,” should be clearly defined because they determine the parameters of environmental stewardship. Therefore people need a clear understanding of them in order to understand the meaning of environmental stewardship.

3. Regarding the death of plants, students should understand:
   - death is a natural part of the circle of life and an inevitable aspect of stewardship
   - if their plants die, this does not necessarily reflect on the quality of their stewarding. The circle of life is a good way of teaching this because it fits in with the Sharing Circle concept. The Sharing Circle can continue after death because the plants can
be returned to the earth to benefit the soil (and in turn, human beings who rely on the soil). The act of returning the plants to the earth is a way for students to honor and appreciate the gifts which the plants bring.

4. Prior to delivering the lessons on Aboriginal beliefs and practices, teachers should have some background knowledge about them. For example, they should understand the meaning of natural community and Spiritual Ecology (Cajete, 2000). They should also understand what each of the 4 R’s and Seventh Generation Stewardship means. More information can be found in Caduto and Bruchac (2007) and Pevec (2004). Teachers should be able to identify differences between Aboriginal and Islamic beliefs where necessary, so that Islamic school students do not experience any confusion in this regard.

5. Prior to delivering the lessons on Aboriginal beliefs practices, teachers may deliver a lesson on respect for other beliefs, cultures and traditions. With respect to Aboriginal teachings, teachers may want to explain to students that:
   - they come from messages, visions and inspirations which any person may receive, and are traditionally retained and passed on by those who are considered elders and spiritual teachers
   - the above are strongly influenced by the natural phenomena in a place, which are believed to bring messages, visions and inspiration, including that from the Creator and from ancestors. Therefore, beliefs and traditions are place-based. This is why they are consistent in certain respects and vary in other respects. This is why there are many Aboriginal peoples and traditions, and not a single set of beliefs which people are expected to adhere to. An example which teachers may give to students is the various creation stories which exist.
Recommendations for Future Research

Opportunities

I would highly recommend that researchers explore the opportunities and challenges of applying the principles used in this study, through other subject matter and areas of classroom work. They are applicable to students of all ages, including university students. The following are opportunities for future studies:

1. With the respect to the classes and subject matter I explored, I found that the Grade 3 Ontario Science Curriculum provided a good segue into my lessons in that it asks students to reflect on the impact of human life on the environment, including plants. Thus, a connection to stewardship is embedded in the curriculum. There are many other places where connections to stewardship can be made in the Ontario Curriculum and I would recommend that educators look for these and try to apply the principles and pedagogy I adopted in order to teach stewardship.

2. A comparison of students who applied the said principles to their plants, with students who did not, would enrich this research significantly; it would give a clearer picture of the impact of the principles on students’ thoughts and emotions.

3. It would also be advantageous to observe students’ interactions with plants, such as classroom and playground plants, further along in the year, to note whether their general approach to plants had been significantly altered as a result of this particular exercise (i.e. the Sharing Circle).

4. It would be advantageous to know how the lessons would go, including their impact on students, if the classroom teachers delivered the lessons themselves. This would indicate the
viability of the lessons as standard classroom practice. Thus, I would recommend that future researchers have classroom teachers carry out the lessons, and track the responses of students based on that. Teachers would need to do background reading, and possibly professional development courses on the subject matter before attempting to teach it.

Challenges

Although this study produced substantial data, it had the following limitations:

1. The most significant limitation was the amount of time I had to deliver both the lesson on Islamic environmental stewardship or Aboriginal Spiritual Ecology. I would recommend that future educators deliver these subjects over several lessons, and use several assessments to test students’ understanding of the subjects, before proceeding to have students enact a Sharing Circle. This would ensure that students fully understand the concepts. The Data Analysis would be an in-depth look at the impact of the concepts on the students’ approach and behaviour toward their plants; there would be more clarity as to how well students understood the concepts.

2. A second limitation was the fact that I could not monitor how much time students would spend with their plants or journaling their reflections and feelings. This was left to their teachers in the weeks after I conducted my lessons. Giving students regular periods of time to journal would have given me more insights into their development as they applied the principles. I would recommend that future educators and researchers ensure that this time is available and that classroom teachers are willing to monitor it (if not the researcher herself). I would recommend that students do the Sharing Circle for at least six weeks in order for the researcher to do a more meaningful assessment of the impact of the Circle. This should not be difficult; students are typically encouraged to care for plants in the classroom (e.g. classroom plants)
and to journal, so combining these exercises in the Sharing Circle Journal is doable. More than six weeks might be a challenge, especially because teachers like to change journal topics over time.

3. A third limitation was the number of journals which I was given permission to analyze. Although I witnessed some students record very informative reflections and feelings during my initial lesson, some of those students (or their families) did not agree to submit their journals for my data analysis. It would be helpful to conduct the lessons with a larger pool of students, and thus (based on the results in this study) be able to analyze more journals.

Applications of the 4 R’s, Seventh Generation Stewardship and the Sharing Circle

The 4 R’s
These principles (Relationship, Respect, Responsibility and Reciprocity) can be applied in relationships with all other creations, and in many faith-based and secular contexts. Educators can use them to teach students how to build healthy relationships with classmates, as well as with the materials and resources used in the classroom. I would recommend that the 4 R’s be implemented in every relationship which a student has, as a part of their environmental stewardship education. The 4 R’s can be integrated with many faith-based belief systems because other systems hold these principles, and because of a common belief in creation and stewardship.

The 4 R’s can also be integrated with many areas of academic curricula, for all students from elementary to post-secondary education. For example, in social studies, students can look for ways in which peoples do or can practice the 4 R’s as a framework for family and community building, and multi-cultural or multi-faith collaborations. They can also practice the 4 R’s with
the materials they use in science experiments, in order to show respect for the environment as well as practice environmental stewardship. Another example is that the 4 R’s can be used in sexual education courses, in order to emphasize the emotional and spiritual aspects of sexual encounters. There are a great number of ways in which these principles may be used.

A Note on Reciprocity

The Aboriginal practice of reciprocity is unique, and as such it is useful for people to learn more about it. As previously noted, Reciprocity is often done in ceremony, where the things which are given and received are acknowledged and honoured through words and prayers. Peoples of other faiths may use their choice of words and prayers in order to fulfill the same purpose, of honouring and protecting the environment. Reciprocity is a deeply spiritual practice that awakens hope, faith and connection with the divine while reminding people of the finite nature of the earth’s resources.

Seventh Generation Stewardship

Seventh Generation Stewardship can be applied in many of the same ways as the 4 R’s. Students can be asked to reflect on the wisdom of the generations past when considering the effect of human beings on planet Earth. This can be done in many subject areas, from science to language arts. It can be done in religious education classes, where students can reflect and practice acting upon the wisdom of their ancestors as a matter of carrying forward their religious traditions. Students can do scientific studies on the effects of human acts, including wastage, seven generations into the future. This may have a profound impact on their life choices going forward. This can also be applied to moral and social studies, where students evaluate the impact of their moral choices on the seven generations to come, within and outside of their families. In modern educational and religious contexts, people sometimes contemplate the impact of their actions for one or two generations to come. Seventh Generation Stewardship is powerful because it asks people to consider their impact on Earth
and other creations much further in the future. Were people to be raised to act on this principle, they could shape a much better future for themselves and their communities. People of all faith and cultural backgrounds could do this and have a very positive impact on Earth, whether or not they believe in the divine or an afterlife.

Muslims in particular could bring Seventh Generation Stewardship together with the belief of sadaqa jaariya or “returning charity” which is that there are certain actions, such as building or helping to build a mosque, which has returning rewards even after a person dies. If future generations use the mosque for good, then the person is continuously rewarded. Thus, in addition to its own independent meaning and applications, Seventh Generation Stewardship could be a reminder to Muslims that they can be rewarded by God many years into the future for choosing to act well in the present.

The Sharing Circle

The Sharing Circle is a pragmatic and meaningful application of reciprocity that educators can ask students to apply in many contexts, and all people may adopt in their day-to-day lives.

In observing students enter a Sharing Circle with plants, it occurred to me that it would be quite useful for people to acknowledge this circle in their relationships with other human beings. It’s healthy for people to constantly reflect upon what they are giving and receiving with every human being in their lives, whether its people who they spend a moment with, or spouses whom they intend to spend a lifetime with. It helps us to constantly assess the consequences of our actions in relationships, which is even more beneficial at a time when people have a multitude of relationships with a variety of inputs which are not acknowledged, such as the messages communicated through text messages on cellular phones. Were we to think more carefully of online or cellular communication, it might help us to better manage our relationships
and avoid mismanaging them. If students practice this from a young age, it may help them to develop more meaningful, well-managed, healthy relationships throughout their lives. Thus, I find this to be one of the best applications of the Sharing Circle for all people.

**Final Note**

The 4 R’s, Seventh Generation Stewardship and the Sharing Circle may easily be implemented in religious and non-religious learning contexts. The principles are easy to remember and the strategies are easy to carry out, especially in the classroom during other activities or work (e.g. playground activities, science lessons). The three Aboriginal teachings are a way of transforming everyday activities into experiential, transformative learning in a non-invasive and non-threatening way. They forge material, emotional and spiritual connections between people and, I argue, other spiritual entities, as well as non-spiritual entities. This may primarily be God or the Creator, but it is also other creations, in the interests of preserving and protecting life. Whether or not students hold the belief that plants are spiritual or sentient, they can have strong emotional connections with the plants, which encourage their practice of stewardship. I believe these teachings and strategies can become an integral component to all areas of study in classrooms the world over.
Part One - Talk on Stewardship

| (i) Are the things around us alive or dead? Which things are alive? Which are dead?  
| (ii) What should our relationship be with the living things around us?  
| (iii) Who do we have to think about when we care for living things? |

In Islam, we believe that we are supposed to take care of the living things around us.

In Islam, we believe that all living things belong to the Creator, Allah. They do not belong to us. In order to be good worshippers of the Creator, we need to take care of the things around us.

So, are we masters of the earth? (Students offer answers)

We are not masters of the earth. Allah gave it to us and we are supposed to take care of it. We are called stewards of the earth.

**A steward is someone who is given a trust to take care of something for someone else.**

Can you give me an example? (Students offer examples)

An example is if I give you some of my treasured possessions because I am going on a long journey. You become the steward of my treasured possessions. I trust you to take care of them and keep them in good condition without harming them or allowing others to harm them.

Similarly, Allah gave us this earth to be stewards over it. He trusts us to take care of it and keep it in good condition without harming it or allowing others to harm it. Isn’t that a big responsibility?

When you talked about land use and you heard stories about how we treat the land, do you think we are acting as stewards of the earth? (Students offer answers)

**What are we doing to be good stewards?** (Students offer answers)

**What are we forgetting to do, or what are we doing to harm the earth?** (Students offer answers)

Why is it important to be good stewards? (Students offer answers)

It is important to be good stewards for two reasons: (1) this earth belongs to Allah and He will ask us about how we treated it on the Day of Judgment (2) we need to take care of it for those who will come after us, like our children and the other plants and animals who will live here.

**The prophet Muhammad, peace and blessings be upon him, said \"Whoever plants a tree and diligently looks after it until it matures and bears fruit is rewarded.\" and he said \"If a Muslim plants a tree or sows a field and men and beasts and birds eat from it, all of it is charity on his part.\"**
This shows us how valuable it is to us to take care of the earth. It also tells us that we act as stewards so we can benefit other living things.

Allah tells us in surah AlZilZal in the Qur’an that the earth will one day tell us about what we did on her. He says, "When the Earth throws out its burdens - on that day it will tell all." (Qur’an 99:2,4)

This teaches us that the earth is living, too, and it knows what we do. And one day, it will tell its Creator, Allah, what we did on it.

Now, what do you think of the following questions:

(i) Are the things around us alive or dead? Which things are alive? Which are dead?
(ii) What should our relationship be with the living things around us?
(iii) Who do we have to think about when we care for living things?

(Students give answers)

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1 Words in bold will be posted in the classroom under the heading 'Stewardship'. Where a question is asked, students answers will be posted under the question.
Lesson on SE

Part One

“Seventh Generation Stewardship” – A Lesson from *Keepers of Life* by Michael J. Caduto and Joseph Bruchac

We have discussed the meaning of “stewardship” and you know that you are stewards of the earth. What does being a steward mean?

(Students offer answers)

Aboriginal peoples also believe that we should care for the earth. Do you know anything about how Aboriginal peoples care for the earth?

(Students offer answers)

A belief of people in the Onondaga Nation is in “Seventh Generation Stewardship.”

Do you know what it means to be a generation? A generation is a group of people born and living at about the same time. Your parents were born at about the same time. They are one generation. You and your siblings were born at around the same time. You are another generation.

Some Aboriginal people believe that while we are living on the earth we always have to think about the next seven generations of children to come, just like people seven generations before us thought about us. What will the impact of our actions be on those people?

One of the things we can do is practice “Seventh Generation Stewardship.”

You will plant seeds and watch them grow over the course of ___ visits. You will practice good stewardship by taking care of that plant.

While we do this activity, we will learn about sharing with plants. What this means is that we will learn to have a relationship of giving and receiving with plants. We all know that we receive gifts from plants. What types of gifts do we receive from plants? (Students offer answers).

We receive gifts like oxygen, food, medicine, shade, shelter, materials for building and art, beauty, satisfaction, something to care for, hope for the future, positive feelings and company from plants. What types of things can we give to plants?

(Students offer answers).

We can give gifts like protection, food, water, a home, friendship (including kind words and songs) to plants, space to grow, carbon dioxide and oxygen, appropriate climate

For this activity, each one of you is going to begin a circle of giving and receiving with a plant of your own. This will be called a Sharing Circle.
In the sharing circle, you need to practice what Aboriginal Peoples call the 4 R's:

Relationship – means you have a relationship with your plant and you do not leave it to itself;

Respect – means you respect your plant because it is another living thing

Responsibility – means you take responsibility for caring for the plant, as it cares for you

Reciprocity – means your relationship is one of giving and receiving from your plant

(The following notice will go up on a bulletin board in the classroom: **Giving and receiving gifts from nature is a part of good stewardship. Some of the gifts we receive are**

Part Two

You will start a journal where you write down about how you are acting as a steward of your plant in your Sharing Circle. You can use pictures and words. I would like you to do at least 5 journal entries about your Sharing Circle over the time that your plants are growing.

The journal reminds you of the ways in which you can be a good steward of your plant. Please pay attention to them and try to record how you have acted them out.

When you visit your plant, take gifts to it, like kind words, make it comfortable, give it extra fertilizer, along with watering and placing it in the sunlight.

The cover of your journal says “My Sharing Circle with __________________” and you fill in the name of your plant. Inside, you will find some ways in which you can be a good steward of your plant, and you will find some journal starters. You can choose not to use these if you wish, and you may come up with your own. Please include any pictures or words that come to your mind.

Don’t forget to include the date by each journal entry.
Appendix C

(Questionnaire on Stewardship from an Islamic Perspective)

Name: ___________________________   Date: ___________________

Grade 3 Islamic Studies
Questions about Stewardship

1. A) Who owns the land this school is on? (1 mark)

___________________________________________________________________________

B) Who owns your house? (1 mark)

___________________________________________________________________________

C) Who owns a baby when it is born? (1 mark)

___________________________________________________________________________

2. Who is a steward? (2 marks)

___________________________________________________________________________

___________________________________________________________________________

3. Why is it important to be a good steward? (2 marks)

___________________________________________________________________________

___________________________________________________________________________

4. Explain one way in which you can be a good steward. (1 mark)

___________________________________________________________________________

5. Explain one way in which people are bad stewards. (1 mark)

___________________________________________________________________________

We can be stewards of the living things around us.

6. Something is alive if it is… (1 mark)

___________________________________________________________________________

7. Three examples of living things are… (3 marks)

___________________________________________________________________________

___________________________________________________________________________

___________________________________________________________________________
8. We can be good stewards of living things by… (1 mark)
Appendix D

Questionnaire on Stewardship and the 4 R’s

List at least 5 different ways that a person can practice stewardship.

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

How will you practice the 4 R’s discussed in class with your plant. List at least one way for each.

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________

___________________________________________________________________________
___________________________________________________________________________
___________________________________________________________________________
Appendix E

(Instructions placed at the beginning of the Sharing Circle journals)

My Sharing Circle with

A Sharing Circle is a circle of giving and receiving with your plant. If you honour your Sharing Circle, you will be a good steward.

Remember to practice the 4 R’s in your Sharing Circle:
Relationship – means you have a relationship with your plant and you do not leave it to itself
Respect – means you respect your plant because it is another living thing
Responsibility – means you take responsibility for caring for the plant, as it cares for you
Reciprocity – means your relationship is one of giving and receiving from your plant

Journal Starters
Today, my plant looks like…
Today, I took my plant a gift of…
I practice responsibility with my plant by…
I show respect to my plant by…
My plant gives me…
The things I give to my plant are…
REFERENCES


